Grundfos Industrial Products Price List February 2020 Category 2





PRODUCTS INCLUDED:

NB(E)
CRI(E), CRN(E)
CRT
CM(E), CMB, CMBE
MTA, MTH, MTR
SPK







PLEASE NOTE THE FOLLOWING FROM OUR TERMS AND CONDITIONS OF SALE:

A copy of our full terms and conditions are available at the back of this price list

All prices are delivered at place (DAP) and subject to VAT at the standard rate.

MINIMUM ORDER VALUE

Our minimum order value is £55.00 NET. Orders between the minimum order value and the low order threshold of £335.00 NET for pumps or £130.00 NET for Category 4, S1,S2,S3,S4 items will be subject to a £37.00 NET handling fee.

EXPRESS DELIVERY OPTIONS;

INTERSPEED (PER ITEM) (above 150 Kgs - subject to transport availability and additional cost)

- CR(I)(E), CRN(E) Vertical Multistage
- Non-stock SP/SPA models (with or without drop cable cut in 5 metre increments. Please note; resin cable joint will take 24 hours to set)
- Order must be received electronically by 10.45am despatch same day, delivery by Express Carrier Service UK (*note restrictions apply) £75.00 NET (PER ITEM)

BOXSPEED (PER ITEM) – from UK/European DC (above 100 Kgs – subject to transport availability and additional cost)

- ALPHA, UPS, UPN, UPS3/UPM Circulators
- Magna (D) Glandless Circulators
- UP/UPS/Magna Replacement Heads/Terminal boxes
- TPE(D), NB(E) Glanded
- CM, CME Horizontal Multistage, CMB(E), Boosters, Scala
- JP, MQ and Tanks/Vessels (up to 500 Litre)
- AP, KP, CC, SL1, SLV, Unilift, Sololift
- SQ, SQE, SB(A), SP2A, 3A & 5A >1.5kW (Excluding pumps with cable fitted as well as SP longer than 2.4 metres)
- Motors, Flanges & Unions, Pump Components, Chamber Stacks
- Order must be received electronically before 13:30pm despatch same day, delivery by Express Carrier Service UK (*note restrictions apply) FIRST ITEM £55.00 NET & ADDITIONAL ITEMS £20.00 EACH (PER ORDER)

SPARESPEED (PER ITEM)

- Only applies to spares kits, (not chamber stacks, components, pump heads or terminal boxes)
- Order must be received electronically before 13:30pm despatch same day, delivery by Express Carrier Service UK (*note restrictions apply) FIRST ITEM £45.00 NET & ADDITIONAL ITEMS £20.00 EACH (PER ORDER)
- * Express Carrier Service ONLY guaranteed if placed on time via Extranet/EDI. Deliveries to the Highlands, certain mainland post codes and offshore UK may take an extra day. All services are dependent on component and product availability. Grundfos can guarantee despatch or availability for collection same day but cannot guarantee delivery. Grundfos cannot accept any cancellations or amendments once the goods have been despatched. Cancellations are subject to the Product Returns Fee below.

SPARES STANDARD DELIVERY CHARGE

- A £20.00 NET handling fee will be applied, per order, to all orders for spares, pump components, spares kits.
- This charge does NOT apply if SPARESPEED, express service or our online ordering system (EDI), and/or Extranet are used for order placement.

PRODUCT RETURNS FEE

- On receipt of written agreement from Grundfos, items can be returned and will be subject to a minimum 35% restocking fee. Goods must be returned in their original packaging and within 6 months of date of despatch. All returns will be subject to inspection, to ascertain age, condition and product type and can incur an increased restocking charge. Please contact grundfos-uk@sales.grundfos-uk@sales.grundfos.com with the original purchase order, to arrange collection. Do not send items to Grundfos as they will be refused delivery, collection will be arranged.
- Items or multiple items from the same Purchase Order must exceed the total Net value of £150

Exclusions to Product Returns apply;

• All Service kits, cable including attached to pump, assembled/3rd party/engineered to order product, and obsolete/phased out product cannot be returned.

STORAGE CHARGE

• There will be a 2% storage charge of the item invoice value, payable per month, commencing one month from the date the goods were available for delivery from Grundfos.

WARRANTY PERIOD

- Grundfos pumps are warranted for 24 months from installation or 30 months from manufacture; whichever is the sooner.
- There is a five-year warranty that covers manufacturing or material defects on domestic heating circulators: UPS3 15-50/65, UPS2 15-50/60, ALPHA models, Amazon & Amazon Universal shower pumps. From 1st March 2017 SCALA2 booster pumps when used in domestic applications.

SERVICE AND COMMISSIONING

Grundfos offers a wide range of service, repair and commissioning options. Please contact Service on 01525 850000 or email servicesupportuk@grundfos.com

ORDER TRACKING AND PROOF OF DELIVERY

- Order status and Proof of Delivery can be obtained via Grundfos Extranet or MyGrundfos online portals.
- For extranet access contact grundfos-uk@sales.grundfos.com_and Self-registration for MyGrundfos can be found here; https://uk.grundfos.com/mygrundfos

INDEX

		Page
SINGLE STAGE END-SUCTION PUMPS		_
FIXED SPEED BLOC PUMPS	NB 2 POLE NB 4 POLE	4
	NB 6 POLE	6 8
	110 01 012	Ū
VARIABLE SPEED BLOC PUMPS	NBE 2 POLE	9
	NBE 4 POLE	11
FIXED SPEED LONG-COUPLED PUMPS	NK 2 POLE	13
	NK 4 POLE	15
	NK 6 POLE	17
VARIABLE SPEED LONG-COUPLED PUMPS	NKE 2 POLE	18
	NKE 4 POLE	20
ACCESSORIES		
END SUCTION ACCESSORIES	FLANGES	22
VARIABLE SPEED PUMP ACCESSORIES	PRESSURE TRANSDUCERS, GO REMOTE	22
VERTICAL MULTISTAGE FIXED SPEED PUMPS	CRI 1s, CRI 1	24
	CRI 3, CRI 5	25
	CRI 10, CRI 15,CRI 20	26
	CR 32 to CR 155	27
	CRN 1s	28
	CRN 1	29
	CRN 3	30
	CRN 5	31
	CRN 10 & CRN 15	32
	CRN 20	33
	CRN 32 to CRN 155	34
VERTICAL MULTISTAGE VARIABLE SPEED PUMPS	CRIE 1 to 20 WITHOUT SENSOR	36
	CRIE 1 to 20 WITH SENSOR CRE 32 to 155 WITH & WITHOUT SENSOR	37 38
	CRNE 1 to 20 WITHOUT SENSOR	39
	CRNE 1 to 20 WITH SENSOR	40
	CRNE 32 to 155 WITH & WITHOUT SENSOR	41
CRN HIGH PRESSURE	CRNE-HS and CRN-SF	42
VERTICAL MULTISTAGE FIXED SPEED TITANIUM PUMPS	CRT 2, CRT 4, CRT 8, CRT 16	43
CRI, CR, CRN, CRIE, CRE & CRNE FLANGE & PIPE COUPLING		44
HORIZONTAL MULTISTAGE FIXED SPEED	CM (304 Stainless steel)	46
	CM (316 Stainless steel)	47
	CME (304 Stainless steel) CME (316 Stainless steel)	48 49
	CM SP (self priming 304 stainless steel)	50
HORIZONTAL BOOSTER PUMPS	CMB, CMBE BOOSTERS, PM and ACCESSORIES	51
	,,	
MACHINE TOOLS IMMERSIBLE PUMPS	MTA SPK, MTH	52 53
	MTR 1S, 1 and 3	55 54
	MTR 5, 8 and 10	55
	MTR 15, 20 and 32	56
	MTR 45, 64 and MTRE HS	57
ADDITIONAL MOTOR FEATURES	Motors, FPV Products	58
DOCUMENTATION & TESTING		59
CONDITIONS OF SALE		60

CATEGORY 2 - NB SINGLE STAGE END SUCTION BLOC PUMPS - EN733 COMPLETE WITH 2 POLES / 2900 RPM IE3 MOTORS P2 P2 kW Mode **Product Code** Model kW 380-415V 3ph 50Hz 380-415V 3ph 50Hz A F2 A E BQQE AS F2 A E BQQE NB 32-125.1/100 0.75 1,215 98127503 NB 50-125/111 NB 32-125.1/110 1.1 1,261 98052673 NB 50-125/121 4 NB 50-125/135 5.5 NB 32-125.1/121 1.5 1,322 98124465 NB 32-125.1/140 1,367 97925276 NB 50-125/144 2.2 7.5 NB 32-125/106 1.1 1,272 98127311 NB 32-125/115 98042368 NB 50-160/136 1.5 1,335 5.5 NR 32-125/130 22 1.373 98092892 NB 50-160/150 7.5 NB 50-160/167 11 NB 32-125/142 1,630 98769449 NB 50-160/177 15 1.390 NB 32-160.1/139 1.5 98177522 NB 50-200/181 11 NB 32-160.1/155 2.2 1,443 98654499 98052675 NB 32-160.1/169 1,677 NB 50-200/198 15 3 NB 50-200/210 NR 32-160 1/177 4 1.911 98630634 18 5 NB 32-160/139 2.2 1,462 98664484 NB 50-200/219 22 NB 32-160/151 1,689 98054003 3 15 4 1,890 97925279 NB 50-250/205 NB 32-160/163 NB 32-160/177 5.5 2,286 98856186 NB 50-250/222 18.5 NB 50-250/233 22 NB 32-200.1/172 1,791 98300258 NB 50-250/254 30 3 NB 32-200.1/188 4 2.004 98492835 NB 50-250/263 37 NB 32-200.1/205 5.5 2,320 98177816 30 NB 32-200.1/207 7.5 2,533 98844217 NB 50-315/267 NB 32-200/176 4 2.016 98844220 NB 50-315/285 37 NB 50-315/300 NB 32-200/190 5.5 2.335 98281463 45 7.5 NB 32-200/206 2,522 98042381 NB 50-315/321 55 NB 32-200/219 11 3.269 98300257 NB 65-125/120-110 4 NB 32-250/199 5.5 2,529 98844241 NB 65-125/127 5.5 NB 32-250/219 7.5 2,723 98665396 NB 65-125/137 7.5 NB 65-125/144 NB 32-250/244 11 3.287 98976261 11 NB 32-250/262 15 98976263 3,626 NB 65-160/143 7.5 NB 40-125/105 1.438 98075312 NB 65-160/157 1.5 11 NB 40-125/116 2.2 1,481 98127774 NB 65-160/173 15 NB 40-125/127 1,753 98701179 NB 65-160/177 18.5 NB 40-125/139 4 1,963 98810277 NB 65-200/162 NB 40-125/142 5.5 2,246 98643514 11 NB 65-200/177 15 1,938 NB 40-160/144 97933638 NB 65-200/190 18.5 NB 40-160/158 5.5 2,352 98490590 NB 65-200/198 22 NB 65-200/217 NB 40-160/172 7.5 2.569 98833679 30 NB 40-160/177 11 3,258 98488394 NB 65-200/219 37 NB 40-200/172 98844301 NB 65-250/223 5.5 2.392 30 NB 40-200/188 7.5 2,607 98844306 NB 65-250/238 37 NB 40-200/206 11 3,347 98849201 NB 65-250/251 45 NB 65-250/269 NB 40-200/219 15 3,668 98915632 55 NB 65-250/270 75 NB 40-250/211 11 3,423 98671393 NB 40-250/230 NB 65-315/272 55 15 3,756 98577547 NB 40-250/245 185 3,855 98979905 NB 65-315/295 75 98605465 90 NB 40-250/255 22 4,532 NB 65-315/308 NB 40-250/260 30 5,857 98876844 NB 65-315/320 110 NB 40-315/273 22 4,925 98976264 NB 80-160/147-127 11 98975674 NB 40-315/298 30 6,081 NB 80-160/151 15 NB 40-315/318 37 7.005 98975675 NB 80-160/161 18.5 NB 40-315/336 45 9,263 98975676 NB 80-160/167 22 NB 80-160/177 30

ELECTRIC MOTOR

Motors up to and including 3kW are 220-240D/380-415Y V/3ph/50Hz Motors 4kW and above are 380-415D V/3ph/50Hz IP 55 Class F Insulation

All 2 poles motors up to and including 22kW are Grundfos IE3 efficiency standard. All 2 poles motors above and including 30kW are Siemens IE3 efficiency standard.

PUMPS

Standard NB pump casing and impeller in cast iron.

Pumps with Custom Built options such as different material impellers, casings and non-standard seals can be configured and priced on request by your Sales Office.

Pump housings are flanged in accordance with EN1092-2 and EN733 design standards.

SUPPORT BLOCKS

Pumps listed in the darker shaded area include Support Blocks

COUNTER FLANGES

Product Code

A F2 A E BQQE

AS F2 A E BQQE

97933635

97933643

98627328

98781395

97992350

97925281

98778278

98469280

98639963

98827298

98354130

98062906

98979915

98979916

98622170

98979797

98978656

98975677

98801946

98975678

98975680

98689762

98106804

97933644

98139415

97933647

98291563

98778279

98449920

98979917

98979918

98967170

98092105

98978642

98883060

98975692

98761286

98975693

98975694

98564391

98975695

98975696

98546406

98975697

98447791

98354769

98674339

98423647

98674340

1,807

1,985

2.379

2,581

2.392

2.613

3,389

3,668

3,556

3,824

4.108

4,610

3,773

4,048

4,743

5,711

7,096

6,310

7.542

8.340

10,115

2.054

2,404

2.670

3.431

2.765

3.545

3,771

4,089

3.540

3,797

4,254

4,752

5,733

7,487

5.819

7,000

7,815

9,150

11,737

9,259

11.295

13,529

16,954

3,691

3,946

4.220

4.861

6,091

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.



COMPLETE WITH 2 POLES / 2900 RPM IE3 MOTORS Model **Product Code** kW 380-415V 3ph 50Hz A F2 A E BQQE AS F2 A E BQQE NB 80-200/171 98599191 22 4,699 NB 80-200/188 6,289 98827295 30 NB 80-200/200 37 7.040 98674338 98834914 NB 80-200/211 45 8.430 NB 80-200/222 55 9,600 98768407 NB 80-250/220 45 8,465 98720532 NB 80-250/234 9,227 98975698 55 11.152 NB 80-250/257 75 98653174 NB 80-250/270 90 12.330 98975699 NB 80-315/278 90 12,584 98975700 110 NB 80-315/295 17,301 98975721 NB 80-315/310 132 18,962 98975722 21.517 NB 80-315/328 160 98975723 NB 100-160/160-154 18.5 4.012 98976327 NB 100-160/167 22 4,635 98976326 NB 100-160/176 5,532 98975993 NB 100-200/170 5,743 98975724 30 NB 100-200/181 37 6.601 98647850 NB 100-200/192 45 8.122 98828352 NB 100-200/203 55 8,772 98975725 NB 100-200/219 75 10,302 98975726 1

CATEGORY 2 - NB SINGLE STAGE END SUCTION BLOC PUMPS - EN733

NB 100-250/205	55	8,955	98975867
NB 100-250/229	75	10,664	98975866
NB 100-250/242	90	11,985	98975865
NB 100-250/258	110	16,827	98975864
NB 100-250/274	132	18,741	98975863
NB 100-315/269	110	17,301	98975727
NB 100-315/284	132	19,213	98975728
NB 100-315/301	160	22,021	98975729
NB 100-315/322	200	26,078	98975730

Pumps listed in the darker shaded area include Support Blocks

ELECTRIC MOTOR

Motors 4kW and above are 380-415D V/3ph/50Hz IP 55 Class F Insulation

All 2 poles motors up to and including 22kW are Grundfos IE3 efficiency standard. All 2 poles motors above and including 30kW are Siemens IE3 efficiency standard.

Standard NB pump casing and impeller in cast iron.

Pumps with Custom Built options such as different material impellers. casings and non-standard seals can be configured and priced on request by your Sales Office.

Pump housings are flanged in accordance with EN1092-2 and EN733 design standards.

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.





P2

kW

45

55

75

90

110

90

110

132 160

200

132

160

200

75

90

110

132

160

200

160

200

7,880

9,160

11.378

12.186

17,062

12,314

17,106

19.020

21.826

25,883

19,776

23,091

28,480

11,872

13,223

17,977

19.842

22.695

26,783

25,499

28,416

Product Code

A F2 A E BQQE

AS F2 A E BQQE

98975940

98975939

98860774

98975938

98975937

98975741

98975742

98975743

98975744

98975745

98975746

98975747

98610634

98649824

98974648 98975748

98975960

98975959

98975958

99001631

99001635

A F1 A E BQQE

AS F1 A E BQQE

Model

NB 125-200/176-154

NB 125-200/196-166

NB 125-200/205

NB 125-200/219

NB 125-200/224

NB 125-250/222

NB 125-250/236

NB 125-250/249

NR 125-250/263

NB 125-250/269

NB 125-315/262

NB 125-315/277

NB 125-315/297

NB 150-200/216-176

NB 150-200/218-202

NB 150-250/226-220

NB 150-200/224

NB 150-250/235

NB 150-250/250

NB 150-315.2/244

NB 150-315.2/262

			MOTORS		<u> </u>		
4 o d o l	P2	c	Draduat Cada	Madal	P2	c	Duo duot C
Model 80-415V 3ph 50Hz	kW	£	Product Code A F2 A E BQQE	Model 380-415V 3ph 50Hz	kW	£	Product C
00-415V 3ph 30H2			AS F2 A E BQQE	300-413V 3pii 30ii2			AS F2 A E B
IB 32-125.1/121	0.25	970	98154140	NB 50-315/277	4	2,602	98911
IB 32-125.1/139	0.25	970	97656970	NB 50-315/303	5.5	3,056	98594
IB 32-125.1/140	0.37	981	98930646	NB 50-315/331	7.5	3,291	9897
IB 32-125/115	0.25	909	98987645	NB 50-315/344	11	3,964	9897
IB 32-125/130	0.25	953	97564281				
IB 32-125/142	0.37	981	96894223	NB 65-125/122	0.55	1,246	97933
ID 22 400 4/427	0.25	054	00007544	NB 65-125/130	0.75	1,400	9872
IB 32-160.1/137	0.25	961 961	98987644	NB 65-125/144	1.1	1,476	9848
IB 32-160.1/155 IB 32-160.1/172	0.25	987	98971400 98987628	NB 65-160/135	0.75	1,321	9897
IB 32-160.1/177	0.55	1,114	97937749	NB 65-160/149	1.1	1,449	9807
IB 32-160/138	0.25	961	98987646	NB 65-160/165	1.5	1,481	9807
IB 32-160/154	0.37	985	98987647	NB 65-160/177	2.2	1,609	9817
IB 32-160/172	0.55	1,107	96550472	142 03 100/177	2.2	2,000	3017
B 32-160/173	0.75	1,194	98978998	NB 65-200/170	1.5	1,750	9887
2 02 200/1/0	0.75	2,23 .	30370330	NB 65-200/189	2.2	1,835	9810
B 32-200.1/175	0.37	1,114	98672565	NB 65-200/205	3	1,947	9798
B 32-200.1/196	0.55	1,183	96752523	NB 65-200/219	4	2,202	9835
B 32-200.1/207	0.75	1,339	98117266	<u> </u>			
IB 32-200/184	0.55	1,166	98593070	NB 65-250/215	3	2,173	9897
B 32-200/197	0.75	1,316	98128726	NB 65-250/232	4	2,522	9853
IB 32-200/216	1.1	1,369	98269499	NB 65-250/254	5.5	2,967	9815
B 32-200/219	1.5	1,419	98978999	NB 65-250/270	7.5	3,341	9843
IB 32-250/206	0.75	1,409	98979000	NB 65-315/261	5.5	3,147	9870
IB 32-250/236	1.1	1,548	98172734	NB 65-315/282	7.5	3,452	9825
B 32-250/260	1.5	1,660	98539538	NB 65-315/314	11	4,197	9897
B 32-250/262	2.2	1,801	98096929	NB 65-315/320	15	4,783	9866
B 40-125/116	0.25	1,130	96787441	NB 80-160/146	1.5	1,691	9874
B 40-125/130	0.37	1,145	96631117	NB 80-160/161	2.2	1,822	9799
IB 40-125/142	0.55	1,221	96546730	NB 80-160/175	3	1,915	9812
IB 40-160/134	0.37	1,061	98987648	NB 80-160/177	4	2,126	9790
IB 40-160/151	0.55	1,234	96538738	NB 80-200/164	2.2	2,179	9884
IB 40-160/151	0.75	1,367	98283855	NB 80-200/179	3	2,280	9867
B 40-160/177	1.1	1,453	98453340	NB 80-200/196	4	2,499	9804
2 10 200/177	2.2	2,100	30.300.10	NB 80-200/214	5.5	2,868	9817
IB 40-200/177	0.75	1,270	98979001	NB 80-200/222	7.5	3,235	9826
IB 40-200/198	1.1	1,481	98161765		-	,	
B 40-200/217	1.5	1,516	98269479	NB 80-250/225	5.5	3,094	9815
B 40-200/219	2.2	1,677	98269492	NB 80-250/247	7.5	3,446	9805
				NB 80-250/270	11	4,323	9872
B 40-250/219	1.5	1,632	98861694				
B 40-250/245	2.2	1,810	98045376	NB 80-315/280	11	4,386	9897
B 40-250/260	3	1,898	98533156	NB 80-315/305	15	4,692	9897
				NB 80-315/320	18.5	5,475	9882
B 40-315/283	3	2,247	98979003	NB 80-315/334	22	5,844	9886
B 40-315/305	4	2,581	98503608				
B 40-315/334	5.5	2,948	98544371	NB 80-400/347	18.5	6,831	9897
B 40-315/344	7.5	2,923	98975417	NB 80-400/365	22	7,554	9891
D FO 425/412	0.25	4 4 4 4	000:	NB 80-400/397	30	8,449	9896
B 50-125/113	0.37	1,114	98947926	NB 80-400/419	37	10,051	9861
B 50-125/129	0.55	1,240	98808056	NB 80-400/438	45	10,318	9897
B 50-125/138	0.75	1,371 1,428	98793600	NP 100 100/100 140	2.2	2,039	0004
B 50-125/144	1.1	1,420	98667812	NB 100-160/160-140 NB 100-160/169	3	2,139	9884 9884
B 50-160/131	0.55	1,272	98667846	NB 100-160/176	4	2,358	9884
B 50-160/139	0.75	1,413	98965240	NB 100-100/170	4	2,336	3004
B 50-160/158	1.1	1,453	98048215	NB 100-200/178	4	2,602	9832
B 50-160/175	1.5	1,489	98366433	NB 100-200/178	5.5	2,955	9814
B 50-160/177	2.2	1,597	98158393	NB 100-200/193	7.5	3,343	9818
		_,	33230333	NB 100-200/219	11	3,948	9847
B 50-200/171	1.1	1,506	98128725	, 220			- 3047
B 50-200/188	1.5	1,565	98734545	NB 100-250/215	7.5	3,870	9884
B 50-200/210	2.2	1,643	98149348	NB 100-250/245	11	4,587	9886
B 50-200/219	3	1,750	98086583	NB 100-250/274	15	4,897	9885
•		,					
B 50-250/221	2.2	1,755	98498186	NB 100-315/279	15	5,137	9856
•	3	1,856		NB 100-315/295	18.5	5,639	9887
B 50-250/241	3	1,830	98439130	NB 100-313/233	16.5	3,039	



Pumps listed in the darker shaded area include Support Blocks



COMPLETE WITH 4 POLES / 1450 RPM IE3 MOTORS Model kW £ **Product Code** 380-415V 3ph 50Hz A F2 A E BQQE AS F2 A E BQQE NB 100-400/334 7,176 98975924 NB 100-400/360 30 8.348 98975923 NB 100-400/375 37 9,478 98975922 NB 100-400/395 45 10,417 98975921 NB 100-400/415 55 11,773 98975910 NB 125-200/176-154 3.524 98843507 5.5 NB 125-200/196-180 7 5 3,830 98843510 11 NB 125-200/219 4,354 98976322 NB 125-200/226 15 4,870 98855932 NB 125-250/220 11 4.539 98976267 NB 125-250/236 15 5,059 98115564 NB 125-250/249 18.5 5,597 98600057 98672953 NB 125-250/262 22 5,966 30 NB 125-250/269 7.287 98737312 NB 125-315/275 18.5 6,875 98835476 NB 125-315/290 22 7,238 98835478 NB 125-315/317 30 8,573 98857197 NB 125-315/336 37 8.796 98975779 NB 125-315/338 45 9,912 98975780 9,102 98975791 NB 125-400/345 37 45 10,218 98975792 NB 125-400/368 NB 125-400/392 55 11,731 98975793 NB 125-400/433 75 13,345 98975794 NB 125-400/438 90 14,423 98975795 55 NB 125-500/406 13,201 98975796 NB 125-500/447 75 14,730 98975797 NB 125-500/473 90 16,585 98939118 NB 125-500/500 110 20,801 98975798 NB 125-500/526 132 21,523 98975799 NB 125-500/548 160 23,063 98975800 A F1 A E BOOE AS F1 A E BQQE NB 150-200/210-158 7.5 4,344 98249368 NB 150-200/218-208 11 5,253 98769189 5,546 NB 150-200/224 15 98455883 NB 150-250/226-214 15 5,946 98976325 NB 150-250/230 18.5 6,505 98975972 98914616 NB 150-250/242 22.0 6.857 NB 150-250/262 30.0 8.151 98807421 NB 150-250/275 37.0 9,194 98975971 45.0 NB 150-250/282 10,071 98835475 22.0 NB 150-315.2/250 7.042 99001639 NB 150-315.2/275 30.0 8.290 99001640 NB 150-315.2/294 37.0 9,275 99001641 NB 150-315.2/314 45.0 10,051 99001643 NB 150-315.2/334 55.0 11,635 99001644 NB 150-315.2/342 75.0 13.116 99001662

SUI	PPOR	T BLO	OCKS

Pumps listed in the darker shaded area include Support Blocks

ELECTRIC MOTOR

Motors 4kW and above are 380-415D V/3ph/50Hz IP 55 Class F Insulation

All 4 poles motors up to and including 15kW are Grundfos IE3 efficiency standard. All 4 poles motors above and including 18.5kW are Siemens IE3 efficiency standard.

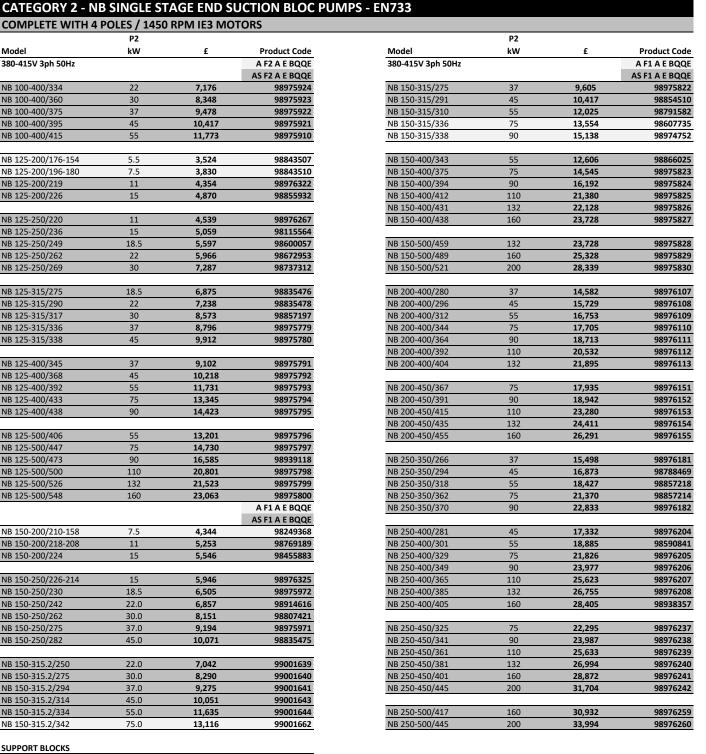
Standard NB pump casing and impeller in cast iron.

Pumps with Custom Built options such as different material impellers, casings and non-standard seals can be configured and priced on request by your Sales Office.

Pump housings are flanged in accordance with EN1092-2 and EN733 design standards.

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.







	P2		
Model	kW	£	Product Code
380-415V 3ph 50Hz			A F2 A E BQQE
			AS F2 A E BQQE
NB 100-160/160-140	0.55	1,646	98975712
NB 100-160/169	0.75	1,869	98975711 98975710
NB 100-160/176	1.1	1,944	989/5/10
NB 100-200/182	1.1	2,233	98871702
NB 100-200/193	1.5	2,203	98974772
NB 100-200/214	2.2	2,298	98974571
NB 100-200/219	3	2,643	98974773
NB 100-250/216	2.2	2,352	98975595
NB 100-250/236	3	2,694	98975594
NB 100-250/260	4	2,864	98975593
NB 100-250/274	5.5	3,341	98975592
NP 100 215/272	4	3,031	00074774
NB 100-315/272 NB 100-315/301	5.5	3,365	98974774 98974776
NB 100-315/326	7.5	3,900	98975638
NB 100-315/334	11	4,764	98975851
110 100 313/334		.,,,,,,	30373031
NB 100-400/340	7.5	5,476	98975927
NB 100-400/380	11	6,298	98975926
NB 100-400/415	15	6,947	98975925
NB 125-200/176-150	1.5	2,563	98975648
NB 125-200/196-182	2.2	2,625	98975647
NB 125-200/215	3	2,919	98975646
NB 125-200/226	4	3,005	98975645
NB 125-250/216	3	2,971	98974778
NB 125-250/216 NB 125-250/232	4	3,082	98974779
NB 125-250/253	5.5	3,365	98974780
NB 125-250/269	7.5	3,878	98975653
		5,510	
NB 125-315/275	5.5	4,434	98974791
NB 125-315/297	7.5	4,995	98975852
NB 125-315/335	11	5,793	98975853
NB 125-315/338	15	6,443	98975854
ND 425 400/254	11	6 220	00075055
NB 125-400/351 NB 125-400/384	11 15	6,330 7,011	98975855 98975856
NB 125-400/384 NB 125-400/410	18.5	7,824	98975857
NB 125-400/434	22	8,515	98975858
NB 125-400/438	30	9,211	98975859
•		•	
NB 125-500/421	18.5	9,102	98975860
NB 125-500/445	22	9,795	98975871
NB 125-500/493	30	10,598	98975872
NB 125-500/524	37	11,434	98975873
NB 125-500/546	45	12,620	98975874
NB 125-500/548	55	13,675	98975875
			A F1 A E BQQE
NB 150-200/210-168	2.2	3,299	AS F1 A E BQQE 98974567
NB 150-200/210-108	3	3,632	98974593
NB 150-200/224	4	3,809	98557012
200 200, 22 1	·	5,555	
NB 150-250/235	5.5	4,561	98975688
NB 150-250/252	7.5	5,230	98975975
NB 150-250/282	11	6,113	98975974
NB 150-315.2/259	7.5	5,460	99001645
NB 150-315.2/293	11	6,280	99001646
NB 150-315.2/328	15	6,949	99001647
NB 150-315.2/342 NB 150-315/280	18.5 11	7,789 6,525	99001675 98975876
NB 150-315/280 NB 150-315/305	15	7,176	98975877
NB 150-315/305 NB 150-315/322	19	7,176	98590859
NB 150-315/337	22	8,561	98975878
NB 150-315/338	30	9,311	98975879
CLIDD ODT DI OCUC			

SUPPORT BLOCKS

Pumps listed in the darker shaded area include Support Blocks

	P2		
Model	kW	£	Product Code
380-415V 3ph 50Hz			A F1 A E BQQE
			AS F1 A E BQQE
NB 150-400/357	18.5	8,523	98975880
NB 150-400/375	22	9,102	98975881
NB 150-400/408	30	9,876	98975882
NB 150-400/430	37	10,917	98975883
NB 150-400/438	45	12,364	98975884
NB 150-500/457	37	12,708	98975885
NB 150-500/483	45	14,071	98975886
NB 150-500/513	55	15,110	98975887
NB 150-500/548	75	16,395	98975888
·			
NB 200-400/308	15	10,774	98976114
NB 200-400/328	18.5	11,381	98976115
NB 200-400/348	22	12,612	98976116
NB 200-400/384	30	13,824	98976117
NB 200-400/404	37	15,758	98976118
·			
NB 200-450/355	18.5	11,381	98976156
NB 200-450/371	22	13,068	98976157
NB 200-450/407	30	14,511	98976158
NB 200-450/431	37	15,987	98976159
NB 200-450/451	45	16,976	98976160
NB 250-350/277	11	11,132	98976183
NB 250-350/306	15	12,467	98976184
NB 250-350/330	18.5	12,839	98871350
NB 250-350/366	22	14,298	98976185
NB 250-400/289	15	12,517	98976209
NB 250-400/313	18.5	13,247	98976210
NB 250-400/329	22	14,527	98976221
NB 250-400/361	30	16,343	98976222
NB 250-400/381	37	17,661	98976223
NB 250-400/401	45	18,807	98976224
!			
NB 250-450/313	18.5	13,766	98976243
NB 250-450/325	22	15,223	98976244
NB 250-450/357	30	17,040	98976245
NB 250-450/377	37	18,359	98976246
NB 250-450/397	45	18,817	98976247
NB 250-450/433	55	19,573	98976248
ND 250 500/400	45	20.440	00076774
NB 250-500/409	45	20,419	98976271
NB 250-500/437	55	21,404	98976272
NB 250-500/485	75	25,575	98976273
NB 250-500/525	90	27,398	98976275

ELECTRIC MOTOR

Motors up to and including 3kW are 220-240D/380-415Y V/3ph/50Hz Motors 4kW and above are 380-420D V/3ph/50Hz IP 55 Class F Insulation

All motors up to and including 0.55kW have no efficiency standard All 6 poles motors above and including 0.75kW are Siemens IE3 efficiency standard.

PUMPS

Standard NB pump casing and impeller in cast iron.

Pumps with Custom Built options such as different material impellers, casings and non-standard seals can be configured and priced on request by your Sales Office.

Pump housings are flanged in accordance with EN1092-2 and EN733 design standards.

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.



	P2	Differential pressure		
Model	kW	transducer range	£	Product cod
380-480/500V 3ph 50/60Hz 290	00rpm			A F2 A E BQC
NDE 33 435 4 /440	1.1	0. 25 hav	2.276	AS F2 A E BQQ
NBE 32-125.1/110 NBE 32-125.1/121	1.1 1.5	0 - 2.5 bar 0 - 2.5 bar	2,376 2,499	9898399 9863219
NBE 32-125.1/121	2.2	0 - 2.5 bai	2,774	9862948
NBE 32-125/106	1.1	0 - 1.6 bar	2,386	9894603
NBE 32-125/115	1.5	0 - 2.5 bar	2,511	9865046
NBE 32-125/130	2.2	0 - 2.5 bar	2,780	9856429
NBE 32-125/142	3	0 - 4 bar	3,267	9910545
NBE 32-160.1/139	1.5	0 - 2.5 bar	2,565	9902530
NBE 32-160.1/155	2.2	0 - 4 bar	2,847	9910468
NBE 32-160.1/169	3	0 - 4 bar	3,312	9910545
NBE 32-160.1/177	4	0 - 6 bar	3,773	9910196
NBE 32-160/139	2.2	0 - 4 bar	2,866	9910468
NBE 32-160/151	3	0 - 4 bar	3,325	9910545
NBE 32-160/163	4	0 - 4 bar	3,753	9910176
NBE 32-160/177	5.5	0 - 6 bar	4,390	9910634
NBE 32-200.1/172	3	0 - 4 bar	3,423	9910545
NBE 32-200.1/188	4	0 - 6 bar	3,863	9910008
NBE 32-200.1/205	5.5	0 - 6 bar	4,423	9910005
NBE 32-200.1/207	7.5	0 - 6 bar	5,090	9910196
NBE 32-200/176	4	0 - 4 bar	3,876	9910196
NBE 32-200/190	5.5	0 - 6 bar	4,437	9910005
NBE 32-200/206	7.5	0 - 6 bar	5,080	9910005
NBE 32-200/219	11	0 - 10 bar	6,584	9910187
NBE 32-250/199	5.5	0 - 6 bar	4,625	9910196
NBE 32-250/219	7.5	0 - 10 bar	5,275	9910187
NBE 32-250/244	11	0 - 10 bar	6,758	9910196
NBE 32-250/262	15	0 - 10 bar	7,694	9897606
NBE 40-125/105	1.5	0 - 1.6 bar	2,612	9860265
NBE 40-125/116	2.2	0 - 2.5 bar	2,884	9901420
NBE 40-125/127	3	0 - 2.5 bar	3,386	9910545
NBE 40-125/139	4	0 - 4 bar	3,824	9910008
NBE 40-125/142	5.5	0 - 4 bar	4,351	9910196
NBE 40-160/144	4	0 - 4 bar	3,800	9910196
NBE 40-160/158	5.5	0 - 4 bar	4,453	9910007
NBE 40-160/172	7.5 11	0 - 6 bar 0 - 6 bar	5,125	9910009
NBE 40-160/177			6,573	9910189 9910196
NBE 40-200/172	5.5 7.5	0 - 4 bar 0 - 6 bar	4,492 5,162	9910196
NBE 40-200/188 NBE 40-200/206	11	0 - 6 bar	6,659	9910639
NBE 40-200/200	15	0 - 0 bar	7,561	9897988
NBE 40-250/211	11	0 - 10 bar	6,733	9910199
NBE 40-250/230	15	0 - 10 bar 0 - 10 bar	7,647	9897985
NBE 40-250/245	18.5	0 - 10 bar	8,714	9897985
NBE 40-250/255	22	0 - 10 bar	9,810	9860546
NBE 40-315/273	22	0 - 10 bar	10,426	9897608
			, :=•	337000
NBE 50-125/111	3	0 - 1.6 bar	3,439	9910545
NBE 50-125/121	4	0 - 2.5 bar	3,845	9910176
NBE 50-125/135	5.5	0 - 4 bar	4,480	9910200
IBE 50-125/144	7.5	0 - 4 bar	5,137	9910009
NBE 50-160/136	5.5	0 - 4 bar	4,492	991000
IBE 50-160/150	7.5	0 - 4 bar	5,168	991000
NBE 50-160/167	11	0 - 4 bar	6,700	9910189
NBE 50-160/177	15	0 - 6 bar	7,561	984687
NBE 50-200/181	11	0 - 6 bar	6,862	991017
NBE 50-200/198	15	0 - 6 bar	7,712	989798
NBE 50-200/210	18.5	0 - 10 bar	8,775	989798
NBE 50-200/219	22	0 - 10 bar	9,886	9856429
NBE 50-250/205	15	0 - 6 bar	7,843	9897988
NBE 50-250/222	18.5	0 - 10 bar	8,911	9897988
NBE 50-250/233	22	0 - 10 bar	10,015	9897848

SUPPORT BLOCKS
Pumps listed in the darker shaded area include Support Blocks

Motor specification, reference to accessories and operational details are on page 10.



