Grundfos Industrial Products Price List March 2021 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) £80.00 NET (PER ITEM)

BOXSPEED (PER ITEM) - (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
- JP, MQ and Tanks/Vessels (up to 500 Litre)
- CMB(E), Boosters, Scala
- 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 £60.00 NET & ADDITIONAL ITEMS £25.00 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 £50.00 NET & ADDITIONAL ITEMS £25.00 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. BREXIT Express delivery cut off times for deliveries into the UK from an EU have changed from 1:30PM to 10:00AM & all deliveries to Northern Ireland will all be despatched from our DC in Sunderland only.

SPARES STANDARD DELIVERY CHARGE

- A £30.00 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.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.

Exclusions to Product Returns apply;

- Items with a NET value of £150.00 or less (per item).
- All Service kits, cable including attached to pump, assembled/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 were included and from 1st February 2020 MAGNA3, TPE, NBE and NKE models were added.

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. Self-registration for MyGrundfos can be found here; https://uk.grundfos.com/mygrundfos

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CONDITIONS OF SALE

COMPLETE WITH 2 POLES / 2900 RPM IE3 MOTORS

	•	380-415V 3ph 50Hz	
		£ Product Code	
	P2	A F2 A E	
Model	kW	AS F2 A E	
NB 32-125.1/100	0.75	1,239	98127503
NB 32-125.1/110	1.1	1,285	98052673
NB 32-125.1/121	1.5	1,349	98124465
NB 32-125.1/140	2.2	1,395	97925276
NB 32-125/106	1.1	1,296	98127311
NB 32-125/115	1.5	1,363	98042368
NB 32-125/130	2.2	1,399	98092892
NB 32-125/142	3	1,662	98769449
NB 32-160.1/139	1.5	1,418	98177522
NB 32-160.1/155	2.2	1,471	98654499
NB 32-160.1/169	3	1,708	98052675
NB 32-160.1/177	4	1,948	98630634
NB 32-160/139	2.2	1,490	98664484
NB 32-160/151	3	1,723	98054003
NB 32-160/163	4	1,925	97925279
NB 32-160/177	5.5	2,329	98856186
NB 32-200.1/172	3	1,824	98300258
NB 32-200.1/188	4	2,041	98492835
NB 32-200.1/205	5.5	2,367	98177816
NB 32-200.1/207	7.5	2,584	98844217
NB 32-200/176	4	2,056	98844220
NB 32-200/190	5.5	2,380	98281463
NB 32-200/206	7.5	2,573	98042381
NB 32-200/219	11	3,330	98300257
ND 00 050/400			
NB 32-250/199	5.5	2,577	98844241
NB 32-250/219	7.5	2,777	98665396
NB 32-250/244	11	3,514	98976261
NB 32-250/262	15	3,880	98976263
ND 40 13E/10E	1 5	1 469	09075212
NB 40-125/105	1.5	1,468	98075312
NB 40-125/116 NB 40-125/127	2.2 3	1,511 1,786	98127774 98701179
NB 40-125/139	<u>3</u>	2,001	98810277
NB 40-125/142	5.5	2,289	98643514
ND 40-123/142	3.3	2,203	38043314
NB 40-160/144	4	1,975	97933638
NB 40-160/158	5.5	2,396	98490590
NB 40-160/172	7.5	2,617	98833679
NB 40-160/177	11	3,320	98488394
140 40 100/177		3,320	30400334
NB 40-200/172	5.5	2,438	98844301
NB 40-200/188	7.5	2,659	98844306
NB 40-200/206	11	3,410	98849201
NB 40-200/219	15	3,738	98915632
, ===			
NB 40-250/211	11	3,488	98671393
NB 40-250/230	15	3,831	98577547
NB 40-250/245	18.5	4,126	98979905
NB 40-250/255	22	4,620	98605465
NB 40-250/260	30	5,973	98876844
NB 40-315/273	22	5,266	98976264
NB 40-315/298	30	6,505	98975674
NB 40-315/318	37	7,494	98975675
NB 40-315/336	45	9,909	98975676

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

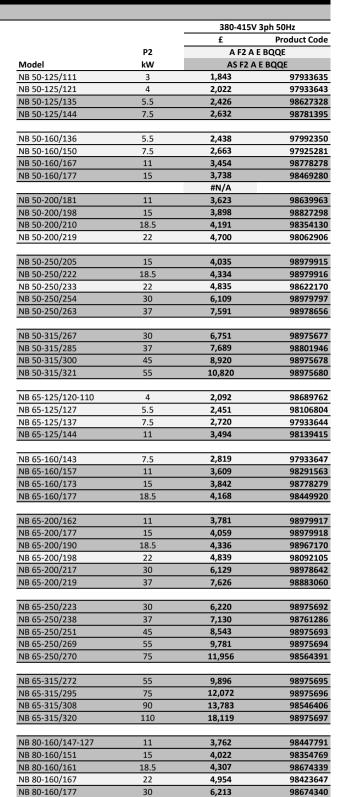
All 2 poles motors up to and including 22kW are Grundfos IE3 efficiency standard. All 2 poles motors above and including 30kW are Siemens IE3 efficiency standard.

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

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



COMPLETE WITH 2 POLES / 2900 RPM IE3 MOTORS

	· · · · · · · · · · · · · · · · · · ·	380-415V 3ph 50Hz	
	•	£	Product Code
	P2	A F2 A	BQQE
Model	kW	AS F2 A	E BQQE
NB 80-200/171	22	4,790	98599191
NB 80-200/188	30	6,412	98827295
NB 80-200/200	37	7,178	98674338
NB 80-200/211	45	8,594	98834914
NB 80-200/222	55	9,789	98768407
NB 80-250/220	45	8,632	98720532
NB 80-250/234	55	9,869	98975698
NB 80-250/257	75	11,371	98653174
NB 80-250/270	90	13,191	98975699
NB 80-315/278	90	13,462	98975700
NB 80-315/295	110	18,503	98975721
NB 80-315/310	132	20,283	98975722
NB 80-315/328	160	23,077	98975723
NB 100-160/160-154	18.5	4,294	98976327
NB 100-160/167	22	4,957	98976326
NB 100-160/176	30	5,918	98975993
NB 100-200/170	30	6,143	98975724
NB 100-200/181	37	6,730	98647850
NB 100-200/192	45	8,281	98828352
NB 100-200/203	55	9,383	98975725
NB 100-200/219	75	11,020	98975726
NB 100-250/205	55	9,581	98975867
NB 100-250/229	75	11,407	98975866
NB 100-250/242	90	12,821	98975865
NB 100-250/258	110	18,000	98975864
NB 100-250/274	132	20,047	98975863
NB 100-315/269	110	18,503	98975727
NB 100-315/284	132	20,552	98975728
NB 100-315/301	160	23,617	98975729
NB 100-315/322	200	27,955	98975730

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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.

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.



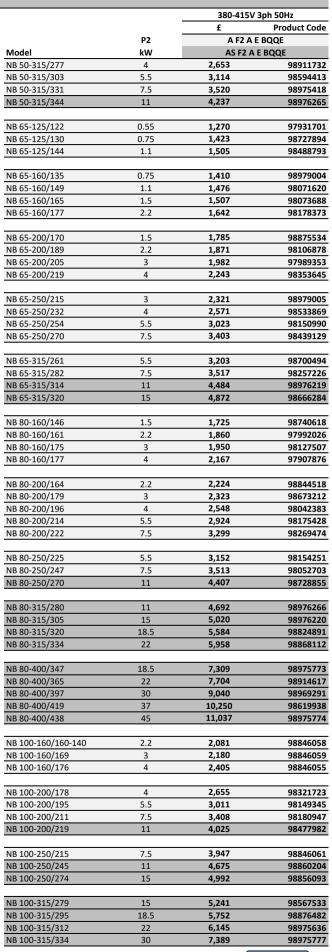


COMPLETE WITH 4 POLES / 1450 RPM IE3 MOTORS

		380-415V 3	•
	D2	£ 0.53.0.5	Product Code
Model	P2 kW	A F2 A E AS F2 A E	
NB 32-125.1/121	0.25	989	98154140
NB 32-125.1/139	0.25	989	97656970
NB 32-125.1/140	0.37	999	98930646
NB 32-125/115	0.25	972	98987645
NB 32-125/130	0.25	972	97564281
NB 32-125/142	0.37	999	96894223
NB 32-160.1/137	0.25	1,027	98987644
NB 32-160.1/155	0.25	1,027	98971400
NB 32-160.1/172	0.37	1,056	98987628
NB 32-160.1/177	0.55	1,134	97937749
NB 32-160/138	0.25	1,027	98987646
NB 32-160/154	0.37	1,054	98987647 96550472
NB 32-160/172 NB 32-160/173	0.55	1,130 1,275	98978998
NB 32-100/173	0.73	1,273	36376336
NB 32-200.1/175	0.37	1,134	98672565
NB 32-200.1/196	0.55	1,206	96752523
NB 32-200.1/207	0.75	1,363	98117266
NB 32-200/184	0.55	1,189	98593070
NB 32-200/197	0.75	1,338	98128726
NB 32-200/216	1.1	1,395	98269499
NB 32-200/219	1.5	1,519	98978999
UD 00 05-1			
NB 32-250/206	0.75	1,504	98979000
NB 32-250/236	1.1	1,578	98172734
NB 32-250/260	1.5	1,694	98539538
NB 32-250/262	2.2	1,839 #N/A	98096929
NB 40-125/116	0.25	1,153	96787441
NB 40-125/130	0.37	1,168	96631117
NB 40-125/142	0.55	1,243	96546730
·			
NB 40-160/134	0.37	1,134	98987648
NB 40-160/151	0.55	1,258	96538738
NB 40-160/162	0.75	1,391	98283855
NB 40-160/177	1.1	1,483	98453340
NB 40-200/177	0.75	1,357	98979001
NB 40-200/198	1.1	1,511	98161765
NB 40-200/217	1.5	1,548	98269479
NB 40-200/219	2.2	1,710	98269492
NB 40-250/219	1.5	1,664	98861694
NB 40-250/245	2.2	1,847	98045376
NB 40-250/260	3	1,933	98533156
NB 40-315/283	3	2,403	98979003
NB 40-315/305	4	2,632	98503608
NB 40-315/334	5.5	3,004	98544371
NB 40-315/344	7.5	3,126	98975417
		<u> </u>	
NB 50-125/113	0.37	1,134	98947926
NB 50-125/129	0.55	1,262	98808056
NB 50-125/138	0.75	1,397	98793600
NB 50-125/144	1.1	1,456	98667812
NR 50-160/121	0.55	1 200	00667046
NB 50-160/131 NB 50-160/139	0.55	1,298	98667846
NB 50-160/139 NB 50-160/158	1.1	1,437 1,483	98965240 98048215
NB 50-160/158 NB 50-160/175	1.5	1,519	98366433
NB 50-160/177	2.2	1,630	98158393
.5 30 100/1//	۷.۷	1,000	20130393
NB 50-200/171	1.1	1,538	98128725
NB 50-200/188	1.5	1,597	98734545
NB 50-200/210	2.2	1,677	98149348
NB 50-200/219	3	1,782	98086583
NB 50-250/221	2.2	1,792	98498186
NB 50-250/241	<u>3</u>	1,891 2,102	98439130 97989054
NB 50-250/263			070000

SUPPORT BLOCKS

Pumps listed in the darker shaded area include Support Blocks





COMPLETE WITH 4 POLES / 1450 RPM IE3 MOTORS

		380-415V 3ph 50Hz	
		£	Product Code
	P2	A F2 A	A E BQQE
Model	kW	AS F2	A E BQQE
NB 100-400/334	22	7,679	98975924
NB 100-400/360	30	8,933	98975923
NB 100-400/375	37	10,142	98975922
NB 100-400/395	45	11,142	98975921
NB 100-400/415	55	12,596	98975910
		,	
NB 125-200/176-154	5.5	3,591	98843507
NB 125-200/196-180	7.5	3,905	98843510
NB 125-200/219	11	4,656	98976322
NB 125-200/226	15	4,967	98855932
	-	,	
NB 125-250/220	11	4,851	98976267
NB 125-250/236	15	5,159	98115564
NB 125-250/249	18.5	5,708	98600057
NB 125-250/262	22	6,084	98672953
NB 125-250/269	30	7,431	98737312
		1,102	
NB 125-315/275	18.5	7,012	98835476
NB 125-315/290	22	7,380	98835478
NB 125-315/317	30	8,743	98857197
NB 125-315/336	37	9,412	98975779
NB 125-315/338	45	10,603	98975780
123 313,333		20,000	30370700
NB 125-400/345	37	9,739	98975791
NB 125-400/368	45	10,929	98975792
NB 125-400/392	55	12,549	98975793
NB 125-400/433	75	14,274	98975794
NB 125-400/438	90	15,427	98975795
====,			00010100
NB 125-500/406	55	14,121	98975796
NB 125-500/447	75	15,755	98975797
NB 125-500/473	90	16,908	98939118
NB 125-500/500	110	22,254	98975798
NB 125-500/526	132	23,024	98975799
NB 125-500/548	160	24,669	98975800
		,	A F1 A E BQQE
			AS F1 A E BQQE
NB 150-200/210-158	7.5	4,411	98249368
NB 150-200/218-208	11	5,331	98769189
NB 150-200/224	15	5,633	98455883
		2,222	
NB 150-250/226-214	15	6,038	98976325
NB 150-250/230	18.5	6,607	98975972
NB 150-250/242	22.0	6,963	98914616
NB 150-250/262	30.0	8,279	98807421
NB 150-250/275	37.0	9,521	98975971
NB 150-250/282	45.0	10,224	98835475
130 230/202	13.0	10,22	30033473
NB 150-315.2/250	22.0	7,151	99001639
NB 150-315.2/275	30.0	8,421	99001640
NB 150-315.2/294	37.0	9,601	99001641
NB 150-315.2/314	45.0	10,204	99001643
·			
NB 150-315.2/334 NB 150-315.2/342	55.0 75.0	11,815	99001644
IND 13U-313.2/342	75.0	13,317	99001662

SUP	PORT	BLO	CKS

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.

PUMPS

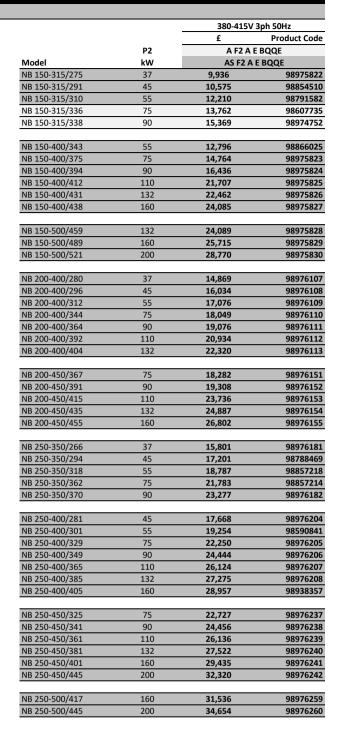
Standard NB pump casing and impeller in cast iron.

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.







COMPLETE WITH 6 POLES / 960 RPM IE3 MOTORS

COMPLETE WITH 6	POLES / 960	KPIVI IES IVIOTO	iks .
		380-415V	
		£	Product Code
	P2	A F2 A	E BQQE
Model	kW	AS F2 A	E BQQE
NB 100-160/160-140	0.55	1,761	98975712
NB 100-160/169	0.75	2,001	98975711
NB 100-160/176	1.1	2,081	98975710
NB 100-200/182	1.1	2,278	98871702
NB 100-200/193	1.5	2,354	98974772
NB 100-200/214	2.2	2,457	98974571
NB 100-200/219	3	2,828	98974773
NB 100-250/216	2.2	2,516	98975595
NB 100-250/236	3	2,882	98975594
NB 100-250/260	4	3,063	98975593
NB 100-250/274	5.5	3,572	98975592
115 100 250/27 1	3.3	0,07.	30370001
NB 100-315/272	4	3,244	98974774
NB 100-315/301	5.5	3,600	98974776
NB 100-315/326	7.5		98975638
NB 100-315/334	11	4,172	98975851
NB 100-313/334	11	5,098	303/3031
ND 100 100/210	7.5	F 0F0	00075037
NB 100-400/340	7.5	5,859	98975927
NB 100-400/380	11	6,736	98975926
NB 100-400/415	15	7,433	98975925
NB 125-200/176-150	1.5	2,739	98975648
NB 125-200/196-182	2.2	2,809	98975647
NB 125-200/215	3	3,122	98975646
NB 125-200/226	4	3,215	98975645
NB 125-250/216	3	3,179	98974778
NB 125-250/232	4	3,297	98974779
NB 125-250/253	5.5	3,600	98974780
NB 125-250/269	7.5	4,147	98975653
NB 125-315/275	5.5	4,744	98974791
NB 125-315/297	7.5	5,346	98975852
NB 125-315/335	11	6,198	98975853
NB 125-315/338	15	6,892	98975854
NB 125-400/351	11	6,770	98975855
NB 125-400/384	15	7,500	98975856
NB 125-400/410	18.5	8,367	98975857
NB 125-400/434	22	9,107	98975858
NB 125-400/438	30	9,854	98975859
NE 220 NO 1 NO 1		0,00	
NB 125-500/421	18.5	9,734	98975860
NB 125-500/445	22	10,666	98975871
NB 125-500/493	30	11,337	98975872
NB 125-500/524	37	12,234	98975873
NB 125-500/546	45	•	98975874
NB 125-500/548		13,498	
NB 125-500/548	55	14,626	98975875
			A F1 A E BQQE
ND 450 000/040 460			AS F1 A E BQQE
NB 150-200/210-168	2.2	3,349	98974567
NB 150-200/218-200	3	3,688	98974593
NB 150-200/224	4	3,868	98557012
NB 150-250/235	5.5	4,633	98975688
NB 150-250/252	7.5	5,312	98975975
NB 150-250/282	11	6,208	98975974
NB 150-315.2/259	7.5	5,545	99001645
NB 150-315.2/293	11	6,376	99001646
NB 150-315.2/328	15	7,057	99001647
NB 150-315.2/342	18.5	7,909	99001675
NB 150-315/280	11	6,625	98975876
NB 150-315/305	15	7,286	98975877
NB 150-315/322	19	8,119	98590859
NB 150-315/337	22	8,692	98975878
NB 150-315/338	30	9,455	98975879
130 313/330		3,733	30373073

SUPPORT BLOCKS

Pumps listed in the darker shaded area include Support Blocks

		380-415V 3	oh 50Hz
		£	Product Code
	P2	A F2 A E E	BQQE
Model	kW	AS F2 A E	BQQE
NB 150-400/357	18.5	8,650	98975880
NB 150-400/375	22	9,237	98975881
NB 150-400/408	30	10,026	98975882
NB 150-400/430	37	11,084	98975883
NB 150-400/438	45	12,550	98975884
NB 150-500/457	37	12,905	98975885
NB 150-500/483	45	14,285	98975886
NB 150-500/513	55	15,339	98975887
NB 150-500/548	75	16,643	98975888
NB 200-400/308	15	10,987	98976114
NB 200-400/328	18.5	11,600	98976115
NB 200-400/348	22	13,036	98976116
NB 200-400/384	30	14,093	98976117
NB 200-400/404	37	16,066	98976118
NB 200-450/355	18.5	11,600	98976156
NB 200-450/371	22	13,503	98976157
NB 200-450/407	30	14,794	98976158
NB 200-450/431	37	16,300	98976159
NB 200-450/451	45	17,305	98976160
NB 250-350/277	11	11,347	98976183
NB 250-350/306	15	12,707	98976184
NB 250-350/330	18.5	13,088	98871350
NB 250-350/366	22	14,574	98976185
NB 250-400/289	15	12,940	98976209
NB 250-400/313	18.5	13,503	98976210
NB 250-400/329	22	14,806	98976221
NB 250-400/361	30	16,661	98976222
NB 250-400/381	37	18,009	98976223
NB 250-400/401	45	19,172	98976224
/			
NB 250-450/313	18.5	14,032	98976243
NB 250-450/325	22	15,518	98976244
NB 250-450/357	30	17,373	98976245
NB 250-450/377	37	18,721	98976246
NB 250-450/397	45	19,184	98976247
NB 250-450/433	55	19,954	98976248
ND 050 500/			••
NB 250-500/409	45	20,818	98976271
NB 250-500/437	55	21,821	98976272
NB 250-500/485	75	26,072	98976273
NB 250-500/525	90	27,933	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.

COUNTER FLANGES

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



COMPLETE WITH 2900 RPM (2 POLES) 3 PHASE VARIABLE SPEED MOTOR

			380-480/500V 3pl	h 50/60Hz
			£	Product code
	P2	Differential pressure	A F2 A E BC	
Model	kW	transducer range	AS F2 A E B0	
NBE 32-125.1/110	1.1	0 - 2.5 bar	2,421	98983996
NBE 32-125.1/121	1.5	0 - 2.5 bar	2,548	98632194
NBE 32-125.1/140	2.2	0 - 4 bar	2,828 2,432	98629487
NBE 32-125/106 NBE 32-125/115	1.1 1.5	0 - 1.6 bar 0 - 2.5 bar	2,562	98946031 98650464
NBE 32-125/130	2.2	0 - 2.5 bar	2,832	98564298
NBE 32-125/142	3	0 - 4 bar	3,331	99105451
NBE 32-160.1/139	1.5	0 - 2.5 bar	2,616	99025305
NBE 32-160.1/155	2.2	0 - 4 bar	2,902	99104684
NBE 32-160.1/169	3	0 - 4 bar	3,376	99105452
NBE 32-160.1/177	4	0 - 6 bar	3,848	99101960
NBE 32-160/139	2.2	0 - 4 bar	2,920	99104685
NBE 32-160/151	3	0 - 4 bar	3,390	99105453
NBE 32-160/163	4	0 - 4 bar	3,825	99101765
NBE 32-160/177	5.5	0 - 6 bar	4,475	99106342
NBE 32-200.1/172	3	0 - 4 bar	3,488	99105454
NBE 32-200.1/188	4	0 - 6 bar	3,938	99100084
NBE 32-200.1/205	5.5	0 - 6 bar	4,512	99100055
NBE 32-200.1/207	7.5	0 - 6 bar	5,192	99101961
NBE 32-200/176	4	0 - 4 bar	3,952	99101962
NBE 32-200/190	5.5	0 - 6 bar	4,524	99100058
NBE 32-200/206	7.5	0 - 6 bar	5,182	99100050
NBE 32-200/219	11	0 - 10 bar	6,710	99101877
NBE 32-250/199	5.5	0 - 6 bar	4,716	99101963
NBE 32-250/219	7.5	0 - 10 bar	5,380	99101876
NBE 32-250/244	11	0 - 10 bar	6,888	99101964
NBE 32-250/262	15	0 - 10 bar	7,844	98976060
NBE 40-125/105	1.5	0 - 1.6 bar	2,665	98602651
NBE 40-125/116	2.2	0 - 2.5 bar	2,940	99014205
NBE 40-125/127	3	0 - 2.5 bar	3,451	99105455
NBE 40-125/139	4	0 - 4 bar	3,899	99100080
NBE 40-125/142	5.5	0 - 4 bar	4,436	99101965
NBE 40-160/144	5.5	0 - 4 bar	3,874 4,540	99101966
NBE 40-160/158 NBE 40-160/172	7.5	0 - 4 bar 0 - 6 bar	5,225	99100076 99100093
NBE 40-160/177	11	0 - 6 bar	6,700	99101896
NBE 40-200/172	5.5	0 - 4 bar	4,581	99101967
NBE 40-200/188	7.5	0 - 6 bar	5,266	99101879
NBE 40-200/206	11	0 - 6 bar	6,788	99106399
NBE 40-200/219	15	0 - 10 bar	7,708	98979881
NBE 40-250/211	11	0 - 10 bar	6,864	99101998
NBE 40-250/230	15	0 - 10 bar	7,797	98979852
NBE 40-250/245	18.5	0 - 10 bar	8,884	98979854
NBE 40-250/255	22	0 - 10 bar	10,000	98605464
NBE 40-315/273	22	0 - 10 bar	10,627	98976083
NBE 50-125/111	3	0 - 1.6 bar	3,506	99105456
NBE 50-125/121	4	0 - 2.5 bar	3,919	99101769
NBE 50-125/135	5.5	0 - 4 bar	4,569	99102007
NBE 50-125/144	7.5	0 - 4 bar	5,239	99100090
NBE 50-160/136	5.5	0 - 4 bar	4,581	99100073
NBE 50-160/150	7.5	0 - 4 bar	5,270	99100047
NBE 50-160/167	11	0 - 4 bar	6,831	99101898
NBE 50-160/177	15	0 - 6 bar	7,708	98468706
NBE 50-200/181	11	0 - 6 bar	6,994	99101748
NBE 50-200/198	15	0 - 6 bar	7,863	98979862
NBE 50-200/210	18.5	0 - 10 bar	8,948	98979864
NBE 50-200/219	22	0 - 10 bar	10,078	98564295
NBE 50-250/205	15	0 - 6 bar	7,996	98979884
NBE 50-250/222	18.5	0 - 10 bar	9,087	98979887
NBE 50-250/233	22	0 - 10 bar	10,209	98978489

SUPPORT BLOCKS

Pumps listed in the darker shaded area include Support Blocks

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



COMPLETE WITH 2900 RPM (2 POLES) 3 PHASE VARIABLE SPEED MOTOR

			380-480/500V	3ph 50/60Hz
			£	Product code
	P2	Differential pressure	A F2 A E	E BQQE
Model	kW	transducer range	AS F2 A	E BQQE
NBE 65-125/120-110	4	0 - 1.6 bar	3,989	99101764
NBE 65-125/127	5.5	0 - 2.5 bar	4,595	99101749
NBE 65-125/137	7.5	0 - 2.5 bar	5,327	99101897
NBE 65-125/144	11	0 - 4 bar	6,872	99101763
NBE 65-160/143	7.5	0 - 4 bar	5,423	99101878
NBE 65-160/157	11	0 - 4 bar	6,984	99100102
NBE 65-160/173	15	0 - 6 bar	7,812	98844654
NBE 65-160/177	18.5	0 - 6 bar	8,929	98979888
NBE 65-200/162	11	0 - 4 bar	7,152	99101899
NBE 65-200/177	15	0 - 6 bar	8,022	98979890
NBE 65-200/190	18.5	0 - 6 bar	9,093	98645657
NBE 65-200/198	22	0 - 6 bar	10,217	97907877
NBE 80-160/147-127	11	0 - 2.5 bar	7.129	99106396
NBE 80-160/151	15	0 - 4 bar	7,983	98680720
NBE 80-160/161	18.5	0 - 4 bar	9,060	98979869
NBE 80-160/167	22	0 - 4 bar	10,325	96645314
NBE 80-200/171	22	0 - 6 bar	10,166	98975790
NBE 100-160/160-154	18.5	0 - 4 bar	9,048	98976198
NBE 100-160/167	22	0 - 4 bar	10,327	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.