CATEGORY 2 - NBE VARIABLE SPEED END-SUCTION BLOC PUMPS - EN733 COMPLETE WITH 2900 RPM (2 POLES) 3 PHASE VARIABLE SPEED MOTOR P2 Differential pressure kW transducer range Model Product code 380-480/500V 3ph 50/60Hz 2900rpm A F2 A E BQQE AS F2 A E BQQE 0 - 1.6 bar 3,912 NBE 65-125/120-110 4 99101764 NBE 65-125/127 5.5 0 - 2.5 bar 4.504 99101749 NBE 65-125/137 7.5 0 - 2.5 bar 5,223 99101897 NBE 65-125/144 11 0 - 4 bar 6,741 99101763 NBE 65-160/143 75 0 - 4 har 5.316 99101878 NBE 65-160/157 11 0 - 4 bar 6,852 99100102 15 NBE 65-160/173 0 - 6 bar 7.661 98844654 NBE 65-160/177 18.5 0 - 6 bar 8,757 98979888 NBE 65-200/162 0 - 4 bar 7,016 99101899 NBE 65-200/177 15 98979890 0 - 6 bar 7,868 NBE 65-200/190 18.5 0 - 6 bar 8.917 98645657 NBE 65-200/198 0 - 6 bar 97907877 22 10,023 0 - 2.5 bar NBE 80-160/147-127 11 6,993 99106396 NBE 80-160/151 15 0 - 4 bar 7,831 98680720 NBE 80-160/161 18.5 0 - 4 bar 8,884 98979869 NBE 80-160/167 22 0 - 4 bar 10,129 96645314 NBE 80-200/171 22 0 - 6 bar 9,972 98975790 NBE 100-160/160-154 18.5 0 - 4 bar 8,874 98976198 NBE 100-160/167 22 0 - 4 bar 10,131 98976197

SUPPORT BLOCKS

Pumps listed in the darker shaded area include Support Blocks

ELECTRIC MOTOR

380-500V 3ph 50/60Hz up to 11kW with IE5 efficiency 380-480V 3ph 50/60Hz above 15kW with IE2/IE3 efficiency IP 55 Class F Insulation

Pumps with Custom Built options such as different material impellers and non standard seals can be configured and priced on request by your Sales Office.

Pump housings are flanged in accordance with EN1092-2 and EN733 standards.

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.

NBE OPERATION

These models have been designed for operation in either open or closed loop control arrangements. The Default control mode is "Uncontrolled Curve / Constant curve".

NBE pumps do not include transducers for closed loop control.

Transducers can be supplied as separate items for pipework installations.

Single point pressure transducers are listed with their ranges on page 22.

The transducer ranges listed for the NBE pumps only cover the max closed valve pressure with no inlet head. Please check the inlet head to check if the transducer size needs to be increased.

There is no sensor connection point on the NBE pump and connections need to be made in the pipework.

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites.





	P2	Differential pressure		
Model	kW	transducer range	£	Product cod
380-480/500V 3ph 50/60Hz 1450	0rpm			A F2 A E BQC
105.00.450.4/477	2.55	2.451		AS F2 A E BQC
NBE 32-160.1/177 NBE 32-160/172	0.55 0.55	0 - 1.6 bar 0 - 1.6 bar	2,286 2,280	9889080 9910464
NBE 32-160/173	0.75	0 - 1.6 bar	2,280	9910465
NBE 32-200.1/196	0.55	0 - 1.6 bar	2,354	9860925
NBE 32-200.1/207	0.75	0 - 1.6 bar	2,429	9880868
NBE 32-200/184	0.55	0 - 1.6 bar	2,337	9910465
NBE 32-200/197	0.75	0 - 1.6 bar	2,407	9910465
NBE 32-200/216	1.1	0 - 2.5 bar	2,481	9910467
NBE 32-200/219	1.5	0 - 2.5 bar	2,661	9910540
NBE 32-250/206	0.75	0 - 1.6 bar	2,565	9910467
NBE 32-250/236	1.1	0 - 2.5 bar	2,655	9892064
NBE 32-250/260 NBE 32-250/262	1.5 2.2	0 - 2.5 bar 0 - 2.5 bar	2,827 3,196	9910540 9910540
NR 40 405/440	0.55	0.101		
NBE 40-125/142 NBE 40-160/151	0.55 0.55	0 - 1.0 bar 0 - 1.0 bar	2,391 2,403	9872683 9910463
NBE 40-160/151 NBE 40-160/162	0.75	0 - 1.0 bar 0 - 1.0 bar	2,403	9910467
NBE 40-160/177	1.1	0 - 1.6 bar	2,563	9889079
NBE 40-200/177	0.75	0 - 1.6 bar	2,423	9910467
NBE 40-200/198	1.1	0 - 1.6 bar	2,589	9910467
NBE 40-200/217	1.5	0 - 1.6 bar	2,688	9910541
NBE 40-200/219	2.2	0 - 2.5 bar	3,075	9910541
NBE 40-250/219	1.5	0 - 2.5 bar	2,800	9910541
NBE 40-250/245	2.2	0 - 2.5 bar	3,204	9910541
NBE 40-250/260	3	0 - 2.5 bar	3,527	9910541
NBE 40-315/283 NBE 40-315/305	<u>3</u>	0 - 4 bar 0 - 4 bar	3,974 4,425	9910541 9910188
NBE 40-315/334	5.5	0 - 4 bar	5,170	9910196
NBE 40-315/344	7.5	0 - 6 bar	5,707	9910196
NBE 50-125/129 NBE 50-125/138	0.55 0.75	0 - 0.6 bar 0 - 1.0 bar	2,409 2,460	9910467 9859131
NBE 50-125/138	1.1	0 - 1.0 bar 0 - 1.0 bar	2,460	9903101
NBE 50-160/131	0.55	0 - 0.6 bar	2,440	9868952
NBE 50-160/139	0.75	0 - 1.0 bar	2,501	9910468
NBE 50-160/158	1.1	0 - 1.0 bar	2,563	9877313
NBE 50-160/175	1.5	0 - 1.6 bar	2,661	9910543
NBE 50-160/177	2.2	0 - 1.6 bar	2,997	9910543
NBE 50-200/171	1.1	0 - 1.6 bar	2,614	9910468
NBE 50-200/188	1.5	0 - 1.6 bar	2,735	9910541
NBE 50-200/210 NBE 50-200/219	2.2	0 - 1.6 bar	3,042	9910543 9910543
NBE 50-250/221	3 2.2	0 - 2.5 bar 0 - 2.5 bar	3,384 3,150	9910542
NBE 50-250/241	3	0 - 2.5 bar	3,486	9910542
NBE 50-250/263	4	0 - 2.5 bar	3,919	9910187
NBE 50-315/277	4	0 - 4 bar	4,445	9910197
NBE 50-315/303	5.5	0 - 4 bar	5,275	9910197
NBE 50-315/331	7.5	0 - 6 bar	6,082	9910187
NBE 50-315/344	11	0 - 6 bar	7,544	9897608
NBE 65-125/122	0.55	0 - 0.6 bar	2,415	9894157
NBE 65-125/130	0.75	0 - 0.6 bar	2,489	9910468
NBE 65-125/144	1.1	0 - 1.0 bar	2,585	9895687
NBE 65-160/135	0.75	0 - 1.0 bar	2,474	9892099
NBE 65-160/149	1.1	0 - 1.0 bar	2,558	9910468
NBE 65-160/165	1.5	0 - 1.0 bar	2,653	9910543
NBE 65-160/177	2.2	0 - 1.6 bar	3,009	9910543
NBE 65-200/170	1.5	0 - 1.6 bar	2,915	991054
NBE 65-200/189	2.2	0 - 1.6 bar	3,228	991663
NBE 65-200/205 NBE 65-200/219	<u>3</u> 4	0 - 1.6 bar 0 - 2.5 bar	3,574 4,056	9910543 9910179
NBE 65-250/215	3	0 - 2.5 bar 0 - 2.5 bar	3,898	991017
NBE 65-250/232	4	0 - 2.5 bar	4,367	991017
NBE 65-250/254	5.5	0 - 2.5 bar	5,189	991016
NBE 65-250/270	7.5	0 - 4 bar	5,973	9910190
NBE 65-315/261	5.5	0 - 2.5 bar	5,363	9910197
NBE 65-315/282	7.5	0 - 4 bar	6,082	9910177
NBE 65-315/314	11	0 - 4 bar	7,782	9866628
	15	0 - 4 bar	8,737	9897608

CATEGORY 2 - NBE VARIABLE SPEED END-SUCTION BLOC PUMPS - EN733



SUPPORT BLOCKS
Pumps listed in the darker shaded area include Support Blocks



COMPLETE WITH 1450 KI		VARIABLE SPEED MOTOR		
	P2	Differential pressure		
Model	kW	transducer range	£	Product cod
380-480/500V 3ph 50/60Hz 1450	rpm			A F2 A E BQQ
				AS F2 A E BQQ
NBE 80-160/146	1.5	0 - 1.0 bar	2,858	9910543
NBE 80-160/161	2.2	0 - 1.0 bar	3,216	9910544
NBE 80-160/175	3	0 - 1.6 bar	3,544	9910544
NBE 80-160/177	4	0 - 1.6 bar	3,982	9910175
NBE 80-200/164	2.2	0 - 1.0 bar	3,562	9910544
NBE 80-200/179	3	0 - 1.6 bar	3,898	9910544
NBE 80-200/196	4	0 - 1.6 bar	4,345	9910195
NBE 80-200/214	5.5	0 - 2.5 bar	5,092	9910176
NBE 80-200/222	7.5	0 - 2.5 bar	5,871	9910010
NBE 80-250/225	5.5	0 - 2.5 bar	5,312	9910177
NBE 80-250/247	7.5	0 - 2.5 bar	6,076	9910006
NBE 80-250/270	11	0 - 4 bar	7,704	9869271
NBE 80-315/280	11	0 - 4 bar	7,931	9897608
NBE 80-315/305	15	0 - 4 bar	8,872	9897605
NBE 80-315/320	18.5	0 - 4 bar	10,023	9915084
NBE 80-400/347	18.5	0 - 6 bar	11,666	9910533
NBE 100-160/160-140	2.2	0 - 1.0 bar	3,427	9910544
NBE 100-160/169	3	0 - 1.0 bar	3,761	9910544
NBE 100-160/176	4	0 - 1.0 bar	4,207	9910191
NBE 100-200/178	4	0 - 1.6 bar	4,445	9910544
NBE 100-200/195	5.5	0 - 1.6 bar	5,176	9910544
NBE 100-200/211	7.5	0 - 2.5 bar	5,975	9910544
NBE 100-200/219	11	0 - 2.5 bar	7,339	9897608
NBE 100-250/215	7.5	0 - 2.5 bar	6,487	9910191
NBE 100-250/245	11	0 - 2.5 bar	7,960	9897618
NBE 100-250/274	15	0 - 4 bar	8,847	9897617
NBE 100-315/279	15	0 - 4 bar	9,081	9897608
NBE 100-315/295	18.5	0 - 4 bar	10,183	9910533
NBE 125-200/176-154	5.5	0 - 1.0 bar	5,729	9910191
NBE 125-200/196-180	7.5	0 - 1.6 bar	6,448	9910191
NBE 125-200/219	11	0 - 2.5 bar	7,899	9897619
NBE 125-200/226	15	0 - 2.5 bar	8,820	9897619
NBE 125-250/220	11	0 - 2.5 bar	8,087	9897609
NBE 125-250/236	15	0 - 2.5 bar	9,005	9834983
NBE 125-250/249	18.5	0 - 2.5 bar	10,142	9834987
NBE 125-315/275	18.5	0 - 4 bar	11,383	9904263
				A F1 A E BQQ
		<u> </u>		AS F1 A E BQQ
NBE 150-200/210-158	7.5	0 - 1.0 bar	7,155	9915732
NBE 150-200/218-208	11	0 - 1.6 bar	8,847	9897605
NBE 150-200/224	15	0 - 1.6 bar	9,742	9876243
NBE 150-250/226-214	15	0 - 1.6 bar	10,150	9897619

NBE 150-250/230 ELECTRIC MOTOR

380-500V 3ph 50/60Hz up to 7.5kW with IE5 efficiency 380-480V 3ph 50/60Hz above 11kW IP 55 Class F Insulation

SUPPORT BLOCKS

99105340

Pumps listed in the darker shaded area include Support Block

11,334

Pumps with Custom Built options such as different material impellers and non standard seals can be configured and priced on request by your Sales Office. Pump housings are flanged in accordance with EN1092-2 and EN733 standards.

0 - 2.5 bar

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.

NBE OPERATION

These models have been designed for operation in either open or closed loop control arrangements.

18.5

The Default control mode is "Uncontrolled Curve / Constant curve".

 $\label{thm:constraints} Transducers\ can\ be\ supplied\ as\ separate\ items\ for\ pipework\ installations.$

Single point pressure transducers are listed with their ranges on page 22.

The transducer ranges listed for the NBE pumps only cover the max closed valve pressure with no inlet head. Please check the inlet head to check if the transducer size needs to be increased.

There is no sensor connection point on the NBE pump and connections need to be made in the pipework.

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites.



CATEGORY 2 - NK SINGLE STAGE END SUCTION LONG-COUPLED PUMPS - EN733 **COMPLETE WITH 2 POLES / 2900 RPM IE3 MOTORS** P2 Model kW **Product Code** Model kW **Product Code** 380-415V 3ph 50Hz 380-415V 3ph 50Hz A2 F A E BQQE A2 F A E BQQE 2,455 3,022 NK 32-125.1/100 0.75 98973375 NK 50-125/111 98476607 2,489 NK 32-125.1/110 98973377 NK 50-125/121 3,193 98973476 1.1 4 NK 32-125.1/121 1.5 2.562 98973379 NK 50-125/135 5.5 3.477 98973478 NK 32-125 1/140 22 2.604 98973381 NK 50-125/144 75 3,643 98763599 NK 32-125/106 2,523 98973383 1.5 NK 50-160/136 5.5 3,503 98973482 NK 32-125/115 2,596 98973385 2,640 98973388 NK 50-160/150 7.5 3,672 98249313 NK 32-125/130 2.2 2,819 4,229 NK 32-125/142 3 98973391 NK 50-160/167 11 98973449 4.707 NK 50-160/177 15 98973488 NK 32-160.1/139 1.5 2.658 98973393 NK 32-160.1/155 2.2 2.696 98973395 NK 50-200/181 11 4.293 98973451 NK 32-160.1/169 2,881 98973397 NK 50-200/198 15 4,773 98973492 4 3,046 98973401 NK 50-200/210 18.5 4,983 98425314 NK 32-160.1/177 2.745 NK 32-160/139 2.2 98973403 NK 50-200/219 5,743 98425315 NK 32-160/151 3 2.932 98973405 NK 32-160/163 4 3.096 98973407 NK 50-250/205 15 4.944 98973498 NK 32-160/177 5 5 3,324 98973410 NK 50-250/222 18 5 5.151 98973453 NK 50-250/233 22 5,913 98973455 NK 32-200.1/172 2,946 98973422 7,138 98972782 NK 50-250/254 30 4 3.111 98973424 37 7.755 NK 32-200.1/188 NK 50-250/263 98972784 3,336 NK 32-200.1/205 5.5 98973426 8.047 NK 32-200.1/207 3.555 98973429 NK 50-315/267 30 98972786 4 3,131 98973430 8,682 NK 32-200/176 NK 50-315/285 37 98972788 3,364 9,935 NK 32-200/190 98869755 NK 50-315/300 45 98972790 NK 32-200/206 7.5 3,579 98408593 NK 50-315/321 55 12,476 98972792 4,136 NK 32-200/219 11 98663381 3,324 NK 65-125/120-110 4 98803689 NK 32-250/199 5.5 3.720 98973438 NK 65-125/127 5.5 3.619 98646989 3.945 98973431 3.788 98973457 NK 32-250/219 NK 65-125/137 7.5 4,534 4,367 NK 32-250/244 11 98973434 NK 65-125/144 11 98973459 NK 32-250/262 5,033 98973444 NK 65-160/143 7.5 3,857 98973461 NK 40-125/105 2,636 98973447 11 4,432 1.5 NK 65-160/157 98973463 NK 40-125/116 2.2 2.680 98973450 NK 65-160/173 15 4.932 98973508 NK 40-125/127 2.855 98553113 18.5 5,149 98973465 3 NK 65-160/177 NK 40-125/139 4 3,024 98973452 NK 65-200/162 11 4,663 98973467 NK 40-125/142 5.5 3,255 98973454 15 98973516 NK 65-200/177 5,161 NK 40-160/144 4 3,123 98973456 18.5 5,385 NK 65-200/190 98973469 NK 40-160/158 5.5 3.352 98973458 NK 65-200/198 22 6.265 98724610 NK 40-160/172 3.565 98973436 NK 65-200/217 30 7.480 98972819 4,122 8,117 NK 40-160/177 11 98431476 NK 65-200/219 37 98972821 NK 40-200/172 5.5 3,448 98545685 NK 65-250/223 30 7,948 98972823 3,653 NK 40-200/188 7.5 98973439 NK 65-250/238 37 8,576 98972825 NK 40-200/206 11 4.214 98973441 NK 65-250/251 45 9.830 98972828 NK 40-200/219 15 4.691 98973466 NK 65-250/269 55 11.785 98972830 14,228 NK 65-250/270 75 98972832 NK 40-250/211 11 4,580 98973442 5,077 98052630 NK 65-315/272 55 12,299 98972834 NK 40-250/230 15 5,296 14,592 NK 40-250/245 18.5 98973445 NK 65-315/295 75 98972837 NK 40-250/255 22 6.096 98257988 NK 65-315/308 90 16,735 98972839 NK 65-315/320 NK 40-250/260 30 7.377 98972741 110 20.330 98972841 NK 40-315/273 22 6,583 98973446 NK 80-160/147-127 11 4,411 98973471 7,872 4,882 30 98972745 NK 80-160/151 15 98973525 NK 40-315/298 8,640 NK 40-315/318 37 98972748 NK 80-160/161 18.5 5,097 98973473 10,942 NK 40-315/336 45 98972750 NK 80-160/167 22 5,855 98663370 NK 80-160/177 30 7.076 98972862 ELECTRIC MOTOR Motors up to and including 3kW are 220-240D/380-415Y V/3ph/50Hz 6,404 NK 80-200/171 22 98973475 Motors 4kW and above are 380-415D V/3ph/50Hz 7,629 NK 80-200/188 98876779 30 IP 55 Class F Insulation NK 80-200/200 8,334 98742088 37 9,444 NK 80-200/211 45 98972866 All 2 poles motors up to and including 22kW are Grundfos IE3 efficiency standard. NK 80-200/222 55 11.332 98972868 All 2 poles motors above and including 30kW are Siemens IE3 efficiency standard. NK 80-250/220 45 10,035 98972870 11.998 NK 80-250/234 55 98972873 Standard NK casing and impeller are cast iron. 13,647 98972875 NK 80-250/257 75 90 15,358 All long-coupled NK pumps have spacer coupling and base frame. NK 80-250/270 98867710 Pumps with Custom Built options such as different material impellers, NK 80-315/278 90 15.907 98972877 20,573 casings and non-standard seals can be configured and priced on request NK 80-315/295 110 98972880 NK 80-315/310 132 22.679 98972882

Pump housings are flanged in accordance with EN1092-2 and EN733 design standards.

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22



98972885

25,968

160

NK 80-315/328

CATEGORY 2 - NK SINGLE STAGE END SUCTION LONG-COUPLED PUMPS - EN733 COMPLETE WITH 2 POLES / 2900 RPM IE3 MOTORS

	P2		
Model	kW	£	Product Code
380-415V 3ph 50Hz			A2 F A E BQQE
NK 100-160/160-154	18.5	5,371	98973728
NK 100-160/167	22	6,155	98973726
NK 100-160/176	30	7,405	98973337
NK 100-200/170	30	8,143	98972887
NK 100-200/181	37	8,775	98833673
NK 100-200/192	45	10,043	98972889
NK 100-200/203	55	12,010	98606358
NK 100-200/219	75	13,659	98698076
NK 100-250/205	55	12,215	98973187
NK 100-250/229	75	13,856	98973185
NK 100-250/242	90	15,567	98973183
NK 100-250/258	110	21,078	98973181
NK 100-250/269	132	23,415	98973179
NK 100-315/269	110	22,385	98829703
NK 100-315/284	132	23,459	98972891
NK 100-315/301	160	26,907	98972893
NK 100-315/322	200	31,164	98972895

			ΓOR

Motors 4kW and above are 380-415D V/3ph/50Hz IP 55 Class F Insulation

All 2 poles motors up to and including 22kW are Grundfos IE3 efficiency standard. All 2 poles motors above and including 30kW are Siemens IE3 efficiency standard.

Standard NK casing and impeller are cast iron.

All long-coupled NK pumps have spacer coupling and base frame.

Pumps with Custom Built options such as different material impellers, casings and non-standard seals can be configured and priced on request by your Sales Office.

Pump housings are flanged in accordance with EN1092-2 and EN733 design standards.

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.

	P2		
Model	kW	£	Product Code
			A2 F A E BQQE
NK 125-200/176-154	45	10,578	98973262
NK 125-200/196-166	55	12,543	98973260
NK 125-200/205	75	14,646	98973258
NK 125-200/219	90	16,271	98973257
NK 125-200/224	110	21,673	98973255
NK 125-250/222	90	16,665	98972898
NK 125-250/236	110	21,575	98972900
NK 125-250/249	132	23,169	98684463
NK 125-250/263	160	26,545	98972902
NK 125-250/269	200	30,820	98972904
NK 125-315/262	132	24,382	98972906
NK 125-315/277	160	27,736	98972908
NK 125-315/297	200	32,010	98972910
NK 125-315/317	250	47,302	98444952
NK 150-200/216-176	75	15,983	98767265
NK 150-200/218-202	90	17,606	98972912
NK 150-200/224	110	23,010	98972914
NK 150-250/226-220	132	26,702	98973304
NK 150-250/235	160	30,068	98973302
NK 150-250/250	200	34,441	98973300
NK 150-250/265	250	49,803	98973298
NK 150-315.2/244	160	32,014	99001704
NK 150-315.2/262	200	34,920	99001705





COMPLETE WITH	14 POLES / 1	430 KPIVI IES	WICTORS				
	P2				P2		
Model	kW	£	Product Code	Model	kW	£	Product Cod
380-415V 3ph 50Hz			A2 F A E BQQE	380-415V 3ph 50Hz			A2 F A E BQQ
IK 32-125.1/121	0.25	2,228	98986192	NK 50-250/221	2.2	3,143	9897361
NK 32-125.1/139	0.25	2,228	98986194	NK 50-250/241	3	3,247	9897361
NK 32-125.1/140	0.37	2,248	98986196	NK 50-250/263	4	3,432	9897348
NK 32-125/115	0.25	2,264	98986218				
NK 32-125/130	0.25	2,264	98986237	NK 50-315/277	4	4,176	9897348
NK 32-125/142	0.37	2,282	98986239	NK 50-315/303	5.5	4,659	9807451
				NK 50-315/331	7.5	4,954	9847631
NK 32-160.1/137	0.25	2,334	98986241	NK 50-315/344	11	5,674	9897348
NK 32-160.1/155	0.25	2,334 2,353	98986245	NK CE 125/122	٥٢٢	2 660	0007650
NK 32-160.1/172	0.37		98986247	NK 65-125/122	0.55	2,668	9887650
NK 32-160.1/177	0.55	2,403 2,377	98986249	NK 65-125/130	0.75	2,795 2,843	9897363
NK 32-160/138 NK 32-160/154	0.25	2,377	98986250 98986301	NK 65-125/144	1.1	2,843	9897363
NK 32-160/154 NK 32-160/172	0.55	2,451	98986345	NK 65-160/135	0.75	2,865	9897363
NK 32-160/172	0.55	2,568	98973535	NK 65-160/135	1.1	2,922	9897363
IN 32-100/1/3	0.75	2,308	303/3333	NK 65-160/165	1.5	2,966	9897363
IK 32-200.1/175	0.37	2,417	98986346	NK 65-160/177	2.2	3,078	9897364
IK 32-200.1/175	0.55	2,471	98986348	NK 03-100/177	2.2	3,076	3037304
IK 32-200.1/196	0.35	2,590	98973557	NK 65-200/170	1.5	3,165	9897364
NK 32-200.1/207	0.55	2,493	98986349	NK 65-200/189	2.2	3,275	9897364
NK 32-200/197	0.75	2,610	98973559	NK 65-200/205	3	3,386	9897364
NK 32-200/216	1.1	2,662	98973561	NK 65-200/219	4	3,587	9897348
NK 32-200/219	1.5	2,704	98973563	141. 03 200, 213	•	0,00.	3037340
VK 32 200/213	1.5	2,7.0.	30373303	NK 65-250/215	3	3,879	9897366
NK 32-250/206	0.75	2,936	98973537	NK 65-250/232	4	4,066	9897349
NK 32-250/236	1.1	2,990	98973539	NK 65-250/254	5.5	4,520	9897349
NK 32-250/260	1.5	3,032	98973553	NK 65-250/270	7.5	4,711	9814482
NK 32-250/262	2.2	3,141	98973555			,	
		·		NK 65-315/261	5.5	4,739	9897349
NK 40-125/116	0.25	2,304	98986475	NK 65-315/282	7.5	4,934	9897349
NK 40-125/130	0.37	2,322	98986476	NK 65-315/314	11	5,618	9807451
NK 40-125/142	0.55	2,383	98986477	NK 65-315/320	15	5,859	9897349
,				·			
NK 40-160/134	0.37	2,425	98986502	NK 80-160/146	1.5	2,974	9897367
NK 40-160/151	0.55	2,479	98986504	NK 80-160/161	2.2	3,088	9897367
NK 40-160/162	0.75	2,596	98973565	NK 80-160/175	3	3,197	9897368
NK 40-160/177	1.1	2,648	98973567	NK 80-160/177	4	3,378	9847662
NK 40-200/177	0.75	2,684	98973569	NK 80-200/164	2.2	3,641	9897368
NK 40-200/198	1.1	2,741	98973572	NK 80-200/179	3	3,746	9897368
NK 40-200/217	1.5	2,783	98973575	NK 80-200/196	4	3,935	9897350
NK 40-200/219	2.2	2,893	98973578	NK 80-200/214	5.5	4,361	9814481
				NK 80-200/222	7.5	4,546	9897350
NK 40-250/219	1.5	3,082	98973581				
NK 40-250/245	2.2	3,197	98973583	NK 80-250/225	5.5	4,677	9897350
NK 40-250/260	3	3,312	98973585	NK 80-250/247	7.5	4,892	9897350
				NK 80-250/270	11	5,608	9847653
NK 40-315/283	3	3,844	98973587				
NK 40-315/305	4	4,029	98973477	NK 80-315/280	11	5,843	9897351
NK 40-315/334	5.5	4,512	98973479	NK 80-315/305	15	6,080	9807451
NK 40-315/344	7.5	4,808	98973481	NK 80-315/320	18.5	6,889	9897233
				NK 80-315/334	22	7,196	9897233
NK 50-125/113	0.37	2,477	98986501				
NK 50-125/129	0.55	2,540	98990816	NK 80-400/347	18.5	8,923	9897233
IK 50-125/138	0.75	2,656	98973596	NK 80-400/365	22	9,446	9897234
IK 50-125/144	1.1	2,710	98973598	NK 80-400/397	30	10,586	9897234
				NK 80-400/419	37	11,720	9897234
IK 50-160/131	0.55	2,584	98990819	NK 80-400/438	45	12,627	9897235
IK 50-160/139	0.75	2,700	98973600				
IK 50-160/158	1.1	2,749	98973603	NK 100-160/160-140	2.2	3,324	9897342
NK 50-160/175	1.5	2,791	98705749	NK 100-160/169	3	3,444	9897340
NK 50-160/177	2.2	2,905	98973606	NK 100-160/176	4	3,625	9897373
IK 50-200/171	1.1	2,823	98973608	NK 100-200/178	4	4,237	9897351
IK 50-200/188	1.5	2,861	98973610	NK 100-200/195	5.5	4,689	9897351
NK 50-200/210	2.2	2,972	98545683	NK 100-200/211	7.5	4,890	9884769
NK 50-200/219	3	3,080	98973612	NK 100-200/219	11	5,620	9812289

 $Motor\ specification,\ reference\ to\ accessories\ and\ operational\ details\ are\ on\ page\ {\bf 16}.$



COMPLETE WITH 4 POLES / 1450 RPM IE3 MOTORS P2 kW Model **Product Code** Model kW **Product Code** 380-415V 3ph 50Hz A2 F A E BQQE 380-415V 3ph 50Hz A2 F A E BQQE NK 100-250/215 7.5 5.083 98973704 NK 150-315.2/250 22 9.846 99001706 NK 100-250/245 11 5,813 98973702 NK 150-315.2/275 30 11,003 99001707 NK 100-250/274 15 6.066 98973690 NK 150-315.2/294 37 11.944 99001708 NK 150-315.2/314 45 12.792 99001710 NK 100-315/279 15 6,559 98973517 NK 150-315.2/334 55 14,740 99001711 7.371 75 16.655 NK 100-315/295 18.5 98972358 NK 150-315.2/342 99001713 NK 100-315/312 22 7.675 98972360 30 8,791 NK 150-315/260 30 11,123 98972397 NK 100-315/334 98607734 12,253 98698281 NK 150-315/275 37 9,680 NK 100-400/334 22 98973241 NK 150-315/291 45 13.162 98972399 NK 100-400/360 10,822 98973240 15,034 30 NK 150-315/310 55 98972401 NK 100-400/375 11.950 98973239 17.115 98519153 37 NK 150-315/336 75 NK 100-400/395 45 12.854 98973238 NK 150-315/338 90 18.808 98972402 NK 100-400/415 55 14,734 98973236 NK 150-400/343 55 16,164 98972405 NK 125-200/176-154 5.5 5,250 98973713 NK 150-400/375 75 18,380 98877246 NK 125-200/196-180 7.5 5,441 98973711 NK 150-400/394 90 20.157 98606356 NK 125-200/219 6,187 98973710 26,487 98698280 11 NK 150-400/412 110 NK 125-200/226 15 6,426 98973708 NK 150-400/431 132 27.223 98531710 NK 150-400/438 160 29,071 98464513 6.084 NK 125-250/220 11 98973519 29,077 NK 125-250/236 15 6,318 98663368 NK 150-500/459 132 98972407 NK 125-250/249 18.5 7,126 98731075 NK 150-500/489 160 30,910 98531731 NK 125-250/262 22 7.438 98476605 NK 150-500/521 200 34.158 98531733 NK 125-250/269 30 8,545 98663363 19,711 NK 200-400/280 37 98973136 8,915 NK 125-315/275 18.5 98972366 45 20,622 NK 200-400/296 98973138 9,159 98780297 NK 200-400/312 21,832 NK 125-315/290 22 55 98973140 30 10,301 98972368 NK 125-315/317 NK 200-400/344 75 23,006 98973142 NK 125-315/336 37 11,437 98972370 NK 200-400/364 90 24,008 98973143 NK 125-315/338 45 12.342 98972372 NK 200-400/392 110 26.875 98973145 NK 200-400/404 132 27,999 98531734 NK 125-400/345 37 12,020 98972374 NK 125-400/368 45 12.921 98972376 NK 200-450/367 75 23.937 98973092 14,801 98972378 90 24,939 NK 125-400/392 55 NK 200-450/391 98973094 NK 125-400/433 75 16,882 98424188 NK 200-450/415 110 29,845 98973096 18.569 30.969 NK 125-400/438 90 98972380 NK 200-450/435 132 98531735 NK 200-450/455 160 32,734 98973099 NK 125-500/406 55 17,427 98972382 19,616 98972384 21,227 NK 125-500/447 75 NK 250-350/266 37 98476353 NK 125-500/473 90 21.392 98972386 NK 250-350/294 45 22.614 98573828 24,074 NK 125-500/500 110 27,665 98972389 NK 250-350/318 55 98973065 28.401 98531708 27.810 NK 125-500/526 132 NK 250-350/362 75 98973067 30.263 29.286 NK 125-500/548 160 98972391 NK 250-350/370 90 98973070 NK 150-200/210-158 7.5 6,310 98973521 NK 250-400/281 45 23,961 98973048 NK 150-200/218-208 11 7,401 98244644 NK 250-400/301 55 25,421 98973049 98973050 NK 150-200/224 15 7,651 98780294 NK 250-400/329 75 29.157 NK 250-400/349 90 30,633 98973051 NK 150-250/226-214 8.322 98918826 32,394 15 NK 250-400/365 110 98973052 NK 150-250/230 185 9.072 98930113 NK 250-400/385 132 33.536 98854358 NK 150-250/242 9.448 98964693 35,260 22 NK 250-400/405 160 98643120 NK 150-250/262 30 10,528 98973311 11,907 NK 250-450/325 75 NK 150-250/275 98973308 29,412 98973182 37 12.832 98973306 30.866 NK 150-250/282 45 NK 250-450/341 90 98973184 32,599 NK 250-450/361 110 98973186 **ELECTRIC MOTOR** NK 250-450/381 132 33,951 98973188 Motors up to and including 3kW are 220-240D/380-415Y V/3ph/50Hz NK 250-450/401 160 35.587 98973189 Motors 4kW and above are 380-415D V/3ph/50Hz 38,406 NK 250-450/445 200 98973191 IP 55 Class F Insulation

CATEGORY 2 - NK SINGLE STAGE END SUCTION LONG-COUPLED PUMPS - EN733

DUINADA

Standard NK casing and impeller are cast iron.

All long-coupled NK pumps have spacer coupling and base frame.

All motors up to and including 0.55kW have no efficiency standard

All 4 poles motors up to and including 15kW are Grundfos IE3 efficiency standard.

All 4 poles motors above and including 18.5kW are Siemens IE3 efficiency standard.

Pumps with Custom Built options such as different material impellers, casings and non-standard seals can be configured and priced on request by your Sales Office. Pump housings are flanged in accordance with EN1092-2 and EN733 design standards.

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.



98973072

98973074

98973076

98973078

39.056

42.329

55,483

62.718

160

200

250

315

NK 250-500/417

NK 250-500/445

NK 250-500/485

NK 250-500/525

COMPLETE WITH 6 POLES / 960 RPM IE3 MOTORS Model kW **Product Code** 380-415V 3ph 50Hz A2 F A E BQQE NK 100-160/160-140 0.55 3,539 98973353 NK 100-160/169 0.75 3,750 98973351 NK 100-160/176 3,812 98973349 1.1 NK 100-200/182 4.383 98972409 11 NK 100-200/193 15 4,494 98972410 NK 100-200/214 2.2 4,637 98972412 NK 100-200/219 5,107 98972414 4.862 NK 100-250/216 2.2 98973202 NK 100-250/236 3 5.318 98973200 NK 100-250/260 4 5,336 98973198 NK 100-250/274 5.5 5,877 98973196 NK 100-315/272 4 5,889 98972416 5.5 6.386 98972418 NK 100-315/301 NK 100-315/326 7.5 6,875 98972420 NK 100-315/334 11 7,787 98972422 NK 100-400/340 98973244 7.5 8,535 NK 100-400/380 11 9,432 98973243 NK 100-400/415 15 10,224 98973242 NK 125-200/176-150 1.5 5,111 98973281 5,268 NK 125-200/196-182 2.2 98973270 NK 125-200/215 5,722 98973269 NK 125-200/226 5,755 98973268 NK 125-250/216 3 5.666 98972424 NK 125-250/232 4 5,678 98972426 NK 125-250/253 5.5 6,183 98972428 NK 125-250/269 6,629 98972429 NK 125-315/275 5.5 7,550 98972431 NK 125-315/297 7.5 8,001 98972433 98972435 NK 125-315/335 11 8.921 NK 125-315/338 15 9,714 98972437 NK 125-400/351 11 9,704 98972439 NK 125-400/384 15 10,496 98972441 NK 125-400/410 18.5 11.340 98972443 NK 125-400/434 12.022 98972444 NK 125-400/438 30 12,830 98990844 NK 125-500/421 13,542 98972448 18.5 14,246 98972450 NK 125-500/445 22 NK 125-500/493 30 15,090 98972452 NK 125-500/524 37 16,168 98972458 NK 125-500/546 45 17,509 98972454 NK 125-500/548 55 18,587 98990845 NK 150-200/210-168 2.2 6,209 98972460 NK 150-200/218-200 3 6,655 98972462 NK 150-200/224 4 6,674 98972464 NK 150-250/235 5.5 7,922 98973318 NK 150-250/252 7.5 8,389 98973316 9,340 NK 150-250/282 11.0 98973314 99001714 NK 150-315.2/259 7.5 9.710 NK 150-315.2/293 11.0 10,635 99001715 NK 150-315.2/328 15.0 10,769 99001716 NK 150-315.2/342 18.5 12,185 99001717 NK 150-315/280 11.0 10.683 98972465 11,451 98972467 NK 150-315/305 15.0 NK 150-315/322 18.5 12.245 98972469 NK 150-315/337 22.0 12,927 98737868 13,785

CATEGORY 2 - NK SINGLE STAGE END SUCTION LONG-COUPLED PUMPS - EN733

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.

	P2		
Model	kW	£	Product Code
380-415V 3ph 50Hz			A2 F A E BQQE
NK 150-400/357	18.5	13,438	98972473
NK 150-400/375	22	14,145	98972475
NK 150-400/408	30	15,046	98972478
NK 150-400/430	37	16,134	98972480
NK 150-400/438	45	17,483	98972482
NK 150-500/457	37	17,883	98972484
NK 150-500/483	45	19,224	98972486
NK 150-500/513	55	20,300	98972488
NK 150-500/548	75	21,752	98972490
NK 200-400/308	15	16,741	98973148
NK 200-400/328	18.5	17,501	98973150
NK 200-400/348	22	18,722	98973153
NK 200-400/384	30	19,874	98973154
NK 200-400/404	37	21,305	98973156
NK 200-450/355	18.5	17,978	98973101
NK 200-450/371	22	19,425	98973103
NK 200-450/407	30	20,805	98973106
NK 200-450/431	37	22,236	98973108
NK 200-450/451	45	23,672	98973110
NIV 250 250/277	44	17.500	00476333
NK 250-350/277	11	17,586	98476332
NK 250-350/306	15	18,897	98973091
NK 250-350/330	18.5 22	19,896	98973093 98973095
NK 250-350/366	22	20,903	98973095
NK 250-400/289	15	19,088	98973053
NK 250-400/283	18.5	20,087	98973054
NK 250-400/329	22	21,094	98973055
NK 250-400/361	30	23,189	98973056
NK 250-400/381	37	24,414	98973057
NK 250-400/401	45	25,409	98973058
141(250 400) 401	43	23,403	30373030
NK 250-450/313	18.5	20,505	98973193
NK 250-450/325	22	21,500	98973195
NK 250-450/357	30	23,559	98973197
NK 250-450/377	37	24,766	98973199
NK 250-450/397	45	25,747	98973201
NK 250-450/433	55	26,951	98973203
		-,	
NK 250-500/409	45	29,215	98973097
NK 250-500/437	55	30,647	98973098
NK 250-500/485	75	35,334	98973100
NK 250-500/525	90	37,821	98973102
.,			

ELECTRIC MOTOR

Motors up to and including 3kW are 3 x 220-240D/380-420Y V/3ph/50Hz Motors 4kW and above are 380-420D V/3ph/50Hz IP 55 Class F Insulation

All motors up to and including 0.55kW have no efficiency standard All 6 poles motors above and including 0.75kW are Siemens IE3 efficiency standard.

PUMPS

Standard NK casing and impeller are cast iron.

All long-coupled NK pumps have spacer coupling and base frame.

Pumps with Custom Built options such as different material impellers, casings and non-standard seals can be configured and priced on request by your Sales Office.

Pump housings are flanged in accordance with EN1092-2 and EN733 design standards.



	P2	E VARIABLE SPEED MOTOR Differential pressure		
Model	kW	transducer range	£	Product code
380-480/500V 3ph 50/60Hz 290		transauter range	-	A2 F A E BQQE
NKE 32-125.1/110	1.1	0 - 2.5 bar	3,587	98987155
NKE 32-125.1/121	1.5	0 - 2.5 bar	3,721	98990856
NKE 32-125.1/140	2.2	0 - 4 bar	3,988	98990857
NKE 32-125/106	1.1	0 - 1.6 bar	3,621	98990858
NKE 32-125/115	1.5	0 - 2.5 bar	3,755	98990859
NKE 32-125/130	2.2	0 - 2.5 bar	4,024	98990860
NKE 32-125/142	3	0 - 4 bar	4,432	99105881
NKE 32-160.1/139	1.5	0 - 2.5 bar	3,816	98990862
NKE 32-160.1/155	2.2	0 - 4 bar	4,080	98990863
NKE 32-160.1/169	3	0 - 4 bar	4,494	99106228
	4	0 - 6 bar	4,885	99106230
NKE 32-160.1/177		0 - 4 bar	4,127	
NKE 32-160/139	2.2 3	0 - 4 bar	4,544	98990866
NKE 32-160/151			· · · · · · · · · · · · · · · · · · ·	99105883
NKE 32-160/163	<u>4</u> 5.5	0 - 4 bar	4,934	99105885
NKE 32-160/177		0 - 6 bar	5,405	99105886
NKE 32-200.1/172	3	0 - 4 bar	4,558	99106232
NKE 32-200.1/188	4	0 - 6 bar	4,948	99106233
NKE 32-200.1/205	5.5	0 - 6 bar	5,417	99106234
NKE 32-200.1/207	7.5	0 - 6 bar	6,082	99099256
NKE 32-200/176	4	0 - 4 bar	4,968	99105889
NKE 32-200/190	5.5	0 - 6 bar	5,445	99105890
NKE 32-200/206	7.5	0 - 6 bar	6,106	99099260
NKE 32-200/219	11	0 - 10 bar	7,416	99099262
NKE 32-250/199	5.5	0 - 6 bar	5,797	99105892
NKE 32-250/219	7.5	0 - 10 bar	6,469	99099266
NKE 32-250/244	11	0 - 10 bar	7,810	99099270
NKE 32-250/262	15	0 - 10 bar	8,878	97944779
NKE 40-125/105	1.5	0 - 1.6 bar	3,795	98990878
NKE 40-125/116	2.2	0 - 2.5 bar	4,064	98990879
NKE 40-125/127	3	0 - 2.5 bar	4,468	99105893
NKE 40-125/139	4	0 - 4 bar	4,863	99105895
NKE 40-125/142	5.5	0 - 4 bar	5,337	99105897
NKE 40-160/144	4	0 - 4 bar	4,960	99105898
NKE 40-160/158	5.5	0 - 4 bar	5,433	99105899
NKE 40-160/172	7.5	0 - 6 bar	6,092	99099273
NKE 40-160/177	11	0 - 6 bar	7,402	99098780
NKE 40-200/172	5.5	0 - 4 bar	5,528	99105901
NKE 40-200/188	7.5	0 - 6 bar	6,180	99099276
NKE 40-200/206	11	0 - 6 bar	7,493	99099281
NKE 40-200/219	15	0 - 10 bar	8,540	98991028
NKE 40-250/211	11	0 - 10 bar	7,856	99099284
NKE 40-250/230	15	0 - 10 bar	8,922	98991030
NKE 40-250/245	18.5	0 - 10 bar	9,905	98973470
NKE 40-250/255	22	0 - 10 bar	11,304	98973472
NKE 40-315/273	22	0 - 10 bar	11,786	98973474
NKE 50-125/111	3	0 - 1.6 bar	4,634	99105902
NKE 50-125/121	4	0 - 2.5 bar	5,030	99105903
NKE 50-125/135	5.5	0 - 4 bar	5,556	99105904
NKE 50-125/144	7.5	0 - 4 bar	6,170	99099287
NKE 50-160/136	5.5	0 - 4 bar	5,582	99105905
NKE 50-160/150	7.5	0 - 4 bar	6,198	99099291
NKE 50-160/167	11	0 - 4 bar	7,507	99099294
NKE 50-160/177	15	0 - 6 bar	8,556	98991038
NKE 50-200/181	11	0 - 6 bar	7,571	99099298
NKE 50-200/181 NKE 50-200/198	15	0 - 6 bar	8,621	98991040
· · · · · · · · · · · · · · · · · · ·	18.5		9,594	
NKE 50-200/210	18.5	0 - 10 bar 0 - 10 bar	10,953	98973494
NKE 50-200/219				98973496
NKE 50-250/205	15	0 - 6 bar	8,791	98991041
NKE 50-250/222 NKE 50-250/233	18.5 22	0 - 10 bar 0 - 10 bar	9,761	98973500
			11,123	98901182

Motor specification, reference to accessories and operational details are on page 19.



	P2	Differential pressure		
Model	kW	transducer range	£	Product code
380-480/500V 3ph 50/60Hz 2900)rpm			A2 F A E BQQE
NKE 65-125/120-110	4	0 - 1.6 bar	5,160	99105906
NKE 65-125/127	5.5	0 - 2.5 bar	5,698	99105907
NKE 65-125/137	7.5	0 - 2.5 bar	6,314	99099301
NKE 65-125/144	11	0 - 4 bar	7,645	99098777
NKE 65-160/143	7.5	0 - 4 bar	6,381	99099305
NKE 65-160/157	11	0 - 4 bar	7,709	99099308
NKE 65-160/173	15	0 - 6 bar	8,779	98147969
NKE 65-160/177	18.5	0 - 6 bar	9,759	98973512
NKE 65-200/162	11	0 - 4 bar	7,938	99099312
NKE 65-200/177	15	0 - 6 bar	9,006	98991049
NKE 65-200/190	18.5	0 - 6 bar	9,993	98973518
NKE 65-200/198	22	0 - 6 bar	11,388	98973520
NKE 80-160/147-127	11	0 - 2.5 bar	7,689	99099316
NKE 80-160/151	15	0 - 4 bar	8,729	98991051
NKE 80-160/161	18.5	0 - 4 bar	9,708	98973528
NKE 80-160/167	22	0 - 4 bar	11,065	98973531
NKE 80-200/171	22	0 - 6 bar	11,609	98973533
NKE 100-160/160-154	18.5	0 - 4 bar	9,979	98973404
NKE 100-160/167	22	0 - 4 bar	11,362	98973402

ELECTRIC MOTOR

380-500V 3ph 50/60Hz up to 11kW with IE5 efficiency 380-480V 3ph 50/60Hz above 15kW IP 55 Class F Insulation

PUMPS

Standard NKE casing and impeller are cast iron.

All long-coupled NKE pumps have spacer coupling and base frame.

Pumps with Custom Built options such as different material impellers and non standard seals can be configured and priced on request by your Sales Office.

Pump housings are flanged in accordance with EN1092-2 and EN733 standards.

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.

NKE OPERATION

These models have been designed for operation in either open or closed loop control arrangements. The Default control mode is "Uncontrolled Curve / Constant curve".

NKE pumps do not include transducers for closed loop control.

Transducers can be supplied as separate items for pipework installations.

Single point pressure transducers are listed with their ranges on page 22.

The transducer ranges listed for the NKE pumps only cover the max closed valve pressure with no inlet head. Please check the inlet head to check if the transducer size needs to be increased.

There is no sensor connection point on the NKE pump and connections need to be made in the pipework.

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites.





COMPLETE WITH 1450	RPM (4 POLES) 3 PHAS	SE VARIABLE SPEED MOTOR		
	P2	Differential pressure		
Model	kW	transducer range	£	Product code
380-480/500V 3ph 50/60Hz 1		0.465	2 552	A2 F A E BQQE
NKE 32-160.1/177 NKE 32-160/172	0.55 0.55	0 - 1.6 bar 0 - 1.6 bar	3,553 3,601	98991108 98991110
NKE 32-160/172	0.75	0 - 1.6 bar	3,643	98991112
NKE 32-200.1/196	0.55	0 - 1.6 bar	3,621	98991113
NKE 32-200.1/207	0.75	0 - 1.6 bar	3,665	98991115
NKE 32-200/184	0.55	0 - 1.6 bar	3,643	98991135
NKE 32-200/197	0.75	0 - 1.6 bar	3,685	98991137
NKE 32-200/216	1.1	0 - 2.5 bar	3,759	98991138
NKE 32-200/219	1.5	0 - 2.5 bar	3,862	99105827
NKE 32-250/206	0.75	0 - 1.6 bar	4,008	98991140
NKE 32-250/236	1.1	0 - 2.5 bar	4,084	98991151
NKE 32-250/260	1.5	0 - 2.5 bar	4,187	99105828
NKE 32-250/262	2.20	0 - 2.5 bar	4,520	99105829
NKE 40-125/142	0.55	0 - 1.0 bar	3,533	98991158
NKE 40-160/151	0.55	0 - 1.0 bar	3,629	98991160
NKE 40-160/162	0.75	0 - 1.0 bar	3,671	99104772
NKE 40-160/177	1.1	0 - 1.6 bar	3,745	99104784
NKE 40-200/177	0.75	0 - 1.6 bar	3,759	99104788
NKE 40-200/198	1.1	0 - 1.6 bar	3,836	99104789
NKE 40-200/217	1.5	0 - 1.6 bar	3,940	99105830
NKE 40-200/219	2.2	0 - 2.5 bar	4,275	99105831
NKE 40-250/219	1.5	0 - 2.5 bar	4,237	99105832
NKE 40-250/245	2.2	0 - 2.5 bar	4,576	99105834
NKE 40-250/260	3	0 - 2.5 bar	4,921	99105835
NKE 40-315/283	3	0 - 4 bar	5,449	99105836
NKE 40-315/305	4	0 - 4 bar	5,859	99099319
NKE 40-315/334	5.5	0 - 4 bar	6,716	99099322
NKE 40-315/344	7.5	0 - 6 bar	7,420	99099327
NKE 50-125/129	0.55	0 - 0.6 bar	3,689	99104790
NKE 50-125/138	0.75	0 - 1.0 bar	3,731	99104791
NKE 50-125/144	1.1	0 - 1.0 bar	3,806	99104792
NKE 50-160/131	0.55	0 - 0.6 bar	3,733	99104795
NKE 50-160/139	0.75	0 - 1.0 bar	3,775	99104797
NKE 50-160/158	1.1	0 - 1.0 bar	3,844	99104798
NKE 50-160/175	1.5	0 - 1.6 bar	3,948	99105838
NKE 50-160/177	2.2	0 - 1.6 bar	4,287	99105839
NKE 50-200/171	1.1	0 - 1.6 bar	3,918	99104799
NKE 50-200/188	1.5	0 - 1.6 bar	4,018	99105841
NKE 50-200/210	2.2	0 - 1.6 bar	4,353	99105842
NKE 50-200/219	3	0 - 2.5 bar	4,691	99105843
NKE 50-250/221	2.2	0 - 2.5 bar	4,522	99105845
NKE 50-250/241	3	0 - 2.5 bar	4,857	99105846
NKE 50-250/263 NKE 50-315/277	4	0 - 2.5 bar 0 - 4 bar	5,267 6,005	99099330 99099343
NKE 50-315/303	5.5	0 - 4 bar	6,862	99099346
NKE 50-315/331	7.5	0 - 6 bar	7,565	99099350
NKE 50-315/344	11	0 - 6 bar	9,034	98973627
			·	
NKE 65-125/122	0.55	0 - 0.6 bar	3,816	99104800
NKE 65-125/130	0.75	0 - 0.6 bar	3,868	99104802
NKE 65-125/144	1.1	0 - 1.0 bar	3,938	99104803
NKE 65-160/135	0.75	0 - 1.0 bar	3,938	99104804
NKE 65-160/149	1.1	0 - 1.0 bar	4,016	99104805
NKE 65-160/165	1.5	0 - 1.0 bar	4,121	99105847
NKE 65-160/177	2.2	0 - 1.6 bar	4,458	99105848
NKE 65-200/170	1.5	0 - 1.6 bar	4,319	99105850
NKE 65-200/189 NKE 65-200/205	2.2 3	0 - 1.6 bar	4,653 4,994	99105851 99105852
NKE 65-200/205 NKE 65-200/219	4	0 - 1.6 bar 0 - 2.5 bar	5,421	99105852
NKE 65-250/215	3	0 - 2.5 bar 0 - 2.5 bar	5,483	99105864
NKE 65-250/213	4	0 - 2.5 bar	5,895	99099357
NKE 65-250/254	5.5	0 - 2.5 bar	6,724	99099360
NKE 65-250/270	7.5	0 - 4 bar	7,324	99099364
NKE 65-315/261	5.5	0 - 2.5 bar	6,941	99099368
NKE 65-315/282	7.5	0 - 4 bar	7,545	99099371
NKE 65-315/314	11	0 - 4 bar	8,978	98951019
NKE 65-315/320	15	0 - 4 bar	9,787	98973675
-				

Motor specification, reference to accessories and operational details are on page 21.



	P2	Differential pressure		
Model	kW	transducer range	£	Product code
380-480/500V 3ph 50/60Hz 1450r		transducer range	L	A2 F A E BQQE
NKE 80-160/146	1.5	0 - 1.0 bar	4,129	99105867
NKE 80-160/161	2.2	0 - 1.0 bar	4,468	99105868
NKE 80-160/175	3	0 - 1.6 bar	4,807	99105870
NKE 80-160/177	4	0 - 1.6 bar	5,214	99099374
NKE 80-200/164	2.2	0 - 1.0 bar	5,016	99105871
NKE 80-200/179	3	0 - 1.6 bar	5,351	99105872
NKE 80-200/196	4	0 - 1.6 bar	5,766	99099379
NKE 80-200/214	5.5	0 - 2.5 bar	6,567	99099382
NKE 80-200/222	7.5	0 - 2.5 bar	7,161	99099385
NKE 80-250/225	5.5	0 - 2.5 bar	6,880	99099390
NKE 80-250/247	7.5	0 - 2.5 bar	7,503	99099393
NKE 80-250/270	11	0 - 4 bar	8,968	98973712
NKE 80-315/280	11	0 - 4 bar	9,201	98973714
NKE 80-315/305	15	0 - 4 bar	10,006	98951018
NKE 80-315/320	18.5	0 - 4 bar	11,583	99495748
NKE 80-400/347	18.5	0 - 6 bar	13,422	99104808
·			•	
NKE 100-160/160-140	2.2	0 - 1.0 bar	4,701	99105873
NKE 100-160/169	3	0 - 1.0 bar	5,052	99105874
NKE 100-160/176	4	0 - 1.0 bar	5,459	99099242
NKE 100-200/178	4	0 - 1.6 bar	6,064	99105875
NKE 100-200/195	5.5	0 - 1.6 bar	6,892	99105877
NKE 100-200/211	7.5	0 - 2.5 bar	7,501	99105878
NKE 100-200/219	11	0 - 2.5 bar	8,980	98122879
NKE 100-250/215	7.5	0 - 2.5 bar	7,693	99099231
NKE 100-250/245	11	0 - 2.5 bar	9,171	98973382
NKE 100-250/274	15	0 - 4 bar	9,993	98973380
NKE 100-315/279	15	0 - 4 bar	10,481	98973729
NKE 100-315/295	18.5	0 - 4 bar	11,884	99104810
NKE 125-200/176-154	5.5	0 - 1.0 bar	7,448	99099238
NKE 125-200/196-180	7.5	0 - 1.6 bar	8,047	99099234
NKE 125-200/219	11	0 - 2.5 bar	9,542	98973390
NKE 125-200/226	15	0 - 2.5 bar	10,349	98973387
NKE 125-250/220	11	0 - 2.5 bar	9,440	98973731
NKE 125-250/236	15	0 - 2.5 bar	10,242	98973733
NKE 125-250/249	18.5	0 - 2.5 bar	11,641	96783217
NKE 125-315/275	18.5	0 - 4 bar	13,357	95108574
NKE 150-200/210-158	7.5	0 - 1.0 bar	8,908	99157805
NKE 150-200/218-208	11	0 - 1.6 bar	10,746	98187001
NKE 150-200/224	15	0 - 1.6 bar	11,563	98965137
NKE 150-250/226-214	15	0 - 1.6 bar	12,229	98973400
NKE 150-250/230	18.5	0 - 2.5 bar	13,570	99105549

ELECTRIC MOTOR

380-500V 3ph 50/60Hz up to 7.5kW with IE5 efficiency 380-480V 3ph 50/60Hz above 11kW IP 55 Class F Insulation

PUMPS

Standard NKE casing and impeller are cast iron.

All long-coupled NKE pumps have spacer coupling and base frame.

Pumps with Custom Built options such as different material impellers and non standard seals can be configured and priced on request by your Sales Office. Pump housings are flanged in accordance with EN1092-2 and EN733 standards.

COUNTER FLANGES

Pump Counter Flanges are supplied as optional extras and are indicated on page 22.

NKE OPERATION

These models have been designed for operation in either open or closed loop control arrangements.

The Default control mode is "Uncontrolled Curve / Constant curve".

NKE pumps do not include transducers for closed loop control.

Transducers can be supplied as separate items for pipework installations.

Single point pressure transducers are listed with their ranges on page 22.

The transducer ranges listed for the NKE pumps only cover the max closed valve pressure with no inlet head.

Please check the inlet head to check if the transducer size needs to be increased.

There is no sensor connection point on the NKE pump and connections need to be made in the pipework .

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites.



CATEGORY 2 - ACCESSORIES

COUNTER FLANGES FOR NB, NBE, NK, NKE PUMPS

Screwed Boss counter flanges in accordance with EN1092-2 are available up to DN100 only as an optional extra.

Pump flange size	Rating	Thread	£	Product Code
DN 32	PN10/16	1"¼ BSPF	58	419901
DN 40	PN10/16	1"½ BSPF	71	429902
DN 50	PN10/16	2" BSPF	84	339903
DN 65	PN10/16	2"½ BSPF	58	349902
DN 80	PN10/16	3" BSPF	71	350540
DN 100	PN10/16	4" BSPF	84	369901
DN 125	PN10/16		-	-
DN 150	PN10/16		-	-
DN 200	PN10		-	-
DN 250	PN10	•	=	=
DN 300	PN10	•	=	=

Weld	£	Product Code
32mm	58	419902
40mm	77	429901
50mm	103	339901
65mm	58	349904
80mm	71	350541
100mm	67	96569188
125mm	204	96414677
150mm	218	96414676
200mm	233	96413358
250mm	247	96691156
300mm	262	96691157

The flange price includes one flange, one gasket and nuts and bolts. Two required each pump. All counter flanges in uncoated steel St 37-2 (DIN 1.0038)

CATEGORY 2 - VARIABLE SPEED NBE/NKE and CRI/CR/CRNE PUMP SENSORS & KITS

PRESSURE TRANSDUCER - SINGLE POINT PRESSURE TRANSMITTER FOR OPEN CIRCUIT APPLICATIONS

Model	Fittings	Transducer Range	£	Product Code
Danfoss MBS 3000	1/2" BSPM	0-2.5 bar	228	99033768
Danfoss MBS 3000	1/2" BSPM	0-4 bar	228	96637450
Danfoss MBS 3000	1/2" BSPM	0-6 bar	228	96637451
Danfoss MBS 3000	1/2" BSPM	0-10 bar	228	96637452
Danfoss MBS 3000	1/2" BSPM	0-16 bar	228	96637453
Danfoss MBS 3000	1/2" BSPM	0-25 bar	228	91072079
without cable				

PRESSURE TRANSDUCER - SINGLE POINT HIGH PRESSURE TRANSMITTER FOR OPEN CIRCUIT APPLICATIONS

Model	Fittings	Transducer Range	£	Product Code
Danfoss MBS 3000	1/2" BSPM	0-40 bar	498	96483573
Danfoss MBS 3000	1/2" BSPM	0-60 bar	498	96483574

with 2m cable



GRUNDFOS GO REMOTE

The Grundfos Go Remote is used for wireless infrared or radio communication with the pumps.



Model		£	Product Code
MI 301	Universal dongle for iOS and Android based Smartphones	329	98046408

Notes

CATEGORY 2 - CRI 1s and CRI 1 304 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE WITH DIREC	T COUPLED 2900 RPM ELECT	RIC MOTOR			
	P2	£	Product Code	£	Product Code
Model	kW	230V 1	ph 50Hz	400V 3ph 50Hz	3ph 50Hz
		A CA A	A CA A V HQQV		V HQQV
CRI 1s-2	0.37	729	96531799	694	96515806
CRI 1s-3	0.37	750	96531840	715	96515807
CRI 1s-4	0.37	773	96531842	738	96515808
CRI 1s-5	0.37	793	96531843	758	96515810
CRI 1s-6	0.37	816	96531845	781	96515811
CRI 1s-7	0.37	839	96531847	804	96515813
CRI 1s-8	0.37	862	96531849	827	96515815
CRI 1s-9	0.37	882	96531871	847	96515817
CRI 1s-10	0.37	903	96531873	868	96515818
CRI 1s-11	0.37	926	96531875	891	96515820
CRI 1s-12	0.37	948	96531878	913	96515821
CRI 1s-13	0.37	969	96531890	934	96515822
CRI 1s-15	0.55	1056	96531891	1,004	96515823
CRI 1s-17	0.55	1089	96531893	1,037	96515824
CRI 1s-19	0.55	1145	96531898	1,093	96515825
		A FGJ A	V HQQV	A FGJ A	V HQQV
CRI 1s-21	0.75	1325	96531896	1,232	96527621
CRI 1s-23	0.75	1380	96531930	1,287	96527622
CRI 1s-25	0.75	1436	96531932	1,343	96527623
CRI 1s-27	1.1	1585	96533036	1,434	96527624
CRI 1s-30	1.1	1709	96533037	1,558	96527625
CRI 1s-33	1.1	1792	96533038	1,641	96527626
CRI 1s-36	1.1	POA	96533039	1,723	96527627
		A CA A	V HQQV	A CA A	V HQQV
CRI 1-2	0.37	719	96532164	684	96516338
CRI 1-3	0.37	742	96532165	707	96516339
CRI 1-4	0.37	762	96532166	727	96516340
CRI 1-5	0.37	785	96532167	750	96516341
CRI 1-6	0.37	808	96532168	773	96516342
CRI 1-7	0.37	829	96532169	793	96516343
CRI 1-8	0.55	851	96532170	800	96516344
CRI 1-9	0.55	880	96532171	829	96516345
CRI 1-10	0.55	913	96532172	862	96516346
CRI 1-11	0.55	948	96532173	897	96516347
CRI 1-12	0.75	1021	96532482	928	96516348
CRI 1-13	0.75	1062	96532489	969	96516349
CRI 1-15	0.75	1132	96532497	1,039	96516350
CRI 1-17	1.1	1258	96533345	1,108	96516351
CRI 1-19	1.1	1329	96533346	1,178	96516352
		A FGJ A	V HQQV	A FGJ A	V HQQV
CRI 1-21	1.1	1444	96533347	1,294	96530620
CRI 1-23	1.1	1500	96533348	1,349	96529493
CRI 1-25	1.5	1736	96533349	1,533	96530621
CRI 1-27	1.5	1831	96533350	1,628	96530622
CRI 1-30	1.5	1934	96533352	1,732	96530623
CRI 1-33	2.2	2168	96556933	1,947	96530624
CRI 1-36	2.2	POA	96533354	2,048	96530625

REMEMBER: PUMPS with CA Bases normally need 2x 2 Bolt Oval Flanges - see page 45

ELECTRIC MOTOR

380-415V 3ph 50Hz

220-240V 1ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Custom Built pump options; different flanges, seals and elastomers can be configured and priced on request by your Sales Office.

Pipe Connections

All CRI 1s, 1, 3 & 5 pumps are supplied without pipe connections.

Two bolt oval pipe flanges and DIN counter flanges must be ordered as separate items.

All CRI flanged models (FGJ) are DIN flanged as standard and are supplied without the counter flanges to EN 1092-2 1997 (BS4504: 1989).

Flanged pump casings (FGJ) are to the following standard.

CRI 1s/1/3: DN25/32 PN25

CRI 5 : DN32 PN25

Please see page 44/45 for pipe connection accessories and list prices.





CATEGORY 2 - CRI 3 and CRI 5 304 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE WITH DIREC	T COUPLED 2900 RPM ELECT	RIC MOTOR			
	P2	£	Product Code	£	Product Code
Model	kW	230V 1ph 50Hz			ph 50Hz
			V HQQV		V HQQV
CRI 3-2	0.37	703	96533184	667	96516743
CRI 3-3	0.37	734	96533208	698	96516744
CRI 3-4	0.37	767	96533210	732	96516745
CRI 3-5	0.37	800	96533212	765	96516746
CRI 3-6	0.55	827	96533214	775	96516747
CRI 3-7	0.55	864	96533215	812	96516748
CRI 3-8	0.75	946	96533216	853	96516749
CRI 3-9	0.75	984	96533217	891	96516750
CRI 3-10	0.75	1,021	96533218	928	96516751
CRI 3-11	1.1	1,134	96533219	984	96516752
CRI 3-12	1.1	1,176	96533220	1,025	96516753
CRI 3-13	1.1	1,217	96533221	1,066	96516754
CRI 3-15	1.1	1,300	96533222	1,149	96516756
		A FGJ A	V HQQV	A FGJ A	V HQQV
CRI 3-17	1.5	1,554	96533223	1,351	96527929
CRI 3-19	1.5	1,635	96533224	1,432	96527930
CRI 3-21	2.2	1,707	96533225	1,486	96527931
CRI 3-23	2.2	1,789	96533226	1,568	96527941
CRI 3-25	2.2	1,872	96533227	1,651	96527942
CRI 3-27	2.2	1,955	96533228	1,734	96527943
CRI 3-29	2.2	2,037	96533229	1,816	96527944
CRI 3-31	3	-		1,856	96527945
CRI 3-33	3	-		1,957	96527948
CRI 3-36	3	-	<u> </u>	2,058	96527949
		A CA A V HQQV		A CA A	V HQQV
CRI 5-2	0.37	791	96533277	756	96517120
CRI 5-3	0.55	845	96533278	793	96517121
CRI 5-4	0.55	901	96533279	849	96517122
CRI 5-5	0.75	1,010	96533280	917	96522106
CRI 5-6	1.1	1,093	96533281	942	96517123
CRI 5-7	1.1	1,126	96533282	975	96517124
CRI 5-8	1.1	1,161	96533283	1,010	96517125
CRI 5-9	1.5	1,345	96533284	1,143	96517126
CRI 5-10	1.5	1,389	96533285	1,186	96517127
CRI 5-11	2.2	1,511	96533286	1,289	96517128
CRI 5-12	2.2	1,544	96533287	1,322	96517129
		A FGJ A	V HQQV	A FGJ A	V HQQV
CRI 5-13	2.2	1,626	96533288	1,405	96528032
CRI 5-14	2.2	1,659	96533289	1,438	96528033
CRI 5-15	2.2	1,694	96533290	1,473	96528034
CRI 5-16	2.2	1,727	96533291	1,506	96528035
CRI 5-18	3	-	-	1,678	96528036
CRI 5-20	3	-	-	1,748	96528037
CRI 5-22	4		-	1,837	96528038
CRI 5-24	4		-	1,905	96528039
CRI 5-26	4	-	-	1,984	96528040
CRI 5-29	4	-	-	2,087	96528041
CRI 5-32	5.5	-		2,362	96528043
CRI 5-36	5.5	-		2,498	96528044

REMEMBER: PUMPS with CA Bases normally need 2x 2 Bolt Oval Flanges - see page 45

ELECTRIC MOTOR

380-415V 3ph 50Hz

220-240V 1ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

 $\hbox{\it Custom Built pump options; different flanges, seals and elastomers}$ can be configured and priced on request by your Sales Office.

Pipe Connections

All CRI 1s, 1, 3 & 5 pumps are supplied without pipe connections.

Two bolt oval pipe flanges and DIN counter flanges must be ordered as separate items.

All CRI flanged models (FGJ) are DIN flanged as standard and are supplied

without the counter flanges to EN 1092-2 1997 [was BS4504: 1989] Flanged pump casings (FGJ) are to the following standard.

CRI 1s/1/3: DN25/32 PN25

CRI 5: DN32 PN25

Please see page 44/45 for pipe connection accessories and list prices.





CATEGORY 2 - CRI 10, CRI 15, and CRI 20 304 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

	CT COUPLED 2900 RPM ELECT P2	£	Product Code	£	Product Code
Model	kW				
Model	RVV	230V 1ph 50Hz A CA A V HQQV		400V 3ph 50Hz A CA A V HQQV	
CRI 10-1	0.37	1,099	96500939	1,064	96501149
CRI 10-2	0.75	1,196	96500940	1,103	96501150
CRI 10-3	1.1	1,422	96500941	1,271	96501151
CRI 10-4	1.5	1,618	96500942	1,415	96501152
CRI 10-5	2.2	1,752	96500943	1,531	96501153
CRI 10-6	2.2	1,831	96500944	1,610	96501154
CRI 10-7	3		-	1,740	96501155
CRI 10-8	3	-		1,816	96501156
CRI 10-9	3	-	<u> </u>	1,893	96501157
10 3		-			V HQQV
CRI 10-10	4	-	-	2,236	96501343
CRI 10-12	4	-	-	2,389	96501344
CRI 10-14	5.5	=	-	2,773	96501345
CRI 10-16	5.5	-	-	2,928	96501346
CRI 10-18	7.5	-	-	3,207	96501347
CRI 10-20	7.5	-	-	3,358	96501348
CRI 10-22	7.5	-	-	3,511	96501349
		A FGJ A	V HQQV	A FGJ A	V HQQV
CRI 15-1	1.1	1,603	96501685	1,454	96501815
CRI 15-2	2.2	1,982	96501686	1,763	96501816
CRI 15-3	3	-	-	2,006	96502002
CRI 15-4	4	-	-	2,299	96502003
CRI 15-5	4	-	-	2,403	96502004
CRI 15-6	5.5	-	-	2,828	96502005
CRI 15-7	5.5	-	-	2,937	96502006
CRI 15-8	7.5	=	-	3,379	96502007
CRI 15-9	7.5	=	-	3,485	96502008
CRI 15-10	11	-	<u>-</u>	4,094	96502009
CRI 15-12	11	-	<u>-</u>	4,309	96502010
CRI 15-14	11	=	-	4,520	96502011
CRI 15-17	15	=	-	5,739	96502012
		A FGJ A	V HQQV	A FGJ A	V HQQV
CRI 20-1	1.1	1,591	96500314	1,442	96500436
CRI 20-2	2.2	1,974	96500315	1,755	96500437
CRI 20-3	4	=	<u> </u>	2,346	96500609
CRI 20-4	5.5	-	-	2,843	96500610
CRI 20-5	5.5	-	-	2,951	96500611
CRI 20-6	7.5	-	-	3,401	96500612
CRI 20-7	7.5	-	-	3,512	96500613
CRI 20-8	11	-	-	4,348	96500614
CRI 20-10	11	-	-	4,567	96500615

REMEMBER: PUMPS with CA Bases normally need 2x 2 Bolt Oval Flanges - see page 45

15

15

18.5

ELECTRIC MOTOR

CRI 20-12

CRI 20-14

CRI 20-17

380-415V 3ph 50Hz

220-240V 1ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Custom Built pump options; different flanges, seals and elastomers can be configured and priced on request by your Sales Office.

Pipe Connections

All CRI 10/15/20 pumps are supplied without pipe connections.

Two bolt oval pipe flanges and DIN counter flanges must be ordered as separate items.

All CRI flanged models (FGJ) are DIN flanged as standard and are supplied without the counter flanges to EN 1092-2 1997 [was BS4504 : 1989]

Pump housing flanged to the following as standard - check PN rating.

CRI 10: DN40 --- PN16/PN25 dependant on model.

CRI 15: DN50 --- PN16/PN25 dependant on model.

CRI 20: DN50 --- PN16/PN25 dependant on model.

Please see page 44/45 for pipe connection accessories and list prices.



5,546

5,810

6,851



96500616

CATEGORY 2 - CR32 to CR64 CAST IRON/304 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE W		UPLED 2900 RF	M ELECTRIC I
	P2	£	Product Code
Model	kW	380-415V 3	ph 50Hz
		AFAV	HQQV
CR 32-1-1	1.5	1,596	96121978
CR 32-1	2.2	1,702	96121979
CR 32-2-2	3	1,960	96121980
CR 32-2	4	2,291	96122037
CR 32-3-2	5.5	2,870	96122038
CR 32-3	5.5	2,870	96122039
CR 32-4-2	7.5	3,552	96122040
CR 32-4	7.5	3,552	96122041
CR 32-5-2	11	4,457	96122042
CR 32-5	11	4,457	96122043
CR 32-6-2	11	4,701	96122044
CR 32-6	11	4,701	96122045
CR 32-7-2	15	5,527	96122046
CR 32-7	15	5,527	96122047
CR 32-8-2	15	5,767	96122048
CR 32-8	15	5,767	96122049
CR 32-9-2	18.5	6,540	96122050
CR 32-9	18.5	6,540	96122051
CR 32-10-2	18.5	6,781	96122052
CR 32-10-2	18.5	6,781	96122053
CR 32-11-2	22	7,597	96122054
CR 32-11-2	22	7,597	96122055
CR 32-12-2	22	7,848	96122056
CR 32-12	22	7,848	96122057
CR 32-13-2	30	8,836	96122058
CR 32-13	30	8,836	96122059
CR 32-14-2	30	9,076	96122060
R 32-14	30	9,076	96122061
R 45-1-1	3	1,875	96122771
CR 45-1	4	2,243	96122822
IR 45-2-2	5.5	2,824	96122823
		· · · · · · · · · · · · · · · · · · ·	
CR 45-2	7.5	3,560	96122824
CR 45-3-2	11	4,492	96122825
CR 45-3	11	4,492	96122826
CR 45-4-2	15	5,570	96122827
CR 45-4	15	5,570	96122828
CR 45-5-2	18.5	6,620	96122829
CR 45-5	18.5	6,620	96122830
CR 45-6-2	22	7,506	96122831
CR 45-6	22	7,506	96122832
CR 45-7-2	30	8,180	96122833
CR 45-7	30	8,180	96122834
CR 45-8-2	30	8,446	96122835
CR 45-8	30	8,446	96122836
CR 45-9-2	30	8,712	96122837
CR 45-9	37	9,483	96122838
CR 45-10-2	37	9,728	96122839
CR 45-10	37	9,728	96122840
CR 45-11-2	45	12,632	96122841
CR 45-11	45	12,632	96122842
CR 45-11 CR 45-12-2	45	12,922	96122843
CR 45-12-2	45	12,922	96122844
	45	•	
CR 45-13-2	45	13,210	96122845

	P2	£	Product Code	
Model	kW	380-415V		
		A F A V HQQV		
CR 64-1-1	4	2,216	96123548	
CR 64-1	5.5	2,882	96123549	
CR 64-2-2	7.5	3,484	96123550	
CR 64-2-1	11	4,047	96123551	
CR 64-2	11	4,047	96123552	
CR 64-3-2	15	5,371	96123553	
CR 64-3-1	15	5,371	96123554	
CR 64-3	18.5	6,168	96123555	
CR 64-4-2	18.5	6,458	96123556	
CR 64-4-1	22	7,166	96123557	
CR 64-4	22	7,166	96123558	
CR 64-5-2	30	7,642	96123559	
CR 64-5-1	30	7,642	96123560	
CR 64-5	30	7,642	96123561	
CR 64-6-2	30	7,931	96123562	
CR 64-6-1	37	9,338	96123563	
CR 64-6	37	9,338	96123564	
CR 64-7-2	37	9,626	96123565	
CR 64-7-1	37	9,626	96123566	
CR 64-7	45	12,693	96123567	
CR 64-8-2	45	12,979	96123568	
CR 64-8-1	45	12,979	96123569	
-		AFAV	, ,	
CR 95-1-1	5.5	3,252	99141746	
CR 95-1	7.5	4,061	99141747	
CR 95-2-2	11	5,317	99141748	
CR 95-2	15	6,623	99141749	
CR 95-3-2	18.5	7,759	99141750	
CR 95-3	22	8,678	99141751	
CR 95-4	30	9,306	99141752	
CR 95-5	37	11,360	99141753	
CR 95-6	45	14,383	99141754	
CR 95-7	55	17,260	99141755	
CR 95-8-2	55	17,646	99141756	
CD 425 4		AFAV		
CR 125-1	11 15	5,317	99142581	
CR 125-2-2		6,623	99142582	
CR 125-2-1	18.5 22	7,759	99142633	
CR 125-2 CR 125-3-1	30	8,678 9,306	99142634 99142636	
CR 125-3-1	37	10,877	99142637	
CR 125-3	37	11,360	99142638	
CR 125-4-2	45	14,383	99142639	
CR 125-5	55	17,646	99142640	
CR 123-3	33	A F A V		
CR 155-1-1	11	5,317	99143262	
CR 155-1-1	15	6,623	99143263	
CR 155-2-2	22	8,678	99143264	
CR 155-2-2	30	9,306	99143265	
CR 155-3-2	37	11,360	99143266	
CR 155-3	45	14,383	99143267	
CR 155-4-1	55	17,646	99143268	
UN 100 4 1	33	17,040	33173200	

ELECTRIC MOTOR

380-415V 3ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Custom Built pump options; different flanges, seals and elastomers can be configured and priced on request by your Sales Office.