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 PHASE VARIABLE SPEED MOTOR

			_	380-480/500V 3ph 50/60Hz
			_	£ Product code
	P2	Differential pressure		A F2 A E BQQE
Model NBE 32-160.1/177	kW 0.55	transducer range 0 - 1.6 bar	2,325	AS F2 A E BQQE 98890805
NBE 32-160/172	0.55	0 - 1.6 bar	2,321	99104648
NBE 32-160/173	0.75	0 - 1.6 bar	2,389	99104650
NBE 32-200.1/196	0.55	0 - 1.6 bar	2,395	98609256
NBE 32-200.1/207	0.75	0 - 1.6 bar	2,474	98808680
NBE 32-200/184	0.55	0 - 1.6 bar	2,378	99104651
NBE 32-200/197	0.75	0 - 1.6 bar	2,450	99104652
NBE 32-200/216	1.1	0 - 2.5 bar	2,528	99104673
NBE 32-200/219	1.5	0 - 2.5 bar	2,714	99105406
NBE 32-250/206	0.75	0 - 1.6 bar	2,611	99104674
NBE 32-250/236	1.1	0 - 2.5 bar	2,705	98920646
NBE 32-250/260	1.5	0 - 2.5 bar	2,883	99105408
NBE 32-250/262	2.2	0 - 2.5 bar	3,259	99105409
NBE 40-125/142	0.55	0 - 1.0 bar	2,432	98726811
NBE 40-160/151	0.55	0 - 1.0 bar	2,446	99104675
NBE 40-160/162	0.75	0 - 1.0 bar	2,501	99104676
NBE 40-160/177	1.1	0 - 1.6 bar	2,613	98890794
NBE 40-200/177	0.75	0 - 1.6 bar	2,468	99104677
NBE 40-200/198	1.1	0 - 1.6 bar	2,640	99104678
NBE 40-200/217	1.5	0 - 1.6 bar	2,742	99105410
NBE 40-200/219	2.2	0 - 2.5 bar	3,135	99105411
NBE 40-250/219	1.5	0 - 2.5 bar	2,855	99105412
NBE 40-250/245	2.2	0 - 2.5 bar	3,267	99105413
NBE 40-250/260	3	0 - 2.5 bar	3,594	99105414
NBE 40-315/283	3	0 - 4 bar	4,050	99105415
NBE 40-315/305	4	0 - 4 bar	4,512	99101881
NBE 40-315/334	5.5 7.5	0 - 4 bar	5,270	99101968
NBE 40-315/344	7.5	0 - 6 bar	5,817	99101969
NBE 50-125/129	0.55	0 - 0.6 bar	2,450	99104679
NBE 50-125/138	0.75	0 - 1.0 bar	2,507	98591318
NBE 50-125/144	1.1	0 - 1.0 bar	2,587	99031018
NBE 50-160/131	0.55	0 - 0.6 bar	2,485	98689527
NBE 50-160/139	0.75	0 - 1.0 bar	2,546	99104680
NBE 50-160/158	1.1 1.5	0 - 1.0 bar	2,613	98773132
NBE 50-160/175 NBE 50-160/177	2.2	0 - 1.6 bar 0 - 1.6 bar	2,714 3,057	99105416 99105417
NBE 50-200/177	1.1	0 - 1.6 bar	2,667	99104681
NBE 50-200/171	1.5	0 - 1.6 bar	2,789	99105418
NBE 50-200/210	2.2	0 - 1.6 bar	3,102	99105419
NBE 50-200/219	3	0 - 2.5 bar	3,447	99105420
NBE 50-250/221	2.2	0 - 2.5 bar	3,214	99105421
NBE 50-250/241	3	0 - 2.5 bar	3,553	99105422
NBE 50-250/263	4	0 - 2.5 bar	3,997	99101875
NBE 50-315/277	4	0 - 4 bar	4,532	99101970
NBE 50-315/303	5.5	0 - 4 bar	5,376	99101971
NBE 50-315/331	7.5	0 - 6 bar	6,200	99101873
NBE 50-315/344	11	0 - 6 bar	7,687	98976085
NBE 65-125/122	0.55	0 - 0.6 bar	2,458	98941572
NBE 65-125/130	0.75	0 - 0.6 bar	2,534	99104682
NBE 65-125/144	1.1	0 - 1.0 bar	2,636	98956877
NBE 65-160/135	0.75	0 - 1.0 bar	2,521	98920991
NBE 65-160/149	1.1	0 - 1.0 bar	2,607	99104683
NBE 65-160/165	1.5	0 - 1.0 bar	2,703	99105433
NBE 65-160/177	2.2	0 - 1.6 bar	3,069	99105434
NBE 65-200/170	1.5	0 - 1.6 bar	2,973	99105435
NBE 65-200/189	2.2	0 - 1.6 bar	3,292	99166379
NBE 65-200/205	3	0 - 1.6 bar	3,643	99105437
NBE 65-200/219	4	0 - 2.5 bar	4,136	99101750
NBE 65-250/215	3	0 - 2.5 bar	3,972	99105438
NBE 65-250/232	4	0 - 2.5 bar	4,455	99101772
NBE 65-250/254	5.5	0 - 2.5 bar	5,290	99101619
NBE 65-250/270	7.5	0 - 4 bar	6,089	99101900
NBE 65-315/261	5.5	0 - 2.5 bar	5,466	99101972
NBE 65-315/282	7.5	0 - 4 bar	6,200	99101770
NBE 65-315/314	11	0 - 4 bar	7,930	98666285
NBE 65-315/320	15	0 - 4 bar	8,907	9897608

SUPPORT BLOCKS

Pumps listed in the darker shaded area include Support Blocks



COMPLETE WITH 1450 RPM (4 POLES) 3 PHASE VARIABLE SPEED MOTOR

				£ Product code
	P2	Differential pressure		A F2 A E BQQE
Model	kW	transducer range		AS F2 A E BQQE
NBE 80-160/146	1.5	0 - 1.0 bar	2,914	99105439
NBE 80-160/161	2.2	0 - 1.0 bar	3,280	99105440
NBE 80-160/175	3	0 - 1.6 bar	3,611	99105441
NBE 80-160/177	4	0 - 1.6 bar	4,060	99101751
NBE 80-200/164	2.2	0 - 1.0 bar	3,633	99105442
NBE 80-200/179	3	0 - 1.6 bar	3,972	99105443
NBE 80-200/196	4	0 - 1.6 bar	4,430	99101959
NBE 80-200/214	5.5	0 - 2.5 bar	5,192	99101768
NBE 80-200/222	7.5	0 - 2.5 bar	5,985	99100109
NBE 80-250/225	5.5	0 - 2.5 bar	5,413	99101771
NBE 80-250/247	7.5	0 - 2.5 bar	6,193	99100061
NBE 80-250/270	11	0 - 4 bar	7,853	98692711
NBE 80-315/280	11	0 - 4 bar	8,128	98976087
NBE 80-315/305	15	0 - 4 bar	9,046	98976055
NBE 80-315/320	18.5	0 - 4 bar	10,221	99150846
NBE 80-400/347	18.5	0 - 6 bar	11,896	99105337
NBE 100-160/160-140	2.2	0 - 1.0 bar	3,494	99105444
NBE 100-160/169	3	0 - 1.0 bar	3,833	99105445
NBE 100-160/176	4	0 - 1.0 bar	4,291	99101913
NBE 100-200/178	4	0 - 1.6 bar	4,534	99105447
NBE 100-200/195	5.5	0 - 1.6 bar	5,276	99105448
NBE 100-200/211	7.5	0 - 2.5 bar	6,091	99105449
NBE 100-200/219	11	0 - 2.5 bar	7,481	98976088
NBE 100-250/215	7.5	0 - 2.5 bar	6,614	99101910
NBE 100-250/245	11	0 - 2.5 bar	8,112	98976180
NBE 100-250/274	15	0 - 4 bar	9,019	98976179
NBE 100-315/279	15	0 - 4 bar	9,260	98976089
NBE 100-315/295	18.5	0 - 4 bar	10,384	99105338
NBE 125-200/176-154	5.5	0 - 1.0 bar	5,840	99101912
NBE 125-200/196-180	7.5	0 - 1.6 bar	6,573	99101911
NBE 125-200/219	11	0 - 2.5 bar	8,094	98976193
NBE 125-200/226	15	0 - 2.5 bar	8,995	98976192
NBE 125-250/220	11	0 - 2.5 bar	8,284	98976090
NBE 125-250/236	15	0 - 2.5 bar	9,181	98349835
NBE 125-250/249	18.5	0 - 2.5 bar	10,341	98349876
NBE 125-315/275	18.5	0 - 4 bar	11,608	99042637
				A F1 A E BQQE
				AS F1 A E BQQE
NBE 150-200/210-158	7.5	0 - 1.0 bar	7,295	99157328
NBE 150-200/218-208	11	0 - 1.6 bar	9,028	98976056
NBE 150-200/224	15	0 - 1.6 bar	9,935	98762436
NBE 150-250/226-214	15	0 - 1.6 bar	10,350	98976196
NBE 150-250/230	18.5	0 - 2.5 bar	11,559	99105340

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

380-480/500V 3ph 50/60Hz

Pumps listed in the darker shaded area include Support Blocks

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.



COMPLETE WITH 2 POLES / 2900 RPM IE3 MOTORS

	•	380-415V 3ph 50Hz	
	P2	£	Product Code
Model	kW	A2 F A	E BQQE
NK 32-125.1/100	0.75	2,559	98973375
NK 32-125.1/110	1.1	2,594	98973377
NK 32-125.1/121	1.5	2,672	98973379
NK 32-125.1/140	2.2	2,715	98973381
NK 32-125/106	1.1	2,633	98973383
NK 32-125/115	1.5	2,709	98973385
NK 32-125/130	2.2	2,754	98973388
NK 32-125/142	3	2,939	98973391
NK 32-160.1/139	1.5	2,773	98973393
NK 32-160.1/155	2.2	2,812	98973395
NK 32-160.1/169	3	3,002	98973397
NK 32-160.1/177	4	3,175	98973401
NK 32-160/139	2.2	2,861	98973403
NK 32-160/151	3	3,054	98973405
NK 32-160/163	4	3,228	98973407
NK 32-160/177	5.5	3,462	98973410
		,	
NK 32-200.1/172	3	3,070	98973422
NK 32-200.1/188	4	3,242	98973424
NK 32-200.1/205	5.5	3,478	98973426
NK 32-200.1/207	7.5	3,708	98973429
NK 32-200/176	4	3,263	98973430
NK 32-200/170	5.5	3,507	98869755
NK 32-200/190	7.5	3,731	98408593
NK 32-200/206	11	4,309	98663381
NK 32-200/219	11	4,303	90003301
NK 22 250/100	5.5	3,878	00072420
NK 32-250/199	7.5	4,114	98973438
NK 32-250/219		4,725	98973431
NK 32-250/244	11		98973434
NK 32-250/262	15	5,248	98973444
NK 40 13F /10F	1.5	3 600	00072447
NK 40-125/105	1.5	2,690	98973447
NK 40-125/116	2.2	2,732	98973450
NK 40-125/127	3	2,910	98553113
NK 40-125/139	4	3,083	98973452
NK 40-125/142	5.5	3,318	98973454
NK 40-160/144	4	3,181	98973456
NK 40-160/158	5.5	3,416	98973458
NK 40-160/172	7.5	3,634	98973436
NK 40-160/177	11	4,200	98431476
NK 40-200/172	5.5	3,514	98545685
NK 40-200/188	7.5	3,725	98973439
NK 40-200/206	11	4,294	98973441
NK 40-200/219	15	4,782	98973466
NK 40-250/211	11	4,669	98973442
NK 40-250/230	15	5,175	98052630
NK 40-250/245	18.5	5,401	98973445
NK 40-250/255	22	6,212	98257988
NK 40-250/260	30	7,522	98972741
NK 40-315/273	22	6,707	98973446
NK 40-315/298	30	8,027	98972745
NK 40-315/318	37	8,807	98972748
NK 40-315/336	45	11,154	98972750
,		,	

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 NK casing and impeller are cast iron.

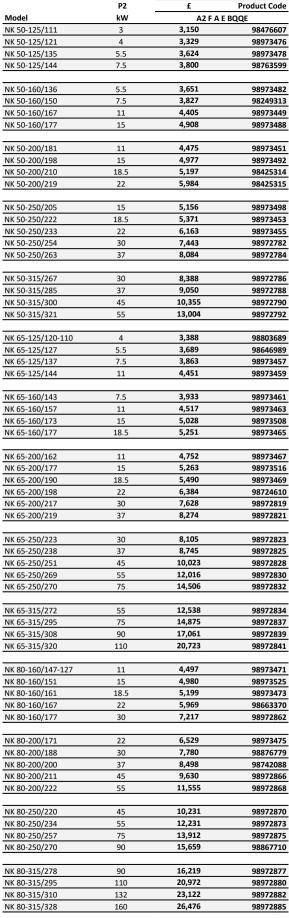
All long-coupled NK pumps have spacer coupling and base frame.

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.



380-415V 3ph 50Hz



COMPLETE WITH 2 POLES / 2900 RPM IE3 MOTORS

		380-415	V 3ph 50Hz
	P2	£	Product Code
Model	kW	A2 F A	A E BQQE
NK 100-160/160-154	18.5	5,476	98973728
NK 100-160/167	22	6,272	98973726
NK 100-160/176	30	7,550	98973337
NK 100-200/170	30	8,304	98972887
NK 100-200/181	37	8,946	98833673
NK 100-200/192	45	10,239	98972889
NK 100-200/203	55	12,243	98606358
NK 100-200/219	75	13,924	98698076
NK 100-250/205	55	12,454	98973187
NK 100-250/229	75	14,125	98973185
NK 100-250/242	90	15,872	98973183
NK 100-250/258	110	21,488	98973181
NK 100-250/269	132	23,870	98973179
		·	
NK 100-315/269	110	22,819	98829703
NK 100-315/284	132	23,917	98972891
NK 100-315/301	160	27,433	98972893
NK 100-315/322	200	31,771	98972895

FCT		

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.