PIPE CONNECTIONS

All Large CR models are DIN flanged as standard and are supplied without the counter flanges to EN 1092-2 1997 [was BS4504:1989]

Pump housing flanged to the following as standard - check PN rating.

CR32: DN65 --- PN16, PN25/40 dependant on model.

CR45: DN80 --- PN16, PN25/40 dependant on model.

CR64: DN100 --- PN16, PN25/40 dependant on model.

CR95: DN100 --- PN16, PN25/40 dependant on model. CR125, CR155: DN150 --- PN16, PN25/40 dependant on model.

Please see page 44/45 for pipe connection accessories and list prices.



CATEGORY 2 - CRN 1s 316 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

	P2	£	Product Code	£	Product Code
Model	kW	230V 1	ph 50Hz	400V 3	3ph 50Hz
Pumps with DIN Flanged Connection		A FGJ H E HQQE		A FGJ H E HQQE	
CRN 1s-2	0.37	POA	96532058	934	96531232
CRN 1s-3	0.37	998	96532059	963	96531233
CRN 1s-4	0.37	1,023	96532070	988	96531234
CRN 1s-5	0.37	1,052	96532071	1,017	96531235
CRN 1s-6	0.37	1,077	96532072	1,041	96496837
CRN 1s-7	0.37	1,106	96532073	1,070	96531236
CRN 1s-8	0.37	1,130	96532074	1,095	96531237
CRN 1s-9	0.37	1,157	96532075	1,122	96496836
CRN 1s-10	0.37	1,186	96532076	1,151	96531238
CRN 1s-11	0.37	1,211	96532077	1,176	96531239
CRN 1s-12	0.37	1,240	96532078	1,205	96531240
CRN 1s-13	0.37	1,265	96532079	1,230	96496838
CRN 1s-15	0.55	1,314	96532140	1,263	96531241
CRN 1s-17	0.55	1,380	96532141	1,329	96531242
CRN 1s-19	0.55	1,446	96532142	1,395	96531243
CRN 1s-21	0.75	1,599	96532143	1,506	96531244
CRN 1s-23	0.75	1,666	96532144	1,573	96531245
CRN 1s-25	0.75	1,734	96532145	1,641	96531246
CRN 1s-27	1.1	1,868	96533330	1,717	96531247
CRN 1s-30	1.1	POA	96533331	1,847	96531248
CRN 1s-33	1.1	POA	96533332	1,951	96531249
CRN 1s-36	1.1	POA	96533333	2,050	96531250
Pumps with "PJE" Compatible Connections		АРАІ	E HQQE	АРА	E HQQE
CRN 1s-2	0.37	758	96532146	723	96516034
CRN 1s-3	0.37	787	96532147	752	96516036
CRN 1s-4	0.37	812	96532148	777	96516037
CRN 1s-5	0.37	841	96532149	806	96516039
CRN 1s-6	0.37	866	96532150	831	96516041
CRN 1s-7	0.37	895	96532151	860	96516043
CRN 1s-8	0.37	920	96532152	884	96516044
CRN 1s-9	0.37	POA	96532153	911	96516046
CRN 1s-10	0.37	975	96532154	940	96516047
CRN 1s-11	0.37	1,000	96532155	965	96516048
CRN 1s-12	0.37	1,029	96532156	994	96516050
CRN 1s-13	0.37	1,054	96532157	1,019	96516051
CRN 1s-15	0.55	1,103	96532158	1,052	96516053
CRN 1s-17	0.55	POA	96532159	1,118	96516054
CRN 1s-19	0.55	1,236	96532160	1,184	96516056
CRN 1s-21	0.75	1,389	96532161	1,296	96516058
CRN 1s-23	0.75	1,455	96532162	1,362	96516059
CRN 1s-25	0.75	1,523	96532163	1,430	96516061
CRN 1s-27	1.1	1,657	96533334	1,506	96516062
CRN 1s-30	1.1	1,787	96533335	1,637	96516064
CRN 1s-33	1.1	POA	96533336	1,740	96516066
CRN 1s-36	1.1	1,990	96533337	1,839	96516067

ELECTRIC MOTOR

380-415V 3ph 50Hz

220-240V 1ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Custom Built pump options; different flanges, seals and elastomers can be configured and priced on request by your Sales Office.

PIPE CONNECTIONS

All CRN models are supplied without DIN counter flanges or PJE couplings.

CRN1s DIN Flanged pumps are DN25/32 rated to PN25.

Please see page 44/45 for pipe connection accessories and list prices.

CRN FLANGED pump specification

Please note the "H" version with stainless steel base and stainless steel loose flanges is standard on FLANGED pumps only.



CATEGORY 2 - CRN 1 316 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR **Product Code Product Code** 230V 1ph 50Hz 400V 3ph 50Hz Model kW **Pumps with DIN Flanged Connection** A FGJ H E HQQE A FGJ H E HQQE CRN 1-2 0.37 969 96533054 934 96504923 998 963 CRN 1-3 0.37 96533057 96531251 1,023 988 CRN 1-4 0.37 96533058 96531252 CRN 1-5 1,052 1,017 96531253 96533060 0.37 CRN 1-6 0.37 1.077 96533068 1.041 96531254 1,106 1,070 CRN 1-7 0.37 96533070 96531255 **CRN 1-8** 1,139 96533072 1,087 96531256 0.55 CRN 1-9 0.55 1.159 96533075 1.108 96531257 CRN 1-10 1,203 1,151 0.55 96533077 96531258 1,188 CRN 1-11 1,240 96533079 96531259 0.55 CRN 1-12 0.75 1.320 96533083 1.227 96531308 1,360 1,267 CRN 1-13 0.75 96533085 96531481 CRN 1-15 1,440 1,347 96531482 0.75 96533087 CRN 1-17 1.1 1.583 96533092 1.432 96531483 CRN 1-19 1.1 96533098 1,511 96531485 1,661 CRN 1-21 96533099 96531486 1.1 1,742 1,591 CRN 1-23 1.1 1.820 96533100 1.670 96531488 CRN 1-25 1.5 2,042 96533101 1,839 96531510 2,120 1,918 CRN 1-27 1.5 96533102 96531512 CRN 1-30 15 2.238 96533103 2.035 96531514 CRN 1-33 2.2 2,488 96533106 2,267 96531516 2,606 2,385 CRN 1-36 2.2 96533107 96531519 Pumps with "PJE" Compatible Connections A P A E HQQE A P A E HQQE CRN 1-2 0.37 758 96533143 723 96516477 752 **CRN 1-3** 0.37 787 96533145 96516478 96516480 CRN 1-4 812 777 0.37 96533146 CRN 1-5 841 806 96533147 96516481 0.37 CRN 1-6 0.37 866 96533148 831 96516483 CRN 1-7 0.37 895 96533149 860 96516485 928 876 CRN 1-8 96533151 96516486 0.55 CRN 1-9 0.55 948 96533152 897 96516488 992 940 CRN 1-10 0.55 96533153 96516489 977 1,029 CRN 1-11 96533154 96516490 0.55 CRN 1-12 0.75 1.110 96533155 1.017 96516492 1,149 1,056 CRN 1-13 0.75 96533157 96516493 1,230 CRN 1-15 1,137 0.75 96533158 96516495 CRN 1-17 1.1 1.372 96533160 1.221 96516497 CRN 1-19 1.1 1,451 96533161 1,300 96516498 CRN 1-21 1,380 96516500 1.1 1,531 96533162 CRN 1-23 1.1 1.610 96533164 1.459 96516501 POA 1,628 CRN 1-25 96533166 96516503 1,909 CRN 1-27 1,707 1.5 96533168 96516504 CRN 1-30 1.5 2,027 96533170 1.825 96516505

2,277

2,395

ELECTRIC MOTOR

CRN 1-33

CRN 1-36

380-415V 3ph 50Hz

220-240V 1ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Custom Built pump options; different flanges, seals and elastomers can be configured and priced on request by your Sales Office.

2.2

2.2

PIPE CONNECTIONS

All CRN models are supplied without DIN counter flanges or PJE couplings.

CRN1 DIN Flanged pumps are DN25/32 rated to PN25.

Please see page 44/45 for pipe connection accessories and list prices.

CRN FLANGED pump specification

Please note the "H" version with stainless steel base and stainless steel loose flanges is standard on FLANGED pumps only.



2,056

2,174

96516506

96516507

96533171

CATEGORY 2 - CRN 3 316 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR **Product Code Product Code** 230V 1ph 50Hz 400V 3ph 50Hz Model kW **Pumps with DIN Flanged Connection** A FGJ H E HQQE A FGJ H E HQQE CRN 3-2 0.37 990 96533230 955 96531531 1.029 994 CRN 3-3 0.37 96533231 96531533 CRN 3-4 1,066 1,031 0.37 96533232 96531535 CRN 3-5 1,106 1,070 96531537 96533233 0.37 **CRN 3-6** 0.55 1.159 96533234 1.108 96531540 1,194 1,143 CRN 3-7 0.55 96533235 96531542 CRN 3-8 1,256 96533236 1,163 96531544 0.75 CRN 3-9 0.75 1.298 96533237 1.205 96531546 CRN 3-10 0.75 1,335 1,242 96533238 96531549 1,308 CRN 3-11 1,459 96533239 96531571 1.1 CRN 3-12 1.1 1.498 96533240 1.347 96531573 1,537 1,387 CRN 3-13 1.1 96533241 96522072 CRN 3-15 1,618 1,467 96531576 1.1 96533242 CRN 3-17 1.5 1.845 96533243 1.643 96531578 1,721 CRN 3-19 1.5 1,924 96533244 96531590 CRN 3-21 1,998 96533245 1,777 96531592 2.2 2.077 CRN 3-23 2.2 96533246 1.856 96531594 CRN 3-25 2.2 2,155 96533247 1,934 96531596 2,234 2,013 CRN 3-27 96533248 96531598 2.2 2.312 2.091 CRN 3-29 22 96533249 96531610 CRN 3-31 3 2,197 96531612 CRN 3-33 2,273 96531614 3 2.393 CRN 3-36 3 96531616 **Pumps with "PJE" Compatible Connections** A P A E HQQE A P A E HQQE 744 779 96516897 CRN 3-2 0.37 96533250 818 783 96484041 **CRN 3-3** 0.37 96533251 CRN 3-4 855 820 96516898 0.37 96496701 **CRN 3-5** 0.37 895 96533252 860 96516899 CRN 3-6 0.55 948 96533253 897 96516900 984 932 CRN 3-7 96533254 96493543 0.55 CRN 3-8 0.75 1,046 96533255 953 96516901 1,087 994 CRN 3-9 0.75 96533256 96516902 1,031 96499188 CRN 3-10 1,124 96533257 0.75 CRN 3-11 1.1 1.248 96533258 1.097 96516903 CRN 3-12 1.1 1,287 1,137 96533259 96516904 CRN 3-13 1,327 1,176 1.1 96533260 96516905 CRN 3-15 1.1 1.407 96533261 1.256 96516906 CRN 3-17 1.5 1,635 96533262 1,432 96505111 CRN 3-19 1,713 1,511 1.5 96533263 96516907 CRN 3-21 2.2 1.787 96533264 1.566 96516908 1,866 1,645 CRN 3-23 2.2 96533265 96516909 CRN 3-25 1,944 1,723 2.2 96533266 96516910 CRN 3-27 2.2 2,023 96533267 1.802 96516911 2,102 1,880 CRN 3-29 2.2 96533268 96516912

ELECTRIC MOTOR

CRN 3-31

CRN 3-33

CRN 3-36

380-415V 3ph 50Hz

220-240V 1ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Custom Built pump options; different flanges, seals and elastomers can be configured and priced on request by your Sales Office.

3

3

3

PIPE CONNECTIONS

All CRN models are supplied without DIN counter flanges or PJE couplings.

CRN3 DIN Flanged pumps are DN25 rated to PN25.

Please see page 44/45 for pipe connection accessories and list prices.

CRN FLANGED pump specification

Please note the "H" version with stainless steel base and stainless steel loose flanges is standard on FLANGED pumps only.



1,986

2.062

2,182

96516913

96516914

CATEGORY 2 - CRN 5 316 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR **Product Code Product Code** 230V 1ph 50Hz 400V 3ph 50Hz Model kW **Pumps with DIN Flanged Connection** A FGJ H E HQQE A FGJ H E HQQE CRN 5-2 0.37 1,064 96533292 1,029 96531650 CRN 5-3 0.55 96533293 1.064 96531651 1.116 CRN 5-4 0.55 1,180 96533294 1,128 96531652 CRN 5-5 0.75 1,300 96533295 1,207 96531653 CRN 5-6 1.1 1.374 96533296 1.223 96531654 CRN 5-7 1.1 1,415 96533297 1,265 96531655 CRN 5-8 96533298 96531656 1.1 1,455 1,304 CRN 5-9 1.5 1.686 96533299 1.484 96531657 1,725 CRN 5-10 1.5 96533300 1,523 96531658 CRN 5-11 1,872 96533301 96531659 2.2 1,651 CRN 5-12 2.2 1.911 96533302 1.690 96531670 CRN 5-13 2.2 1,951 96533303 1,730 96531671 CRN 5-14 1,990 96533304 1,769 96531672 2.2 22 CRN 5-15 2.029 96533305 1.808 96531673 CRN 5-16 2.2 2,068 96533306 1,847 96531674 CRN 5-18 2,033 96531675 3 CRN 5-20 3 96531676 2.112 CRN 5-22 4 2,178 96531677 CRN 5-24 4 2,254 96531678 CRN 5-26 4 96531679 2.333 CRN 5-29 4 2,453 96531680 CRN 5-32 5.5 2,765 96531681 CRN 5-36 5.5 2.922 96531682 **Pumps with "PJE" Compatible Connections** A P A E HQQE A P A E HQQE 96517239 CRN 5-2 0.37 853 96533307 818 CRN 5-3 0.55 905 96533308 853 96517240 CRN 5-4 0.55 969 96533309 917 96517241 CRN 5-5 96517242 0.75 1.089 96533310 996 CRN 5-6 1.1 1,163 96533311 1,013 96517243 CRN 5-7 96533312 96517244 1.1 1,205 1,054 CRN 5-8 1.1 1,244 96533313 1.093 96517245 CRN 5-9 1.5 1,475 96533314 1,273 96517246 96492985 CRN 5-10 96533315 1.5 1,515 1,312 CRN 5-11 22 1.661 96533316 1.440 96517247 CRN 5-12 2.2 1,701 96533317 1,480 96517248 CRN 5-13 1,740 96533318 96517249 2.2 1,519 CRN 5-14 2.2 1.779 96533319 1.558 96517250 CRN 5-15 2.2 1,818 96533320 1,597 96517251 CRN 5-16 96533321 96517252 1,858 1,637 2.2 CRN 5-18 3 1.823 96517253 CRN 5-20 3 1,901 96517254 CRN 5-22 4 96513490 1,967 CRN 5-24 4 2.044 96513491 CRN 5-26 4 2,122 96513492 CRN 5-29 2,242 96513493

ELECTRIC MOTOR

CRN 5-32

CRN 5-36

380-415V 3ph 50Hz

220-240V 1ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Custom Built pump options; different flanges, seals and elastomers can be configured and priced on request by your Sales Office.

4

55

5.5

PIPE CONNECTIONS

All CRN models are supplied without DIN counter flanges or PJE couplings.

CRN5 DIN Flanged pumps are DN32 rated to PN25.

Please see page 44/45 for pipe connection accessories and list prices.

CRN FLANGED pump specification

Please note the "H" version with stainless steel base and stainless steel loose flanges is standard on FLANGED pumps only.



2.554

2,711

96513494

CATEGORY 2 - CRN10 to CRN15 316 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

	P2				
Model	kW	£	Product Code	£	Product Code
Dumme with "DIF" Competible Competions			A P A E HQQE		A P A E HQQE
Pumps with "PJE" Compatible Connections CRN 10-1	0.37	1,174		1,139	96501040
CRN 10-1 CRN 10-2	0.75	1,310		1,217	96501041
CRN 10-3	1.1	1,542	96500899	1,391	96501042
CRN 10-4	1.5	1,703	96500900	1,500	96501043
CRN 10-5	2.2	1,860	96500901	1,639	96501044
CRN 10-6	2.2	1,969	96500902	1,748	96501045
CRN 10-7	3	-	=	1,878	96501046
CRN 10-8	3	. <u> </u>	-	1,978	96501047
CRN 10-9	3	. <u>-</u>	-	2,087	96501048
CRN 10-10	4	. <u> </u>	=	2,362	96501281
CRN 10-12	4	. <u> </u>		2,548	96501282
CRN 10-14	5.5		=	2,969	96501283
CRN 10-16	5.5	·	<u> </u>	3,153	96501284
CRN 10-18	7.5 7.5	· -		3,428 3,616	96501285
CRN 10-20 CRN 10-22	7.5	· 	<u> </u>	3,796	96501286 96501287
CNV 10 22	7.5			3,730	30301207
Pumps with DIN Flanged Connection			A FGJ H E HQQE		A FGJ H E HQQE
CRN 10-1	0.37	1,482		1,446	96527737
CRN 10-2	0.75	1,618	96527732	1,525	96527740
CRN 10-3	1.1	1,849	96527733	1,699	96527741
CRN 10-4	1.5	2,011	96527734	1,808	96527743
CRN 10-5	2.2	2,168	96527735	1,947	96527744
CRN 10-6	2.2	2,277	96527736	2,056	96527745
CRN 10-7	3	. <u>-</u>	-	2,186	96527747
CRN 10-8	3	. <u> </u>	-	2,285	96527748
CRN 10-9	3	· -	<u> </u>	2,395	96527749
CRN 10-10	4	. <u> </u>		2,670	96527750
CRN 10-12	4		-	2,856	96527751
CRN 10-14	5.5	·	<u>-</u>	3,277	97509478
CRN 10-16 CRN 10-18	5.5 7.5	. <u> </u>	<u> </u>	3,461 3,736	96527753 96527755
CRN 10-18 CRN 10-20	7.5	· — -		3,924	96527756
CRN 10-22	7.5	·		4,104	96527758
CITY 10 22	7.5			4,104	30327730
Pumps with "PJE" Compatible Connections			A P A E HQQE		A P A E HQQE
CRN 15-1	1.1	1,612	96501675	1,462	96501756
CRN 15-2	2.2	1,967	96501676	1,749	96501757
CRN 15-3	3	<u> </u>	-	2,006	96501758
CRN 15-4	4	<u> </u>	-	2,323	96501949
CRN 15-5	4	. <u> </u>	-	2,452	96501950
CRN 15-6	5.5	. <u> </u>	=	2,912	96501951
CRN 15-7	5.5	. <u> </u>		3,045	96501952
CRN 15-8	7.5	· -	-	3,532	96501953
CRN 15-9	7.5		<u> </u>	3,665	96501954
CRN 15-10	11 11	· <u>-</u>	<u>-</u>	4,260	96501955
CRN 15-12 CRN 15-14	11	·	<u> </u>	4,524 4,784	96501956 96501957
CRN 15-17	15	·		6,123	96501958
CHT 13 17	- 13				30301330
Pumps with DIN Flanged Connection			A FGJ H E HQQE		A FGJ H E HQQE
CRN 15-1	1.1	1,916	96527776	1,767	96527779
CRN 15-2	2.2	2,272		2,053	96527782
CRN 15-3	3	-		2,311	96527783
CRN 15-4	4	-	=	2,628	96527785
CRN 15-5	4	-	-	2,757	96527786
CRN 15-6	5.5	<u> </u>	-	3,217	96527788
CRN 15-7	5.5	<u> </u>	-	3,350	96527789
CRN 15-8	7.5	-	-	3,837	96527790
CRN 15-9	7.5	-	-	3,970	
CRN 15-10	11		-	4,565	96527792
CRN 15-12	11	· -	-	4,829	96527793
CRN 15-14	11	· -	-	5,088	96527794
CRN 15-17	15	· -	-	6,428	96527796

Motor specification, reference to accessories and operational details are on page 33.



CATEGORY 2 - CRN20 316 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

	P2
Model	kW
Pumps with "PJE" Compatible Connections	
CRN 20-1	1.1
CRN 20-2	2.2
CRN 20-3	4
CRN 20-4	5.5
CRN 20-5	5.5
CRN 20-6	7.5
CRN 20-7	7.5
CRN 20-8	11
CRN 20-10	11
CRN 20-12	15
CRN 20-14	15
CRN 20-17	18.5

£	Product Code
230V 1p	h 50Hz
APAE	HQQE
1,640	96500304
2,002	96500305
=	-
=	-
=	-
=	-
=	-
=	-
=	-
-	-
-	-
-	-

£	Product Code
	400V 3ph 50Hz
	A P A E HQQE
1,491	96500381
1,783	96500382
2,501	96500559
2,970	96500560
3,105	96500561
3,604	96500562
3,739	96500563
4,614	96500564
4,880	96500565
5,980	96500566
6,246	96500567
7,416	96500568

Pumps with DIN Flanged Conne	ction
CRN 20-1	1.1
CRN 20-2	2.2
CRN 20-3	4.0
CRN 20-4	5.5
CRN 20-5	5.5
CRN 20-6	7.5
CRN 20-7	7.5
CRN 20-8	11
CRN 20-10	11
CRN 20-12	15
CRN 20-14	15
CRN 20-17	18.5

A FGJ H E HQQE					
1,945	96527799				
2,307	96527801				
=	-				
=	-				
=	-				
-	-				
-	-				
-	-				
-	-				
-	-				
=	-				
=	-				

A FGJ H I	E HQQE
1,796	96527802
2,088	96527805
2,806	96527807
3,274	96527808
3,409	96527809
3,908	96527811
4,043	96527813
4,919	96527815
5,184	96527817
6,285	96527818
6,551	96527819
7,720	96527820

ELECTRIC MOTOR

380-415V 3ph 50Hz

220-240V 1ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Custom Built pump options; different flanges, seals and elastomers can be configured and priced on request by your Sales Office.

PIPE CONNECTION

All CRN models are supplied without DIN counter flanges or PJE Couplings.

All flanged CRN models (FGJ version) are DIN flanged as standard and are supplied without the counter flanges to EN 1092-2 1997.

Please see page 44/45 for pipe connection accessories and list prices.

Pump housing flanged to the following as standard.

CRN 10: DN 40 rated to PN 25.

CRN 15: DN 50 rated to PN 25.

CRN 20: DN 50 rated to PN 25.

CRN FLANGED pump specification

 $Please \ note the \ "H" \ version \ with \ stainless \ steel \ base \ and \ stainless \ steel \ loose \ flanges \ is \ standard \ on \ FLANGED \ pumps \ only.$



CATEGORY 2 - CRN32, CRN45 & CRN64 316 St St VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR **Product Code** Model kW 380-415V 3ph 50Hz A F H E HQQE CRN 32-1-1 1.5 2,781 96536094 2.2 CRN 32-1 2.924 96536114 CRN 32-2-2 3 3,189 96536115 CRN 32-2 4 3.480 96536116 CRN 32-3-2 5.5 4.120 96536119 CRN 32-3 5.5 4,120 96536130 CRN 32-4-2 7.5 4,917 96536131 7.5 96536132 CRN 32-4 4.917 CRN 32-5-2 11 96536133 5,979 CRN 32-5 11 5,979 96571672 CRN 32-6-2 11 6.244 96536136 11 6,244 96536138 CRN 32-6 CRN 32-7-2 15 7,321 96536143 CRN 32-7 15 7.321 96536145 CRN 32-8-2 15 96536146 7,575 CRN 32-8 96536148 15 7,575 CRN 32-9-2 18.5 96536150 8.515 CRN 32-9 18.5 8,515 96536152 CRN 32-10-2 18.5 96536154 8,770 CRN 32-10 18.5 96536156 8.770 CRN 32-11-2 22 9,790 96536158 CRN 32-11 22 9,790 96536159 CRN 32-12-2 22 10.043 96536160 CRN 32-12 22 10,043 96536162 CRN 32-13-2 30 11,073 96536163 CRN 32-13 30 11.073 96633659 CRN 32-14-2 30 11,338 96536377 CRN 32-14 30 11,338 96536379 A F H E HQQE CRN 45-1-1 3 3,189 96536405 CRN 45-1 4 96536412 3,612 CRN 45-2-2 5.5 4.193 96536416 CRN 45-2 7.5 96536421 4,917 CRN 45-3-2 5,991 96536423 11 CRN 45-3 11 5.991 96536424 CRN 45-4-2 15 96610965 7,333 CRN 45-4 15 96691398 7,333 CRN 45-5-2 18.5 8.492 96691399 CRN 45-5 18.5 8,492 96560711 CRN 45-6-2 96536457 9,634 22 CRN 45-6 22 9.634 96536458 CRN 45-7-2 30 96536459 10,637 CRN 45-7 30 96536460 10,637 CRN 45-8-2 30 10.914 96536461 CRN 45-8 96536462 30 10,914 CRN 45-9-2 30 11,191 96536463 CRN 45-9 37 12.075 96536464

FIF	CTRIC	MOTO	٦R
ᄔᄔ	CINIC	IVIOIC	JΝ

CRN 45-10-2

CRN 45-10

CRN 45-11-2

CRN 45-12-2

CRN 45-13-2

CRN 45-11

CRN 45-12

380-415V 3ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

37

37

45

45

45

45

45

12,337

12.337

15,588

15,588

15,928

15,928

16,264

96536465

96536466

96898225

96536690

96536691

96536692

96536693

Please see page 58 for motor retrofit details.

Custom Built pump options; different flanges, seals and elastomers can be configured and priced on request by your Sales Office.

PIPE CONNECTIONS

Large CRN models are DIN flanged as standard and supplied without the counter flanges to EN 1092-2 1997 [BS4504] Pump housing flanged to the following as standard - check PN pressure rating.

CRN 32: DN65 --- PN16/PN25/PN40 dependant on model.

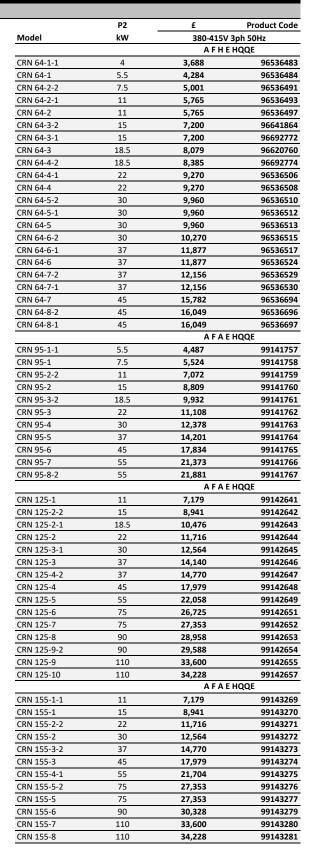
CRN 45: DN80 --- PN16/PN25/PN40 dependant on model.

CRN 64: DN100 --- PN16/PN25/PN40 dependant on model.

CRN95: DN100 --- PN16, PN25/40 dependant on model.

CRN125, CRN155: DN150 --- PN16, PN25/40 dependant on model. Please see page 44/45 for pipe connection accessories and list prices.

February 2020 Page 34





Notes	

	P2		£	Product Code	£	Product Code	
Model	kW	Transducer Range	200-240V 1p		380-480/500V		
			A CA A E	_	A CA A E	•	
CRIE 1-4	0.37	0 - 6 bar	1,308	98389343	1,473	9838936	
CRIE 1-6	0.55	0 - 10 bar	1,424	98389344	1,593	9838936	
CRIE 1-9	0.75	0 - 10 bar	1,579	98389345	1,769	9838936	
CRIE 1-13	1.1	0 - 16 bar	1,870	98389346	2,079	9838936	
CRIE 1-17	1.5	0 - 16 bar	2,343	98389347	2,511	98389364	
CRIE 1-25	2.2	0 - 25 bar	-	-	3,038	9838936	
02 2 23			-		A FGJ A		
CRIE 1-27	3	0 - 25 bar	=	-	3,639	99072120	
			A CA A E HQQE		A CA A I	A CA A E HQQE	
CRIE 3-2	0.37	0 - 4 bar	1,254	98389726	1,420	9838975	
CRIE 3-4	0.55	0 - 6 bar	1,351	98389727	1,521	9838975	
CRIE 3-5	0.75	0 - 6 bar	1,488	98389728	1,678	9838975	
CRIE 3-8	1.1	0 - 10 bar	1,699	98389729	1,907	9838975	
CRIE 3-11	1.5	0 - 16 bar	2,068	98389730	2,236	9838975	
CRIE 3-17	2.2	0 - 25 bar	-	-	2,781	9838975	
					A FGJ A	E HQQE	
CRIE 3-23	3	0 - 25 bar	-	-	3,252	9907215	
CRIE 3-25	4	0 - 25 bar	-	-	3,897	99072152	
			A CA A E	HQQE	A CA A E	HQQE	
CRIE 5-2	0.55	0 - 4 bar	1,333	98390047	1,502	98390067	
CRIE 5-4	1.1	0 - 6 bar	1,556	98390048	1,765	98390068	
CRIE 5-5	1.5	0 - 6 bar	1,897	98390049	2,064	98390069	
CRIE 5-9	2.2	0 - 10 bar	-	-	2,569	98390070	
					A FGJ A	E HQQE	
CRIE 5-12	3	0 - 16 bar	-	-	3,009	99072212	
CRIE 5-16	4	0 - 25 bar	-	-	3,587	99072213	
CRIE 5-22	5.5	0 - 25 bar	-	-	4,335	99072214	
CRIE 5-24	7.5	0 - 25 bar	-	-	5,135	99075981	
			A CA A E HQQE		A CA A E	A CA A E HQQE	
CRIE 10-1	0.75	0 - 4 bar	1,537	98390278	1,723	9839069	
CRIE 10-2	1.5	0 - 4 bar	2,017	98390279	2,180	9839028	
CRIE 10-3	2.2	0 - 6 bar	-	-	2,655	9839028	
CRIE 10-5	3	0 - 10 bar	=	-	3,044	9907146	
CRIE 10-6	4	0 - 10 bar	-	-	3,703	99071463	
CRIE 10-9	5.5	0 - 16 bar	-	-	4,532	99071792	
			A FGJ A E HQQE		A FGJ A	E HQQE	
CRIE 10-5	3	0 - 10 bar	=	-	3,120	99071467	
CRIE 10-6	4	0 - 10 bar	=	-	3,779	99071469	
CRIE 10-9	5.5	0 - 16 bar	-	-	4,608	99071799	
CRIE 10-12	7.5	0 - 25 bar	=	-	5,647	99071800	
CRIE 10-17	11	0 - 25 bar	=	-	7,300	9907180	
			·		<u>-</u>		
CRIE 15-1	1.5	0 - 4 bar	2,066	98390724	2,227	9839072	
CRIE 15-2	3	0 - 10 bar	-	-	3,072	99071546	
CRIE 15-3	4	0 - 10 bar	-	-	3,716	99071547	
CRIE 15-4	5.5	0 - 10 bar	=	-	4,460	99071548	
CRIE 15-5	7.5	0 - 16 bar	=	-	5,301	99071549	
CRIE 15-8	11	0 - 25 bar	-	-	6,861	9907155	
CRIE 15-10	15	0 - 25 bar	=	-	8,426	96514522	
CRIE 15-12	18.5	0 - 25 bar	=	-	10,179	96514523	
CRIE 20-1	2.2	0 - 4 bar			2,722	9839078	
CRIE 20-2	4	0 - 6 bar	-	-	3,757	9907168	
CRIE 20-3	5.5	0 - 10 bar	-	-	4,512	9907168	
CRIE 20-4	7.5	0 - 10 bar	-	-	5,362	9907168	
CRIE 20-6	11	0 - 16 bar	-	<u> </u>	6,939	99071684	
			-	 -	8,528	96514656	
CRIE 20-8	15	0 - 25 bar	-	-	0,340	20214030	

CRIE OPERATION

These pump models have been designed for operation in either open or closed loop control arrangements. The default control mode is "Constant Curve/Uncontrolled". For closed loop control either differential pressure transducers, pressure transducers or temperature transducers can be supplied as separate items; as required. Pressure transducers are listed with their ranges in the following tables as the recommended option.

A pressure vessel must be fitted on the discharge pipe close to the pressure sensor and a non-return valve should be fitted to the pump suction, on all CRIE pumps where the "stop" function is activated.

Pumps with Custom Built options such as special seals and non standard configurations can be configured and priced on request by your Sales Office.

REMEMBER: PUMPS with CA Bases normally need 2x 2 Bolt Oval Flanges - see page 45

CRIE Flanged models (FGJ) are DIN flanged as standard and are supplied without the counter flanges to EN 1092-2 1997 [was BS4504: 1989] Please see page 44/45 for pipe connection accessories and list prices.

ELECTRIC MOTOR

IMPORTANT For all E pumps the 60Hz pump performance is the same on both 50 or 60 Hz power supply A Grundfos GO based communication device will be required in order to commission the "E" product. 200-240V 1ph 50/60Hz

See page 22 for details.

This device can be used to commission and monitor multiple pumps on multiple sites.

IE5 380-500V 3ph 50/60Hz up to 11kW 380-480V 3ph 50/60Hz above 15kW IP55 Class F insulation

Model				Product Code	£	Product Cod	
	kW	Range	200-240V 1	200-240V 1ph 50/60Hz		380-480/500V 3ph 50/60Hz	
			N CA A		N CA A E	•	
CRIE 1-4	0.37	0 - 6 bar	1,482	98389381	1,647	983894	
CRIE 1-6	0.55	0 - 10 bar	1,597	98389382	1,767	983894	
CRIE 1-9	0.75	0 - 10 bar	1,752	98389383	1,942	983894	
CRIE 1-13	1.1	0 - 16 bar	2,044	98389384	2,252	983894	
CRIE 1-17	1.5	0 - 16 bar	2,517	98389385	2,684	983894	
CRIE 1-25	2.2	0 - 25 bar	-	-	3,211	9838940	
			-	=	N FGJ A	HQQE	
CRIE 1-27	3	0 - 25 bar	-	-	3,812	990721	
			N CA A	E HQQE	N CA A E	HQQE	
CRIE 3-2	0.37	0 - 4 bar	1,428	98389783	1,593	983897	
CRIE 3-4	0.55	0 - 6 bar	1,525	98389784	1,694	983897	
CRIE 3-5	0.75	0 - 6 bar	1,661	98389785	1,851	983898	
CRIE 3-8	1.1	0 - 10 bar	1,872	98389786	2,081	9838980	
CRIE 3-11	1.5	0 - 16 bar	2,242	98389787	2,409	9838980	
CRIE 3-17	2.2	0 - 25 bar		<u>-</u>	2,955	9838980	
					N FGJ A	HQQE	
CRIE 3-23	3	0 - 25 bar	-	-	3,426	9907215	
CRIE 3-25	4	0 - 25 bar	-	-	4,071	9907215	
			N CA A	E HQQE	N CA A E	HQQE	
CRIE 5-2	0.55	0 - 4 bar	1,506	98390079	1,676	9839008	
CRIE 5-4	1.1	0 - 6 bar	1,730	98390080	1,938	9839009	
CRIE 5-5	1.5	0 - 6 bar	2,071	98390082	2,238	9839009	
CRIE 5-9	2.2	0 - 10 bar		-	2,742	9839009	
					N FGJ A	HQQE	
CRIE 5-12	3	0 - 16 bar		<u>-</u>	3,182	9907222	
CRIE 5-16	4	0 - 25 bar	-	-	3,761	9907222	
CRIE 5-22	5.5	0 - 25 bar	-	-	4,509	9907222	
CRIE 5-24	7.5	0 - 25 bar		-	5,309	9907598	
			N CA A	E HQQE	N CA A E	HQQE	
CRIE 10-1	0.75	0 - 4 bar	1,707	98390290	1,893	9839069	
CRIE 10-2	1.5	0 - 4 bar	2,186	98390291	2,349	9839029	
CRIE 10-3	2.2	0 - 6 bar		<u> </u>	2,825	9839029	
CRIE 10-5	3	0 - 10 bar	-	<u>-</u>	3,213	9907147	
CRIE 10-6	4	0 - 10 bar		<u> </u>	3,872	9907147	
CRIE 10-9	5.5	0 - 16 bar	-	<u>-</u>	4,701	9907180	
			N FGJ A	E HQQE	N FGJ A		
CRIE 10-5	3	0 - 10 bar		<u>-</u>	3,290	9907147	
CRIE 10-6	4	0 - 10 bar		<u> </u>	3,949	9907147	
CRIE 10-9	5.5	0 - 16 bar		<u> </u>	4,777	9907180	
CRIE 10-12	7.5	0 - 25 bar		<u>-</u>	5,817	9907180	
CRIE 10-17	11	0 - 25 bar			7,470	9907181	
CRIE 15-1	1.5	0 - 4 bar	2,233	98390731	2,395	9839073	
CRIE 15-2	3	0 - 10 bar	-	-	3,240	9907156	
CRIE 15-3	4	0 - 10 bar			3,884	9907156	
CRIE 15-4	5.5	0 - 10 bar	-	<u>-</u>	4,628	9907156	
CRIE 15-5	7.5	0 - 16 bar	-	-	5,469	9907156	
CRIE 15-8	11	0 - 25 bar	-	<u>-</u>	7,029	9907157	
CRIE 15-10	15	0 - 25 bar		-	8,594	9651459	
CRIE 15-12	18.5	0 - 25 bar	-	-	10,346	9651459	
CDUE 20.4		0.41					
CRIE 20-1	2.2	0 - 4 bar		-	2,890	9839078	
CRIE 20-2	4	0 - 6 bar	-	<u>-</u>	3,925	9907169	
CRIE 20-3	5.5	0 - 10 bar	-	<u>-</u>	4,679	9907169	
CRIE 20-4	7.5	0 - 10 bar	-	-	5,530	9907169	
CRIE 20-6	11	0 - 16 bar		-	7,107	9907169	
CRIE 20-8 CRIE 20-10	15 18.5	0 - 25 bar 0 - 25 bar	-	<u>-</u>	8,696 10,469	9651471 9651471	

CRIE OPERATION

CATEGORY 2 - CRIE1 to CRIE20

These models have been designed for closed feedback loop variable speed control and are supplied with constant pressure transducers already fitted. The default control mode is "constant pressure".

A pressure vessel must be fitted on the discharge pipe close to the pressure sensor and a non-return valve should be fitted to the pump suction, on all CRIE pumps where the "stop" function is activated.

REMEMBER: PUMPS with CA Bases normally need 2x 2 Bolt Oval Flanges - see page 45

CRIE Flanged models (FGJ) are DIN flanged as standard and are supplied without the counter flanges to EN 1092-2 1997 [was BS4504 : 1989] Please see page 44/45 for pipe connection accessories and list prices.