		380-415\	/ 3ph 50Hz
	P2	£	Product Code
Model	kW	A2 F A	E BQQE
NK 125-200/176-154	45	10,783	98973262
NK 125-200/196-166	55	12,787	98973260
NK 125-200/205	75	14,933	98973258
NK 125-200/219	90	16,588	98973257
NK 125-200/224	110	22,095	98973255
NK 125-250/222	90	16,993	98972898
NK 125-250/236	110	21,997	98972900
NK 125-250/249	132	23,624	98684463
NK 125-250/263	160	27,066	98972902
NK 125-250/269	200	31,422	98972904
NK 125-315/262	132	24,857	98972906
NK 125-315/277	160	28,275	98972908
NK 125-315/297	200	32,634	98972910
NK 125-315/317	250	48,224	98444952
NK 150-200/216-176	75	16,295	98767265
NK 150-200/218-202	90	17,951	98972912
NK 150-200/224	110	23,457	98972914
NK 150-250/226-220	132	27,222	98973304
NK 150-250/235	160	30,654	98973302
NK 150-250/250	200	35,113	98973300
NK 150-250/265	250	50,772	98973298
NK 150-315.2/244	160	32,640	99001704
NK 150-315.2/262	200	35,600	99001705





COMPLETE WITH 4 POLES	/ 1450 RPM IE3 MOTORS
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		380-415V 3ph 50Hz				380-415V	3ph 50Hz
	P2	£	Product Code		P2	£	Product Code
Model	kW	A2 F A E	BQQE	Model	kW	A2 F A E	BQQE
NK 32-125.1/121	0.25	2,324	98986192	NK 50-250/221	2.2	3,279	98973614
NK 32-125.1/139	0.25	2,324	98986194	NK 50-250/241	3	3,384	98973616
NK 32-125.1/140	0.37	2,342	98986196	NK 50-250/263	4	3,581	98973483
NK 32-125/115	0.25	2,361	98986218	_			
NK 32-125/130	0.25	2,361	98986237	NK 50-315/277	4	4,354	98973485
NK 32-125/142	0.37	2,381	98986239	NK 50-315/303	5.5	4,854	98074516
				NK 50-315/331	7.5	5,164	98476310
NK 32-160.1/137	0.25	2,434	98986241	NK 50-315/344	11	5,913	98973487
NK 32-160.1/155	0.25	2,434	98986245			· · · · · · · · · · · · · · · · · · ·	
NK 32-160.1/172	0.37	2,453	98986247	NK 65-125/122	0.55	2,720	98876500
NK 32-160.1/177	0.55	2,506	98986249	NK 65-125/130	0.75	2,846	98973630
NK 32-160/138	0.25	2,477	98986250	NK 65-125/144	1.1	2,900	98973632
NK 32-160/154	0.37	2,496	98986301	NK 03-123/144	1.1	2,500	30373032
		2,553		NK CE 100/125	0.75	2 010	00073634
NK 32-160/172	0.55	•	98986345	NK 65-160/135	0.75	2,918	98973634
NK 32-160/173	0.75	2,672	98973535	NK 65-160/149	1.1	2,981	98973636
				NK 65-160/165	1.5	3,025	98973639
NK 32-200.1/175	0.37	2,521	98986346	NK 65-160/177	2.2	3,141	98973641
NK 32-200.1/196	0.55	2,578	98986348	-			
NK 32-200.1/207	0.75	2,697	98973557	NK 65-200/170	1.5	3,225	98973643
NK 32-200/184	0.55	2,596	98986349	NK 65-200/189	2.2	3,340	98973645
NK 32-200/197	0.75	2,717	98973559	NK 65-200/205	3	3,450	98973647
NK 32-200/216	1.1	2,775	98973561	NK 65-200/219	4	3,659	98973489
NK 32-200/219	1.5	2,818	98973563				
				NK 65-250/215	3	3,953	98973663
NK 32-250/206	0.75	3,058	98973537	NK 65-250/232	4	4,146	98973491
NK 32-250/236	1.1	3,117	98973539	NK 65-250/254	5.5	4,607	98973493
NK 32-250/260	1.5	3,162	98973553	NK 65-250/270	7.5	4,804	98144820
NK 32-250/262	2.2	3,277	98973555		-	· · · · · · · · · · · · · · · · · · ·	
1111 02 230/202	2.2		3037000	NK 65-315/261	5.5	4,830	98973495
NK 40-125/116	0.25	2,349	98986475	NK 65-315/282	7.5	5,030	98973497
NK 40-125/130	0.37	2,367	98986476	NK 65-315/314	11	5,724	98074514
NK 40-125/142	0.55	2,429	98986477		15	5,973	98973499
INN 40-125/142	0.55	2,423	30300477	NK 65-315/320	13	3,373	303/3433
NK 40 100/124	0.37	2 471	00000503	NK 90 100/140	1 Γ	2.025	00073677
NK 40-160/134		2,471	98986502	NK 80-160/146	1.5	3,035	98973677
NK 40-160/151	0.55	2,527	98986504	NK 80-160/161	2.2	3,153	98973679
NK 40-160/162	0.75	2,644	98973565	NK 80-160/175	3	3,259	98973681
NK 40-160/177	1.1	2,700	98973567	NK 80-160/177	4	3,446	98476627
NK 40-200/177	0.75	2,732	98973569	NK 80-200/164	2.2	3,715	98973685
NK 40-200/198	1.1	2,794	98973572	NK 80-200/179	3	3,819	98973687
NK 40-200/217	1.5	2,836	98973575	NK 80-200/196	4	4,014	98973501
NK 40-200/219	2.2	2,950	98973578	NK 80-200/214	5.5	4,445	98144818
				NK 80-200/222	7.5	4,635	98973503
NK 40-250/219	1.5	3,143	98973581				
NK 40-250/245	2.2	3,261	98973583	NK 80-250/225	5.5	4,768	98973505
NK 40-250/260	3	3,376	98973585	NK 80-250/247	7.5	4,988	98973507
				NK 80-250/270	11	5,716	98476530
NK 40-315/283	3	3,915	98973587				
NK 40-315/305	4	4,108	98973477	NK 80-315/280	11	5,955	98973510
NK 40-315/334	5.5	4,597	98973479	NK 80-315/305	15	6,200	98074512
NK 40-315/344	7.5	4,900	98973481	NK 80-315/320	18.5	7,026	98972335
	5	,		NK 80-315/334	22	7,339	98972337
NK 50-125/113	0.37	2,584	98986501	50 315/354		.,	30312331
NK 50-125/113	0.55	2,648	98990816	NK 80-400/347	18.5	9,100	98972339
			98973596	·		9,632	98972341
NK 50-125/138	0.75	2,767		NK 80-400/365	22		
NK 50-125/144	1.1	2,826	98973598	NK 80-400/397	30	10,795	98972344
NW 50 460/:2:	0.5-	2.000	0000000	NK 80-400/419	37	11,954	98972346
NK 50-160/131	0.55	2,693	98990819	NK 80-400/438	45	12,875	98972350
NK 50-160/139	0.75	2,814	98973600				
NK 50-160/158	1.1	2,867	98973603	NK 100-160/160-140	2.2	3,388	98973421
NK 50-160/175	1.5	2,910	98705749	NK 100-160/169	3	3,508	98973408
NK 50-160/177	2.2	3,031	98973606	NK 100-160/176	4	3,695	98973730
			00073600	NK 100-200/178	4	4,320	98973513
NK 50-200/171	1.1	2,945	98973608	14K 100 200/170		.,020	
NK 50-200/171 NK 50-200/188	1.1 1.5	2,945 2,984	98973610	NK 100-200/175	5.5	4,780	98973515
		•				•	

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



COMPLETE WITH 4 POLES / 1450 RPM IE3 MOTORS

		380-415V 3ph 50Hz		
	P2	£	Product Code	
Model	kW	A2 F A E	BQQE	
NK 100-250/215	7.5	5,181	98973704	
NK 100-250/245	11	5,923	98973702	
NK 100-250/274	15	6,186	98973690	
NK 100-315/279	15	6,687	98973517	
NK 100-315/295	18.5	7,518	98972358	
NK 100-315/312	22	7,826	98972360	
NK 100-315/334	30	8,964	98607734	
NK 100-400/334	22	9,870	98973241	
NK 100-400/360	30	11,036	98973240	
NK 100-400/375	37	12,187	98973239	
NK 100-400/395	45	13,108	98973238	
NK 100-400/415	55	15,025	98973236	
NK 125-200/176-154	5.5	5,349	98973713	
NK 125-200/196-180	7.5	5,546	98973711	
NK 125-200/219	11	6,304	98973710	
NK 125-200/226	15	6,553	98973708	
NK 125-250/220	11	6,202	98973519	
NK 125-250/236	15	6,442	98663368	
NK 125-250/249	18.5	7,267	98731075	
NK 125-250/262	22	7,586	98476605	
NK 125-250/269	30	8,715	98663363	
NK 125-315/275	18.5	9,090	98972366	
NK 125-315/290	22	9,339	98780297	
NK 125-315/317	30	10,504	98972368	
NK 125-315/336	37	11,661	98972370	
NK 125-315/338	45	12,582	98972372	
NK 125-400/345	37	12,257	98972374	
NK 125-400/368	45	13,172	98972376	
NK 125-400/392	55	15,089	98972378	
NK 125-400/433	75	17,209	98424188	
NK 125-400/438	90	18,932	98972380	
NK 125-500/406	55	17,767	98972382	
NK 125-500/447	75	19,997	98972384	
NK 125-500/473	90	21,809	98972386	
NK 125-500/500	110	28,205	98972389	
NK 125-500/526	132	28,955	98531708	
NK 125-500/548	160	30,851	98972391	
NK 150-200/210-158	7.5	6,432	98973521	
NK 150-200/218-208	11	7,544	98244644	
NK 150-200/224	15	7,802	98780294	
NK 150-250/226-214	15	8,486	98918826	
NK 150-250/230	18.5	9,251	98930113	
NK 150-250/242	22	9,634	98964693	
NK 150-250/262	30	10,735	98973311	
NK 150-250/275	37	12,141	98973308	
NK 150-250/282	45	13,084	98973306	

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 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

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.





COMPLETE WITH 6 POLES / 960 RPM IE3 MOTORS

		380-415V 3ph 50Hz	
	P2	£	Product Code
Model	kW	A2 F A E	BQQE
NK 100-160/160-140	0.55	3,608	98973353
NK 100-160/169	0.75	3,823	98973351
NK 100-160/176	1.1	3,887	98973349
NK 100-200/182	1.1	4,471	98972409
NK 100-200/193	1.5	4,581	98972410
NK 100-200/214	2.2	4,728	98972412
NK 100-200/219	3	5,207	98972414
NK 100-250/216	2.2	4,956	98973202
NK 100-250/236	3	5,422	98973200
NK 100-250/260	4	5,440	98973198
NK 100-250/274	5.5	5,991	98973196
		-	
NK 100-315/272	4	6,005	98972416
NK 100-315/301	5.5	6,511	98972418
NK 100-315/326	7.5	7,008	98972420
NK 100-315/334	11	7,939	98972422
NK 100-400/340	7.5	8,705	98973244
NK 100-400/380	11	9,618	98973243
NK 100-400/415	15	10,426	98973242
NK 125-200/176-150	1.5	5,211	98973281
NK 125-200/176-130	2.2	5,369	98973270
NK 125-200/190-182	3	•	98973269
		5,835	
NK 125-200/226	4	5,867	98973268
NK 125-250/216	3	5,779	98972424
NK 125-250/232	4	5,791	98972426
NK 125-250/253	5.5	6,304	98972428
NK 125-250/269	7.5	6,761	98972429
NK 125-315/275	5.5	7,696	98972431
NK 125-315/297	7.5	8,157	98972433
NK 125-315/297	11		98972435
NK 125-315/338	15	9,094 9,902	98972437
· · · · · · · · · · · · · · · · · · ·		,	
NK 125-400/351	11	9,892	98972439
NK 125-400/384	15	10,699	98972441
NK 125-400/410	18.5	11,561	98972443
NK 125-400/434	22	12,255	98972444
NK 125-400/438	30	13,082	98990844
NK 125-500/421	18.5	13,806	98972448
NK 125-500/445	22	14,522	98972450
NK 125-500/493	30	15,384	98972452
NK 125-500/524	37	16,485	98972458
NK 125-500/546	45	17,851	98972454
NK 125-500/548	55	18,948	98990845
NIV 150 200/210 150	2.2	6.222	00072465
NK 150-200/210-168	2.2	6,332	98972460
NK 150-200/218-200	3	6,787	98972462
NK 150-200/224	4	6,806	98972464
NK 150-250/235	5.5	8,077	98973318
NK 150-250/252	7.5	8,553	98973316
NK 150-250/282	11.0	9,521	98973314
NK 150-315.2/259	7.5	9,900	99001714
NK 150-315.2/293	11.0	10,841	99001715
· · · · · · · · · · · · · · · · · · ·	15.0		99001716
NK 150-315.2/328		10,980	
NK 150-315.2/342	18.5	12,424	99001717
NK 150-315/280	11.0	10,891	98972465
NK 150-315/305	15.0	11,673	98972467
NK 150-315/322	18.5	12,484	98972469
NK 150-315/337	22.0 30.0	13,178	98737868 98972471
NK 150-315/338	30.0	14,056	30372471
COLUNITED EL ANICES			

COUNTER FLANGES

 $\label{pump counter Flanges are supplied as optional extras and are indicated on page 22.$

		380-415V 3ph 50Hz	
	P2	£	Product Code
Model	kW	A2 F A E	BQQE
NK 150-400/357	18.5	13,701	98972473
NK 150-400/375	22	14,421	98972475
NK 150-400/408	30	15,342	98972478
NK 150-400/430	37	16,451	98972480
NK 150-400/438	45	17,827	98972482
NK 150-500/457	37	18,234	98972484
NK 150-500/483	45	19,598	98972486
NK 150-500/513	55	20,697	98972488
NK 150-500/548	75	22,176	98972490
NK 200-400/308	15	17,451	98973148
NK 200-400/328	18.5	18,240	98973150
NK 200-400/348	22	19,512	98973153
NK 200-400/384	30	20,716	98973154
NK 200-400/404	37	22,211	98973156
NK 200-450/355	18.5	18,739	98973101
NK 200-450/371	22	20,246	98973103
NK 200-450/407	30	21,686	98973106
NK 200-450/431	37	23,181	98973108
NK 200-450/451	45	24,674	98973110
NK 250-350/277	11	18,331	98476332
NK 250-350/306	15	19,698	98973091
NK 250-350/330	18.5	20,738	98973093
NK 250-350/366	22	21,788	98973095
NK 250-400/289	15	19,897	98973053
NK 250-400/313	18.5	20,937	98973054
NK 250-400/329	22	21,987	98973055
NK 250-400/361	30	24,173	98973056
NK 250-400/381	37	25,451	98973057
NK 250-400/401	45	26,487	98973058
NK 250-450/313	18.5	21,376	98973193
NK 250-450/325	22	22,412	98973195
NK 250-450/357	30	24,561	98973197
NK 250-450/377	37	25,820	98973199
NK 250-450/397	45	26,839	98973201
NK 250-450/433	55	28,095	98973203
NK 250-500/409	45	30,457	98973097
NK 250-500/437	55	31,948	98973098
NK 250-500/485	75	36,831	98973100
NK 250-500/525	90	39,428	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.