ELECTRIC MOTOR

IMPORTANT For all E pumps the 60Hz pump performance is the same on both 50 or 60 Hz power supply

A Grundfos GO based communication device will be required in order to commission the "E" product.

200-240V 1ph 50/60Hz IE5 380-500V 3ph 50/60Hz up to 11kW

See Page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites.

380-480V 3ph 50/60Hz above 15kW IP55 Class F insulation

CATEGORY 2 - CRE32 to CRE150 CRE CAST IRON AND 304 STAINLESS STEEL VARIABLE SPEED PUMPS - WITHOUT AND WITH SENSOR Product Code P2 Transducer **Product Code** Model kW Range 380-480/500V 3ph 50/60Hz 380-480/500V 3ph 50/60Hz WITHOUT SENSOR WITH SENSOR A F A E HQQE N F A E HQQE CRE 32-1-1 0 - 4 bar 2,953 3,125 2.2 98390932 98390933 CRE 32-1 3 0 - 4 bar 3.325 99071938 3.497 99071957 CRE 32-2-1 5.5 0 - 10 bar 4.906 99071942 5.078 99071958 CRE 32-2 7.5 0 - 10 bar 5,986 99071953 6,158 99071959 CRE 32-4-2 11 0 - 16 bar 7,958 99071955 8,129 99071960 CRE 32-5-2 15 0 - 16 baı 96122663 9,770 96122671 CRE 32-6 18.5 0 - 25 bar 11,375 96122664 11,547 96122672 22 0 - 25 bar 13.054 96122665 13.226 96122673 CRE 32-7 5.5 CRE 45-1-1 0 - 6 bar 4.804 99072009 4.976 99072016 CRE 45-1 7.5 0 - 6 bar 5,870 99072011 6,041 99072017 CRE 45-2-1 11 0 - 10 bar 7,729 99072014 7,900 99072019 CRE 45-2 15 0 - 10 bar 9,381 96123405 9,553 96123413 CRE 45-3 96123406 96123414 18.5 0 - 16 bar 11.197 11.369 96123415 CRE 45-4-2 22 0 - 16 bar 12,680 96123407 12,852 CRE 64-1-1 7.5 0 - 6 bar 5,751 99072057 5,923 99072061 CRE 64-1 11 0 - 6 bar 7,829 99072059 8,001 99072062 CRE 64-2-2 15 0 - 10 bar 9,162 96123994 9,334 96123999 96124000 CRE 64-2-1 18.5 96123995 11,191 0 - 10 bar 11,019 96124001 CRE 64-3-2 22 0 - 16 bar 12.304 96123996 12.475 CRE 95-1-1 11 0 - 6 bar 7,273 99264346 7,444 99264415 99264416 CRE 95-1 15 0 - 6 bar 8,915 99264358 9,087 CRE 95-2-2 18.5 0 - 10 bar 99264359 99264417 10,602 10,774 99264418 CRE 95-2-1 22 0 - 10 bar 99264360 12,107 11,936 CRE 125-1-1 15 0 - 6 bar 8.829 99264393 9.001 99264451 CRE 125-1 18.5 0 - 6 bar 11,437 99264394 11,608 99264452 CRE 155-1-1 18.5 0 - 6 bar 10,950 99264409 11,122 99264463

CRE OPERATION

Pumps without sensor are designed for operation in either open or closed loop control arrangements and the default control mode is "Constant Curve/Uncontrolled". For closed loop control either differential pressure transducers, pressure transducers or temperature transducers can be supplied as separate items; as required. Pressure transducers are listed with their ranges in the following tables as the recommended option.

Pumps with sensor are designed for closed loop variable speed control and are supplied with factory fitted pressure transducers. The default control mode is "constant pressu

A pressure vessel must be fitted on the discharge pipe close to the pressure sensor and a non-return valve should be fitted to the pump suction, on all CRE pumps where the "stop" function is activated.

All of the above CRE pumps are supplied with flanged pump bases requiring round DIN counter flanges as the pipework connection. Please see page 44/45 for pipe connection accessories and list prices.

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites

ELECTRIC MOTOR

For all E pumps the 60Hz pump performance is the same on both 50 or 60 Hz power supply 380-500V 3ph 50/60Hz up to 11kW with IE5 efficiency 380-480V 3ph 50/60Hz above 15kW IP55 Class F insulation

Pumps with Custom Built options such as special seals and non standard configurations can be configured and priced on request by your Sales Office.





CATEGORY 2 - CRNE1 to CRNE20

CRNE 316 STAINLESS STEEL VARIABLE SPEED PUMPS WITHOUT SENSOR							
	P2	Transduces Benea	£	Product Code	£ Product Code		
Model	kW	Transducer Range	200-240V 1	ph 50/60Hz	380-480/500V 3ph 50/60Hz		
			A FGJ A	E HQQE	A FGJ A E HQQE		

Model	P2 kW	Transducer Range	£ 200-240V 1p	Product Code oh 50/60Hz	£ 380-480/500V	Product Code 3ph 50/60Hz
			A FGJ A		A FGJ A	
CRNE 1-4	0.37	0 - 6 bar	1,500	98389459	1,665	98389501
CRNE 1-6	0.55	0 - 10 bar	1,622	98389460	1,792	98389503
CRNE 1-9	0.75	0 - 10 bar	1,794	98389462	1,984	98389504
CRNE 1-13	1.1	0 - 16 bar	2,118	98389463	2,327	98389505
CRNE 1-17	1.5	0 - 16 bar	2,620	98389464	2,788	98389506
CRNE 1-25	2.2	0 - 25 bar		-	3,343	98389507
CRNE 1-27	3	0 - 25 bar	-	-	3,936	99072128
CRNE 3-2	0.37	0 - 4 bar	1,442	98389844	1,608	98389889
CRNE 3-4	0.55	0 - 6 bar	1,546	98389845	1,715	98389890
CRNE 3-5	0.75	0 - 6 bar	1,692	98389846	1,882	98389891
CRNE 3-8	1.1	0 - 10 bar	1,922	98389847	2,130	98389892
CRNE 3-11	1.5	0 - 16 bar	2,314	98389848	2,482	98389893
CRNE 3-17	2.2	0 - 25 bar		-	3,064	98389894
CRNE 3-23	3	0 - 25 bar	-	=	3,517	99072168
CRNE 3-25	4	0 - 25 bar	-	-	4,193	99072169
CRNE 5-2	0.55	0 - 4 bar	1,523	98390117	1,692	98390150
CRNE 5-4	1.1	0 - 6 bar	1,767	98390118	1,975	98390151
CRNE 5-5	1.5	0 - 6 bar	2,126	98390120	2,294	98390152
CRNE 5-9	2.2	0 - 10 bar		-	2,829	98390153
CRNE 5-12	3	0 - 16 bar		-	3,244	99072237
CRNE 5-16	4	0 - 25 bar		-	3,854	99072238
CRNE 5-22	5.5	0 - 25 bar			4,653	99072239
CRNE 5-24	7.5	0 - 25 bar	-	-	5,501	99075989
CRNE 10-1	0.75	0 - 4 bar	1,738	98390311	1,924	98390701
CRNE 10-2	1.5	0 - 4 bar	2,236	98390312	2,399	98390323
CRNE 10-3	2.2	0 - 6 bar		-	2,885	98390324
CRNE 10-5	3	0 - 10 bar	-	<u> </u>	3,296	99071488
CRNE 10-6	4	0 - 10 bar	-	<u> </u>	3,992	99071490
CRNE 10-9	5.5	0 - 16 bar		-	4,877	99071826
CRNE 10-12	7.5	0 - 25 bar			5,988	99071827
CRNE 10-17	11	0 - 25 bar	-	-	7,743	99071829
CRNE 15-1	1.5	0 - 4 bar	2,221	98390739	2,383	98390746
CRNE 15-2	3	0 - 10 bar	-	-	3,244	99071604
CRNE 15-3	4	0 - 10 bar	-	<u>-</u>	3,925	99071605
CRNE 15-4	5.5	0 - 10 bar	-	<u>-</u>	4,718	99071606
CRNE 15-5	7.5	0 - 16 bar	-	-	5,606	99071607
CRNE 15-8	11	0 - 25 bar		-	7,262	99071608
CRNE 15-10	15	0 - 25 bar	-	-	8,939	96514538
CRNE 15-12	18.5	0 - 25 bar		-	10,798	96514539
CRNE 20-1	2.2	0 - 4 bar	-	-	2,871	98390792
CRNE 20-2	4	0 - 6 bar	-	<u> </u>	3,970	99071718
CRNE 20-3	5.5	0 - 10 bar		<u>-</u>	4,773	99071719
CRNE 20-4	7.5	0 - 10 bar	-	<u> </u>	5,673	99071720
CRNE 20-6	11	0 - 16 bar	-	=	7,348	99071722
CRNE 20-8	15	0 - 25 bar	-	<u> </u>	9,050	96514671
CRNE 20-10	18.5	0 - 25 bar	-	<u> </u>	10,933	96514672

CRNE OPERATION

These pump models have been designed for operation in either open or closed loop control arrangements. The default control mode is "Constant Curve/Uncontrolled". For closed loop control either differential pressure transducers, pressure transducers or temperature transducers can be supplied as separate items; as required. $Pressure\ transducers\ are\ listed\ with\ their\ ranges\ in\ the\ following\ tables\ as\ the\ recommended\ option.$

A pressure vessel must be fitted on the discharge pipe close to the pressure sensor and a non-return valve should be fitted to the pump suction, on all CRNE pumps where the "stop" function is activated.

Pumps with Custom Built options such as special seals and non standard configurations can be configured and priced on request by your Sales Office.

The above CRNE flanged models (FGJ) are DIN flanged as standard and are supplied without the counter flanges to EN 1092-2 1997 [was BS4504: 1989] #N/A

ELECTRIC MOTOR

For all E pumps the 60Hz pump performance is the same on both 50 or 60 Hz power supply 200-240V 1ph 50/60Hz IE5 380-500V 3ph 50/60Hz up to 11kW 380-480V 3ph 50/60Hz above 15kW IP55 Class F insulation

Pumps with Custom Built options such as special seals and non standard configurations can be configured and priced on request by your Sales Office.

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites.



CATEGORY 2 - CRNE1 to CRNE20

CRNE 316 STAINLESS STEEL VARIABLE SPEED PUMPS WITH SENSOR

CHITE STO STA	P2	Transducer	III 5 WIIII 5 LII 50 K			
Model	kW	Range	£	Product Code	£	Product Code
•			200-240V 1	Lph 50/60Hz	380-480/500	V 3ph 50/60Hz
			N FGJ A	A E HQQE	N FGJ A	LE HQQE
CRNE 1-4	0.37	0 - 6 bar	1,674	98389538	1,839	98389584
CRNE 1-6	0.55	0 - 10 bar	1,796	98389539	1,965	98389586
CRNE 1-9	0.75	0 - 10 bar	1,967	98389542	2,157	98389587
CRNE 1-13	1.1	0 - 16 bar	2,292	98389545	2,500	98389588
CRNE 1-17	1.5	0 - 16 bar	2,794	98389546	2,961	98389589
CRNE 1-25	2.2	0 - 25 bar	-	-	3,517	98389591
CRNE 1-27	3	0 - 25 bar	-	-	4,110	99072135
CRNE 3-2	0.37	0 - 4 bar	1,616	98389924	1,781	98389972
CRNE 3-4	0.55	0 - 6 bar	1,719	98389925	1,889	98389973
CRNE 3-5	0.75	0 - 6 bar	1,866	98389926	2,056	98389974
CRNE 3-8	1.1	0 - 10 bar	2,095	98389927	2,304	98389975
CRNE 3-11	1.5	0 - 16 bar	2,488	98389930	2,655	98389976
CRNE 3-17	2.2	0 - 25 bar		-	3,238	98389977
CRNE 3-17 CRNE 3-23	3	0 - 25 bar			3,691	99072180
CRNE 3-25	4	0 - 25 bar			4,366	99072181
CRIVE 3-23	4	0 - 23 bai			4,300	99072181
CRNE 5-2	0.55	0 - 4 bar	1,696	98390170	1,866	98390192
CRNE 5-4	1.1	0 - 6 bar	1,940	98390171	2,149	98390193
CRNE 5-5	1.5	0 - 6 bar	2,300	98390172	2,467	98390194
CRNE 5-9	2.2	0 - 10 bar	-	=	3,002	98390195
CRNE 5-12	3	0 - 16 bar	-	=	3,418	99072265
CRNE 5-16	4	0 - 25 bar	-	-	4,027	99072266
CRNE 5-22	5.5	0 - 25 bar	-	=	4,827	99072267
CRNE 5-24	7.5	0 - 25 bar	-	-	5,674	99075995
CRNE 10-1	0.75	0 - 4 bar	1,907	98390335	2,093	98390707
CRNE 10-2	1.5	0 - 4 bar	2,405	98390336	2,569	98390347
CRNE 10-3	2.2	0 - 6 bar		-	3,054	98390348
CRNE 10-5	3	0 - 10 bar		-	3,465	99071504
CRNE 10-6	4	0 - 10 bar			4,162	99071506
CRNE 10-9	5.5	0 - 16 bar			5,046	99071850
CRNE 10-12	7.5	0 - 25 bar			6,158	99071851
CRNE 10-17	11	0 - 25 bar	-	 -	7,912	99071852
CRNE 15-1	1.5	0 - 4 bar	2,389	98390752	2,550	98390758
CRNE 15-2	3	0 - 10 bar		<u> </u>	3,411	99071636
CRNE 15-3	4	0 - 10 bar			4,092	99071637
CRNE 15-4	5.5	0 - 10 bar		<u> </u>	4,886	99071638
CRNE 15-5	7.5	0 - 16 bar		<u> </u>	5,773	99071640
CRNE 15-8	11	0 - 25 bar			7,430	99071641
CRNE 15-10	15	0 - 25 bar		<u> </u>	9,107	96514607
CRNE 15-12	18.5	0 - 25 bar	-	<u> </u>	10,966	96514608
CRNE 20-1	2.2	0 - 4 bar			3,039	98390798
CRNE 20-2	4	0 - 6 bar	-	-	4,137	99071765
CRNE 20-3	5.5	0 - 10 bar	-	-	4,941	99071766
CRNE 20-4	7.5	0 - 10 bar	-	-	5,841	99071767
CRNE 20-6	11	0 - 16 bar	-	<u>-</u>	7,516	99071768
CRNE 20-8	15	0 - 25 bar	-	-	9,218	96514731
CRNE 20-10	18.5	0 - 25 bar	-	-	11,101	96514732

CRNE OPERATION

These models have been designed for closed feedback loop variable speed control and are supplied with constant pressure transducers already fitted. The default control mode is "constant pressure".

A pressure vessel must be fitted on the discharge pipe close to the pressure sensor and a non-return valve should be fitted to the pump suction, on all CRNE pumps where the "stop" function is activated.

The above CRNE flanged models (FGJ) are DIN flanged as standard and are supplied **without** the counter flanges to EN 1092-2 1997 [was BS4504 : 1989] Please see page 44/45 for pipe connection accessories and list prices.

ELECTRIC MOTOR

For all E pumps the 60Hz pump performance is the same on both 50 or 60 Hz power supply

200-240V 1ph 50/60Hz

IE5 380-500V 3ph 50/60Hz up to 11kW

380-480V 3ph 50/60Hz above 15kW

IP55 Class F insulation

Pumps with Custom Built options such as special seals and non standard configurations can be configured and priced on request by your Sales Office.

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites.



CATEGORY 2 - CRNE32 to CRNE150 CRNE 316 STAINLESS STEEL VARIABLE SPEED PUMPS - WITHOUT AND WITH SENSOR Transducer **Product Code Product Code** Range Model kW 380-480/500V 3ph 50/60Hz 380-480/500V 3ph 50/60Hz WITHOUT SENSOR WITH SENSOR A F A E HOOE N F A E HOOE CRNE 32-1-1 2.2 0 - 4 bar 3.849 3.677 98390934 98390936 CRNE 32-1 3 0 - 4 bar 3,996 99071972 4,168 99071999 CRNE 32-2-1 5.5 0 - 10 bar 5,657 99071983 5.829 99072000 CRNE 32-2 7.5 0 - 10 bar 6.731 99071984 6.902 99072001 CRNE 32-4-2 11 0 - 16 bar 8,962 99071985 9,134 99072003 96122699 11,361 96122707 CRNE 32-5-2 15 0 - 16 bar 11,189 CRNE 32-6 18.5 0 - 25 bar 96122700 96122708 13.230 13,402 CRNE 32-7 22 0 - 25 bar 14,913 96122701 15,085 96122709 CRNE 45-1-1 5,708 5.5 0 - 6 bar 5.536 99072029 99072049 CRNE 45-1 7.5 0 - 6 bar 99072030 6,880 99072050 6,708 99072052 CRNE 45-2-1 11 0 - 10 bar 8,727 99072031 8,898 CRNE 45-2 96123437 96123445 15 0 - 10 har 10.909 11.081 CRNE 45-3 18.5 0 - 16 bar 96123438 13,081 96123446 12,909 CRNE 45-4-2 0 - 16 bar 96123439 96123447 22 14,735 14,907 CRNE 64-1-1 7.5 0 - 6 bar 6,690 99072078 6,861 99072087 CRNE 64-1 11 8,849 99072079 9,021 99072088 0 - 6 bar 96124023 CRNE 64-2-2 15 0 - 10 bar 10.633 96124018 10.805 CRNE 64-2-1 18.5 0 - 10 bar 12,586 96124019 12,758 96124024 CRNE 64-3-2 22 0 - 16 bar 14,263 96124020 14,435 96124025 CRNE 95-1-1 11 0 - 6 bar 8,829 99264375 9,001 99264434 CRNE 95-1 15 0 - 6 bar 10,884 99264376 11,056 99264435 CRNE 95-2-2 18.5 99264377 99264436 0 - 10 bar 12.596 12.768 CRNE 95-2-1 22 0 - 10 bar 14,179 99264378 14,351 99264437 10,768 99264399 10,940 99264455 CRNE 125-1-1 15.0 0 - 6 bar CRNE 125-1 18.5 0 - 6 bar 13,602 99264400 13,774 99264456 CRNE 155-1-1 99264411 99264465 18.5 0 - 6 bar 13,400 13,572

CRNE OPERATION

Pumps without sensor are designed for operation in either open or closed loop control arrangements and the default control mode is "Constant Curve/Uncontrolled".

For closed loop control either differential pressure transducers, pressure transducers or temperature transducers can be supplied as separate items; as required.

Pressure transducers are listed with their ranges in the following tables as the recommended option.

Pumps with sensor are designed for closed loop variable speed control and are supplied with factory fitted pressure transducers. The default control mode is "constant press

A pressure vessel must be fitted on the discharge pipe close to the pressure sensor and a non-return valve should be fitted to the pump suction, on all CRE pumps where the "stop" function is activated.

All of the above CRE pumps are supplied with flanged pump bases requiring round DIN counter flanges as the pipework connection. Please see page 44/45 for pipe connection accessories and list prices.

ELECTRIC MOTOR

For all E pumps the 60Hz pump performance is the same on both 50 or 60 Hz power supply 380-500V 3ph 50/60Hz up to 11kW with IE5 efficiency 380-480V 3ph 50/60Hz above 15kW IP55 Class F insulation

Pumps with Custom Built options such as special seals and non standard configurations can be configured and priced on request by your Sales Office.

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites.



CATEGORY 2 - CRN HIGH PRESSURE PUMPS

CRNE-HS HIGH PRESSURE PUMP COMPLETE WITH FREQUENCY CONTROLLED HIGH SPEED MOTOR

CRNE HS pumps are one pump solutions to high pressure applications

Model	P2	Pipework	£ Product Code
	kW	connection	HS P GI E HQQE
CRNE 1-23 HS	4.6	PJE 42.2mm	POA 99050536
CRNE 1-23 HS	6	PJE 42.2mm	POA 99050537
CRNE 1-23 HS	7.5	PJE 42.2mm	POA 99050538
CRNE3-23 HS	4.6	PJE 42.2mm	POA 99050564
CRNE3-23 HS	6	PJE 42.2mm	POA 99050565
CRNE3-23 HS	7.5	PJE 42.2mm	POA 99050566

ELECTRIC MOTOR

380-500V 3ph 50/60Hz with IE5 efficiency

IP55 Class F insulation

For all E pumps the 50Hz pump performance is the same on 50 or 60 Hz supply

The above CRNE-HS pumps do not include sensor for closed loop control.

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details.

This device can be used to commission and monitor multiple pumps on multiple sites.

CRN-SF HIGH PRESSURE PUMP COMPLETE WITH STANDARD FIXED SPEED MOTOR

CRN SF pumps are part of high pressure dual pump systems with a standard CRN feed pump in series (sold separately).

Model	P2	Pipework	£ Product Code
	kW	connection	SF P G E HQQE
CRN 3-31 SF	3	PJE 42.2mm	3,156 9689293
CRN 5-34 SF	5.5	PJE 42.2mm	4,036 9652176
CRN 10-21 SF	7.5	PJE 60.1mm	5,452 9651220
CRN 15-16 SF	15	PJE 60.1mm	7,965 9651221
CRN 20-16 SF	18.5	PJE 60.1mm	8,435 9651226
	P2	Pipework	£ Product Code

	P2	Pipework	£	Product Code
	kW	connection	SF P G	I E HQQE
CRN 32-13 SF	30	PJE 88.9mm	POA	97515507
CRN 45-12 SF	45	PJE 114mm	POA	97515508
CRN 64-7 SF	45	PJE 114mm	POA	97566802
CRN 90-5 SF	37	PJE 114mm	POA	97566776

ELECTRIC MOTOR

380-415V 3ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

PIPE CONNECTIONS

114mm / DN100

All CRN High Pressure models are supplied without PJE couplings.

Installation of CRN SF pumps

The smaller standard feed pump is the first pump in series.

The smaller first pump could be variable speed if required.

The large high pressure pump (SF) is installed as the second unit.

CRN 45/64/90



98144759

CRN-SF ACCESSORIES PJE couplings with pipe stub Elastomer Material Pipe stub PΝ No Reqd **Product Code** 42.2mm / DN32 EPDM 419912 316 SS for welding 80bar 65 339910 EPDM 60.1mm / DN50 316 SS for welding 70bar 2 65 88.9mm / DN80 **EPDM** 316 SS for welding 70bar 2 214 98144746 114mm / DN100 **EPDM** 316 SS for welding 70bar 354 98144752 PJE couplings without pipe stub No Reqd **Product Code** 00ID1781 42.2mm 35 60.1mm 00ID2643 2 38 88.9mm 2 71 00ID5530 99 96483370 114mm Connecting pipe For pump type No Reqd **Product Code** 42.2mm / DN32 CRN 3/5 252 98895730 60.1mm / DN50 CRN 10/15/20 1 103 420138 88.9mm / DN80 CRN 32 1 312 98144757

CATEGORY 2 - CRT TITANIUM VERTICAL MULTISTAGE PUMPS

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC					
	P2	230V 1ph 50Hz			
Model	kW	£	Product Code		
		APA	AUUE		
CRT2-2	0.37	2,064	96100265		
CRT2-3	0.37	2,164	96100266		
CRT2-4	0.55	2,375	96100267		
CRT2-5	0.55	2,598	96100268		
CRT2-6	0.75	2,896	96100269		
CRT2-7	0.75	3,156	96100270		
CRT2-9	1.1	3,504	96100271		
CRT2-11	1.1	3,891	96100272		
CRT2-13	1.5	4,389	96100273		
CRT2-15	1.5	4,803	96100274		
CRT2-18	2.2	5,327	96100275		
CRT2-22	2.2	5,978	96100276		
CRT4-1	0.37	2.211	96100764		

CRT4-1	0.37	2,211	96100764
CRT4-2	0.37	2,316	96100765
CRT4-3	0.55	2,539	96100766
CRT4-4	0.75	2,895	96100767
CRT4-5	1.1	3,379	96100768
CRT4-6	1.1	3,667	96100769
CRT4-7	1.5	4,215	96100770
CRT4-8	1.5	4,496	96100771
CRT4-10	2.2	5,136	96100772
CRT4-12	2.2	5,444	96100773

ELECTRIC MOTOR

380-415V 3ph 50Hz

220-240V 1ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

All List prices **exclude** Titanium EPDM PJE couplings - details are listed below.

CRTE specification

All CRT pumps are available with "E" motors.

Any enquiry for CRTE2, CRTE4, CRTE8 and CRTE16 can be configured and priced by your Sales Office.

CRT "Flanged" specification

The CRT range is now available with Universal FGJ Flanges. The extra for a FGJ Flanged pumps are available on request.



Model kW £ Product Code A P A AUUE CRT2-2 0.37 2,017 96100301 CRT2-3 0.37 2,152 96100302 CRT2-4 0.55 2,308 96100303 CRT2-5 0.55 2,662 96100305 CRT2-6 0.75 2,776 96100305 CRT2-7 0.75 3,122 96100306 CRT2-9 1.1 3,307 96100307 CRT2-11 1.1 3,718 96100307 CRT2-13 1.5 4,125 96100310 CRT2-15 1.5 4,539 96100310 CRT2-18 2.2 5,040 96100311 CRT2-18 2.2 5,040 96100312 CRT2-20 2.2 5,691 96100312 CRT2-18 2.2 5,040 96100312 CRT2-18 2.2 5,040 96100312 CRT2-18 2.2 5,691 96100312 CRT2-18 2.2 5,691 96100312<		P2	400V 3n	h 50Hz	
CRT2-2 0.37 2,017 96100301 CRT2-3 0.37 2,152 96100302 CRT2-4 0.55 2,308 96100303 CRT2-5 0.55 2,662 96100304 CRT2-6 0.75 2,776 96100305 CRT2-7 0.75 3,122 96100306 CRT2-7 0.75 3,122 96100306 CRT2-9 1.1 3,307 96100307 CRT2-13 1.5 4,125 96100308 CRT2-13 1.5 4,125 96100308 CRT2-13 1.5 4,125 96100308 CRT2-13 1.5 4,539 96100310 CRT2-18 2.2 5,040 96100311 CRT2-26 3 6,326 96100313 CRT2-26 3 6,326 96100313 CRT2-10 3,37 1,981 96100312 CRT2-27 0.37 2,268 96100794 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100798 CRT4-6 1.1 3,467 96100798 CRT4-6 1.1 3,467 96100798 CRT4-7 1.5 3,948 96100802 CRT4-10 2.2 5,130 96100802 CRT4-10 3,670 96100802 CRT4-10 4 7,205 96100806 CRT4-19 4 7,205 96100806 CRT4-19 4 7,205 96100807 CRT8-1 0.37 3,728 96100807 CRT8-1 0.37 3,728 96100807 CRT8-2 0.75 3,897 96108249 CRT8-3 1.1 4,205 9610804 CRT8-1 0.37 3,728 96108249 CRT8-1 0.39 3,897 96108249 CRT8-1 0.39 3,999 96108245 CRT8-10 4 7,368 96117232 CRT8-16 5.5 7,998 96117230 CRT6-10 11 12,326 96117252 CRT16-10 11 12,326 96117252 CRT16-10 11 12,326 96117252	Model				
CRT2-3 0.37 2,152 96100302 CRT2-4 0.55 2,308 96100303 CRT2-5 0.55 2,662 96100304 CRT2-6 0.75 2,776 96100306 CRT2-7 0.75 3,122 96100306 CRT2-9 1.1 3,307 96100307 CRT2-11 1.1 3,718 96100308 CRT2-13 1.5 4,125 96100308 CRT2-18 2.2 5,040 96100311 CRT2-18 2.2 5,691 96100312 CRT2-20 3 6,326 96100313 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,688 96100795 CRT4-2 0.37 2,688 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100796 CRT4-4 0.75 2,773 96100799 CRT4-5 1.1 3,179 96100796 </th <th>Wilder</th> <th>N. V.</th> <th></th> <th></th>	Wilder	N. V.			
CRT2-4 0.55 2,308 96100303 CRT2-5 0.55 2,662 96100304 CRT2-6 0.75 2,776 96100305 CRT2-7 0.75 3,122 96100305 CRT2-9 1.1 3,307 96100307 CRT2-11 1.1 3,718 96100308 CRT2-13 1.5 4,125 96100309 CRT2-15 1.5 4,539 96100311 CRT2-18 2.2 5,040 96100312 CRT2-18 2.2 5,691 96100312 CRT2-26 3 6,326 96100313 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100796 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100799 CRT4-6 1.1 3,467 96100790 <td>CRT2-2</td> <td>0.37</td> <td>2,017</td> <td>96100301</td>	CRT2-2	0.37	2,017	96100301	
CRT2-5 0.55 2,662 96100304 CRT2-6 0.75 2,776 96100305 CRT2-7 0.75 3,122 96100306 CRT2-9 1.1 3,307 96100307 CRT2-11 1.1 3,718 96100309 CRT2-13 1.5 4,125 96100309 CRT2-15 1.5 4,539 96100311 CRT2-18 2.2 5,040 96100311 CRT2-18 2.2 5,691 96100313 CRT2-20 3 6,326 96100313 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100797 CRT4-6 1.1 3,467 96100796 CRT4-7 1.5 3,948 96100801 CRT4-10 2.2 5,130 96100802 <td>CRT2-3</td> <td>0.37</td> <td>2,152</td> <td>96100302</td>	CRT2-3	0.37	2,152	96100302	
CRT2-6 0.75 2,776 96100305 CRT2-7 0.75 3,122 96100306 CRT2-9 1.1 3,307 96100307 CRT2-13 1.5 4,125 96100308 CRT2-15 1.5 4,539 96100310 CRT2-18 2.2 5,040 96100312 CRT2-18 2.2 5,691 96100312 CRT2-26 3 6,326 96100312 CRT2-26 3 6,326 96100312 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100795 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100797 CRT4-6 1.1 3,467 96100797 CRT4-7 1.5 3,948 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100802	CRT2-4	0.55	2,308	96100303	
CRT2-7 0.75 3,122 96100306 CRT2-9 1.1 3,307 96100307 CRT2-11 1.1 3,718 96100308 CRT2-13 1.5 4,125 96100309 CRT2-15 1.5 4,539 96100311 CRT2-18 2.2 5,040 96100311 CRT2-20 3 6,326 96100312 CRT2-26 3 6,326 96100313 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100797 CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100800 CRT4-18 1.5 4,229 96100801 CRT4-19 2.2 5,153 96100802	CRT2-5	0.55	2,662	96100304	
CRT2-9 1.1 3,307 96100307 CRT2-11 1.1 3,718 96100308 CRT2-13 1.5 4,125 96100310 CRT2-15 1.5 4,539 96100310 CRT2-18 2.2 5,040 96100311 CRT2-26 3 6,326 96100313 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 1,981 96100794 CRT4-3 0.55 2,472 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100797 CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804	CRT2-6	0.75	2,776	96100305	
CRT2-11 1.1 3,718 96100308 CRT2-13 1.5 4,125 96100309 CRT2-15 1.5 4,539 96100310 CRT2-18 2.2 5,040 96100312 CRT2-22 2.2 2,691 96100312 CRT2-26 3 6,326 96100793 CRT4-1 0.37 1,981 96100795 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100796 CRT4-5 1.1 3,179 96100796 CRT4-6 1.1 3,467 96100796 CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100805 CRT4-19 4 7,205 96100806	CRT2-7	0.75	3,122	96100306	
CRT2-13 1.5 4,125 96100309 CRT2-15 1.5 4,539 96100310 CRT2-18 2.2 5,040 96100311 CRT2-26 3 6,326 96100313 CRT2-26 3 6,326 96100313 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100798 CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100800 CRT4-10 2.2 5,130 96100801 CRT4-12 2.2 5,153 96100802 CRT4-14 3 5,962 96100803 CRT4-19 4 7,205 96100803 CRT4-19 4 7,205 96100807 <t< td=""><td>CRT2-9</td><td>1.1</td><td>3,307</td><td>96100307</td></t<>	CRT2-9	1.1	3,307	96100307	
CRT2-15 1.5 4,539 96100310 CRT2-18 2.2 5,040 96100311 CRT2-22 2.2 5,691 96100312 CRT2-26 3 6,326 96100313 CRT2-26 3 6,326 96100313 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100798 CRT4-5 1.1 3,179 96100798 CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100803 CRT4-11 3 5,962 96100803 CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 9610806 CRT4-19 4 7,205 96108804	CRT2-11	1.1	3,718	96100308	
CRT2-18 2.2 5,040 96100311 CRT2-22 2.2 5,691 96100312 CRT2-26 3 6,326 96100313 CRT2-26 3 6,326 96100313 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100799 CRT4-6 1.1 3,467 96100790 CRT4-7 1.5 3,948 96100800 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 96100805 CRT4-19 4 7,205 96100806 CRT4-19 4 7,205 96100806 CRT4-19 4 7,205 96100806	CRT2-13	1.5	4,125	96100309	
CRT2-22 2.2 5,691 96100312 CRT2-26 3 6,326 96100313 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100799 CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-19 4 7,205 96100805 CRT4-19 4 7,205 96100807 CRT8-1 0.37 3,728 96102824 CRT8-2 0.75 3,897 96108240	CRT2-15	1.5	4,539	96100310	
CRT2-26 3 6,326 96100313 CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100797 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100799 CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100803 CRT4-19 4 7,205 96100805 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108242 <tr< td=""><td>CRT2-18</td><td>2.2</td><td>5,040</td><td>96100311</td></tr<>	CRT2-18	2.2	5,040	96100311	
CRT4-1 0.37 1,981 96100794 CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100796 CRT4-4 0.75 1.1 3,179 96100798 CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 96100805 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108240 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108240 CRT8-4 1.5 4,762 96108240 CRT8-6 2.2 5,494 96108240 CRT8-7,368 96107240 CRT8-8 3 6,393 96108240 CRT8-10 4 7,368 96117229 CRT8-10 4 7,368 96117229 CRT8-10 4 7,368 96117229 CRT8-10 5,5 9,538 96117230 CRT8-10 7,5 12,818 96117230 CRT8-10 4 7,368 96117230 CRT8-10 4 7,368 96117230 CRT8-16 5.5 10,273 96117230 CRT8-16 5.5 10,273 96117230 CRT8-16 5.5 10,273 96117234 CRT8-16 5.5 10,273 96117234 CRT8-16 5.5 10,273 96117234 CRT8-16 5.5 10,273 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-6 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117249 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117245 CRT16-10 11 12,326 96117245 CRT16-10 11 12,326 96117255 CRT16-10 11 12,326 96117255 CRT16-10 11 12,326 96117255	CRT2-22	2.2	5,691	96100312	
CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100799 CRT4-6 1.1 3,467 96100801 CRT4-7 1.5 3,948 96100801 CRT4-8 1.5 4,229 96100802 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-19 4 7,205 96100805 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108242 CRT8-3 1.1 4,205 96108242 CRT8-6 2.2 5,494 96108242 <tr< td=""><td>CRT2-26</td><td>3</td><td>6,326</td><td>96100313</td></tr<>	CRT2-26	3	6,326	96100313	
CRT4-2 0.37 2,268 96100795 CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100799 CRT4-6 1.1 3,467 96100801 CRT4-7 1.5 3,948 96100801 CRT4-8 1.5 4,229 96100802 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-19 4 7,205 96100805 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108242 CRT8-3 1.1 4,205 96108242 CRT8-6 2.2 5,494 96108242 <tr< td=""><td></td><td></td><td></td><td></td></tr<>					
CRT4-3 0.55 2,472 96100796 CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100799 CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100802 CRT4-12 2.2 5,153 96100802 CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 9610805 CRT4-19 4 7,205 96100805 CRT4-19 4 7,205 9610820 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108242					
CRT4-4 0.75 2,773 96100797 CRT4-5 1.1 3,179 96100798 CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100803 CRT4-19 4 7,205 9610805 CRT4-19 4 7,205 9610806 CRT4-22 4 7,885 96108239 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-3 1.1 4,205 96108242 CRT8-6 2.2 5,192 96108243					
CRT4-5 1.1 3,179 96100798 CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 96100805 CRT4-19 4 7,205 96100806 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108242 CRT8-3 1.1 4,762 96108242 CRT8-5 2.2 5,192 96108244 CRT8-6 2.2 5,494 96108244 CRT8-7 4 7,368 96117229					
CRT4-6 1.1 3,467 96100799 CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 96100805 CRT4-19 4 7,205 96100806 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108240 CRT8-3 1.1 4,762 96108242 CRT8-5 2.2 5,192 96108242 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108244 CRT8-12 4 8,029 96117220			· · · · · · · · · · · · · · · · · · ·		
CRT4-7 1.5 3,948 96100800 CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 96100805 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108240 CRT8-3 1.1 4,205 96108242 CRT8-4 1.5 4,762 96108243 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108243 CRT8-8 3 6,393 96108244 CRT8-12 4 8,029 96117229 CRT8-12 4 8,029 96117230					
CRT4-8 1.5 4,229 96100801 CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 96100805 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231					
CRT4-10 2.2 5,130 96100802 CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 96100805 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108243 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-16 5.5 10,273 96117233					
CRT4-12 2.2 5,153 96100803 CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 96100805 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108239 CRT8-2 0.75 3,897 96108242 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108243 CRT8-8 3 6,393 96108242 CRT8-8 3 6,393 96108243 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-16 5.5 10,273 96117231					
CRT4-14 3 5,962 96100804 CRT4-16 3 6,270 96100805 CRT4-19 4 7,205 96100806 CRT4-19 4 7,885 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108243 CRT8-8 3 6,393 96108245 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117232					
CRT4-16 3 6,270 96100805 CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-3 1.1 4,205 96108242 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117233 CRT16-3 3 5,504 96108344					
CRT4-19 4 7,205 96100806 CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 961008239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117230 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-14 5.5 9,538 96117232 CRT8-16 5.5 10,273 96117233 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-3 3 5,504 96108344 CRT16-4 4 6,404 96117246 <tr< td=""><td></td><td></td><td></td><td></td></tr<>					
CRT4-22 4 7,885 96100807 CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-14 5.5 9,538 96117232 CRT8-16 5.5 10,273 96117233 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117233 CRT16-3 3 5,504 96108344 CRT16-3 3 5,504 96108345 CRT16-6 5.5 7,798 96117246 <t< td=""><td></td><td></td><td></td><td></td></t<>					
CRT8-1 0.37 3,728 96108239 CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117247					
CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-14 5.5 9,538 96117232 CRT8-14 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248	CR14-22	4	7,885	96100807	
CRT8-2 0.75 3,897 96108240 CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-14 5.5 9,538 96117232 CRT8-14 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248	CRT8-1	0.37	3.728	96108239	
CRT8-3 1.1 4,205 96108241 CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117236 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117248 CRT16-8 7.5 9,955 96117250				96108240	
CRT8-4 1.5 4,762 96108242 CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117234 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117248 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251				96108241	
CRT8-5 2.2 5,192 96108243 CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117251 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252	CRT8-4	1.5	4,762	96108242	
CRT8-6 2.2 5,494 96108244 CRT8-8 3 6,393 96108245 CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117251 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253 <td>CRT8-5</td> <td>2.2</td> <td></td> <td>96108243</td>	CRT8-5	2.2		96108243	
CRT8-10 4 7,368 96117229 CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253	CRT8-6	2.2		96108244	
CRT8-12 4 8,029 96117230 CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117246 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253	CRT8-8	3	6,393	96108245	
CRT8-14 5.5 9,538 96117231 CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117249 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253	CRT8-10	4	7,368	96117229	
CRT8-16 5.5 10,273 96117232 CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117249 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253	CRT8-12	4	8,029	96117230	
CRT8-18 7.5 12,087 96117233 CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117249 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253	CRT8-14	5.5	9,538	96117231	
CRT8-20 7.5 12,818 96117234 CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117249 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253	CRT8-16	5.5	10,273	96117232	
CRT16-2 2.2 4,520 96108344 CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253	CRT8-18	7.5	12,087	96117233	
CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253	CRT8-20	7.5	12,818	96117234	
CRT16-3 3 5,504 96108345 CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253					
CRT16-4 4 6,404 96117246 CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253					
CRT16-5 5.5 7,798 96117247 CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253					
CRT16-6 5.5 8,367 96117248 CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253					
CRT16-7 7.5 9,302 96117249 CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253			•		
CRT16-8 7.5 9,955 96117250 CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253			•		
CRT16-10 11 12,326 96117251 CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253			· · · · · · · · · · · · · · · · · · ·		
CRT16-12 11 13,064 96117252 CRT16-14 15 16,207 96117253					
CRT16-14 15 16,207 96117253			•		
10.5 17,113 96117254			•		
	CK110-17	10.3	17,113	9011/254	

PJE	COUPLINGS	FOR	CRT	PUMPS

CRT ACCESSORIES		No Read	£	Product Code
PJE threaded couplings with EPDM	CRT2 and 4	2	155	415520
seals	CRT8 and 16	2	194	425935
		No Reqd	£	Product Code
Viton seals are available as an	CRT2 and 4	2	124	00ID6742
antional sutra	CDTO and 1C	1	240	00077443





CATEGORY 2 - CRI/CRIE, CR/CRE AND CRN/CRNE FLANGE AND PIPE COUPLING LIST PRICES COUNTER FLANGES FOR CR/CRI/CRN PUMPS Pump type and Pipe Pump Туре PN rating Nº Reqd Material £ **Product Code** size Connection connection CRI 1s/1/3 Welding 25 bar Steel St37-2 43 409902 FGJ 25mm CRI 5 FGJ Welding 25 bar 2 Steel St37-2 58 32mm 419902 CRI 10 FGJ Welding 40mm 25 bar 2 Steel St37-2 77 429901 FGJ Threaded 2" BSPF 16 bar 2 Steel St37-2 84 339903 CRI 15/20 FGJ Welding 50mm 25 bar 2 Steel St37-2 103 339901 F Threaded 2" 1/2 BSPF 16 bar 58 Steel St37-2 349902 CR 32 3" BSPF Steel St37-2 Threaded 16 bar 56 349901 Welding F 65 mm 40 bar Steel St37-2 123 349905 F 3" BSPF 16 bar Threaded Steel St37-2 71 350540 CR 45 F Welding 80mm 2 123 40 bar Steel St37-2 350542 F Threaded 4" BSPF 16 bar 2 Steel St37-2 84 369901 CR 64/95 Welding 100 mm 25 bar Steel St37-2 97 369905 CR 125/155 F Welding 150 mm 40 bar 2 Steel St37-2 287 96750476 1" BSPF CRI/CRN 1s/1/3 FGJ Threaded 25 bar 316 stainless steel 249 91200656 CRI/CRN 5 FGJ Threaded 1" 1/4 BSPF 25 bar 316 stainless steel 156 91200657 FGJ 16 bar 178 Threaded 1" ½ BSPF 316 stainless steel 91201023 CRI/CRN 10 Welding 40 bar FGJ 316 stainless steel 189 40 mm 91201025 FGJ Threaded 2" BSPF 16 bar 316 stainless steel 197 91201026 CRI/CRN 15/20 FGJ Welding 50 mm 40 bar 316 stainless steel 205 91201028 F Threaded 2" 1/2 BSPF 16 bar 2 316 stainless steel 258 349910 **CRN 32** F Threaded 3" BSPF 16 bar 316 stainless steel 258 349911 F Welding 2 258 65 mm 40 bar 316 stainless steel 349908 F Threaded 3" BSPF 16 bar 2 316 stainless steel 387 350543 **CRN 45** Welding 80 mm 40 bar 316 stainless steel 387 350545 4" BSPF 2 F 16 bar 316 stainless steel 419 Threaded 369904 CRN 64/95 F Welding 100 mm 40 bar 2 316 stainless steel 419 369906 Welding 150 mm 16 bar 316 stainless steel 341 98052936 CRN 125/155 Welding 150 mm 40 har 2 316 stainless steel 990 96750478 NOTE - THE ABOVE COUNTER FLANGES ARE CATEGORY 4 ITEMS DISCOUNT PURPOSES.