COMPLETE WITH 2900 RPM (2 POLES) 3 PHASE VARIABLE SPEED MOTOR

			380-480/500V 3ph 50/60Hz
	P2	Differential pressure	£ Product code
Model	kW	transducer range	A2 F A E BQQE
NKE 32-125.1/110	1.1	0 - 2.5 bar	3,656 9898715
NKE 32-125.1/121 NKE 32-125.1/140	1.5 2.2	0 - 2.5 bar 0 - 4 bar	3,795 9899085 4,066 9899085
NKE 32-125.1/140 NKE 32-125/106	1.1	0 - 4 bar	4,066 9899085 3,694 9899085
NKE 32-125/115	1.5	0 - 2.5 bar	3,831 9899085
NKE 32-125/130	2.2	0 - 2.5 bar	4,103 9899086
NKE 32-125/142	3	0 - 4 bar	4,519 9910588
NKE 32-160.1/139	1.5	0 - 2.5 bar	3,893 9899086
NKE 32-160.1/155	2.2	0 - 4 bar	4,159 9899086
NKE 32-160.1/169	3	0 - 4 bar	4,580 9910622
NKE 32-160.1/177	4	0 - 6 bar	4,980 9910623
NKE 32-160/139	2.2	0 - 4 bar	4,207 9899086
NKE 32-160/151	3	0 - 4 bar	4,630 9910588
NKE 32-160/163	4	0 - 4 bar	5,032 9910588
NKE 32-160/177	5.5	0 - 6 bar	5,509 9910588
NKE 32-200.1/172	3	0 - 4 bar	4,646 9910623
NKE 32-200.1/188	4	0 - 6 bar	5,046 9910623
NKE 32-200.1/205	5.5	0 - 6 bar	5,525 9910623
NKE 32-200.1/207	7.5	0 - 6 bar	6,205 9909925
NKE 32-200/176	4	0 - 4 bar	5,066 9910588
NKE 32-200/190	5.5	0 - 6 bar	5,553 9910589
NKE 32-200/206	7.5	0 - 6 bar	6,227 9909926
NKE 32-200/219	11	0 - 10 bar	7,559 9909926
NKE 32-250/199	5.5	0 - 6 bar	5,912 9910589
NKE 32-250/219	7.5	0 - 10 bar	6,598 9909926
NKE 32-250/244	11	0 - 10 bar	7,962 9909927
NKE 32-250/262	15	0 - 10 bar	9,054 97944779
NKE 40-125/105	1.5	0 - 1.6 bar	3,871 9899087
NKE 40-125/116	2.2	0 - 2.5 bar	4,141 9899087
NKE 40-125/127	3	0 - 2.5 bar 0 - 4 bar	4,555 9910589 4,958 9910589
NKE 40-125/139	5.5	0 - 4 bar	
NKE 40-125/142 NKE 40-160/144	3.5 4	0 - 4 bar	5,441 9910589 5,056 9910589
NKE 40-160/158	5.5	0 - 4 bar	5,539 9910589
NKE 40-160/172	7.5	0 - 6 bar	6,213 9909927
NKE 40-160/177	11	0 - 6 bar	7,545 9909878
NKE 40-200/172	5.5	0 - 4 bar	5,636 9910590
NKE 40-200/188	7.5	0 - 6 bar	6,302 9909927
NKE 40-200/206	11	0 - 6 bar	7,638 9909928
NKE 40-200/219	15	0 - 10 bar	8,706 9899102
NKE 40-250/211	11	0 - 10 bar	8,010 9909928
NKE 40-250/230	15	0 - 10 bar	9,095 9899103
NKE 40-250/245	18.5	0 - 10 bar	10,099 9897347
NKE 40-250/255	22	0 - 10 bar	11,521 9897347
NKE 40-315/273	22	0 - 10 bar	12,012 9897347
NKE 50-125/111	3	0 - 1.6 bar	4,724 9910590
NKE 50-125/121	4	0 - 2.5 bar	5,129 9910590
NKE 50-125/135	5.5	0 - 4 bar	5,666 9910590
NKE 50-125/144	7.5	0 - 4 bar	6,294 9909928
NKE 50-160/136	5.5	0 - 4 bar	5,692 9910590
NKE 50-160/150	7.5	0 - 4 bar	6,320 9909929
NKE 50-160/167	11	0 - 4 bar	7,652 9909929
NKE 50-160/177	15	0 - 6 bar	8,724 9899103
NKE 50-200/181	11	0 - 6 bar	7,720 9909929
NKE 50-200/198	15	0 - 6 bar	8,791 9899104
NKE 50-200/210	18.5	0 - 10 bar	9,783 9897349
NKE 50-200/219	22	0 - 10 bar	11,165 9897349
NKE 50-250/205	15	0 - 6 bar	8,964 9899104: 9,952 9897350
NKE 50-250/222 NKE 50-250/233	18.5 22	0 - 10 bar	
NKE 50-250/233	22	0 - 10 bar	11,338 9890118

 $\label{thm:motor problem} \mbox{Motor specification, reference to accessories and operational details are on page 19.}$



COMPLETE WITH 2900 RPM (2 POLES) 3 PHASE VARIABLE SPEED MOTOR

Model			380-480/500	V 3ph 50/60Hz
	P2	Differential pressure	£	Product code
	kW	transducer range	A2 F A	E BQQE
NKE 65-125/120-110	4	0 - 1.6 bar	5,260	99105906
NKE 65-125/127	5.5	0 - 2.5 bar	5,809	99105907
NKE 65-125/137	7.5	0 - 2.5 bar	6,439	99099301
NKE 65-125/144	11	0 - 4 bar	7,793	99098777
NKE 65-160/143	7.5	0 - 4 bar	6,509	99099305
NKE 65-160/157	11	0 - 4 bar	7,859	99099308
NKE 65-160/173	15	0 - 6 bar	8,950	98147969
NKE 65-160/177	18.5	0 - 6 bar	9,950	98973512
NKE 65-200/162	11	0 - 4 bar	8,091	99099312
NKE 65-200/177	15	0 - 6 bar	9,183	98991049
NKE 65-200/190	18.5	0 - 6 bar	10,187	98973518
NKE 65-200/198	22	0 - 6 bar	11,606	98973520
NKE 80-160/147-127	11	0 - 2.5 bar	7,839	99099316
NKE 80-160/151	15	0 - 4 bar	8,902	98991051
NKE 80-160/161	18.5	0 - 4 bar	9,898	98973528
NKE 80-160/167	22	0 - 4 bar	11,280	98973531
NKE 80-200/171	22	0 - 6 bar	11,835	98973533
NKE 100-160/160-154	18.5	0 - 4 bar	10,173	98973404
NKE 100-160/167	22	0 - 4 bar	11,580	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 PHASE VARIABLE SPEED MOTOR

			380-480/500V 3ph 50/60H	Iz
	P2	Differential pressure	£ Product	code
Model	kW	transducer range	A2 F A E BQQE	
NKE 32-160.1/177	0.55	0 - 1.6 bar		91108
NKE 32-160/172	0.55	0 - 1.6 bar	· · · · · · · · · · · · · · · · · · ·	91110
NKE 32-160/173	0.75	0 - 1.6 bar		91112
NKE 32-200.1/196	0.55	0 - 1.6 bar		91113
NKE 32-200.1/207	0.75	0 - 1.6 bar		91115
NKE 32-200/184	0.55	0 - 1.6 bar		91135
NKE 32-200/197	0.75	0 - 1.6 bar		91137
NKE 32-200/216	1.1 1.5	0 - 2.5 bar 0 - 2.5 bar		91138 05827
NKE 32-200/219 NKE 32-250/206	0.75	0 - 2.5 bai	·	91140
NKE 32-250/236	1.1	0 - 2.5 bar	·	91151
NKE 32-250/260	1.5	0 - 2.5 bar	·	05828
NKE 32-250/262	2.20	0 - 2.5 bar	·	05829
11112 32 230/202	2.20	2.15 34.	1,020	
NKE 40-125/142	0.55	0 - 1.0 bar	3,598 9899	91158
NKE 40-160/151	0.55	0 - 1.0 bar	3,696 9899	91160
NKE 40-160/162	0.75	0 - 1.0 bar	3,740 9910	04772
NKE 40-160/177	1.1	0 - 1.6 bar	3,817 9910	04784
NKE 40-200/177	0.75	0 - 1.6 bar	3,827 9910	04788
NKE 40-200/198	1.1	0 - 1.6 bar	3,910 9910	04789
NKE 40-200/217	1.5	0 - 1.6 bar	4,016 9910	05830
NKE 40-200/219	2.2	0 - 2.5 bar	4,358 9910	05831
NKE 40-250/219	1.5	0 - 2.5 bar	4,320 9910	05832
NKE 40-250/245	2.2	0 - 2.5 bar	4,666 9910	05834
NKE 40-250/260	3	0 - 2.5 bar	5,016 9910	05835
NKE 40-315/283	3	0 - 4 bar	5,551 9910	05836
NKE 40-315/305	4	0 - 4 bar	5,974 9909	99319
NKE 40-315/334	5.5	0 - 4 bar	6,845 9909	99322
NKE 40-315/344	7.5	0 - 6 bar	7,563 9909	99327
NKE 50-125/129	0.55	0 - 0.6 bar	3,757 9910	04790
NKE 50-125/138	0.75	0 - 1.0 bar	3,801 9910	04791
NKE 50-125/144	1.1	0 - 1.0 bar	3,881 9910	04792
NKE 50-160/131	0.55	0 - 0.6 bar	3,801 9910	04795
NKE 50-160/139	0.75	0 - 1.0 bar	3,847 9910	04797
NKE 50-160/158	1.1	0 - 1.0 bar	·	04798
NKE 50-160/175	1.5	0 - 1.6 bar		05838
NKE 50-160/177	2.2	0 - 1.6 bar	·	05839
NKE 50-200/171	1.1	0 - 1.6 bar	·	04799
NKE 50-200/188	1.5	0 - 1.6 bar	·	05841
NKE 50-200/210	2.2	0 - 1.6 bar	·	05842
NKE 50-200/219	3	0 - 2.5 bar	·	05843
NKE 50-250/221	2.2	0 - 2.5 bar	•	05845
NKE 50-250/241	3	0 - 2.5 bar	·	05846
NKE 50-250/263	4	0 - 2.5 bar	·	99330
NKE 50-315/277	4	0 - 4 bar	·	99343
NKE 50-315/303	5.5	0 - 4 bar	·	99346
NKE 50-315/331	7.5	0 - 6 bar		99350
NKE 50-315/344	11	0 - 6 bar	9,207 9897	73627
NKE 65-125/122	0.55	0 - 0.6 har	2 997 9910	04800
NKE 65-125/122 NKE 65-125/130	0.55	0 - 0.6 bar	·)4800)4802
	1.1	0 - 0.6 bar 0 - 1.0 bar		04803
NKE 65-125/144 NKE 65-160/135	0.75	0 - 1.0 bar		04804
NKE 65-160/149	1.1	0 - 1.0 bar	·)4805
NKE 65-160/165	1.5	0 - 1.0 bar)5847
NKE 65-160/177	2.2	0 - 1.6 bar	·)5848
NKE 65-100/177 NKE 65-200/170	1.5	0 - 1.6 bar		05850
NKE 65-200/170	2.2	0 - 1.6 bar)5851
NKE 65-200/205	3	0 - 1.6 bar		05852
NKE 65-200/219	4	0 - 2.5 bar	·	99354
NKE 65-250/215	3	0 - 2.5 bar)5864
NKE 65-250/232	4	0 - 2.5 bar		99357
NKE 65-250/254	5.5	0 - 2.5 bar	·	99360
NKE 65-250/270	7.5	0 - 4 bar		99364
NKE 65-315/261	5.5	0 - 2.5 bar	·	99368
NKE 65-315/282	7.5	0 - 4 bar	·	99371
NKE 65-315/314	11	0 - 4 bar		51019
NKE 65-315/320	15	0 - 4 bar	·	73675
00 010/020	13	J + 501	3,370 3037	/-

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



COMPLETE WITH 1450 RPM (4 POLES) 3 PHASE VARIABLE SPEED MOTOR

			380-480/500V 3ph 50/60Hz	
	P2	Differential pressure	£	Product code
Model	kW	transducer range	A2 F A E	BQQE
NKE 80-160/146	1.5	0 - 1.0 bar	4,213	99105867
NKE 80-160/161	2.2	0 - 1.0 bar	4,559	99105868
NKE 80-160/175	3	0 - 1.6 bar	4,901	99105870
NKE 80-160/177	4	0 - 1.6 bar	5,318	99099374
NKE 80-200/164	2.2	0 - 1.0 bar	5,115	99105871
NKE 80-200/179	3	0 - 1.6 bar	5,455	99105872
NKE 80-200/196	4	0 - 1.6 bar	5,881	99099379
NKE 80-200/214	5.5	0 - 2.5 bar	6,694	99099382
NKE 80-200/222	7.5	0 - 2.5 bar	7,300	99099385
NKE 80-250/225	5.5	0 - 2.5 bar	7,014	99099390
NKE 80-250/247	7.5	0 - 2.5 bar	7,650	99099393
NKE 80-250/270	11	0 - 4 bar	9,141	98973712
NKE 80-315/280	11	0 - 4 bar	9,378	98973714
NKE 80-315/305	15	0 - 4 bar	10,203	98951018
NKE 80-315/320	18.5	0 - 4 bar	11,813	99495748
NKE 80-400/347	18.5	0 - 6 bar	13,688	99104808
,				
NKE 100-160/160-140	2.2	0 - 1.0 bar	4,791	99105873
NKE 100-160/169	3	0 - 1.0 bar	5,147	99105874
NKE 100-160/176	4	0 - 1.0 bar	5,565	99099242
NKE 100-200/178	4	0 - 1.6 bar	6,185	99105875
NKE 100-200/195	5.5	0 - 1.6 bar	7,026	99105877
NKE 100-200/211	7.5	0 - 2.5 bar	7,648	99105878
NKE 100-200/219	11	0 - 2.5 bar	9,153	98122879
NKE 100-250/215	7.5	0 - 2.5 bar	7,841	99099231
NKE 100-250/245	11	0 - 2.5 bar	9,346	98973382
NKE 100-250/274	15	0 - 4 bar	10,189	98973380
NKE 100-315/279	15	0 - 4 bar	10,686	98973729
NKE 100-315/295	18.5	0 - 4 bar	12,119	99104810
200 000, 200		·	,	
NKE 125-200/176-154	5.5	0 - 1.0 bar	7,590	99099238
NKE 125-200/196-180	7.5	0 - 1.6 bar	8,203	99099234
NKE 125-200/219	11	0 - 2.5 bar	9,724	98973390
NKE 125-200/226	15	0 - 2.5 bar	10,553	98973387
NKE 125-250/220	11	0 - 2.5 bar	9,622	98973731
NKE 125-250/236	15	0 - 2.5 bar	10,443	98973733
NKE 125-250/249	18.5	0 - 2.5 bar	11,871	96783217
NKE 125-315/275	18.5	0 - 4 bar	13,618	95108574
=== 010,2,0	20.0	5	10,010	5525577
NKE 150-200/210-158	7.5	0 - 1.0 bar	9,081	99157805
NKE 150-200/218-208	11	0 - 1.6 bar	10,952	98187001
NKE 150-200/224	15	0 - 1.6 bar	11,791	98965137
NKE 150-250/226-214	15	0 - 1.6 bar	12,469	98973400
NKE 150-250/230	18.5	0 - 2.5 bar	13,837	99105549
THILE 150 250/250	10.5	0 - 2.3 bai	13,037	33103343

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	59	419901
DN 40	PN10/16	1"½ BSPF	72	429902
DN 50	PN10/16	2" BSPF	85	339903
DN 65	PN10/16	2"½ BSPF	59	349902
DN 80	PN10/16	3" BSPF	72	350540
DN 100	PN10/16	4" BSPF	85	369901
DN 125	PN10/16		-	=
DN 150	PN10/16		-	=
DN 200	PN10		-	=
DN 250	PN10		-	=
DN 300	PN10		-	=

Weld	£	Product Code
32mm	59	419902
40mm	79	429901
50mm	105	339901
65mm	59	349904
80mm	72	350541
100mm	69	96569188
125mm	208	96414677
150mm	222	96414676
200mm	237	96413358
250mm	252	96691156
300mm	267	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	233	99033768
Danfoss MBS 3000	1/2" BSPM	0-4 bar	233	96637450
Danfoss MBS 3000	1/2" BSPM	0-6 bar	233	96637451
Danfoss MBS 3000	1/2" BSPM	0-10 bar	233	96637452
Danfoss MBS 3000	1/2" BSPM	0-16 bar	233	96637453
Danfoss MBS 3000	1/2" BSPM	0-25 bar	233	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	509	96483573
Danfoss MBS 3000	1/2" BSPM	0-60 bar	509	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 devices	342	98046408

Notes

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

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

			230V 1ph 50Hz		400V 3ph 50Hz	
	P2	Pipe	£	Product Code	£	Product Code
Model	kW	connection	A CA A	V HQQV	A CA A	V HQQV
CRI 1s-2	0.37	32mm	744	96531799	707	96515806
CRI 1s-3	0.37	32mm	767	96531840	730	96515807
CRI 1s-4	0.37	32mm	790	96531842	753	96515808
CRI 1s-5	0.37	32mm	812	96531843	775	96515810
CRI 1s-6	0.37	32mm	835	96531845	798	96515811
CRI 1s-7	0.37	32mm	856	96531847	819	96515813
CRI 1s-8	0.37	32mm	878	96531849	841	96515815
CRI 1s-9	0.37	32mm	901	96531871	864	96515817
CRI 1s-10	0.37	32mm	924	96531873	887	96515818
CRI 1s-11	0.37	32mm	946	96531875	909	96515820
CRI 1s-12	0.37	32mm	967	96531878	930	96515821
CRI 1s-13	0.37	32mm	990	96531890	953	96515822
CRI 1s-15	0.55	32mm	1074	96531891	1,023	96515823
CRI 1s-17	0.55	32mm	1109	96531893	1,058	96515824
CRI 1s-19	0.55	32mm	1167	96531898	1,115	96515825
			A FGJ A	A V HQQV	A FGJ A	V HQQV
CRI 1s-21	0.75	DN 25/32	1348	96531896	1,254	96527621
CRI 1s-23	0.75	DN 25/32	1406	96531930	1,311	96527622
CRI 1s-25	0.75	DN 25/32	1464	96531932	1,369	96527623
CRI 1s-27	1.1	DN 25/32	1614	96533036	1,460	96527624
CRI 1s-30	1.1	DN 25/32	1742	96533037	1,588	96527625
CRI 1s-33	1.1	DN 25/32	1825	96533038	1,670	96527626
CRI 1s-36	1.1	DN 25/32	POA	96533039	1,755	96527627
			A CA A	V HQQV	A CA A	V HQQV
CRI 1-2	0.37	32mm	735	96532164	698	96516338
CRI 1-3	0.37	32mm	758	96532165	721	96516339
CRI 1-4	0.37	32mm	781	96532166	744	96516340
CRI 1-5	0.37	32mm	803	96532167	766	96516341
CRI 1-6	0.37	32mm	826	96532168	789	96516342
CRI 1-7	0.37	32mm	849	96532169	812	96516343
CRI 1-8	0.55	32mm	870	96532170	818	96516344
CRI 1-9	0.55	32mm	896	96532171	845	96516345
CRI 1-10	0.55	32mm	932	96532172	880	96516346
CRI 1-11	0.55	32mm	967	96532173	915	96516347
CRI 1-12	0.75	32mm	1043	96532482	948	96516348
CRI 1-13	0.75	32mm	1084	96532489	989	96516349
CRI 1-15	0.75	32mm	1157	96532497	1,062	96516350
CRI 1-17	1.1	32mm	1287	96533345	1,132	96516351
CRI 1-19	1.1	32mm	1359	96533346	1,204	96516352
-			A FGJ A	A V HQQV		V HQQV
CRI 1-21	1.1	DN 25/32	1473	96533347	1,318	96530620
CRI 1-23	1.1	DN 25/32	1530	96533348	1,376	96529493
CRI 1-25	1.5	DN 25/32	1770	96533349	1,564	96530621
CRI 1-27	1.5	DN 25/32	1867	96533350	1,661	96530622
CRI 1-30	1.5	DN 25/32	1972	96533352	1,766	96530623
CRI 1-33	2.2	DN 25/32	2210	96556933	1,985	96530624
CRI 1-36	2.2	DN 25/32	POA	96533354	2,090	96530625
	-,-				_,,,,,	55555625

REMEMBER: PUMPS with CA Bases normally need 2x 2 Bolt Oval Flanges - see page 47

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 60 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

CRI 1s, 1, 3 & 5 pumps with CA base are supplied without pipe connections.

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

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

Please see page 46/47 for pipe connection accessories and list prices.





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

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

				ph 50Hz		oh 50Hz
	P2	Pipe	£	Product Code	£	Product Code
Model	kW	connection	A CA A	V HQQV	A CA A	V HQQV
CRI 3-2	0.37	32mm	719	96533184	682	96516743
CRI 3-3	0.37	32mm	750	96533208	713	96516744
CRI 3-4	0.37	32mm	785	96533210	748	96516745
CRI 3-5	0.37	32mm	818	96533212	781	96516746
CRI 3-6	0.55	32mm	843	96533214	791	96516747
CRI 3-7	0.55	32mm	882	96533215	830	96516748
CRI 3-8	0.75	32mm	967	96533216	872	96516749
CRI 3-9	0.75	32mm	1006	96533217	911	96516750
CRI 3-10	0.75	32mm	1043	96533218	948	96516751
CRI 3-11	1.1	32mm	1159	96533219	1,004	96516752
CRI 3-12	1.1	32mm	1202	96533220	1,047	96516753
CRI 3-13	1.1	32mm	1243	96533221	1,089	96516754
CRI 3-15	1.1	32mm	1328	96533222	1,173	96516756
			A FGJ A	V HQQV	A FGJ A	V HQQV
CRI 3-17	1.5	DN 25/32	1,584	96533223	1,378	96527929
CRI 3-19	1.5	DN 25/32	1,667	96533224	1,460	96527930
CRI 3-21	2.2	DN 25/32	1,739	96533225	1,514	96527931
CRI 3-23	2.2	DN 25/32	1,826	96533226	1,601	96527941
CRI 3-25	2.2	DN 25/32	1,909	96533227	1,683	96527942
CRI 3-27	2.2	DN 25/32	1,993	96533228	1,768	96527943
CRI 3-29	2.2	DN 25/32	2,078	96533229	1,853	96527944
CRI 3-31	3	DN 25/32	-	-	1,892	96527945
CRI 3-33	3	DN 25/32		-	1,995	96527948
CRI 3-36	3	DN 25/32		<u> </u>	2,101	96527949
			A CA A	V HQQV	A CA A	
CRI 5-2	0.37	32mm	810	96533277	772	96517120
CRI 5-3	0.55	32mm	863	96533278	812	96517121
CRI 5-4	0.55	32mm	919	96533279	867	96517122
CRI 5-5	0.75	32mm	1,033	96533280	938	96522106
CRI 5-6	1.1	32mm	1,117	96533281	962	96517123
CRI 5-7	1.1	32mm	1,152	96533282	998	96517124
CRI 5-8	1.1	32mm	1,188	96533283	1,033	96517125
CRI 5-9	1.5	32mm	1,373	96533284	1,167	96517126
CRI 5-10	1.5	32mm	1,417	96533285	1,210	96517127
CRI 5-11	2.2	32mm	1,541	96533286	1,316	96517128
CRI 5-12	2.2	32mm	1,576	96533287	1,351	96517129
				V HQQV	A FGJ A	
CRI 5-13	2.2	DN 25/32	1,659	96533288	1,433	96528032
CRI 5-14	2.2	DN 25/32	1,694	96533289	1,469	96528033
CRI 5-15	2.2	DN 25/32	1,729	96533290	1,504	96528034
CRI 5-16	2.2	DN 25/32	1,762	96533291	1,537	96528035
CRI 5-18	3	DN 25/32		-	1,712	96528036
CRI 5-18	3	DN 25/32	<u> </u>		1,785	96528037
CRI 5-20	4	DN 25/32	<u> </u>		1,873	96528038
CRI 5-22	4	DN 25/32		-	1,944	96528039
CRI 5-24 CRI 5-26	4	DN 25/32 DN 25/32	<u> </u>		2,022	96528040
CRI 5-26	4	DN 25/32 DN 25/32	-	<u>-</u>	2,022	96528040
CRI 5-29 CRI 5-32	5.5	DN 25/32 DN 25/32	-	<u> </u>	2,129	96528043
			<u> </u>	<u> </u>	· · · · · · · · · · · · · · · · · · ·	
CRI 5-36	5.5	DN 25/32	-		2,547	96528044

REMEMBER: PUMPS with CA Bases normally need 2x 2 Bolt Oval Flanges - see page 47

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 60 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

CRI 1s, 1, 3 & 5 pumps with CA base are supplied without pipe connections.

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

CRI 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 46/47 for pipe connection accessories and list prices.





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

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

			230V 1ph 50Hz		400V 3ph 50Hz	
	P2	Pipe	£	Product Code	£	Product Code
Model	kW	connection	A CA A	V HQQV	A CA A	V HQQV
CRI 10-1	0.37	50mm	1,122	96500939	1,084	96501149
CRI 10-2	0.75	50mm	1,219	96500940	1,124	96501150
CRI 10-3	1.1	50mm	1,450	96500941	1,295	96501151
CRI 10-4	1.5	50mm	1,648	96500942	1,442	96501152
CRI 10-5	2.2	50mm	1,787	96500943	1,561	96501153
CRI 10-6	2.2	50mm	1,867	96500944	1,642	96501154
CRI 10-7	3	50mm	-	-	1,772	96501155
CRI 10-8	3	50mm	-	-	1,851	96501156
CRI 10-9	3	50mm	=	-	1,929	96501157
			<u>, </u>		A FGJ A	V HQQV
CRI 10-10	4	DN 40	-	-	2,280	96501343
CRI 10-12	4	DN 40	-	-	2,437	96501344
CRI 10-14	5.5	DN 40	-	-	2,828	96501345
CRI 10-16	5.5	DN 40	-	-	2,987	96501346
CRI 10-18	7.5	DN 40	-	-	3,270	96501347
CRI 10-20	7.5	DN 40	-	-	3,422	96501348
CRI 10-22	7.5	DN 40	-	-	3,579	96501349
			A FGJ A	V HQQV	A FGJ A	V HQQV
CRI 15-1	1.1	DN 50	1,635	96501685	1,482	96501815
CRI 15-2	2.2	DN 50	2,022	96501686	1,799	96501816
CRI 15-3	3	DN 50		<u> </u>	2,046	96502002
CRI 15-4	4	DN 50	-	<u> </u>	2,343	96502003
CRI 15-5	4	DN 50	-	-	2,451	96502004
CRI 15-6	5.5	DN 50	-	-	2,884	96502005
CRI 15-7	5.5	DN 50	-	-	2,995	96502006
CRI 15-8	7.5	DN 50	-	-	3,445	96502007
CRI 15-9	7.5	DN 50	-	-	3,553	96502008
CRI 15-10	11	DN 50	-	-	4,174	96502009
CRI 15-12	11	DN 50	-	-	4,393	96502010
CRI 15-14	11	DN 50	-	-	4,608	96502011
CRI 15-17	15	DN 50	-	-	5,851	96502012
			A FGJ A	V HQQV	A FGJ A	
CRI 20-1	1.1	DN 50	1,623	96500314	1,470	96500436
CRI 20-2	2.2	DN 50	2,012	96500315	1,789	96500437
CRI 20-3	4	DN 50		-	2,392	96500609
CRI 20-4	5.5	DN 50	-	-	2,899	96500610
CRI 20-5	5.5	DN 50			3,007	96500611
CRI 20-6	7.5	DN 50			3,467	96500612
CRI 20-7	7.5	DN 50	-	-	3,579	96500613
CRI 20-8	11	DN 50	-	-	4,434	96500614
CRI 20-10	11	DN 50	-	-	4,657	96500615
CRI 20-12	15	DN 50		_	5,654	96500616
CRI 20-14	15	DN 50		_	5,922	96500617
CRI 20-17	18.5	DN 50	-		6,983	96500618
	20.5	230			5,500	30300010

REMEMBER: PUMPS with CA Bases normally need 2x 2 Bolt Oval Flanges - see page 47

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 60 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

CRI 10/15/20 pumps with CA base are supplied **without** pipe connections.

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

CRI 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 46/47 for pipe connection accessories and list prices.