One circular four bolt DIN counter flange kit is supplied with 4 bolts, 4 nuts and 1 gasket. [2 kits required per pump] DIN counter flange kits are pressure rated to EN 1092-2 [ex BS4504:1989]. All counter flanges are uncoated



Pump type and	Pump	Type	Size	PN rating	Nº Regd	Rubber	£	Product Code
size	Connection	туре	Size	rivialing	N= Kequ	Rubbei	r	Product Code
	PJE	Threaded	1" ¼ BSPF	69 bar	2	EPDM	65	419911
CRN 1s/1/3/5	PJE	Threaded	1" ¼ BSPF	69 bar	2	FKM	161	419905
CKN 13/1/3/3	PJE	Welding	32mm	69 bar	2	EPDM	65	419912
	PJE	Welding	32mm	69 bar	2	FKM	161	419904
	PJE	Threaded	2" BSPF	69 bar	2	EPDM	65	339911
CDN 10/15/20	PJE	Threaded	2" BSPF	69 bar	2	FKM	161	339918
CRN 10/15/20	PJE	Welding	50 mm	69 bar	2	EPDM	65	339910
	PJE	Welding	50 mm	69 bar	2	FKM	161	339917

PJE pipe couplings in 316 stainless steel.

A set consists of two coupling halves (Victaulic type 77), one gasket, one pipe stub (for welding or threaded), bolts and nuts. PJE couplings are only required on new installations. CRN 1s, 1, 3, 5, 10, 15 & 20 PJE pump replacements do not require them.



CATEGORY 2 - CRI/CRIE, CR/CRE AND CRN/CRNE FLANGE AND PIPE COUPLING LIST PRICES

FLEXICLAMP COUPLINGS FOR CRI PUMPS

Pump type and size	Pump Connection	Туре	Size	PN rating	Nº Reqd	Rubber	£	Product Code
	CA	2 bolt oval	1" BSPF	16 bar	2	Klingersil	45	96449746
CRI 1s/1/3/5	CA	2 bolt oval	1" ¼ BSPF	16 bar	2	Klingersil	45	96449747
CKI 13/1/3/3	CA	DIN Flange	DN 25/32	16 bar	2	EPDM	194	96449745
	CA	DIN Flange	DN 25/32	16 bar	2	FKM	206	96449900
	CA	2 bolt oval	1" ½ BSPF	16 bar	2	Klingersil	61	96498728
	CA	2 bolt oval	2" BSPF	16 bar	2	Klingersil	65	96498835
CRI 10/15/20	CA	DIN Flange	DN 40	16 bar	2	EPDM	135	96500263
CKI 10/15/20	CA	DIN Flange	DN 40	16 bar	2	FKM	189	96500264
	CA	DIN Flange	DN 50	16 bar	2	EPDM	147	96500267
	CA	DIN Flange	DN 50	16 bar	2	FKM	POA	96500269

NOTE - THE ABOVE FLEXICLAMP COUPLINGS ARE CATEGORY 2 ITEMS DISCOUNT PURPOSES.

One 2 bolt oval flange kit contains 1 stainless steel flange, 2 bolts/nuts & 1 gasket [2 kits required for each new CRI pump].







		No Reqd	£	Product Code
Bolt kit for use replacing the CR2 with CRI 3 CA base	M10x70mm bolts, nuts, gaskets	1	52	96449748
Bolt kit for use replacing the CR4 with CRI 5 CA base	M10x70mm bolts, nuts, gaskets	1	52	96449749
Bolt kit for use replacing the CR8 with CRI 10 CA base	M12x90mm bolts, nuts, gaskets	2	45	96498727

NOTE - THE ABOVE FLEXICLAMP COUPLINGS ARE CATEGORY 2 ITEMS DISCOUNT PURPOSES.

Replacement bolt kits contain flanges, gaskets, nuts & bolts but normally only provide longer bolts and gaskets to enable the CR2, CR4 & CR8 2 bolt base pump to be replaced with the CRI CA base pump when using existing cast iron 2 bolt oval flanges.

ADAPTERS

CR 30 / CRN 30 AND CR 60 / CRN 60 ADAPTER RAILS

The adaptor rail price includes one rail (two required per pump) and are necessary if fitting a CR(N)32 pump to existing CR(N)30 foundation mountings.

	No Reqd	£	Product Code
CR/CRN 30-10 to CR/CRN 30-80 replaced by a CR/CRN32	2	69	96547329
CR/CRN 30-110/9 to CR/CRN 30-160 replaced by a CR/CRN32	2	108	96587892
CR/CRN 60-20 to CR/CRN 60-80 replaced by a CR/CRN64	2	79	96587893



CR120 / CR150 ACCESSORIES	No Reqd	£	Product Code
DN125 PN40 weld counter flanges	2	198	96750475
DN125 to DN150 adapter kit	2	431	96638169
CRN120 / CRN150 ACCESSORIES	No Reqd	£	Product Code
DN125 PN40 weld counter flanges	2	664	96750477
DN125 to DN150 adapter kit	2	1,328	96638180

NOTE - THE ABOVE ADAPTERS ARE CATEGORY 4 ITEMS DISCOUNT PURPOSES.

LIQTEC - DRY RUNNING PROTECTION

The most common cause of pump failure is dry running.

Grundfos' dry running protection device, the LiqTec, stops the pump running, via the motor's contactor starter, if there is no liquid in the vicinity of the shaft seal.

The sensor is specifically designed to be installed on the CR, CRI, CRN and MTR range of pumps where an auxiliary connection is available on the pump's top casting.

 $\ \, \text{Use on single pump installations only and not on packaged sets where alternative protection is normally provided.} \,$



	£	Product Code
LiqTec with sensor and 5m of interconnection cable (200-240V)	1,013	96556429
LiqTec with sensor and 5m of interconnection cable (80-130V)	1,225	96556430
Extra 15m sensor cable kit	161	96443676
For new permanent magnet MGE motors, models H, I and J	£	Product Code
LiqTec sensor unit with 5m cable	199	99337830
NOTE - THE ABOVE LIQTEC IS A CATEGORY 2 PRODUCT FOR DISCOUN	T PURPOSES.	

CATEGORY 2 - CM- I 304 STAINLESS STEEL HORIZONTAL MULTISTAGE PUMPS 50Hz COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR 230V 1ph 50Hz 400V 3ph 50Hz Model P2 (kW) / Frame f **Product Code** Model P2 (kW) / Frame **Product Code** f CMx-x A R I E AQQE CAAN CMx-x A R I E AQQE FAAN CM 1-2-I 0.30 / 71512 97514162 CM 1-2-I 0.46 / 71500 97514413 97514439 CM 1-3-I 0.46 / 71 97515109 CM 1-3-I 0.30 / 71561 549 CM 1-4-I 0.50 / 71 97514999 CM 1-4-I 0.46 / 71 97515121 605 587 CM 1-5-I 646 97515000 CM 1-5-I 628 96807014 0.50 / 710.46 / 71CM 1-6-I 657 97515021 CM 1-6-I 0.46 / 71 639 97515122 0.50 / 71CM 1-7-I 0.50 / 71739 97515023 CM 1-7-I 0.65 / 71721 97515123 CM 1-8-I 0.67 / 80 762 97515024 CM 1-8-I 0.65 / 71 739 96976902 0.67 / 80 97644331 97644332 CM 1-9-I 775 CM 1-9-I 0.65 / 71752 0.67 / 80 97644334 98662772 CM 1-10-I 793 CM 1-10-I 1.1 / 80 770 CM 1-11-I 0.90 / 80 865 97644335 CM 1-11-I 1.1 / 80 829 98694631 CM 1-12-I 0.90 / 80 925 97644336 CM 1-12-I 1.1 / 80 888 98694632 CM 1-13-I 0.90 / 80 968 97577832 CM 1-13-I 1.1 / 80 932 98694633 CM 1-14-I 1.30 / 90 1,319 97644337 CM 1-14-I 1.1 / 80 1,087 98694634 96961011 96961023 CM 3-2-I 0.30 / 71 531 CM 3-2-I 0.46 / 71 518 CM 3-3-I 554 CM 3-3-I 0.50 / 71572 96961025 0.46 / 7196961026 CM 3-4-I 0.50 / 71 610 96961045 CM 3-4-I 0.46 / 71 592 96961047 CM 3-5-I 0.50 / 71657 96961051 CM 3-5-I 0.65 / 71 639 96961052 0.67 / 80 97515032 97515126 CM 3-6-I 731 CM 3-6-I 0.65 / 71708 CM 3-7-I 0.90 / 80 793 97515033 CM 3-7-I 1.1 / 80 757 98662725 CM 3-8-I 97515034 CM 3-8-I 0.90 / 80 845 1.1 / 80 809 98725225 CM 3-9-I 1.30 / 90 1,089 97569313 CM 3-9-I 1.1 / 80 858 99080201 CM 3-10-I 1.30 / 90 1,154 97644339 CM 3-10-I 1.5 / 90 922 99059802 1.30 / 90 97620738 CM 3-11-I 1.5 / 90 98694635 CM 3-11-I 1.272 1.040 97644340 CM 3-12-I CM 3-12-I 99080202 1,097 CM 3-13-I 2.2 / 90 98694637 CM 3-13-I 1.30 / 90 1.329 97621172 CM 3-14-I 1.70 / 90 1,370 97644352 CM 3-14-I 2.2 / 90 1,118 98694638 CM 5-2-I 0.50 / 71 528 97515042 CM 5-2-I 0.46 / 71 510 96961054 CM 5-3-I 0.50 / 71610 97515044 CM 5-3-I 592 96961057 CM 5-4-I 0.67 / 80 96961065 CM 5-4-I 1.1 / 80 98798510 731 708 CM 5-5-I 0.90 / 80 809 96961097 CM 5-5-I 1.1 / 80 773 98725313 CM 5-6-I 1.30 / 90 1,066 97507749 CM 5-6-I 1.5 / 90 834 98664188 1.30 / 90 97515047 CM 5-7-I 1,177 CM 5-7-I 1.5 / 90 945 98725228 98717944 CM 5-8-I 1.30 / 90 1,203 97515048 CM 5-8-I 2.2 / 90 971 CM 5-9-I 1.70 / 90 97644353 CM 5-9-I 2.2 / 90 1.100 98896343 1.352 CM 5-10-I 1.70 / 90 1,391 97621173 CM 5-10-I 2.2 / 90 1,138 99059803 CM 5-11-I 1.70 / 90 1,468 97620739 CM 5-11-I 2.2 / 90 1,216 99080204 CM 5-12-I 3 / 100 98694640 1,452 3 / 100 CM 10-1-I 0.67 / 80 793 97515062 CM 5-13-I 1.499 98694641 CM 10-2-I 1.058 96946004 1.30 / 90 CM 10-3-I 1.70 / 90 96946005 1,295 CM 10-1-I 0.65 / 71770 97515133 CM 10-2-I 1.5 / 90 827 98719394 CM 15-1-I 1.30 / 90 1,460 97515064 CM 10-3-I 98693606 2.2 / 90 1.043 CM 15-2-I 1.70 / 90 1,659 97515063 CM 10-4-I 3 / 100 1,424 98777053 CM 10-5-I 3 / 100 1.540 98979299 CM 25-1-I 1.70 / 90 1,599 97515065 CM 10-6-I 4 / 112 1,571 99057080 CM 10-7-I 5.5 / 132 98694642 1,697 **ELECTRIC MOTOR** Seal materials CM 10-8-I 5.5 / 132 2,022 98694643 380-415V 3ph 50Hz AQQE seal has Sic Sic seal faces 1.5 / 80 99087495 220-240V 1ph 50Hz and EPDM elastomer CM 15-1-I 1.228 99080205 IP55 Class F insulation **Pump materials** CM 15-2-I 2.2 / 90 1,406 CM x - x I pumps are 304St Steel CM 15-3-I 4 / 112 1.620 98669726 (EN1.4301) CM 15-4-I 5.5 / 132 1,816 98958451 Pump pipe connections CM 1 & CM3 - Both 1"BSPF CM 5 - Suction 1"1/4BSPF Discharge 1"BSPF CM 25-1-I 2.2 / 90 1.347 98979367

Pumps with Custom Built options such as alternative seals, alternative materials different voltage ranges etc can be configured and priced on request by your Sales Office. Flange adaptors, PJE and Tri-Clamp connectors are available on request.

ADAPTOR BASEPLATES

CM 10 - Both 1"1/2BSPF

CM 15 & CM25 - Both 2"BSPF

For assisting with the replacement of CH, CHN and CHI units with motor frame size 71/80 only - see page 51.



98693604

98935349

99205260

1.880

2.326

2,696

4 / 112

5.5 / 132

7.5 / 132

CM 25-2-I

CM 25-3-I

CM 25-4-I

CATEGORY 2 CM - G 316 STAINLESS STEEL HORIZONTAL MULTISTAGE PUMPS 50Hz

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

	230V 1ph 50Hz		1ph 50Hz	
Model	P2 (kW) / Frame	£ Product Code		
		CMx-x	A R G E AQQE CAAN	
CM 1-2-G	0.30 / 71	644	97516635	
CM 1-3-G	0.30 / 71	713	97516636	
CM 1-4-G	0.50 / 71	760	97516638	
CM 1-5-G	0.50 / 71	806	97516640	
CM 1-6-G	0.50 / 71	827	97516642	
CM 1-7-G	0.50 / 71	894	97516644	
CM 1-8-G	0.67 / 80	958	97516646	
CM 1-9-G	0.67 / 80	976	97515025	
CM 1-10-G	0.67 / 80	1,002	97515026	
CM 1-11-G	0.90 / 80	1,087	96935421	
CM 1-12-G	0.90 / 80	1,167	96935423	
CM 1-13-G	0.90 / 80	1,218	96935425	
CM 1-14-G	1.30 / 90	1,612	96935427	
CM 3-2-G	0.30 / 71	670	96806880	
CM 3-3-G	0.50 / 71	721	96806865	
CM 3-4-G	0.50 / 71	770	96806889	
CM 3-5-G	0.50 / 71	829	96806882	
CM 3-6-G	0.67 / 80	904	97516648	
CM 3-7-G	0.90 / 80	955	97516650	
CM 3-8-G	0.90 / 80	1,043	97516652	
CM 3-9-G	1.30 / 90	1,319	97515035	
CM 3-10-G	1.30 / 90	1,401	97515036	
CM 3-11-G	1.30 / 90	1,553	96935447	
CM 3-12-G	1.30 / 90	1,599	96935449	
CM 3-13-G	1.30 / 90	1,625	96935451	
CM 3-14-G	1.70 / 90	1,671	96935453	
CM 5-2-G	0.50 / 71	685	97516654	
CM 5-3-G	0.50 / 71	806	97516655	
CM 5-4-G	0.67 / 80	865	96806893	
CM 5-5-G	0.90 / 80	1,010	96806881	
CM 5-6-G	1.30 / 90	1,290	97516656	
CM 5-7-G	1.30 / 90	1,432	97516657	
CM 5-8-G	1.30 / 90	1,463	97516658	
CM 5-9-G	1.70 / 90	1,648	97515050	
CM 5-10-G	1.70 / 90	1,697	97515061	
CM 5-11-G	1.70 / 90	1,798	96935475	
CM 10-1-G	0.67 / 80	950	97516660	
CM 10-2-G	1.30 / 90	1,301	96943217	
CM 10-3-G	1.90 / 90	1,592	96943250	
CM 15-1-G	1.30 / 90	1,731	97516661	
CM 15-2-G	1.70 / 90	1,968	97516662	
01125 : 0	4 70 /00	4.0		
CM 25-1-G	1.70 / 90	1,854	97516666	

ELECTRIC MOTOR

380-415V 3ph 50Hz 220-240V 1ph 50Hz IP55 Class F insulation

PIPE CONNECTIONS

CM 1 & CM3 - Both 1"BSPF CM 5 - Suction 11/4"BSPF Discharge 1"BSPF CM 10 - Both 11/2"BSPF CM 15 & CM25 - Both 2"BSPF

SEAL MATERIALS

AQQE seal has Sic Sic seal faces and FPDM elastomer

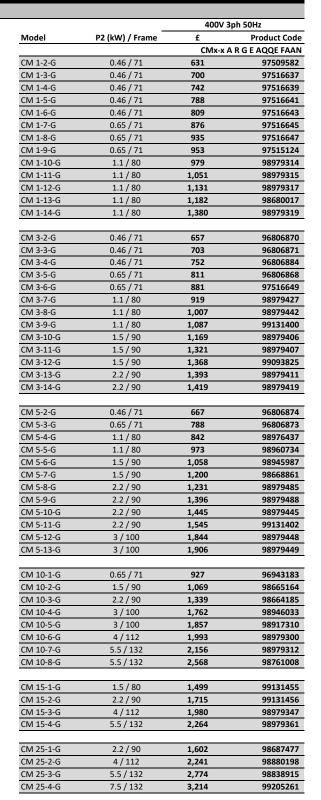
PUMP MATERIALS

CM x - x G pumps are 316St Steel (EN1.4401)

Pumps with Custom Built options such as alternative seals, alternative materials different voltage ranges etc can be configured and priced on request by your Sales Office. Flange adaptors, PJE and Tri-Clamp connectors are available on request.

ADAPTOR BASEPLATES

For assisting with the replacement of CH, CHN and CHI units with motor frame size 71/80 only - see page 51.





304 STAINLESS STEEL HORIZONTAL MULTISTAGE PUMPS 50/60Hz

Model

CME 1-2-I

CME 1-3-I

CME 1-4-I

CME 1-5-I

CME 1-6-I

CME 1-7-I

CME 1-8-I

CME 1-9-I

CME 3-2-I

Frame size

71

71

71

80

80

80

80

90

71

Transducer

0 - 4 bar

0 - 6 bar

0 - 6 bar

0 - 10 bar

0 - 10 bar

0 - 10 bar

0 - 16 bar

0 - 16 bar

0 - 6 bar

COMPLETE WITH VARIABLE SPEED 3500 RPM ELECTRIC MOTOR					
	Motor		200-240V	1ph 50/60Hz	
Model	Frame size	Transducer	£	Product Code	
			СМх-х А	R I E AQQE UADN	
CME 1-2-I	71	0 - 4 bar	1,059	98394750	
CME 1-3-I	71	0 - 6 bar	1,089	98394760	
CME 1-4-I	71	0 - 6 bar	1,130	98394770	
CME 1-5-I	80	0 - 10 bar	1,188	98394937	
CME 1-6-I	80	0 - 10 bar	1,244	98394957	
CME 1-7-I	80	0 - 10 bar	1,284	98394963	
CME 1-8-I	80	0 - 16 bar	1,344	98394967	
CME 3-2-I	71	0 - 4 bar	1,059	98394780	
CME 3-3-I	80	0 - 6 bar	1,143	98394972	
CME 3-4-I	80	0 - 10 bar	1,183	98394981	
CME 3-5-I	80	0 - 10 bar	1,252	98394993	
CME 3-6-I	90	0 - 10 bar	1,465	98395306	
CME 3-7-I	90	0 - 10 bar	1,553	98395316	
CME 5-2-I	80	0 - 4 bar	1,128	98395001	
CME 5-3-I	80	0 - 6 bar	1,181	98395013	
CME 5-4-I	90	0 - 6 bar	1,523	98395326	

0 - 4 bar

1.362

			OR

CME 10-1-I

380-500V 3ph 50/60Hz with IE5 efficiency 200-240V 1ph 50/60Hz with IE5 efficiency IP55 Class F insulation

80

PUMP MATERIALS

CM x - x I pumps are 304St Steel (EN1.4301)

SEAL MATERIALS

AQQE seal has Sic Sic seal faces and EPDM elastomer

PIPE CONNECTIONS

CM 1 & CM3 - Both 1"BSPF CM 5 - Suction 1"1/4BSPF Discharge 1"BSPF CM 10 - Both 1"1/2BSPF CM 15 & CM25 - Both 2"BSPF

			-,	0000.00.
CME 3-3-I	80	0 - 6 bar	1,357	98395157
CME 3-4-I	80	0 - 10 bar	1,398	98395166
CME 3-5-I	80	0 - 10 bar	1,467	98395177
CME 3-6-I	90	0 - 10 bar	1,637	98395359
CME 3-7-I	90	0 - 16 bar	1,725	98395366
CME 3-8-I	90	0 - 16 bar	2,025	98396708
CME 3-9-I	90	0 - 16 bar	2,058	98396713
CME 5-2-I	80	0 - 4 bar	1,342	98395195
CME 5-3-I	80	0 - 6 bar	1,396	98395207
CME 5-4-I	90	0 - 10 bar	1,695	98395373
CME 5-5-I	90	0 - 10 bar	2,010	98396719
CME 5-6-I	90	0 - 10 bar	2,064	98396729
CME 5-7-I	100	0 - 16 bar	2,304	99077754
CME 5-8-I	100	0 - 16 bar	2,498	99073792
CME 10-1-I	80	0 - 4 bar	1,576	98395109
CME 10-2-I	90	0 - 6 bar	2,030	98396267
CME 10-3-I	112	0 - 10 bar	2,794	99077759
CME 10-4-I	132	0 - 16 bar	3,181	99077760
CME 10-5-I	132	0 - 16 bar	3,280	99073816
CME 15-1-I	90	0 - 4 bar	2,285	98396593
CME 15-2-I	112	0 - 6 bar	3,039	99077762
CME 15-3-I	132	0 - 10 bar	3,847	99077764
CME 25-1-I	100	0 - 4 bar	2,874	99077766

0 - 6 bar

4,175

380-500V 3ph 50/60Hz

1,233

1.263

1,304

1,402

1.458

1,499

1,559

1.731

1,233

Product Code CMx-x A R I E AQQE SADN

98394849

98394859

98394868

98395119

98395127

98395143

98395148

98395354

98394877

99077768

CME OPERATION

These pump models have been designed for operation in either open or closed loop control arrangements. The default control mode is "Constant Curve/Uncontrolled". For closed loop control either differential pressure transducers, pressure transducers or temperature transducers can be supplied as separate items; as required.

CME 25-2-I

132

A pressure vessel must be fitted on the discharge pipe close to the pressure sensor and a non-return valve should be fitted to the pump suction, on all CRIE pumps where the "stop" function is activated.

98394930

Pumps with Custom Built options such as special seals and r

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites.

ADAPTOR BASEPLATES

For assisting with the replacement of CH, CHN and CHI units with motor frame size 71/80 only - see page 51.

Pumps with Custom Built options such as alternative seals, alternative materials different voltage ranges etc can be configured and priced on request by your Sales Office. Flange adaptors, PJE and Tri-Clamp connectors are available on request.





CATEGORY 2 CME - G 316 STAINLESS STEEL HORIZONTAL MULTISTAGE PUMPS 50/60Hz

98394932

COMPLETE WITH VARIABLE SPEED 3500 RPM ELECTRIC MOTOR						
	Motor 200-240V 1ph 50/60Hz					
Model	Frame size	Transducer	£	Product Code		
			CMx-x A F	R G E AQQE UADN		
CME 1-2-G	71	0 - 4 bar	1,168	98394748		
CME 1-3-G	71	0 - 6 bar	1,228	98394758		
CME 1-4-G	71	0 - 6 bar	1,284	98394768		
CME 1-5-G	80	0 - 10 bar	1,344	98394935		
CME 1-6-G	80	0 - 10 bar	1,372	98394954		
CME 1-7-G	80	0 - 10 bar	1,420	98394960		
CME 1-8-G	80	0 - 16 bar	1,508	98394965		
CME 1-9 G	90	0 - 16 bar	1,727	98395299		
CME 3-2-G	71	0 - 4 bar	1,190	98394777		
CME 3-3-G	80	0 - 6 bar	1,274	98394970		
CME 3-4-G	80	0 - 10 bar	1,314	98394979		
CME 3-5-G	80	0 - 10 bar	1,390	98394989		
CME 3-6-G	90	0 - 10 bar	1,606	98395303		
CME 3-7-G	90	0 - 10 bar	1,755	98395313		
CME 5-2-G	80	0 - 4 bar	1,274	98395003		
CME 5-3-G	80	0 - 6 bar	1,340	98395009		
CME 5-4-G	90	0 - 6 bar	1,675	98395328		

0 - 4 bar

1,531

ELECTRIC MOTOR

CME 10-1-G

380-500V 3ph 50/60Hz with IE5 efficiency 200-240V 1ph 50/60Hz with IE5 efficiency IP55 Class F insulation

80

PUMP MATERIALS

CM x - x G pumps are 316 St Steel (EN1.4401)

SEAL MATERIALS

AQQE seal has Sic Sic seal faces and EPDM elastomer

PIPE CONNECTIONS

CM 1 & CM3 - Both 1"BSPF CM 5 - Suction 11/4"BSPF Discharge 1"BSPF CM 10 - Both 11/2"BSPF CM 15 & CM25 - Both 2"BSPF

	Motor		380-500V	3ph 50/60Hz
Model	Frame size	Transducer	£	Product Code
			CMx-x A R	G E AQQE SADN
CME 1-2-G	71	0 - 4 bar	1,342	98394846
CME 1-3-G	71	0 - 6 bar	1,402	98394855
CME 1-4-G	71	0 - 6 bar	1,458	98394864
CME 1-5-G	80	0 - 10 bar	1,559	98395116
CME 1-6-G	80	0 - 10 bar	1,587	98395124
CME 1-7-G	80	0 - 10 bar	1,634	98395130
CME 1-8-G	80	0 - 16 bar	1,722	98395145
CME 1-9-G	90	0 - 16 bar	1,899	98395352
CME 3-2-G	71	0 - 6 bar	1,364	98394873
CME 3-3-G	80	0 - 6 bar	1,488	98395153
CME 3-4-G	80	0 - 10 bar	1,529	98395162
CME 3-5-G	80	0 - 10 bar	1,604	98395172
CME 3-6-G	90	0 - 10 bar	1,778	98395356
CME 3-7-G	90	0 - 16 bar	1,926	98395362
CME 3-8-G	90	0 - 16 bar	2,247	98396705
CME 3-9-G	90	0 - 16 bar	2,287	98396709
CME 5-2-G	80	0 - 4 bar	1,488	98395197
CME 5-3-G	80	0 - 6 bar	1,555	98395201
CME 5-4-G	90	0 - 10 bar	1,847	98395375
CME 5-5-G	90	0 - 10 bar	2,197	98396721
CME 5-6-G	90	0 - 10 bar	2,294	98396725
CME 5-7-G	100	0 - 16 bar	2,556	99176057
CME 5-8-G	100	0 - 16 bar	2,801	99176058
CME 10-1-G	80	0 - 4 bar	1,746	98395111
CME 10-2-G	90	0 - 6 bar	2,234	98396306
CME 10-3-G	112	0 - 10 bar	3,060	99176091
CME 10-4-G	132	0 - 16 bar	3,516	99176092
CME 10-5-G	132	0 - 16 bar	3,688	99176105
-				
CME 15-1-G	90	0 - 4 bar	2,511	98396678
CME 15-2-G	112	0 - 6 bar	3,211	99176124
CME 15-3-G	132	0 - 10 bar	4,098	99176125
CME 25-1-G	100	0 - 4 bar	3,256	99176126
CME 25-2-G	132	0 - 6 bar	4,456	99176127

Pumps with Custom Built options such as alternative seals, alternative materials different voltage ranges etc can be configured and priced on request by your Sales Office. Flange adaptors, PJE and Tri-Clamp connectors are available on request.

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commission and monitor multiple pumps on multiple sites.

For assisting with the replacement of CH, CHN and CHI units with motor frame size 71/80 only - see page 51.





CATEGORY 2 CM SP - SELF-PRIMING STAINLESS STEEL HORIZONTAL MULTISTAGE PUMPS **COMPLETE STAND-ALONE PUMP** 220-240V 1ph 50Hz P2 Model Motor/Frame kW **Product Code Product Code** max suction lift: 4m max suction lift: 8m CM x-x S R I F AOOF CAAN CM x-x O R I F AOOF CAAN CM 1-3 MG71A 0.30 98482156 not available CM 1-4 MG71B 0.50 649 98482157 not available CM 1-5 MG71B 0.50 695 98482158 not available not available CM 1-6 MG71B 0.50 706 98482159 CM 3-3 MG71B 0.50 616 98482147 616 98482173 CM 3-4 MG71B 98482148 98482174 0.50 654 654 CM 3-5 MG71B 0.50 706 98482149 706 98482175 CM 3-6 MG80A 0.67 780 98482150 780 98482176 CM 5-3 MG71B 0.50 98482179 98482186 654 654 CM 5-4 MG80A 0.67 775 98482180 775 98482187 98482181 98482188 CM 5-5 MG80B 0.90 858 858 1,115 98482182 1,115 98482189 CM 5-6 MG90SA 1.30 CM 5-7 MG90SA 1.30 1,226 98482183 1,226 98482190 all pumps AQQE seal

220-240V 1ph 50H	z	P2	m	nax suction lift:	4m	n	max suction lift: 4m		
Model	Motor/Frame	kW	Controller	£	Product Code	Controller	£	Product Code	
CMB-SP 1-27	MG71A	0.30	PM1-15	631	98507558	PM2	726	98507611	
CMB-SP 1-36	MG71B	0.50	PM1-15	663	98507559	PM2	765	98507612	
CMB-SP 1-45	MG71B	0.50	PM1-15	700	98507560	PM2	775	98507613	
CMB-SP 1-54	MG71B	0.50	PM1-22	700	98507571	PM2	837	98507614	
CMB-SP 3-28	MG71B	0.50	PM1-15	579	98507566	PM2	778	98507623	
CMB-SP 3-37	MG71B	0.50	PM1-15	700	98507567	PM2	811	98507624	
CMB-SP 3-47	MG71B	0.50	PM1-22	775	98507575	PM2	896	98507625	
CMB-SP 3-56	MG80A	0.67	PM1-22	832	98507576	PM2	963	98507626	
CMB-SP 5-28	MG71B	0.50	PM1-22	758	98507582	PM2	878	98507633	
CMB-SP 5-47	MG80B	0.90	PM1-22	961	98507583	PM2	1,115	98507634	

CMB-SP includes:

CM self-priming pump with AVBE seal

Grundfos PM

1.5 m cable without plug

BOOSTER PUMP SET WITH SEPARATE PRESSURE MANAGER								
220-240V 1ph 50Hz		P2	r	nax suction lift:	: 8m		max suction lift:	8m
Model	Motor/Frame	kW		£	Product Code		£	Product Code
CMB-SP 3-28 SET	MG71B	0.50	PM1-15	672	98507586	PM2	693	98507637
CMB-SP 3-37 SET	MG71B	0.50	PM1-15	700	98507587	PM2	729	98507638
CMB-SP 3-47 SET	MG71B	0.50	PM1-22	775	98507588	PM2	765	98507639

CMB-SP SET includes:

CM self-priming pump with AVBE seal

Grundfos PM

Special wallmount bracket for Grundfos PM

1.5 m cable with schuko plug

8m suction requires installation as shown on the databook

Pump materials

CM x - x I pumps are 304 St Steel (EN1.4301)

with composite syphon and base valve

Seal materials

AQQE seal has Sic Sic seal faces and EPDM elastomer

AVBE seal has Aluminium oxide (Al₂ O₃) and resin impregnated carbon seal faces and EPDM elastomer

Pump pipe connections

CMB 1 & CMB 3 - Both 1" BSPF

CMB 5 - Suction 1"1/4 BSPF Discharge 1" BSPF

ELECTRIC MOTOR

220-240V 1ph 50Hz IP55 Class F insulation

Note: Check documentation for recommended pipe settings to ensure self-priming effect



CM ACCESSORIES			CM/CMB-SP
		£	Product Code
Spring leaded feet valves in Cast iron	1" BSPF	82	956110
Spring loaded foot valves in Cast iron	1" ¼ BSPF	123	956112
Cover for CM motors, frame sizes 71 and 80		76	97528743
Angled cable gland with O-ring and lock nut		POA	97842998

CATEGORY 2 - CM and CME BOOSTERS

ALL PUMPS AND MAIN EQUIPMENT ARE WRAS APPROVED

Model	Pump build code	£	Product Code
CM BOO	STER PUMP AND PM2	2	
220-240V 1p	h 50Hz		
CMB 1-27	ICADCA	683	97529990
CMB 1-36	ICADCA	722	97530009
CMB 1-45	ICADCA	731	97530018
CMB 1-54	ICADCA	791	97530027
CMB 3-27	ICADCA	732	97530036
CMB 3-37	ICADCA	764	97530045
CMB 3-46	ICADCA	850	97530054
CMB 3-55	ICADCA	915	97530063
CMB 5-28	ICADCB	830	97530072
CMB 5-47	ICADCB	1,062	97530081

CMBE VARI	CMBE VARIABLE SPEED PACKAGE SET						
200-240V 1ph 5	0/60Hz						
CMBE 1-44	IUCDDA	1,274	98374679				
CMBE 1-75	IUCDDA	1,427	98374680				
CMBE 1-99	IUCDDA	1,555	98374691				
CMBE 3-30	IUCDDA	1,378	98374692				
CMBE 3-62	IUCDDA	1,531	98374693				
CMBE 3-93	IUCDDA	1,685	98374694				
CMBE 5-31	IUCDDB	2,079	98374695				
CMBE 5-62	IUCDDB	2,233	98374696				
CMBE 10-54	IUCDDC	2,489	98382190				

ELECTRIC MOTOR

220-240V 1ph 50Hz IP55 Class F insulation

Seal materials

AVBE seal has Ceramic/Carbon seal faces and EPDM elastomers

Pump materials

CMB pumps are 304St Steel (EN1.4301)

Pump pipe connections

CMB 1 & CMB 3 - Both 1" BSPF CMB 5 - Suction 1"1/4 BSPF Discharge 1" BSPF Includes 1.5m cable without plug

Max liquid temperature: 40°C

ELECTRIC MOTOR

Model

200-240V 1ph 50/60Hz with IE5 efficiency IP55 Class F insulation

Pump build code

Seal materials

AVBE seal has Ceramic/Carbon seal faces and EPDM elastomers

Pump materials

CMBE pumps are 304 St Steel (EN1.4301)

Pump pipe connections

CMBE 1 & CMBE 3 - Both 1" BSPF

CMBE 5 - Suction 1"1/4 BSPF Discharge 1" BSPF

CMBE 10 - Suction 1"1/2 BSPF Discharge 1"1/2 BSPF

Includes 1.5m cable without plug

Max liquid temperature: 60°C



Product Code



BOOSTER PACKAGE ACCESSORIES FOR USE WITH CM1/3/5 FIXED SPEED PUMPS

CONTROL OPTIONS

18L VERTICAL PRESSURE TANK ASSEMBLIES		£	Product Code
Pressure Tank assembly	18 Litre vertical tank assembly	481	4618CRAA

For CM1, CM3 and CM5 pumps comprising diaphragm pressure tank, pressure switch, pressure gauge and fittings. Max water temp. 40 deg C.