CATEGORY 2 - CR32 and CR45 CAST IRON/304 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

Model	P2 kW	Pipe connection	
Model CR 32-1-1	1.5	connection DN 65	
	2.2		
CR 32-1 CR 32-2-2	3	DN 65 DN 65	
	4	DN 65	
CR 32-2			
CR 32-3-2	5.5	DN 65	
R 32-3	5.5	DN 65	
CR 32-4-2	7.5	DN 65	
CR 32-4	7.5	DN 65	
CR 32-5-2	11	DN 65	
R 32-5	11	DN 65	
R 32-6-2	11	DN 65	
R 32-6	11	DN 65	
R 32-7-2	15	DN 65	
R 32-7	15	DN 65	
R 32-8-2	15	DN 65	
R 32-8	15	DN 65	
R 32-9-2	18.5	DN 65	
R 32-9	18.5	DN 65	
R 32-10-2	18.5	DN 65	
R 32-10	18.5	DN 65	
R 32-11-2	22	DN 65	
R 32-11	22	DN 65	
R 32-12-2	22	DN 65	
R 32-12	22	DN 65	
R 32-13-2	30	DN 65	
R 32-13	30	DN 65	
R 32-14-2	30	DN 65	
R 32-14	30	DN 65	
R 45-1-1	3	DN 80	
R 45-1	4	DN 80	
R 45-2-2	5.5	DN 80	
R 45-2	7.5	DN 80	
R 45-3-2	11	DN 80	
R 45-3	11	DN 80	
R 45-4-2	15	DN 80	
R 45-4	15	DN 80	
R 45-5-2	18.5	DN 80	
R 45-5	18.5	DN 80	
R 45-6-2	22	DN 80	
R 45-6	22	DN 80	
R 45-7-2	30	DN 80	
R 45-7-2	30	DN 80	
R 45-8-2	30	DN 80	
R 45-8-2	30	DN 80	
R 45-9-2	30	DN 80	
R 45-9	37	DN 80	
CR 45-10-2	37	DN 80	
R 45-10	37	DN 80	
R 45-11-2	45	DN 80	
R 45-11	45	DN 80	
CR 45-12-2	45	DN 80	
CR 45-12	45	DN 80	
CR 45-13-2	45	DN 80	

4007 3	JII JUNZ
£ AFAV	Product Code
1,627	96121978
1,735	96121979
1,998	96121980
2,334	96122037
2,927	96122038
2,927	96122039
3,621	96122040
3,621	96122041
4,544	96122042
4,544	96122043
4,791	96122044
4,791	96122045
5,634	96122046
5,634	96122047
5,880	96122048
5,880	96122049
6,667	96122050
6,667	96122051
6,912	96122052
6,912	96122053
7,744	96122054
7,744	96122055
8,000	96122056
8,000	96122057
9,009	96122058
9,009	96122059
9,254	96122060
9,254	96122061
3,234	30122001
1,911	96122771
2,286	96122822
2,878	96122823
3,629	96122824
4,580	96122825
4,580	96122826
5,677	96122827
5,677	96122828
6,749	96122829
6,749	96122830
7,651	96122831
7,651	96122832
8,338	96122833
8,338	96122834
8,609	96122835
8,609	96122836
8,881	96122837
9,666	96122838
9,917	96122839
9,917	96122840
12,879	96122841
12,879	96122842
13,172	96122843
13,172	96122844
13,468	96122845

400V 3ph 50Hz

ELECTRIC MOTOR

380-415V 3ph 50Hz

IP55 Class F insulation

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

Please see page 60 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]

Please see page 46/47 for pipe connection accessories and list prices.



CATEGORY 2 - CR64 to CR185 CAST IRON/304 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

COMPLETE WITH DIR	RECT COUPLED 2900 RPM E	EECTRIC WIOTOR	400V 3ph 50Hz	2
	P2	Pipe		oduct Code
Model	kW	connection	A F A V HQQV	
CR 64-1-1	4	DN 100	2,260	96123548
CR 64-1	5.5	DN 100	2,936	96123549
CR 64-2-2	7.5	DN 100	3,551	96123550
CR 64-2-1	11	DN 100	4,125	96123551
CR 64-2 CR 64-3-2	11 15	DN 100 DN 100	4,125 5,477	96123552 96123553
CR 64-3-1	15	DN 100	5,477	96123554
CR 64-3	18.5	DN 100	6,288	96123555
CR 64-4-2	18.5	DN 100	6,583	96123556
CR 64-4-1	22	DN 100	7,306	96123557
CR 64-4	22	DN 100	7,306	96123558
CR 64-5-2	30	DN 100	7,790	96123559
CR 64-5-1	30	DN 100	7,790	96123560
CR 64-5	30	DN 100	7,790	96123561
CR 64-6-2	30	DN 100	8,086	96123562
CR 64-6-1	37	DN 100	9,519	96123563
CR 64-6	37	DN 100	9,519	96123564
CR 64-7-2	37	DN 100	9,815	96123565
CR 64-7-1	37	DN 100	9,815	96123566
CR 64-7	45	DN 100	12,940	96123567
CR 64-8-2	45	DN 100	13,232	96123568
CR 64-8-1	45	DN 100	13,232 A F A V HQQV	96123569
CR 95-1-1	5.5	DN 100	3,312	99141746
CR 95-1	7.5	DN 100	4,138	99141747
CR 95-2-2	11	DN 100	5,417	99141748
CR 95-2	15	DN 100	6,748	99141749
CR 95-3-2	18.5	DN 100	7,905	99141750
CR 95-3	22	DN 100	8,840	99141751
CR 95-4	30	DN 100	9,482	99141752
CR 95-5	37	DN 100	11,574	99141753
CR 95-6	45	DN 100	14,653	99141754
CR 95-7	55	DN 100	17,582	99141755
CR 95-8-2	55	DN 100	17,978	99141756
			A F A V HQQV	
CR 125-1	11	DN 150	5,417	99142581
CR 125-2-2	15	DN 150	6,748	99142582
CR 125-2-1	18.5	DN 150	7,905	99142633
CR 125-2 CR 125-3-1	22	DN 150	8,840	99142634 99142636
CR 125-3-1	30 37	DN 150 DN 150	9,482	99142637
CR 125-4-2	37	DN 150	11,081 11,574	99142638
CR 125-4	45	DN 150	14,653	99142639
CR 125-5	55	DN 150	17,978	99142640
011 220 0	33	2.1. 230	A F A V HQQV	
CR 155-1-1	11	DN 150	5,417	99143262
CR 155-1	15	DN 150	6,747	99143263
CR 155-2-2	22	DN 150	8,839	99143264
CR 155-2	30	DN 150	9,481	99143265
CR 155-3-2	37	DN 150	11,573	99143266
CR 155-3	45	DN 150	14,651	99143267
CR 155-4-1	55	DN 150	17,976	99143268
			A F A V HQQV	
CR185-1-1	18.5	DN 200	9,301	99143723
CR185-1	22	DN 200	10,209	99143724
CR185-2-2	37	DN 200	12,974	99143725
CR185-2	45	DN 200	16,108	99143726
CR185-3-3	55	DN 200	19,499	99143727
CR185-3		DN 200	POA POA	99143728
CR185-4-3 CR185-4	90	DN 200 DN 200	POA	99143729 99143730
CR185-5-3	110	DN 200	POA	99143731
	110	DN 200	POA	99143732
CR185-5		DN 200	POA	99143733
	1.5.2	2.1.200		
CR185-6-3	132 132	DN 200	POA	99143734
CR185-6-3 CR185-6	132 132 160	DN 200 DN 200	POA POA	99143734 99886987
CR185-5 CR185-6-3 CR185-6 CR185-7-3 CR185-7	132			
CR185-6-3 CR185-6 CR185-7-3	132 160	DN 200	POA	99886987

See previous page for further details.



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

	P2	Pipe	230V 1	ph 50Hz	400V 3p	oh 50Hz
Model	kW	connection	£	Product Code	£	Product Code
Pumps with DIN F	langed Connection		A FGJ H	E HQQE	A FGJ H	E HQQE
CRN 1s-2	0.37	DN 25/32	POA	96532058	952	96531232
CRN 1s-3	0.37	DN 25/32	1,018	96532059	981	96531233
CRN 1s-4	0.37	DN 25/32	1,045	96532070	1,008	96531234
CRN 1s-5	0.37	DN 25/32	1,072	96532071	1,035	96531235
CRN 1s-6	0.37	DN 25/32	1,099	96532072	1,061	96496837
CRN 1s-7	0.37	DN 25/32	1,128	96532073	1,090	96531236
CRN 1s-8	0.37	DN 25/32	1,154	96532074	1,117	96531237
CRN 1s-9	0.37	DN 25/32	1,181	96532075	1,144	96496836
CRN 1s-10	0.37	DN 25/32	1,210	96532076	1,173	96531238
CRN 1s-11	0.37	DN 25/32	1,237	96532077	1,200	96531239
CRN 1s-12	0.37	DN 25/32	1,264	96532078	1,227	96531240
CRN 1s-13	0.37	DN 25/32	1,291	96532079	1,253	96496838
CRN 1s-15	0.55	DN 25/32	1,338	96532140	1,287	96531241
CRN 1s-17	0.55	DN 25/32	1,406	96532141	1,355	96531242
CRN 1s-19	0.55	DN 25/32	1,472	96532142	1,421	96531243
CRN 1s-21	0.75	DN 25/32	1,629	96532143	1,534	96531244
CRN 1s-23	0.75	DN 25/32	1,697	96532144	1,602	96531245
CRN 1s-25	0.75	DN 25/32	1,766	96532145	1,671	96531246
CRN 1s-27	1.1	DN 25/32	1,906	96533330	1,751	96531247
CRN 1s-30	1.1	DN 25/32	POA	96533331	1,883	96531248
CRN 1s-33	1.1	DN 25/32	POA	96533332	1,987	96531249
CRN 1s-36	1.1	DN 25/32	POA	96533333	2,090	96531250
Pumns with "PIF"	Compatible Connecti	ons	ΔΡΔΙ	E HQQE	APAE	HOOF
CRN 1s-2	0.37	DN 32	774	96532146	737	96516034
CRN 1s-3	0.37	DN 32	803	96532147	766	96516036
CRN 1s-4	0.37	DN 32	830	96532148	793	96516037
CRN 1s-5	0.37	DN 32	857	96532149	820	96516039
CRN 1s-6	0.37	DN 32	884	96532150	847	96516041
CRN 1s-7	0.37	DN 32	913	96532151	876	96516043
CRN 1s-8	0.37	DN 32	940	96532152	902	96516044
CRN 1s-9	0.37	DN 32	POA	96532153	929	96516046
CRN 1s-10	0.37	DN 32	995	96532154	958	96516047
CRN 1s-11	0.37	DN 32	1,022	96532155	985	96516048
CRN 1s-12	0.37	DN 32	1,049	96532156	1,012	96516050
CRN 1s-13	0.37	DN 32	1,076	96532157	1,039	96516051
CRN 1s-15	0.55	DN 32	1,123	96532158	1,072	96516053
CRN 1s-17	0.55	DN 32	1,192	96532159	1,140	96516054
CRN 1s-19	0.55	DN 32	1,258	96532160	1,206	96516056
CRN 1s-21	0.75	DN 32	1,415	96532161	1,320	96516058
CRN 1s-23	0.75	DN 32	1,483	96532162	1,388	96516059
CRN 1s-25	0.75	DN 32	1,551	96532163	1,456	96516061
CRN 1s-27	1.1	DN 32	1,691	96533334	1,536	96516062
CRN 1s-30	1.1	DN 32	1,823	96533335	1,669	96516064
CRN 1s-33	1.1	DN 32	POA	96533336	1,772	96516066
CRN 1s-36	1.1	DN 32	2,030	96533337	1,875	96516067
		5., 52			-,0.0	55520007

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 60 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 46/47 for pipe connection accessories and list prices.

CRN FLANGED pump specification



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

COMPLETE W	ITH DIRECT COU	PLED 2900 RPM ELECT	RIC MOTOR			
	P2	Pipe	230V 1	ph 50Hz	400V 3	ph 50Hz
Model	kW	connection	£	Product Code	£	Product Code
Pumps with DIN F	langed Connection		A FGJ H	I E HQQE	A FGJ H	E HQQE
CRN 1-2	0.37	DN 25/32	989	96533054	952	96504923
CRN 1-3	0.37	DN 25/32	1,018	96533057	981	96531251
CRN 1-4	0.37	DN 25/32	1,045	96533058	1,008	96531252
CRN 1-5	0.37	DN 25/32	1,072	96533060	1,035	96531253
CRN 1-6	0.37	DN 25/32	1,099	96533068	1,062	96531254
CRN 1-7	0.37	DN 25/32	1,128	96533070	1,091	96531255
CRN 1-8	0.55	DN 25/32	1,159	96533072	1,107	96531256
CRN 1-9	0.55	DN 25/32	1,181	96533075	1,130	96531257
CRN 1-10	0.55	DN 25/32	1,225	96533077	1,173	96531258
CRN 1-11	0.55	DN 25/32	1,264	96533079	1,212	96531259
CRN 1-12	0.75	DN 25/32	1,347	96533083	1,252	96531308
CRN 1-13	0.75	DN 25/32	1,386	96533085	1,291	96531481
CRN 1-15	0.75	DN 25/32	1,469	96533087	1,374	96531482
CRN 1-17	1.1	DN 25/32	1,615	96533092	1,460	96531483
CRN 1-19	1.1	DN 25/32	1,696	96533098	1,541	96531485
CRN 1-21	1.1	DN 25/32	1,778	96533099	1,623	96531486
CRN 1-23	1.1	DN 25/32	1,857	96533100	1,702	96531488
CRN 1-25	1.5	DN 25/32	2,082	96533101	1,875	96531510
CRN 1-27	1.5	DN 25/32	2,163	96533102	1,956	96531512
CRN 1-30	1.5	DN 25/32	2,282	96533103	2,076	96531514
CRN 1-33	2.2	DN 25/32	2,536	96533106	2,311	96531516
CRN 1-36	2.2	DN 25/32	2,656	96533107	2,431	96531519
Dumns with "DIF"	' Compatible Connecti	ions	ΔΡΔ	E HQQE	ΔΡΔ	E HQQE
CRN 1-2	0.37	DN 32	775	96533143	737	96516477
CRN 1-3	0.37	DN 32	803	96533145	766	96516478
CRN 1-4	0.37	DN 32	830	96533146	793	96516480
CRN 1-5	0.37	DN 32	857	96533147	820	96516481
CRN 1-6	0.37	DN 32	884	96533148	847	96516483
CRN 1-7	0.37	DN 32	913	96533149	876	96516485
CRN 1-8	0.55	DN 32	944	96533151	892	96516486
CRN 1-9	0.55	DN 32	967	96533152	915	96516488
CRN 1-10	0.55	DN 32	1,010	96533153	958	96516489
CRN 1-11	0.55	DN 32	1,049	96533154	998	96516490
CRN 1-12	0.75	DN 32	1,132	96533155	1,037	96516492
CRN 1-13	0.75	DN 32	1,171	96533157	1,076	96516493
CRN 1-15	0.75	DN 32	1,254	96533158	1,159	96516495
CRN 1-17	1.1	DN 32	1,400	96533160	1,245	96516497
CRN 1-19	1.1	DN 32	1,481	96533161	1,326	96516498
CRN 1-21	1.1	DN 32	1,564	96533162	1,409	96516500
CRN 1-23	1.1	DN 32	1,642	96533164	1,487	96516501
CRN 1-25	1.5	DN 32	POA	96533166	1,661	96516503
CRN 1-27	1.5	DN 32	1,948	96533168	1,741	96516504
CRN 1-30	1.5	DN 32	2,068	96533170	1,861	96516505
CRN 1-33	2.2	DN 32	2,322	96533171	2,096	96516506
CRN 1-36	2.2	DN 32	2,441	96533172	2,216	96516507
C 1 30	2.2	552		303331,2	_,	30310307

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 60 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.