	£	Product Code
1" Integral Non return Valve for installation under Pressure tank assembly (necessary extra for above set)	50	GBNR0003
•		

PRESSUI	RE MANAGER		V	VRAS Approved
1 x 220-240) V, 50/60 Hz			
Model		Max current	£	Product Code
PM1 15	cut in 1.5bar, cut out at no flow.	6A	177	96848670
PM1 22	cut in 2.2bar, cut out at no flow.	6A	177	96848701
PM2	cut in variable from 1.5 to 5.5bar in steps of 0.5bar, cut out at no flow.	10A	205	96848738

Max liquid temperature: 40°C Max ambient temperature: 50°C





		£	Product Code
Pressure tank (additional to PM2)	8 Litre vertical tank	61	96526321
OTHER ACCESSORIES		£	Product Code
Float level switch		127	GBPS0099
Spring loaded foot valves in Cast iron	1" BSPF	82	956110
	1"¼ BSPF	123	956112

NOTE - ALL THE ABOVE CM ACCESSORY PRICES ARE CATEGORY 3 ITEMS FOR DISCOUNT PURPOSES NOTE - ALL THE ABOVE CM ACCESSORY PRICES ARE CATEGORY 4 ITEMS FOR DISCOUNT PURPOSES

ADAPTOR BASEPLATES (For replacement of CH, CHN and CHI units with CM with motor 71/80 Frame size only)						
•	£	Product Code		£	Product Code	
CH(N) 2 to CM 1 or CM 3	47	96960786	CHI(E) 2 to CM(E) 1 or CM(E) 3	47	96960788	
CH(N) 4 to CM 3 or CM 5	47	96960786	CHI(E) 4 to CM(E) 3 or CM(E) 5	47	96960788	
CH 8 to CM 10	47	96960787	CHI(E) 8 to CM(E) 10	47	96960788	
CH 12 to CM 10 or CM 15	47	96960787	CHI(E) 12 to CM(E) 10 or CM(E) 15	47	96960788	

		UNTED IMMER			
COMPLETE WITH DIRECT C					
	P1	Pipe outlet	Depth B		
Model	Watts	Connections	(mm)	£	Product Cod
220-240/380-440V 3ph 60Hz		PUMP WITH TOP SI	UCTION INLET		AWA
MTA 30-150	86	G 1/2"	150	196	9798917
220-240/380-415V 3ph 50Hz					
220-240/380-440V 3ph 60Hz		PUMP WITH BOTTO	OM SUCTION INLET		AWAE
MTA 30-150	86	G 1/2"	153	196	97989184
220-240/380-415V 3ph 50Hz					
220-240/380-440V 3ph 60Hz		PUMP WITH TOP SI	UCTION INLET		A W A 1
MTA 60-130	200	G 3/4"	125	252	97989186
MTA 60-180	200	G 3/4"	175	283	97989187
MTA 60-250	200	G 3/4"	245	314	97989188
MTA 60-350	200	G 3/4"	345	345	97989206
220-240/380-415V 3ph 50Hz					
220-240/380-440V 3ph 60Hz		PUMP WITH BOTTO	OM SUCTION INLET		AWAE
MTA 60-130	200	G 3/4"	130.5	252	97989208
MTA 60-180	200	G 3/4"	180.5	283	97989221
MTA 60-250	200	G 3/4"	250.5	314	97989231
MTA 60-350	200	G 3/4"	350.5	345	97989236
220-240/380-415V 3ph 50Hz					
220-240/380-440V 3ph 60Hz		PUMP WITH TOP SI	UCTION INLET		AWAT
MTA 90-130	270	G 3/4"	128	295	97989245
MTA 90-180	270	G 3/4"	178	333	97989246
MTA 90-250	270	G 3/4"	248	371	97989248
MTA 90-350	270	G 3/4"	348	408	97989250
220-240/380-415V 3ph 50Hz		22,1			0.000=0
220-240/380-440V 3ph 60Hz		PUMP WITH BOTTO	OM SUCTION INLET		AWAE
MTA 90-130	270	G 3/4"	132.5	295	97989251
MTA 90-180	270	G 3/4"	182.5	333	97989252
MTA 90-250	270	G 3/4"	252.5	371	97989254
MTA 90-350	270	G 3/4"	352.5	408	97989273
220-240/380-415V 3ph 50Hz	270	0 3/4	332.3	400	37303273
220-240/380-440V 3ph 60Hz		PUMP WITH TOP SI	LICTION INLET		AWA
MTA 120-180	440	G 1"1/4	180	331	97989275
MTA 120-100	440	G 1"1/4	250	378	97989276
MTA 120-230	440	G 1"1/4	280	425	97989278
MTA 120-280	440	G 1"1/4	350	471	97989280
220-240/380-415V 3ph 50Hz	440	011/4	330	4/1	37363260
220-240/380-440V 3ph 60Hz		PUMP WITH BOTTO	OM SLICTION INLET		Λ \Λ/ Λ Ε
MTA 120-180	440			331	A W A E 97989292
MTA 120-250	440	G 1"1/4 G 1"1/4	183 253	378	97989293
	440		283	425	
MTA 120-280		G 1"1/4			97989294
MTA 120-350	440	G 1"1/4	353	471	97989297
220-240/380-415V 3ph 50Hz					
220-240/380-440V 3ph 60Hz	700	PUMP WITH BOTTO		C27	A W B E
MTA 200-250	790	G 1"1/2	250	627	97989298
MTA 200-280	790	G 1"1/2	280	705	97989299
MTA 200-350	790	G 1"1/2	350	784	97989300
220-240/380-415V 3ph 50Hz					
220-240/380-440V 3ph 60Hz		PUMP WITH TOP SI			AWBT
MTA 20H-150	95	G 1/2"	150	252	97989301
MTA 40H-180	230	G 3/4"	180	330	97989302
MTA 70H-250	281	G 3/4"	250	376	97989303
MTA 100H-280	445	G 1"	280	621	97989304

ELECTRIC MOTOR (Dual voltage/Dual frequency) 220-240/380-415V 3ph 50Hz

220-240/380-415V 3ph 50Hz 220-240/380-440V 3ph 60Hz IP54 Class F insulation

All motors 750W and above are IE3 Efficiency.



CATEGORY 2 - SPK and MTH FLANGED MOUNTED IMMERSIBLE PUMPS COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC IE3 MOTOR (0.75kW AND ABOVE) 400V 3ph 50Hz Depth B Pipe Model kW connections (mm) f **Product Code** A W A AUUV SPK1-1/1 0.06 G 3/4" (3/4" BSPF) 140 469 39AH5001 SPK1-3/3 0.12 G 3/4" (3/4" BSPF) 182 520 39AH5103 SPK1-5/5 G 3/4" (3/4" BSPF) 0.12 224 585 39AH5205 SPK1-8/8 0.18 G 3/4" (3/4" BSPF) 287 736 39AH5308 SPK1-11/11 G 3/4" (3/4" BSPF) 350 817 39AH0411 0.25 SPK1-15/15 G 3/4" (3/4" BSPF) 39AH0515 0.37 434 933 SPK1-19/19 G 3/4" (3/4" BSPF) 518 0.37 992 39AH0619 SPK1-23/23 0.55 G 3/4" (3/4" BSPF) 602 1,165 39AH0723 SPK2-1/1 0.06 G 3/4" (3/4" BSPF) 140 469 39DH5001 SPK2-3/3 0.12 G 3/4" (3/4" BSPF) 182 582 39DH5103 SPK2-5/5 0.18 G 3/4" (3/4" BSPF) 224 634 39DH5205 SPK2-8/8 0.37 G 3/4" (3/4" BSPF) 287 752 39DH0308 G 3/4" (3/4" BSPF) 39DH0411 SPK2-11/11 0.37 350 817 SPK2-15/15 0.55 G 3/4" (3/4" BSPF) 434 933 39DH0515 SPK2-19/19 0.75 G 3/4" (3/4" BSPF) 518 992 98776571 98776573 SPK2-23/23 0.75 G 3/4" (3/4" BSPF) 602 1,165 SPK4-1/1 G 3/4" (3/4" BSPF) 0.25 140 510 39GH0001 SPK4-3/3 0.25 G 3/4" (3/4" BSPF) 182 580 39GH0103 G 3/4" (3/4" BSPF) SPK4-5/5 0.37 224 663 39GH0205 SPK4-8/8 0.55 G 3/4" (3/4" BSPF) 287 779 39GH0308 SPK4-11/11 0.75 G 3/4" (3/4" BSPF) 350 906 98776576 SPK4-15/15 1.1 G 3/4" (3/4" BSPF) 434 1,108 98776578

518

G 3/4" (3/4" BSPF)

ELECTRIC MOTOR

SPK4-19/19

380-415V 3ph 50Hz

IP55 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

	P2	Pipe	Depth B	400V 3ph 50Hz	
Model	kW	connections	(mm)	£	Product Code
				A W	A AQQV
MTH 2-3/3	0.55	Rp 3/4"	145	710	98992572
MTH 2-4/4	0.75	Rp 3/4"	163	728	98992589
MTH 2-5/5	0.75	Rp 3/4"	181	746	98992605
MTH 2-6/6	1.1	Rp 3/4"	199	764	98992621
MTH 2-7/7	1.1	Rp 3/4"	217	781	98992633
MTH 2-8/8	1.1	Rp 3/4"	235	799	98992642
MTH 2-9/9	1.1	Rp 3/4"	253	817	98992649
MTH 2-10/10	1.1	Rp 3/4"	271	835	98992652
MTH 2-11/11	1.1	Rp 3/4"	289	853	98992654
MTH 4-2/1	0.55	Rp 3/4"	145	710	98993021
MTH 4-2/2	0.55	Rp 3/4"	145	728	98993029
MTH 4-3/3	0.75	Rp 3/4"	172	746	98993037
MTH 4-4/4	1.1	Rp 3/4"	199	764	98993044
MTH 4-5/5	1.1	Rp 3/4"	226	781	98993050
MTH 4-6/6	1.1	Rp 3/4"	253	799	98993060
MTH 4-7/7	1.5	Rp 3/4"	280	1,137	98993068
MTH 4-8/8	1.5	Rp 3/4"	307	1,172	98993074

ELECTRIC MOTOR

380-415V 3ph 50Hz

IP54 Class F insulation

All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Dummy stages

All pumps listed are fully staged where the number of impellers equals the number of stages.

If dummy stages are required please contacts the Sales Office where these variants can be configured and priced.



1,213

98776582

CATEGORY 2 - MTR 1s to MTR 3 CAST IRON/304 STAINLESS STEEL IMMERSIBLE PUMPS

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC IE3 MOTOR (0.75kW AND ABOVE)

COMPLETE WIT		COUPLED 2900 KPIVI		•
	P2	Depth B		/ 3ph 50Hz
Model	kW	(mm)	£	Product Code
			A V	V A HUUV
MTR 1s-2/2	0.37	160	861	96514842
MTR 1s-3/3	0.37	178	876	96514843
MTR 1s-4/4	0.37	196	891	96514844
MTR 1s-5/5	0.37	214	901	96514845
MTR 1s-6/6	0.37	232	915	96514846
MTR 1s-7/7	0.37	250	928	96514847
MTR 1s-8/8	0.37	268	943	96514848
MTR 1s-9/9	0.37	286	952	96514849
MTR 1s-10/10	0.37	304	967	96514850
MTR 1s-11/11	0.37	322	977	96514851
MTR 1s-12/12	0.37	340	992	96514853
MTR 1s-13/13	0.55	358	999	96514854
MTR 1s-15/15	0.55	394	1,051	96514855
MTR 1s-17/17	0.55	430	1,075	96514857
MTR 1s-19/19	0.55	466	1,100	96514858
MTR 1s-21/21	0.75	502	1,169	98406764
MTR 1s-22/22	0.75	520	1,181	98511194
MTR 1s-23/23	0.75	538	1,196	
				98511195
MTR 1s-25/25	0.75	574	1,221	98511196
MTR 1s-26/26	1.1	592	1,228	98511197
MTR 1s-27/27	1.1	610	1,277	98511198
MTR 1s-30/30	1.1	664	1,326	98511200
MTR 1s-33/33	1.1	718	1,353	98511251
MTR 1s-36/36	1.1	772	1,393	98511252
MTR 1-2/2	0.37	160	952	96514868
MTR 1-3/3	0.37	178	962	96514869
MTR 1-4/4	0.37	196	970	96514870
MTR 1-5/5	0.37	214	977	96514871
MTR 1-6/6	0.37	232	989	96514872
MTR 1-7/7	0.37	250	997	96514873
MTR 1-8/8	0.55	268	1,014	96514874
MTR 1-9/9	0.55	286	1,031	96514875
MTR 1-10/10	0.55	304	1,039	96514876
MTR 1-11/11	0.55	322	1,046	96514877
MTR 1-12/12	0.75	340	1,078	
				98511253
MTR 1-13/13	0.75	358	1,090	98511254
MTR 1-15/15	0.75	394	1,107	98511255
MTR 1-17/17	1.1	430	1,189	98511256
MTR 1-19/19	1.1	466	1,201	98511257
MTR 1-21/21	1.1	502	1,221	98511258
MTR 1-22/22	1.1	520	1,228	98511259
MTR 1-23/23	1.1	538	1,238	98511260
MTR 1-25/25	1.5	574	1,565	98511261
MTR 1-26/26	1.5	592	1,575	98511262
MTR 1-27/27				
	1.5	610	1,582	98511263
MTR 1-30/30	1.5	664	1,622	98511264
MTR 1-33/33	2.2	718	1,804	98513535
MTR 1-36/36	2.2	772	1,828	98492759
MTR 3-2/2	0.37	160	938	96514893
MTR 3-3/3	0.37	178	945	96514894
MTR 3-4/4	0.37	196	955	96514895
MTR 3-5/5	0.37	214	962	96514896
MTR 3-6/6	0.55	232	997	96514897
MTR 3-7/7	0.55	250	1,007	96514898
			1,007	
MTR 3-8/8	0.75	268		98511266
MTR 3-9/9	0.75	286	1,046	98511267
MTR 3-10/10	0.75	304	1,058	98511268
MTR 3-11/11	0.75	322	1,063	98511269
MTR 3-12/12	1.1	340	1,162	98511270
MTR 3-13/13	1.1	358	1,169	98511271
MTR 3-15/15	1.1	394	1,189	98511272
MTR 3-17/17	1.5	430	1,538	97946744
MTR 3-17/17	1.5	466	1,558	
				98494988
MTR 3-21/21	2.2	502	1,681	98511273
MTR 3-22/22	2.2	520	1,688	98511274
MTR 3-23/23	2.2	538	1,698	98511275
MTR 3-25/25	2.2	574	1,713	98511276
MTR 3-26/26	2.2	592	1,723	98509384
MTR 3-27/27	2.2	610	1,730	98494192
MTR 3-30/30	2.2	664	1,846	98511281
MTR 3-33/33	3	718	1,883	98511282
MTR 3-36/36	3	772	1,907	98511283
5 50/50		112	_,501	30311203

Pipe Connections

MTR 1s, 1 & 3: G1"1/4 (1"1/4 BSPF)

ELECTRIC MOTOR

380-415V 3ph 50Hz IP55 Class F insulation All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Dummy stages

All pumps listed are fully staged where the number of impellers equals the number of stages If dummy stages are required please contact the Sales Office where these variants can be $configured\ and\ priced.$

Frequency and voltages

If 60Hz or non standard voltages are required these pumps can be sized and configured by the Sales Offices.



CATEGORY 2 - MTR 5 to MTR 10 CAST IRON/304 STAINLESS STEEL IMMERSIBLE PUMPS

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC IE3 MOTOR (0.75kW AND ABOVE)

COMPLETE WI		OUPLED 2900 KP		•
	P2	Depth B		Sph 50Hz
Model	kW	(mm)	£	Product Code
				A HUUV
MTR 5-2/2	0.37	169	915	96514917
MTR 5-3/3	0.55	196	952	96514918
MTR 5-4/4	0.55	223	962	96514919
MTR 5-5/5	0.75	250	1,011	98511284
MTR 5-6/6	1.1	277	1,105	98511286
MTR 5-7/7	1.1	304	1,115	98096418
MTR 5-8/8	1.1	331	1,130	98511287
MTR 5-9/9	1.5	358	1,467	97938362
MTR 5-10/10	1.5	385	1,481	98511288
MTR 5-12/12	2.2	439	1,582	98330756
MTR 5-14/14	2.2	493	1,605	98513569
MTR 5-16/16	2.2	547	1,629	
MTR 5-17/17	3	583	1,737	98513570
				98513571
MTR 5-18/18	3	601	1,747	98513572
MTR 5-19/19	3	628	1,762	98513573
MTR 5-20/20	3	655	1,774	98513574
MTR 5-21/21	4	682	1,782	98513575
MTR 5-22/22	4	709	2,143	98429669
MTR 5-24/24	4	763	2,168	98513576
MTR 5-26/26	4	817	2,190	98513577
MTR 5-29/29	4	898	2,227	98513578
MTR 5-32/32	5.5	979	2,773	98513579
MTR 8-1/1	0.37	196	815	98825612
MTR 8-2/2-1	0.55	223	854	98825613
MTR 8-2/2	0.75	223	888	98825614
MTR 8-3/3-1	0.75	250	908	98825615
MTR 8-3/3	1.1	250	928	98825616
MTR 8-4/4-1	1.1	277	955	
MTR 8-4/4	1.5	277	1,272	98825617
				98825618
MTR 8-5/5-1	1.5	304	1,334	98825619
MTR 8-5/5	2.2	304	1,378	98825696
MTR 8-6/6-1	2.2	331	1,432	98825697
MTR 8-6/6	2.2	331	1,472	98825698
MTR 8-7/7-1	2.2	358	1,511	98825699
MTR 8-7/7	2.2	358	1,538	98825700
MTR 8-8/8-1	3	385	1,789	98825701
MTR 8-8/8	3	385	1,801	98825702
MTR 8-9/9-1	3	412	1,816	98825703
MTR 8-9/9	3	412	1,828	98825704
MTR 8-10/10-1	3	439	1,841	98825705
MTR 8-10/10	3	439	1,856	98825706
MTR 8-11/11	4	466	2,227	98825707
MTR 8-12/12	4	493	2,252	98825708
MTR 8-13/13	4	520	2,279	98825709
MTR 8-14/14	5.5	547	2,769	98825710
MTR 8-15/15	5.5	574	2,796	98825711
MTR 8-15/15	5.5	601	2,823	98825712
			-	
MTR 8-17/17	5.5	628	2,850	98825713
MTR 8-18/18	5.5	655	2,889	98825714
MTR 8-19/19	7.5	682	2,941	98825715
MTR 8-20/20	7.5	709	2,968	98825716
MTR 8-21/21	7.5	736	2,995	98825717
MTR 8-22/22	7.5	763	3,022	98825719
MTR 8-23/23	7.5	790	3,047	98825720
MTR 8-24/24	7.5	817	3,074	98825721
MTR 8-25/25	7.5	844	3,101	98825722
		<u> </u>		
MTR 10-2/1	0.75	148	1,280	98511303
MTR 10-2/2	0.75	148	1,319	98511304
MTR 10-3/3	1.1	178	1,390	98511305
MTR 10-4/4	1.5	208	1,629	98511306
MTR 10-5/5	2.2	238	1,728	98513584
MTR 10-6/6	2.2	268	1,762	98513585
MTR 10-6/6	3	298	1,762	
				98513586
MTR 10-8/8	3	328	1,875	98513587
MTR 10-9/9	3	358	1,912	98513589
MTR 10-10/10	4	388	2,358	98513590
MTR 10-12/12	4	448	2,429	98513591
MTR 10-14/14	5.5	508	2,864	98513592
MTR 10-16/16	5.5	568	2,936	98513594
MTR 10-18/18	7.5	628	3,022	98513595
MTR 10-20/20	7.5	688	3,093	98513596
MTR 10-22/22	7.5	748	3,165	98513597

Pipe Connections

MTR 5 & 8 : G1"1/4 (1"1/4 BSPF) MTR 10: G 2" (2" BSPF)

ELECTRIC MOTOR

380-415V 3ph 50Hz IP55 Class F insulation All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Dummy stages

All pumps listed are fully staged where the number of impellers equals the number of stages If dummy stages are required please contact the Sales Office where these variants can be configured and priced.

Frequency and voltages

If 60Hz or non standard voltages are required these pumps can be sized and configured by the Sales Offices.



CATEGORY 2 - MTR 15 to MTR 32 CAST IRON/304 STAINLESS STEEL IMMERSIBLE PUMPS

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC IE3 MOTOR

	P2	Depth B	400V	3ph 50Hz	
Model	kW	(mm)	£	Product Code	
		, ,	A W	A HUUV	
MTR 15-2/1	1.1	178	1,383	98407083	
MTR 15-2/2	2.2	178	1,580	98513599	
MTR 15-3/3	3	223	1,755	98513600	
MTR 15-4/4	4	268	2,070	98513601	
MTR 15-5/5	4	313	2,121	98513602	
MTR 15-6/6	5.5	358	2,505	98282545	
MTR 15-7/7	5.5	403	2,554	98513654	
MTR 15-8/8	7.5	448	2,754	98330630	
MTR 15-9/9	7.5	493	2,805	98513656	
MTR 15-10/10	11	538	4,201	98513657	
MTR 15-12/12	11	628	4,304	98513658	
MTR 15-14/14	11	718	4,410	98513659	
MTR 15-16/16	15	808	5,616	98383020	
MTR 15-17/17	15	853	5,667	98513660	
,	-				
MTR 20 -2/1	1.1	178	1,521	98511336	
MTR 20 -2/2	2.2	178	1,737	98513662	
MTR 20 -3/3	4	223	2,333	98513663	
MTR 20 -4/4	5.5	268	2,761	98513664	
MTR 20 -5/5	5.5	313	2,810	98513666	
MTR 20 -6/6	7.5	358	3,032	98513667	
MTR 20 -7/7	7.5	403	3,086	98513668	
MTR 20 -8/8	11	448	4,745	98513669	
MTR 20 -10/10	11	538	4,850	98513670	
MTR 20 -12/12	15	628	6,128	98441644	
MTR 20 -14/14	15	718	6,233	98513671	
MTR 20 -16/16	18.5	808	7,225	98513672	
MTR 20 -17/17	18.5	853	7,331	98513673	
· · · · · · · · · · · · · · · · · · ·			,		
MTR 32-2/1-1	1.5	223	2,011	98511349	
MTR 32-2/1	2.2	223	2,011	98513676	
MTR 32-2/2-2	3	223	2,367	98513677	
MTR 32-2/2	4	223	2,783	98513678	
MTR 32-3/3	5.5	293	3,598	98446579	
MTR 32-4/4	7.5	363	4,481	98349230	
MTR 32-5/5	11	433	5,727	98513679	
MTR 32-6/6	11	503	6,039	98349249	
MTR 32-7/7	15	573	7,107	98513680	
MTR 32-8/8	15	643	7,420	98513681	
MTR 32-9/9	18.5	713	8,421	98381028	
MTR 32-10/10	18.5	783	8,734	98513682	
MTR 32-11/11	22	853	9,802	98513683	
MTR 32-12/12	22	923	10,114	98395376	
MTR 32-13/13	30	993	12,243	98513685	
MTR 32-14/14	30	1063	12,551	98513686	

Pipe Connections

MTR15 & 20: G 2" (2" BSPF) MTR 32: DN65 Flanged

ELECTRIC MOTOR

380-415V 3ph 50Hz IP55 Class F insulation All 3 Phase motors 0.75kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Dummy stages

All pumps listed are fully staged where the number of impellers equals the number of stages If dummy stages are required please contact the Sales Office where these variants can be configured and priced.

Frequency and voltages

If 60Hz or non standard voltages are required these pumps can be sized and configured by the Sales Offices.



CATEGORY 2 - MTR 45 to MTR 64 CAST IRON/304 STAINLESS STEEL IMMERSIBLE PUMPS

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC IE3 MOTOR

CONTRICT WI		COUPLED 2900 KI			
	P2	Depth B		ph 50Hz	
Model	kW	(mm)	£	Product Code	
				HUUV	
MTR 45-2/1-1	3	244	2,463	98513687	
MTR 45-2/1	4	244	2,675	98513688	
MTR 45-2/2-2	5.5	244	3,472	98513697	
MTR 45-2/2	7.5	244	4,341	98513698	
MTR 45-3/3-2	11	324	5,768	98513699	
MTR 45-3/3	11	324	5,768	98513700	
MTR 45-4/4-2	15	404	7,164	98513701	
MTR 45-4/4	15	404	7,164	98513702	
MTR 45-5/5-2	18.5	484	8,525	98513704	
MTR 45-5/5	18.5	484	8,525	98513705	
MTR 45-6/6-2	22	564	9,671	98513706	
MTR 45-6/6	22	564	9,671	98513707	
MTR 45-7/7-2	30	644	10,545	98513708	
MTR 45-7/7	30	644	10,545	98513709	
MTR 45-8/8-2	30	724	11,232	98513710	
MTR 45-8/8	30	724	11,232	98513711	
MTR 45-9/9-2	30	804	11,586	98513712	
MTR 45-9/9	37	804	12,627	98513713	
MTR 45-10/10-2	37	884	12,942	98513714	
MTR 45-10/10	37	884	12,942	98513715	
MTR 45-11/11-2	45	964	16,709	98513716	
MTR 45-11/11	45	964	16,709	98513717	
MTR 45-12/12-2	45	1044	17,103	98513718	
MTR 45-12/12	45	1044	17,103	98513719	
MTR 45-13/13-2	45	1124	17,497	98513719	
WITK 43 13/13 Z	73	1124	17,437	30313720	
MTR 64-2/1-1	4	249	2,663	98513732	
MTR 64-2/1	5.5	249	3,303	98513733	
MTR 64-2/2-2	7.5	249	4,203		
	11	249	•	98513735	
MTR 64-2/2-1		249	5,202	98513736	
MTR 64-2/2	11		5,498	98513737	
MTR 64-3/3-2	15	332	6,908	98513738	
MTR 64-3/3-1	15	332	6,908	98513739	
MTR 64-3/3	18.5	332	7,939	98513740	
MTR 64-4/4-2	18.5	414	8,333	98513742	
MTR 64-4/4-1	22	414	9,231	98513743	
MTR 64-4/4	22	414	9,231	98513744	
MTR 64-5/5-2	30	497	9,849	98513745	
MTR 64-5/5-1	30	497	9,849	98513746	
MTR 64-5/5	30	497	9,849	98513747	
MTR 64-6/6-2	30	579	10,247	98513748	
MTR 64-6/6-1	37	579	12,137	98513749	
MTR 64-6/6	37	579	12,137	98513750	
MTR 64-7/7-2	37	662	12,531	98513752	
MTR 64-7/7-1	37	662	12,531	98513753	
MTR 64-7/7	45	662	16,677	98513754	
MTR 64-8/8-2	45	744	17,071	98513755	
MTR 64-8/8-1	45	744	17,071	98513756	

Pipe Connections

MTR 45 & 64: DN80 Flanged

ELECTRIC MOTOR

380-415V 3ph 50Hz IP55 Class F insulation All 3 Phase motors 3.0kW and above are IE3 Efficiency.

Please see page 58 for motor retrofit details.

Dummy stages

All pumps listed are fully staged where the number of impellers equals the number of stages If dummy stages are required please contact the Sales Office where these variants can be configured and priced.

Frequency and voltages

If 60Hz or non standard voltages are required these pumps can be sized and configured by the Sales Offices.



3567

99159865

CATEGORY 2 - MTRE HIGH SPEED FLANGED MOUNTED IMMERSIBLE PUMPS COMPLETE WITH DIRECT COUPLED MGE VARIABLE SPEED ELECTRIC MOTOR 380-500V 3ph 50/60Hz P2 Depth B **Product Code** kW Model (mm) MTRE 1s-19/19 99159851 4 466 2969 MTRE 1-19/19 5.5 466 3268 99159863

466

MTRE 3-19/19 Pipe Connections

MTRE 1s/1/3: G 1"1/4 (1"1/4 BSPF)

ELECTRIC MOTOR

380-500V 3ph 50/60Hz with IE5 efficie IP55 Class F insulation

IMPORTANT

A Grundfos GO based communication device will be required in order to commission the "E" product. See page 22 for details. This device can be used to commissior

7.5

CATEGORY 2 - MOTOR STANDARDS, FPV PRODUCTS

MOTOR STANDARDS AND FPV PRICING

The table below generally indicates the Standard motors used in the UK for Grundfos Industrial Products.

Motor Factory Product Variants (FPV) are available for most motor variations - These include Heaters, different IP ratings and voltages etc.

If the FPV products are required please contact the Sales Office for information and pricing.

		LIST PRICE ADDERS			Motor Manufacturers used		
	Motor Rating	A/C Htrs	Thermistors IP56		Wiotor Manufacturers used		
					CR / MTR	NB / NK	
1ph	0.37-1.1 kW	FPV	FPV	FPV	MG	N/A	
Ipii	1.5 - 2.2 kW	FPV	FPV	FPV	MG	N/A	
	0.37 - 0.75 kW	FPV	FPV	FPV	MG	MG	
	1.1 kW	FPV	FPV	FPV	MG	MG	
	1.5 - 2.2 kW	FPV	FPV	FPV	MG	MG	
	3 kW	FPV	STANDARD	FPV	MG	MG	
	4 kW	FPV	STANDARD	FPV	MG	MG	
	5.5 kW	FPV	STANDARD	FPV	MG	MG	
	7.5 kW	FPV	STANDARD	FPV	MG	MG	
3ph	11 kW	FPV	STANDARD	FPV	MG	MG	
Эрп	15 kW	FPV	STANDARD	FPV	MG	MG	
	18.5 kW	FPV	STANDARD	FPV	MG	MG/SIEMENS	
	22 kW	FPV	STANDARD	FPV	MG	MG/SIEMENS	
	30 kW	FPV	STANDARD	FPV	SIEMENS	SIEMENS	
	37 kW	FPV	STANDARD	FPV	SIEMENS	SIEMENS	
	45 kW	FPV	STANDARD	FPV	SIEMENS	SIEMENS	
	55 - 90 kW	FPV	STANDARD	FPV	SIEMENS	SIEMENS	
	110 - 200 kW	FPV	STANDARD	FPV	N/A	SIEMENS	

MOTOR STANDARDS

230 V 1ph 50Hz, IP55, Class F insulation 400 V 3ph 50Hz, IP55, Class F insulation A/C Heaters are usually available in 110/1/50 Hz or 230/1/50 Hz, please specify at order stage

Pump motors with Tropicalized windings, ATEX compliance, special voltages and other makes are available on request 60 Hz voltages are also available with revised pump selections.

Note 1: IP56 for outdoor use can only be provided by Siemens motors on extended lead times.

Note 2: The Heaters and/or Thermistors need to be configured by the Sales Office to create a new pump part number.

CUSTOM BUILT PRODUCTS - CR, CRI, CRN MULTISTAGE PUMPS

In our Custom Built product range we are able to offer pumps to fulfil many alternative applications.

We list some as follows:

- Group II Category 2G and 3G ATEX pumps for ATEX Zone 1 and Zone 2 areas;
- Air Cooled Top pumps for high temperatures on water and oil;
- Low temperature CRN pumps
- Horizontal mounting
- Low NPSH options
- Electropolished (hygienic surface finish)
- CRN MagDrive (magnetic coupling) for chemical applications
- Full stainless steel versions
- 4 poles motors
- Double back-to-back or tandem shaft seal

CATEGORY 2 - DOCUMENTATION AND TESTING

DOCUMENTATION

NB(E), NK(E), CR(I)(E), CM(E) AND MTR(E) PUMPS

All pumps will be supplied with one English (or multi-language) version of the appropriate Installation and operating instructions.

A separate Safety Instructions document which includes a CE Declaration of Conformity and electrical, safety and maintenance information is also included.

These documents will be included within the product packaging and further copies are available upon request.

Documents provided can also downloaded in pdf format from the Grundfos Product Center.

Any additional documentation requirements should be referred to your Sales Office contacts.

CERTIFICATES & TESTING						
		Pump ranges				
	NB/NK	CR	MTR	СМ	£ NET	Product Code
SALES OFFICE GENERATED CERTIFICATES (NOT COVERED BY EN10204)					PER PUMP	
Letter of conformity	√	√	_	√	500	CDI 00004
(Certificate of Compliance with the Order 2.1 - Non specific inspection and testing)	V	v	•	v	FOC	GBLOC001
Typical Test Certificate (Test Report - Non specific inspection and testing 2.2)	✓	✓	✓	✓	55	GBTTC001
PRODUCTION GENERATED CERTIFICATES EN10204 (must be requested at time of order)						
Letter of conformity	√	,	_	√	204	06507005
Certificate of Compliance with the order according to EN 10204 2.1	•	•	•	•	POA	96507895
Typical Test Certificate	√	./	√	√	POA	96507896
Test report according to EN 10204 2.2 - Non specific inspection and testing	· ·	•	•	•	PUA	90507890
Duty point verification report according to ISO 9906:2012 grade 3B (3 point performance test)	√	√	√	√	POA	96539699
Standard test report according to ISO 9906:2012 grade 2B (5 point performance test)	✓	✓	✓	✓	POA	96507930
Inspection Certificate (EN 10204 3.1) - includes hydrostatic tests	✓	✓	✓	✓	POA	96507897
Inspection Certificate - Lloyds Register of Shipping LRS (EN 10204 3.2)	✓	✓	✓	✓	POA	96507898
Inspection Certificate - Det Norske Veritas DNV (EN 10204 3.2)	✓	✓	✓	✓	POA	96507899
Inspection Certificate - Germanischer Lloyd GL (EN 10204 3.2)	✓	✓	✓	✓	POA	96507920
Inspection Certificate - Bureau Veritas BV (EN 10204 3.2)	✓	✓	✓	✓	POA	96507921
Inspection Certificate - American Bureau of Shipping ABS (EN 10204 3.2)	✓	✓	✓	✓	POA	96507922
Inspection Certificate - Various other listed bodies	✓	✓	✓	✓	POA	On request
Material specification report (verification of main component materials used)	✓	✓	✓	✓	POA	96507928
Special material specification report with EN10204 3.1 material certificate for each main component	✓	✓	-	✓	POA	96507929
Surface roughness report according to ISO 1302	-	✓	-	✓	POA	96507931
Vibration report according to ISO 5199	✓	-	-	-	POA	98443849
Vibration report according to ISO 10816	✓	✓	-	✓	POA	96507932
Motor test report	-	✓	-	✓	POA	96507933
PRODUCTION GENERATED REPORTS ON GRUNDFOS VARIANTS (must be requested at time of order)						
Cleaned and dried pump but not tested after assembly	-	✓	-	✓	POA	96507934
Electro polished pump	-	✓	-	-	POA	96507935
PWIS free certificate	✓	-	-	-	POA	98535593
ATEX Approved Pump Report	✓	✓	✓	-	POA	96512240

GENERAL NOTES

- $2: All\ Production\ Test\ certificates\ except\ witness\ test\ certificates\ are\ included\ in\ the\ packaging$
- 3 : ALL PRICES ARE NET PER PUMP AND NOT SUBJECT TO ANY FURTHER DISCOUNT

^{1:} All Production Test certificates and reports need to be agreed at order stage as these are incorporated into the pump product code cannot be produced retrospectively and must be arranged at time of order

CONDITIONS OF SALE AND SERVICE

Customer's attention is particularly drawn to the provisions of condition 13 (Warranty and Limitation of Liability)

1 1

The definitions and rules of interpretation in this condition apply in these

Agreement: the contract between Grundfos and the Customer for the supply of Equipment and/or Services in accordance with the Order and these Condition Business Day: a day other than a Saturday. Sunday or bank or public holiday in England when banks in London are open for non-automated business. CDM Regulations: the Construction (Design and Management) Regulations 2015 Conditions: these terms and conditions as amended from time to time in

Customer: the person, firm or company who purchases Equipment and/or Services

Data Protection Legislation: all legislation and regulatory requirements in force from time to time relating to the use of personal data and the privacy of electronic communications, including, without limitation (i) any data protection legislation from time to time in force in the UK including the Data Protection Act 2018 or any successor legislation, as well as (ii) the General Data Protection Regulation ((EU) 2016/679) and any other directly applicable European Union regulation relating to data protection and privacy (for so long as and to the extent that the law of the European Union has legal effect in the UK).

Delivery Location: the location set out in the Order for delivery of the Equipment and/or Services or such other location as the parties may agree.

Equipment: all equipment, materials, goods and/or products, or any part or parts thereof, supplied by Grundfos to the Customer under this Agreement or used by Grundfos or its subcontractors in the supply of the Services.

Equipment Specification: any specification for the Equipment, including any relevant plans or drawings, that is agreed in writing by the Customer and Grundfos.

Event of Default: any occurrence of the events set out in condition 17.1 or 17.2. Force Majeure Event: acts, events, omissions or accidents beyond its reasonable control, including (without limitation) strikes, lock-outs or other industrial disputes (whether involving any supplier, contractor or agent of Grundfos or any other party beyond its reasonable control), failure of a utility service or transport network, act of God, war or threat of war, sabotage, riot, civil commotion, malicious damage, compliance with any law or governmental order, rule, regulation or direction, import or export embargoes, accident, breakdown of plant or machinery, fire, flood, storm or default of suppliers or subcontractors, difficulties in obtaining raw materials, labour, fuel, parts or machinery.

Grundfos: Grundfos Pumps Limited (Company No: 00805960) whose registered office is at Grovebury Road, Leighton Buzzard, Bedfordshire LU7 4TL

Health and Safety File: the health and safety file required by the CDM Regulations. **In-put Material:** all documents, information, tools and materials of the Custom required by Grundfos for the proper provision of the Services.

Intellectual Property Rights: patents, rights to inventions, copyright and related rights, trade marks, business names and domain names, rights in get-up, goodwill and the right to sue for passing off, rights in designs, database rights, rights to use, and protect the confidentiality of, confidential information (including know-how), and all other intellectual property rights, in each case whether registered or unregistered and including all applications and rights to apply for and be granted, renewals or extensions of, and rights to claim priority from, such rights and all similar or equivalent rights or forms of protection which subsist or will subsist now or in the future in any part of the world.

Maintenance Schedule: the maintenance schedule attached to the Order setting out the Services to be supplied by Grundfos to the Customer.
Order: the service support agreement or site visit request form in each case on

Grundfos' standard terms (whichever is applicable) including any schedules attached to the service support agreement or site visit request form.

Payment Schedule: the payment schedule attached to the Order setting out the charges applicable for the provision of the Services by Grundfos to the Customer Premium Service: the service package in accordance with Grundfos' terms as set out

Quotation: a written quotation issued by Grundfos.

Services: the services to be provided by Grundfos under this Agreement as set out in the Order or site visit request form together with any other services which Grundfos provides, or agrees to provide, to the Customer.

Site visit request form: Grundfos' Site Visit and Commissioning Request Form, or the equivalent internet log, which the Customer completes.

Time and Materials Rate: the rates set out in the Order.

Warranty: (Subject to condition 5.5) the warranty provided by Grundfos in respect of the Services as set out in condition 8.4 and Equipment as set out in condition 5.1 of these Conditions (as applicable).

Warranty Period: for product codes UPS2, UPS3, ALPHA1, ALPHA2, ALPHA3 and SCALA2 the warranty period shall be 5 years from the date of the manufacture and in all other cases the warranty period shall be 24 months from installation or 30 months from the date of manufacture (whichever expires soonest).

- Headings in these conditions shall not affect their interpretation
- 1.3 A person includes a natural person, corporate or unincorporated body (whether or not having separate legal personality).
- The schedules and annexes form part of this Agreement 1.4 1.5
- A reference to writing or written includes fax and email and electronic chat
- Any obligation in this Agreement on a person not to do something includes, without limitation, an obligation not to agree, allow, permit or acquiesce in that thing being 1.6
- 1.7 References to schedules and annexes are to the schedules and annexes of the Order
- A reference to a statute or statutory provision is a reference to it as amended or re-1.8 enacted. A reference to a statutory provision includes all subordinate legislation make under that stature or statutory provision.

Basis of Agreement

- 2.1 The Order constitutes an offer by the Customer to purchase Equipment and/or Services in accordance with these Conditions.
- 2.2 The Order shall only be deemed to be accepted on the earlier of: (a) an authorised representative of Grundfos issues written acceptance of the Order: or
 - (b) Grundfos delivers the Equipment and/or commences providing Services to the Customer in line with the Order, at which point and on which the date this Agreement shall come into existence.
- Any samples, drawings, descriptive matter or advertising issued by Grundfos and any 2.3 descriptions of the Equipment or illustrations or descriptions of the Services contained in Grundfos' catalogues or brochures are issued or published for the sole purpose of giving an approximate idea of the Services and/or Equipment described

No warranty or guarantee is given for their accuracy and they shall not form part of this Agreement or have any contractual force.

2 4 These Conditions shall:

(a) apply to and be incorporated into this Agreement;

(b) prevail over any other terms that the Customer seeks to impose or incorporate:

(c) prevail over any terms or conditions implied by law, trade custom, practice or course of dealing between Grundfos, the Customer or otherwise.

- These Conditions are subject to any terms, conditions and/or provisions set out in the Order. In the event of any conflict between the terms of these Conditions and the terms of the Order, the provisions of the Order shall prevail, but any special terms granted in respect of any one Order are not applicable to any subsequent Order without the express consent in writing by Grundfos. Quotations shall only be valid if issued in writing.
- 2.6
- 27 Any Quotations are given on the basis that no Agreement shall come into existence except in accordance with condition 2.2. Any Quotation is valid for a period of 30 days from its date (unless otherwise agreed by Grundfos), provided that Grundfos has not previously withdrawn it.
- 2.8 All of these Conditions shall apply to the supply of both Equipment and Services
- except where application to one or the other is specified.

 Any special terms agreed to by Grundfos for any Order shall not apply to any subsequent Order without the express agreement of an authorised representative of Grundfos.
- 2.10 The Customer is responsible for ensuring the accuracy of the terms of the Order and for providing to Grundfos in good time any necessary information required by Grundfos to enable Grundfos to perform its obligations under the Agreement.
- 2.11 Grundfos' minimum order value is £55.00. Orders between £55.00 and £335 for pumps or £130 for Category 4 items will be subject to a £37 handling fee.

Equipment

- 3.1 The Equipment is described in Grundfos' catalogues as modified in any Equipment Specification.
- Unless confirmed in writing by Grundfos, Grundfos makes no representation as to the suitability of the Equipment for the Customer's particular purpose. The 3 2 Customer will be responsible for ensuring that the Equipment is suitable for its particular purpose and Grundfos shall have no liability to the Customer if the Equipment is not suitable for the Customer's particular purpose (so far as legally nossible).
- 3.3 Grundfos (and/or its subcontractors, suppliers or agents) reserves the right to: (a) change the design, construction or composition of the Equipment or the materials or equipment used in the Equipment as it shall think fit; and (b) amend the Equipment Specification of the Equipment if required by any applicable statutory requirements, and shall, in any case, notify the Customer of any such changes (if such changes are effected after this Agreement has come into existence but before the Equipment and/or Services have been fully performed). Samples of Equipment are available for inspection at Grundfos' offices. The samples
- are ex stock at the time of viewing and are without guarantee as to colour or dimensions at the time of delivery. The viewing of a sample does not create a sale by sample.

Delivery of Equipment

- Grundfos shall deliver the Equipment to the Delivery Location. 4.1
- 4 2
- Delivery of the Equipment shall be completed on:
 (a) the completion of unloading of the Equipment at the Delivery Location or (in the absence of any specified Delivery Location by the Customer) upon Grundfos informing the Customer that the Equipment is ready; or
 - (b) (if the Customer or its agents and/or representatives elect to unload the Equipment themselves) upon Grundfos placing the Equipment at the disposal of the Customer, its agents or representatives at the agreed point.
- Grundfos' obligation under condition 4.1 is limited to delivering the Equipment only as near to the Delivery Location as a safe hard road permits. The Customer is to 4.3 provide to Grundfos, free of charge, reasonable assistance with unloading (unless the Customer elects to unload the Equipment itself).
- 4.4 Any dates quoted for delivery of the Equipment are approximate only, and the time and dates quotes for delivery of the Equipment are approximate only, and the third of delivery is not of the essence. Grundfos shall not be liable for any delay (or any additional costs arising out of the delay) in delivery of the Equipment that is caused by a Force Majeure Event or the Customer's failure to provide Grundfos with adequate delivery instructions or any other instructions that are relevant to the supply of the Equipment.
- The Equipment may be delivered in advance of the quoted delivery date upon giving reasonable notice to the Customer. 4.5
- 46 If the Customer fails to take delivery of the Equipment or fails to give Grundfos adequate delivery instructions at the time stated for delivery (otherwise than by reason of Grundfos' sole fault) then, without prejudice to any other right or remedy available to Grundfos:
 - (a) delivery of the Equipment shall be deemed to have been completed at 9.00am on the next Business Day following the day on which Grundfos notified the Customer that the Equipment was ready; and (b) Grundfos may:
 - (i) Charge a re-delivery fee if delivery is rearranged by Grundfos and the Customer; (ii) store the Equipment until actual delivery takes place, and charge the Customer
 - for all related costs and expenses (including insurance) of such storage; (iii) apply Grundfos' returns policy as set out in condition 6; or
 - (iv) sell the Equipment at the best price readily obtainable and (after deducting all reasonable storage and selling expenses) charge the Customer for any shortfall below the price payable by the Customer for the Equipment and Services (as applicable) under this Agreement.
- If the parties have agreed on express delivery, the dates quoted for such delivery 4.7 and agreed delivery dates are approximate only as delivery may vary due to factors not within Grundfos' reasonable control, e.g. leisurely or delayed customs clearance or other import or export obstacles. The parties agree that time of delivery is not of the essence and that Grundfos shall not be liable for any delay (or any additional costs arising out of the delay) in delivery caused by such events.
- Grundfos may deliver the Equipment by instalments.
- If Equipment is not received by the customer within 7 days of notification of dispatch by Grundfos or if it is received in a damaged condition or the quantity received differs from the quantity advised by Grundfos the Customer shall notify 4.9 Grundfos in writing. If such written notice is not received by Grundfos within 10 days of the date of Grundfos' dispatch notification, Grundfos will not be liable in respect of any loss or damaged suffered.
- 4.10 If a proof of delivery is required a £10 handling fee will apply.
- Proof of delivery shall only be retained by Grundfos for 3 months following delivery. 4.11 After 3 months it shall be assumed by both parties that delivery successfully took place unless there is evidence to the contrary.
- A £20 handling fee will apply per order to all orders for spares, pump components, spares kits and ancillary items such as flanges, unions etc. 4.12



Quality of Equipment

5.1 For the duration of the Warranty Period, Grundfos warrants that the Equipment

> (a) (subject to conditions 5.3 and 5.4) conform in all material respects with the Equipment Specification: and

(b) be free from defects in design, material and workmanship.

5.2 Subject to condition 5.3, if:

(a) the Customer gives notice in writing during the Warranty Period within 14 days of discovery that some or all of the Equipment does not comply with the Warranty set out in condition 5.1:

(b) Grundfos is given a reasonable opportunity to examine such Equipment; and (c) the Customer (if reasonably asked to do so by Grundfos) returns such Equipment to Grundfos (at Grundfos' cost), then Grundfos shall, at its option, repair or replace the defective Equipment, or refund the price of the defective Equipment in full. Repairs shall only be carried out between 8am and 5pm on Business Days agreed between Grundfos and Customer.

5.3 Grundfos shall not be liable for the Equipment's failure to comply with the Warranty

> (a) the Customer makes any further use of such Equipment after giving a notice in accordance with condition 5.2 unless otherwise approved by Grundfos (such approval not to be withheld unreasonably);

> (b) the defect arises because the Customer failed to follow Grundfos' or manufacturer's oral or written instructions as to the storage, installation, commissioning, use or maintenance of the Equipment or (if there are none) good trade practice;

(c) the defect arises as a result of Grundfos following any drawing, design supplied by the Customer or the Equipment Specification;

(d) the Customer alters, dismantles or repairs such Equipment without the written consent of Grundfos:

(e) the defect arises as a result of fair wear and tear, wilful damage, negligence, or abnormal working conditions: or

(f) the Equipment differs from its description as a result of changes made to ensure they comply with applicable statutory or regulatory standards.

Except as provided in this condition 5, Grundfos shall have no liability to the Customer in respect of the Equipment's failure to comply with the Warranty. 5.4

5.5 The terms of these Conditions shall apply to any repaired or replacement Equipment supplied by Grundfos under condition 5.2 but for the avoidance of doubt, the Warranty Period for any repaired or replaced Equipment shall be 12 months from the date of the repair. Return of Equipment

6 1 Equipment may not be returned to Grundfos except by the prior written permission of an authorised representative of Grundfos. Contact grundfosuk@sales.grundfos.com with the original purchase order number to arrange a return. Any such return shall be liable for any handling and restocking fees charged by Grundfos.

6.2 All Equipment requested to be returned to Grundfos will be subject to a minimum 35% restocking fee (subject to inspection). Equipment must be returned in its original packaging.

Equipment can only be returned within 6 months of the date of dispatch by 6.3 Grundfos. All returns will be subject to inspection to ascertain age, condition and

Equipment returned without prior authorisation will be refused delivery by Grundfos.

The following Equipment cannot be returned for credit in any circumstance: (a) items with a net value of less than £125 (per item):

(b) repair kits, power cable, engineered to order, third party sourced and obsolete

Any Equipment that has been in contact with hazardous liquids must be cleaned, 6.6 sealed in appropriate packaging, clearly labelled and accompanied by a COSHH certification by the Customer. Any carrier used must be licensed to carry to transport the relevant hazardous liquids.

Title and Risk

7.3

7.1 The risk in the Equipment shall pass to the Customer on completion of delivery in accordance with condition 4.

Title to the Equipment shall not pass to the Customer until Grundfos receives payment in full (in cash or cleared funds) for the Equipment and any other 7 2 equipment or goods that Grundfos has supplied to the Customer in respect of which payment has become due in which case title to the Equipment shall pass at the time of payment of all such sums.

Until title to the Equipment has passed to the Customer, the Customer shall: (a) hold the Equipment (or any receipts received from the Customer where the Customer has sold the Equipment) on a fiduciary basis as Grundfos' bailee; (b) store the Equipment separately from all other goods held by the Custome (where possible) so that they remain readily identifiable as Grundfos' property: (c) not remove, deface or obscure any identifying mark or packaging on or relating to the Equipment (unless reasonably required for the functioning use of the

Equipment by the Customer); (d) maintain the Equipment in satisfactory condition and keep it insured against all risks for their full price on Grundfos' behalf from the date of delivery (e) notify Grundfos immediately if the Customer becomes subject to any Event of

Default;

(f) give Grundfos such reasonable information relating to the Equipment as Grundfos may require from time to time:

(g) give Grundfos at least 30 days' notice of its intention to move or relocate the Equipment to a new location. Grundfos may (at Grundfos' sole discretion) supervise the dismantling and removal of the Equipment, and inspect and reinstall the Equipment at the new location. Any supervision and work undertaken in respect of the relocation shall be charged at the

prevailing Time and Material Rates and is payable by the Customer in accordance with condition 11; and

(h) give Grundfos at least 14 days' notice of its intention to take any steps to appoint an administrator.

7.4 The Customer may incorporate the Equipment into or with any other goods provided that any new goods incorporating the Equipment shall become the sole and exclusive property of Grundfos and shall be separately stored and marked so as to be identifiable as being

manufactured by or containing Equipment belonging to Grundfos. Subject to condition 7.7, the Customer may resell the Equipment in the ordinary course of its business (but not otherwise) before Grundfos receives payment for the 75 Equipment. However, if the Customer resells the Equipment before that time: (a) It does so as principal and not as Grundfos' agent;

(b) Title to the Equipment shall pass from Grundfos to the Customer immediately

before the time at which resale by the Customer occurs.

If before title to the Equipment passes to the Customer the Customer becomes

7.6 subject to an Event of Default, then, without limiting any other right or remedy Grundfos may have, Grundfos may at any time:

(a) the Customer's right to resell the Equipment or use it in the ordinary course of its

(b) reasonably require the Customer to deliver up all Equipment in its possession:

(c) if the Customer fails to do so promptly, enter any premises of the Customer where the Equipment is stored in order to recover them; and (d) the Customer shall pay Grundfos' reasonable costs (including legal costs) for any recovery of the Equipment pursuant to condition 7.7(c).

8. 8.1 Grundfos shall provide the Services to the Customer in accordance with the Maintenance Schedule in all material respects and in accordance with the duration and timescales specified in the Order.

2 2 Grundfos shall use all reasonable endeavours to meet any performance dates for the Services specified in this Agreement, but any such dates shall be estimates only and time shall not be of the essence for the performance of the Services.

Grundfos shall have the right to make any changes to the Services which are necessary to comply with any applicable law or safety requirement, or which do not materially affect the nature or quality of the Services, and Grundfos shall notify the Customer in any such event. If Grundfos requests a change for any other reason, the 8.3 Customer shall not unreasonably withhold or delay consent to it.

8.4 Grundfos warrants to the Customer that the Services will be provided using reasonable care and skill.

Grundfos shall use reasonable endeavours to observe all health and safety rules and 8.5 regulations, and any other reasonable security requirements that apply at the Customer's premises and that have been communicated to it provided that it shall not be liable under this Agreement if, as a result of such observation, it is in breach of any of its obligations under this Agreement.

Maintenance Service Times

9 1 Services will be carried out during the working times as specified in the Maintenance Schedule

Grundfos' standard daily fee rates for each individual person are calculated on the 9.2 basis of an eight-hour day between 8.00am and 5.00pm on Business Days. Grundfos shall be entitled to charge for any Services undertaken outside of these hours at the Time and Materials Rate in effect at the relevant time

Grundfos shall use reasonable endeavours to attend the Delivery Location, but if Grundfos is prevented by any reason outside his control or under the control of the 9.3 Customer, from installing the Equipment or carrying out the Services at the time of the visit, it shall not constitute a material breach of this Agreement. If additional visits are required to the Delivery Location which are not accounted for in the Maintenance Schedule, Grundfos reserves the right to charge the Customer at the Time and Materials Rate for all additional time incurred.

10. Customer's obligations

Equipment;

10.1 The Customer shall:

(a) ensure that the terms of the Order and the Equipment Specification are complete and accurate;

(b) co-operate with Grundfos in all matters relating to this Agreement: (c) provide Grundfos, its employees, agents, consultants and subcontractors, with access to the Customer's premises, office accommodation and other facilities as reasonably required by Grundfos to provide the Services and/or deliver the

(d) prepare the Customer's premises (or the location where the Services are to be performed) for the supply of the Services and/or the Equipment;

(e) provide adequate lighting, heating, power and ventilation as per Grundfos' reasonable requirements;

(f) inform Grundfos' engineer or representative on each visit about any unsatisfactory running or irregular performance of the Equipment or equipment in respect of which the Services are undertaken.

(g) ensure the Equipment is installed and kept in suitable premises and under suitable conditions, permit only trained and competent personnel to use it and follow any operating instructions as Grundfos may give from time to time; (h) provide a site visit request form to Grundfos in respect of any Services to be carried out by Grundfos, its agents, subcontractors, consultants or employees (as the case may be):

(i) provide to Grundfos, in a timely manner, such In-put Material and other information as Grundfos may require and ensure that it is accurate in all material

(i) be responsible (at its own cost) for preparing and maintaining the relevant premises for the supply of the Services and/or Equipment, including identifying, monitoring, removing and disposing of any hazardous materials from its premises in accordance with all applicable laws, before and during the supply of the Services

and/or Equipment at those premises; (k) inform Grundfos of all health and safety rules and regulations and any other reasonable security requirements that apply at the Customer's premises; (I) ensure that all In-Put Materials are in good working order and suitable for the

purposes for which it is used in relation to the Services:

(m) keep all Grundfos' materials, equipment, documents and other property (Grundfos Property) at the Customer's premises in safe custody at its own risk, keep all Grundfos Property in good condition until returned to Grundfos and not dispos of or use the Grundfos Property other than in accordance with Grundfos' written instructions and authorisations: and

(n) obtain and maintain all necessary licences and consents and comply with all relevant legislation in relation to the Services, the installation of the Equipment and the use of In-put Material in all cases before the date on which the Services are to start.

If Grundfos' performance of any of its obligations in respect of the Services is prevented or delayed by any act or omission by the Customer (including its agents, subcontractors, consultants or employees) or failure by the Customer to perform 10.2 any relevant obligation (Customer Default):

(a) Grundfos shall without limiting its other rights or remedies have the right to suspend performance of the Services until the Customer remedies the Customer Default, and to rely on the Customer Default to relieve it from the performance of any of its obligations under this Agreement to the extent the Customer Default prevents or delays Grundfos' performance of any of its obligations;

(b) Grundfos shall not be liable for any costs or losses sustained or incurred by the Customer arising directly or indirectly from Grundfos' failure or delay to perform any of its obligations as set out in this condition 10.2; and

(c) the Customer shall reimburse Grundfos on written demand for any costs or losses sustained or incurred by Grundfos arising directly or indirectly from the Customer Default.

10.3 The Customer shall be liable to pay to Grundfos, on demand, all reasonable costs, charges or losses sustained or incurred by Grundfos (including, without limitation, any direct, indirect or consequential losses, loss of profit and loss of reputation, loss or damage to property and those arising from injury to or death of any person and loss of opportunity to deploy resources elsewhere) arising directly or indirectly from the Customer's fraud,

negligence, failure to perform or delay in the performance of any of its obligations under this Agreement, subject to Grundfos confirming such costs, charges and losses to the Customer in writing.



10.4 The Customer shall not, without the prior written consent of Grundfos, at any time from the date of this Agreement to the expiry of 12 months after the last date of supply of the Services, solicit or entice away from Grundfos or employ (or attempt to employ) any person who is, or has been, engaged as an employee of Grundfos in the provision of the Services.

11. The CDM Regulations

- The Customer and Grundfos agree that the Customer is to be treated for the purposes of the CDM Regulations as the Client for the purposes of the CDM . Regulations
- 11.2 The Customer agrees to ensure that the Works are carried out in accordance with
- the CDM Regulations.
 The Customer shall ensure that the Health and Safety File is maintained correctly 11.3 and is available for inspection in accordance with the CDM Regulations
- The Customer shall indemnify and keep the Owner indemnified against liability for any breach of the Customer's obligations under or in connection with this condition

Charges and Payment

- 12 1 The price for the Equipment shall be the price set out in the Order or, if no price is quoted, the price set out in the published price list of Grundfos (or Grundfos as the case may be) as at the date of delivery. Unless otherwise stated in the Order, the price of the Equipment is exclusive of all costs and charges of packaging, insurance, transport of the Equipment, which shall be paid by the Customer when it pays for
- In the case of Product Services Service contracts, Installation Works and Engineered to Order products Grundfos reserves the right to request a deposit payment and/or payment milestones. The amount or means of calculating such payment shall be set out in the Quotation.
- Grundfos reserves the right to require (at its option) a parent company guarantee or a personal guarantee from the directors of the Customer at any time in relation to 12.3 all outstanding amounts due to Grundfos from the Customer from time to time.
- The charges for Services shall be set out in the Payment Schedule.
- 12.5 Unless stated otherwise all prices are given on a DAP (delivered at place) basis

Grundfos reserves the right to:

(a) increase its standard daily fee rates for the Services. Grundfos will give the Customer reasonable notice in writing of any such increase before the proposed date of the increase. If such increase is not acceptable to the Customer, it shall notify Grundfos in writing within 14 days of the date of Grundfos' notice and either of Grundfos or the Customer shall have the right, without limiting its other rights or remedies, to terminate

this Agreement by giving 14 days' written notice (or any other reasonable notice period if performance of the Order is due to commence within 14 days) to Grundfos or Customer (as applicable); and

(b) increase the price of the Equipment, by giving notice to the Customer at any time before delivery, to reflect any increase in the cost of the Equipment to Grundfos that

(i) any factor beyond the control of Grundfos (including foreign exchange fluctuations, increases in taxes and customs' charges and duties, and increases in labour, materials, fuel and other manufacturing costs);

(ii) any request by the Customer to change the delivery date(s), quantities or types of Equipment ordered, or the Equipment specification; or (iii) any delay caused by any instructions of the Customer in respect of the Equipment or failure of the Customer to give Grundfos adequate or

accurate information or instructions in respect of the Equipment. In respect of Equipment, Grundfos shall invoice the Customer on or at any time after completion of delivery. If delivery of the Equipment is made in instalments,

12.7 Grundfos may invoice the Customer in instalments. In respect of Services, Grundfos shall invoice the Customer in accordance with the Payment Schedule 12.8 The Customer shall pay each invoice submitted by Grundfos:

(a) within 30 days of the date of the invoice or in accordance with any other payment terms agreed by Grundfos in writing; and

(b) in full and in cleared funds to a bank account nominated in writing by Grundfos, and time for payment shall be of the essence of this Agreement.

All amounts payable by the Customer under this Agreement are exclusive of amounts in respect of value added tax chargeable from time to time (VAT). The 12.9 Customer shall pay any VAT which is chargeable on the supply of the Services and/or Equipment at the same time as payment is due for the supply of the Services and/or Equipment.

Grundfos may in its sole discretion elect to provide a credit facility to the Customer but is not obliged to do so. Any credit facility offered will be on written terms agreed 12.10 by Grundfos and the Customer.

Without prejudice to any other right or remedy that it may have, if the Custom fails to pay Grundfos on the due date, Grundfos may: 12.11

(a) charge interest on such sum from the due date for payment at an annual rate equal to the set rate of interest provided under the Late Payment of Commercial Debt (Interest) Act 1998 as varied from time to time accruing on a daily basis and being compounded quarterly until payment is made, whether before or after any judgment and the Customer shall pay the interest immediately on demand; (b) charge compensation for late payment at a set rate depending on the size of the debt in accordance with the Late Payment of Commercial Debt Regulations 2002 (SI 2002 No 1674). The minimum charge applicable is £40.00, the maximum applicable

(c) appropriate any payment by the Customer to any outstanding invoice as Grundfos may think fit not withstanding any purported appropriation by the

(d) suspend the provision of further Services until payment has been made in full. The Customer shall pay all amounts due under this Agreement in full without any 12.12 set-off, counterclaim, deduction or withholding except as required by law. Grundfos may, without limiting its other rights or remedies, set off any amount owing to it by the Customer against any amount payable by Grundfos to the Customer.

All sums payable to Grundfos under this Agreement shall become due immediately on its termination, despite any other provision. This condition 12.10 is without 12.13 prejudice to any right to claim for interest under the law, or any such right under

Grundfos shall have a lien on all of the Customer's property in Grundfos' possession 12.14 for all sums due at any time by the Customer to Grundfos subject to Grundfos giving not less than one month's written notice to the Customer. Grundfos shall be entitled to use, sell and dispose of any such property as agent for the Customer at the Customer's expense. The proceeds of such sale shall be applied towards the payment of monies due to Grundfos and Grundfos shall be discharged of any liability in relation to such property as a result of any sale.

Warranty and Limitation of Liability

THE CUSTOMER'S ATTENTION IS SPECIFICALLY DRAWN TO THIS CONDITION Nothing in these Conditions shall limit or exclude Grundfos' liability for: 13.1 (a) death or personal injury caused by its negligence, or the negligence of its employees, agents or subcontractors; $\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left(\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left(\frac{1}{2} \int_{-\infty}^{\infty} \frac{1$ (b) fraud or fraudulent misrepresentation:

(c) breach of the terms implied by section 2 of the Supply of Goods and Services Act 1982 (title and quiet possession);

(d) breach of the terms implied by section 12 of the Sale of Goods Act 1979 (title and quiet possession); or

(e) defective products under the Consumer Protection Act 1987.

13.2 Subject to condition 13.1:

(a) Grundfos shall under no circumstances whatsoever be liable to the Customer. whether in contract, tort (including negligence), breach of statutory duty, or otherwise, for any loss of profit, turnover, data, business opportunity, anticipated savings, any indirect or consequential loss or any damage to goodwill arising under or in connection with this Agreement;

(b) Grundfos' total liability to the Customer where the Customer has provided Grundfos with incorrect weights, dimensions, capacity performance or other information shall in no circumstances exceed the price of the Equipment supplied in accordance with such incorrect information: and

(c) Grundfos' total liability to the Customer in respect of all other losses arising under or in connection with this Agreement, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, shall in no circumstances exceed

- The terms implied by sections 13 to 15 of the Sale of Goods Act 1979 and the terms implied by sections 3 to 5 of the Supply of Goods and Services Act 1982 are, to the fullest extent permitted by law, excluded from this Agreement. 133
- This condition 13 shall survive termination of this Agreement.

 The Customer shall indemnify Grundfos for any costs suffered by Grundfos for 13.5 claims from any third party which arise by virtue of the Customer having resold the Equipment (unless such claim arises solely from Grundfos' negligence).

14. 14.1

Confidentiality and Grundfos' property
Each party (receiving party) shall keep in strict confidence all technical or commercial know-how, specifications, inventions, processes or initiatives which are of a confidential nature and have been disclosed to the receiving party by the other party (disclosing party), its employees, agents or subcontractors, and any other confidential information concerning the disclosing party's business, its products and services which the receiving party may obtain. The receiving party shall only disclose such confidential information to those of its employees, agents and subcontractors who need to know it for the purpose of discharging the receiving party's obligations under this Agreement, and shall ensure that such employees, agents and subcontractors comply with the obligations set out in this condition as though they were a party to this Agreement. The receiving party may also disclose such of the disclosing party's confidential information as is required to be disclosed by law, any governmental or regulatory authority or by a court of competent jurisdiction. Neither party shall use the other's confidential information for any purpose other

14.2 than to perform its obligations under this Agreement.

Intellectual Property Rights

- 15.1 (Subject to condition 15.2) all Intellectual Property Rights in or arising out of or in connection with:
 - (a) the Equipment:
 - (b) the Services; or

(c) any manuals or documentation given by Grundfos to the Customer. shall be owned by Grundfos and nothing in this agreement shall transfer or assign any such Intellectual Property Rights to the Customer.

- The Customer acknowledges that, in respect of any third party Intellectual Property Rights, the Customer's use of any such Intellectual Property Rights is conditional on 15 2 Grundfos first obtaining a written licence from the relevant licensor on such terms as will entitle Grundfos to license such rights to the Customer.
- 15.3 The Customer grants to Grundfos a fully paid up, non-exclusive, royalty free, nontransferable licence to copy and modify any In-put Material for the purpose of providing the Services to the Customer.
- The Customer shall indemnify Grundfos against all liabilities, costs, expenses, damages and losses (including any direct, indirect or consequential losses, loss of 15.4 profit, loss of reputation and all interest, penalties and legal costs (on a full indemnity basis) and all other reasonable professional costs and expenses) suffered or incurred by Grundfos for actual or alleged infringement of a third party's Intellectual Property Rights arising out of or in connection with Grundfos' use of the Equipment Specification.

16. Data protection 16.1

Both parties will comply with all applicable requirements of the Data Protection Legislation. This condition 16 is in addition to, and does not relieve, remove or replace, a party's obligations under the Data Protection Legislation. In this condition 16 Applicable Laws means (for so long as and

to the extent that they apply to the Supplier) the law of the European Union, the law of any member state of the European Union and/or Domestic UK Law; and Domestic UK Law means any Data Protection Legislation from time to time in force in the UK

including the Data Protection Act 2018 or any successor legislation.
Without prejudice to the generality of condition 16.1 each party shall, in relation to 16.2 any Personal Data processed in connection with the performance by that party of its obligations under the Agreement:

(a) ensure that it has in place appropriate technical and organisational measures to protect against unauthorised or unlawful processing of Personal Data and against accidental loss or destruction of, or damage to, Personal Data, appropriate to the harm that might result from the unauthorised or unlawful processing or accidental loss, destruction or damage and the nature of the data to be protected, having regard to the state of technological development and the cost of implementing any measures (those measures may include, where appropriate, pseudonymising and encrypting Personal Data, ensuring confidentiality, integrity, availability and resilience of its systems and services, ensuring that availability of and access to Personal Data can be restored in a timely manner after an incident, and regularly assessing and evaluating the effectiveness of the technical and organisational measures adopted by it):

(b) assist the other party, at the other party's cost, in responding to any request from a Data Subject and in ensuring compliance with its obligations under the Data Protection Legislation with respect to security, breach notifications, impact assessments and consultations with supervisory authorities or regulators; (c) notify the Customer without undue delay on becoming aware of a Personal Data

(d) at the written direction of the other party, delete or return Personal Data and

copies thereof to the other party on termination of the agreement unless required by Applicable Law to store the Personal Data; and (e) maintain complete and accurate records and information to demonstrate its

compliance with this condition 16. Neither party consents to the other appointing any third-party processor of Personal Data under the Contract. 163

17. 17.1 Termination

Without limiting its other rights or remedies, Grundfos or Customer may terminate this Agreement with immediate effect by giving written notice to the other party if: (a) the other party commits a material breach of its obligations under this Agreement and (if such breach is remediable) fails to remedy that breach within 7 days after receipt of written notice to do so;



(b) the other party takes any step or action in connection with its entering administration, provisional liquidation or any composition or arrangement with its creditors (other than in relation to a solvent restructuring), being wound up (whether voluntarily or by order of the court, unless for the purpose of a solvent restructuring), having a receiver appointed to any of its assets or ceasing to carry on business [or, if the step or action is taken in another jurisdiction, in connection with any analogous procedure in the relevant jurisdiction;

(c) the other party suspends, or threatens to suspend, or ceases or threatens to cease to carry on all or a substantial part of its business; or (d) the other party's financial position deteriorates to such an extent that in the

terminating party's opinion the other party's capability to adequately fulfil its obligations under the Contract has been placed in jeopardy.

17 2 Without limiting its other rights or remedies, Grundfos may terminate this Agreement with immediate effect by giving written notice to the Customer if: (a) there is a change of control of the Customer (as defined in section 574 of the Capital Allowances Act 2001);
(b) the Customer is unable or unwilling to procure any guarantee required by

> (c) the Customer's financial position deteriorates to such an extent that in Grundfos' opinion the Customer's capability to adequately fulfil its obligations under the Contract has been placed in jeopardy or Customer fails to pay any amount due under this Agreement on the due date for payment.

17.3 Without limiting its other rights or remedies, Grundfos may suspend the supply of Services or all further deliveries of Equipment under this Agreement or any other agreement between the Customer and Grundfos if the Customer becomes subject to an Event of Default, or Grundfos reasonably believes that the Customer is about to become subject to any of them.

17.4

Grundfos in accordance with condition 12 3: or

On termination of this Agreement for any reason:
(a) the Customer shall immediately pay to Grundfos all of Grundfos' outstanding unpaid invoices and interest and, in respect of Services supplied but for which no invoice has yet been submitted, Grundfos shall submit an invoice, which shall be payable by the Customer immediately on receipt;

(b) the Customer shall return all of Grundfos' materials and any deliverables which have not been fully paid for and which have not been installed as part of a bigger system. If the Customer fails to do so, then Grundfos may enter the Customer's premises and take possession of them. Until they have been returned, the Customer's premises and take possession of them. shall be solely responsible for their safe keeping and will not use them for any purpose not connected with this Agreement; (c) the accrued rights and remedies of the parties as at termination shall not be

affected, including the right to claim damages in respect of any breach of this Agreement which existed at or before the date of termination or expiry; (d) conditions which expressly or by implication have effect after termination shall continue in full force and effect; and

(e) Grundfos shall have a lien over all of the Customer's property in Grundfos possession in respect of all sums due at any time from the Customer to Grundfos. Provided that Grundfos gives at least 14 days' prior written notice, Grundfos shall be entitled to use, sell and dispose of such property as agent for and at the expense of the Customer and apply the proceeds towards the payment of monies due and outstanding from the Customer to Grundfos. Thereafter, Grundfos shall be discharged of any liability in respect of the Customer's property.

On termination of this Agreement (however arising), any of these Conditions that

expressly or by implication is intended to have effect after termination (or expiry) shall survive and continue in full force and effect.

18. Force maieure

Grundfos shall have no liability to the Customer under this Agreement if it is prevented from, or delayed in performing, its obligations under this Agreement or from carrying on its business by any Force Majeure Event.

19.

Except as provided in these Conditions, no variation of this Agreement or these Conditions or of any of the documents referred to in them shall be valid unless it is in writing and signed by or on behalf of each of the authorised representatives of

20. Waiver

A waiver of any right under this Agreement is only effective if it is in writing and it applies only to the circumstances for which it is given. No failure or delay by a party 20.1 in exercising any right or remedy under this Agreement or by law shall constitute a waiver of that (or any other) right or remedy, nor preclude or restrict its further exercise. No single or partial exercise of such right or remedy shall preclude or restrict the further exercise of that (or any other) right or remedy.

Unless specifically provided otherwise, rights arising under this Agreement are

20.2 cumulative and do not exclude rights provided by law.

21. 21.1

If any provision of this Agreement (or part of any provision) is found by any court or other authority of competent jurisdiction to be invalid, illegal or unenforceable, that provision or part-provision shall, to the extent required, be deemed not to form part of this Agreement, and the validity and enforceability of the other provisions of this Agreement shall not be affected. 21.2

If a provision of this Agreement (or part of any provision) is found illegal, invalid or unenforceable, the provision shall apply with the minimum modification necessary to make it legal, valid and enforceable

22.1 This Agreement constitutes the whole agreement between the parties and supersedes all previous agreements between the parties relating to its subject

Each party acknowledges that, in entering into this Agreement, it has not relied on, and shall have no right or remedy in respect of, any statement, representation, assurance or warranty (whether made negligently or innocently) (other than for 22.2

breach of contract), as expressly provided in this Agreement.

Nothing in this condition shall limit or exclude any liability for fraud. 22.3

23. Assignment 23.1

The Customer shall not, without the prior written consent of Grundfos, assign, transfer, charge, mortgage, subcontract or deal in any other manner with all or any of its rights or obligations under this Agreement.

Grundfos may at any time assign, transfer, charge, mortgage, subcontract or deal in

23.2 any other manner with all or any of its rights under this Agreement and may subcontract or delegate in any manner any or all of its obligations under this Agreement to any third party or agent.

Each party that has rights under this Agreement is acting on its own behalf and not 23.3 for the benefit of another person.

24.

No partnership or agency
Nothing in this Agreement is intended to, or shall be deemed to, constitute a partnership or joint venture of any kind between any of the parties, nor constitute any party the agent of another party for any purpose. No party shall have authority to act as agent for, or to bind, the other party in any way

25. Rights of third parties

A person who is not a party to this Agreement shall not have any rights under or in connection with it.

Notices 26.

- 26.1 Any notice required to be given under this Agreement shall be in writing and shall be delivered personally, or sent by pre-paid first-class post, recorded delivery or by commercial courier to the registered office or the address stated in the Order (or as otherwise notified to the other party in writing).
- Any notice shall be deemed to have been duly received if delivered personally, when left at the correct address or, if sent by pre-paid first-class post or recorded delivery, at 9.00am on the second Business Day after posting, or if delivered by commercial 26.2 courier, on the date and at the time that the courier's delivery receipt is signed.
- This condition 26 shall not apply to the service of any proceedings or other 26.3 documents in any legal action.
- 26.4 A notice required to be given under this Agreement shall also be validly served if sent by e-mail

Governing law and jurisdiction

- This Agreement, and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims), shall be governed by, and construed in accordance with, the law of England and Wales. 27.1
- 27.2 The parties irrevocably agree that the courts of England and Wales shall have exclusive jurisdiction to settle any dispute or claim that arises out of, or in connection with, this Agreement or its subject matter or formation (including non-



B/PRICELIST-CAT2/01-02-2020

iame Grundfos, the Grundfos logo, and be think innovate are registered trademarks owned by Grundfos Holding A/S or Grundfos A/S, Denmark. All rights reserved w

GRUNDFOS PUMPS LTD. Grovebury Road Leighton Buzzard Beds LU7 4TL

Tel: 01525 850000 Email: grundfos-uk@sales.grundfos.com