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

Please see page 46/47 for pipe connection accessories and list prices.

CRN FLANGED pump specification



CATEGORY 2 - CRN 3 316 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE W	ITH DIRECT COU	PLED 2900 RPM ELE	ECTRIC MOTOR			
•	P2	Pipe	23	0V 1ph 50Hz		400V 3ph 50Hz
Model	kW	connection	£	Product Code	£	Product Code
Pumps with DIN F	langed Connection		A F	GJ H E HQQE		A FGJ H E HQQE
CRN 3-2	0.37	DN 25/32	1,010	96533230	973	96531531
CRN 3-3	0.37	DN 25/32	1,051	96533231	1,014	96531533
CRN 3-4	0.37	DN 25/32	1,089	96533232	1,051	96531535
CRN 3-5	0.37	DN 25/32	1,128	96533233	1,091	96531537
CRN 3-6	0.55	DN 25/32	1,179	96533234	1,128	96531540
CRN 3-7	0.55	DN 25/32	1,217	96533235	1,165	96531542
CRN 3-8	0.75	DN 25/32	1,283	96533236	1,188	96531544
CRN 3-9	0.75	DN 25/32	1,322	96533237	1,227	96531546
CRN 3-10	0.75	DN 25/32	1,361	96533238	1,266	96531549
CRN 3-11	1.1	DN 25/32	1,489	96533239	1,334	96531571
CRN 3-12	1.1	DN 25/32	1,528	96533240	1,374	96531573
CRN 3-13	1.1	DN 25/32	1,568	96533241	1,413	96522072
CRN 3-15	1.1	DN 25/32	1,650	96533242	1,495	96531576
CRN 3-17	1.5	DN 25/32	1,882	96533243	1,675	96531578
CRN 3-19	1.5	DN 25/32	1,960	96533244	1,754	96531590
CRN 3-21	2.2	DN 25/32	2,037	96533245	1,811	96531592
CRN 3-23	2.2	DN 25/32	2,117	96533246	1,892	96531594
CRN 3-25	2.2	DN 25/32	2,198	96533247	1,973	96531596
CRN 3-27	2.2	DN 25/32	2,278	96533248	2,053	96531598
CRN 3-29	2.2	DN 25/32	2,357	96533249	2,132	96531610
CRN 3-31	3	DN 25/32	-	-	2,239	96531612
CRN 3-33	3	DN 25/32	-	-	2,317	96531614
CRN 3-36	3	DN 25/32	-	-	2,439	96531616
				_		
Pumps with "PJE"	Compatible Connection			P A E HQQE		A P A E HQQE
CRN 3-2	0.37	DN 32	795	96533250	758	96516897
CRN 3-3	0.37	DN 32	837	96533251	799	96484041
CRN 3-4	0.37	DN 32	874	96496701	837	96516898
CRN 3-5	0.37	DN 32	913	96533252	876	96516899
CRN 3-6	0.55	DN 32	965	96533253	913	96516900
CRN 3-7	0.55	DN 32	1,002	96533254	950	96493543
CRN 3-8	0.75	DN 32	1,068	96533255	973	96516901
CRN 3-9	0.75	DN 32	1,107	96533256	1,012	96516902
CRN 3-10	0.75	DN 32	1,146	96533257	1,051	96499188
CRN 3-11	1.1	DN 32	1,274	96533258	1,120	96516903
CRN 3-12	1.1	DN 32	1,314	96533259	1,159	96516904
CRN 3-13	1.1	DN 32	1,353	96533260	1,198	96516905
CRN 3-15	1.1	DN 32	1,436	96533261	1,281	96516906
CRN 3-17	1.5	DN 32	1,667	96533262	1,460	96505111
CRN 3-19	1.5	DN 32	1,745	96533263	1,539	96516907
CRN 3-21	2.2	DN 32	1,822	96533264	1,597	96516908
CRN 3-23	2.2	DN 32	1,902	96533265	1,677	96516909
CRN 3-25	2.2	DN 32	1,983	96533266	1,758	96516910
CRN 3-27	2.2	DN 32	2,063	96533267	1,838	96516911
CRN 3-29	2.2	DN 32	2,142	96533268	1,917	96516912
CRN 3-31	3	DN 32	-	=	2,024	96516913
CRN 3-33	3	DN 32	-	=	2,103	96516914
CRN 3-36	3	DN 32		-	2,225	96516915

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 60 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.

CRN3 DIN Flanged pumps are DN25 rated to PN25.

Please see page 46/47 for pipe connection accessories and list prices.

CRN FLANGED pump specification



CATEGORY 2 - CRN 5 316 STAINLESS STEEL VERTICAL MULTISTAGE PUMPS 50Hz

	P2	Pipe	230V 1	ph 50Hz	400V 3p	h 50Hz
Model	kW	connection	£	Product Code	£	Product Code
Pumps with DIN F	langed Connection	-	A FGJ H	E HQQE	A FGJ H I	
CRN 5-2	0.37	DN 25/32	1,084	96533292	1,047	96531650
CRN 5-3	0.55	DN 25/32	1,136	96533293	1,084	96531651
CRN 5-4	0.55	DN 25/32	1,202	96533294	1,150	96531652
CRN 5-5	0.75	DN 25/32	1,324	96533295	1,229	96531653
CRN 5-6	1.1	DN 25/32	1,402	96533296	1,247	96531654
CRN 5-7	1.1	DN 25/32	1,444	96533297	1,289	9653165
CRN 5-8	1.1	DN 25/32	1,483	96533298	1,328	96531656
CRN 5-9	1.5	DN 25/32	1,718	96533299	1,512	9653165
CRN 5-10	1.5	DN 25/32	1,760	96533300	1,553	96531658
CRN 5-11	2.2	DN 25/32	1,908	96533301	1,683	96531659
CRN 5-12	2.2	DN 25/32	1,950	96533302	1,724	96531670
CRN 5-13	2.2	DN 25/32	1,989	96533303	1,764	96531673
CRN 5-14	2.2	DN 25/32	2,028	96533304	1,803	96531672
CRN 5-15	2.2	DN 25/32	2,069	96533305	1,844	96531673
CRN 5-16	2.2	DN 25/32	2,109	96533306	1,883	96531674
CRN 5-18	3	DN 25/32		<u> </u>	2,071	96531679
CRN 5-20	3	DN 25/32	-	<u> </u>	2,152	96531676
CRN 5-22	4	DN 25/32	-	<u> </u>	2,220	96531677
CRN 5-24	4	DN 25/32	-	<u> </u>	2,299	96531678
CRN 5-26	4	DN 25/32	-	-	2,379	96531679
CRN 5-29	4	DN 25/32	-	<u> </u>	2,499	96531680
CRN 5-32	5.5	DN 25/32	-	-	2,819	9653168:
CRN 5-36	5.5	DN 25/32			2,980	96531682
•	Compatible Connecti			HQQE	APAE	
CRN 5-2	0.37	DN 32	869	96533307	832	96517239
CRN 5-3	0.55	DN 32	921	96533308	869	96517240
CRN 5-4	0.55	DN 32	987	96533309	936	96517241
CRN 5-5	0.75	DN 32	1,109	96533310	1,014	9651724
CRN 5-6	1.1	DN 32	1,188	96533311	1,033	9651724
CRN 5-7	1.1	DN 32	1,229	96533312	1,074	9651724
CRN 5-8	1.1	DN 32	1,268	96533313	1,113	96517245
CRN 5-9	1.5	DN 32	1,503	96533314	1,297	96517246
CRN 5-10	1.5 2.2	DN 32	1,545	96533315	1,338	9649298
CRN 5-11		DN 32	1,693	96533316	1,468	96517247
CRN 5-12	2.2	DN 32	1,735	96533317	1,510	9651724
CRN 5-13	2.2	DN 32	1,774	96533318	1,549	96517249
CRN 5-14	2.2	DN 32	1,813	96533319	1,588	9651725
CRN 5-15	2.2	DN 32	1,855	96533320	1,629	9651725
CRN 5-16	2.2	DN 32	1,894	96533321	1,669	9651725
CRN 5-18	3	DN 32 DN 32	-	<u>-</u>	1,857	9651725
CRN 5-20	3				1,937	9651725
CRN 5-22	4	DN 32	-	-	2,005	96513490
CRN 5-24	4	DN 32	-	-	2,084	9651349
CRN 5-26	4	DN 32		<u>-</u>	2,164	96513492
CRN 5-29	4	DN 32		-	2,284	96513493
CRN 5-32	5.5	DN 32	-	-	2,604	9651349
CRN 5-36	5.5	DN 32	-	-	2,765	9651349

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 60 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.

CRN5 DIN Flanged pumps are DN32 rated to PN25.

Please see page 46/47 for pipe connection accessories and list prices.

CRN FLANGED pump specification



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

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

Pumps with "PJE" Compose CRN 10-1 CRN 10-2 CRN 10-3 CRN 10-4 CRN 10-5 CRN 10-6	kW	Pipe				
CRN 10-1 CRN 10-2 CRN 10-3 CRN 10-4 CRN 10-5 CRN 10-6		connection	230V 1p	h 50Hz	400V 3p	h 50Hz
CRN 10-1 CRN 10-2 CRN 10-3 CRN 10-4 CRN 10-5 CRN 10-6			£	Product Code	£	Product Code
CRN 10-1 CRN 10-2 CRN 10-3 CRN 10-4 CRN 10-5 CRN 10-6	patible Connect	ions	APAE	HQQE	APAE	HQQE
CRN 10-3 CRN 10-4 CRN 10-5 CRN 10-6	0.37	DN 40	1,198	96500897	1,161	96501040
CRN 10-4 CRN 10-5 CRN 10-6	0.75	DN 40	1,336	96500898	1,241	96501041
CRN 10-5 CRN 10-6	1.1	DN 40	1,574	96500899	1,419	96501042
CRN 10-6	1.5	DN 40	1,735	96500900	1,528	96501043
	2.2	DN 40	1,896	96500901	1,671	96501044
	2.2	DN 40	2,005	96500902	1,780	96501045
CRN 10-7	3	DN 40	-	-	1,914	96501046
CRN 10-8	3	DN 40		-	2,016	96501047
CRN 10-9	3	DN 40		-	2,127	96501048
CRN 10-10	4	DN 40	-	-	2,408	96501281
CRN 10-12	4	DN 40	-	-	2,596	96501282
CRN 10-14	5.5	DN 40	-	-	3,027	96501283
CRN 10-16	5.5	DN 40	-	-	3,213	96501284
CRN 10-18	7.5	DN 40	-	-	3,494	96501285
CRN 10-20	7.5	DN 40	=	=	3,686	96501286
CRN 10-22	7.5	DN 40	-	-	3,870	96501287
Down the DIN Stance	46		A FC1115	LUCOF	A FGJ H E	HOOF
Pumps with DIN Flange CRN 10-1	0.37	DN 50	A FGJ H E 1,514	96527731	1,477	96527737
CRN 10-1	0.37	DN 50	1,652	96527732	1,557	96527740
CRN 10-3	1.1	DN 50	1,890	96527733	1,735	96527741
	1.5		2,051		1,844	96527743
CRN 10-4	2.2	DN 50		96527734		
CRN 10-5	2.2	DN 50	2,212	96527735	1,987	96527744
CRN 10-6		DN 50	2,321	96527736	2,096	96527745
CRN 10-7	3	DN 50	-	-	2,230	96527747
CRN 10-8	3	DN 50	-	-	2,332	96527748
CRN 10-9	3	DN 50	-	-	2,443	96527749
CRN 10-10	4	DN 50	-		2,724	96527750
CRN 10-12	4	DN 50	-	-	2,912	96527751
CRN 10-14	5.5	DN 50	-	<u>-</u>	3,343	97509478
CRN 10-16	5.5	DN 50	-	-	3,529	96527753
CRN 10-18	7.5	DN 50	-	-	3,810	96527755
CRN 10-20	7.5	DN 50		-	4,002	96527756
CRN 10-22	7.5	DN 50	-		4,186	96527758
Pumps with "PJE" Com	natible Connect	rions	APAE	HOOE	APAE	HOOE
CRN 15-1	1.1	DN 50	1,644	96501675	1,490	96501756
CRN 15-2	2.2	DN 50	2,005	96501676	1,783	96501757
CRN 15-3	3	DN 50	-	-	2,044	96501758
CRN 15-4	4	DN 50			2,369	96501949
CRN 15-5	4	DN 50			2,500	96501950
	5.5	DN 50			2,968	96501951
	5.5	DN 50			3,103	96501952
CRN 15-6	7.5	DN 50				
CRN 15-6 CRN 15-7				_	3 602	
CRN 15-6 CRN 15-7 CRN 15-8		DN 50		<u>-</u>	3,602 3,737	96501953
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9	7.5	DN 50		<u>-</u>	3,737	96501953 96501954
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10	7.5 11	DN 50	-	-	3,737 4,342	96501953 96501954 96501955
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12	7.5 11 11	DN 50 DN 50	-		3,737 4,342 4,612	96501953 96501954 96501955 96501956
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14	7.5 11 11 11	DN 50 DN 50 DN 50	-	- - -	3,737 4,342 4,612 4,878	96501953 96501954 96501955 96501956 96501957
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12	7.5 11 11	DN 50 DN 50	-	-	3,737 4,342 4,612	96501953 96501954 96501955 96501956
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14	7.5 11 11 11 15	DN 50 DN 50 DN 50	-		3,737 4,342 4,612 4,878	96501953 96501954 96501955 96501956 96501957 96501958
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17	7.5 11 11 11 15	DN 50 DN 50 DN 50			3,737 4,342 4,612 4,878 6,243	96501953 96501954 96501955 96501956 96501957 96501958
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange	7.5 11 11 11 15	DN 50 DN 50 DN 50 DN 50 DN 50	- - - - - A FGJ H E	- - - - - E HQQE	3,737 4,342 4,612 4,878 6,243	96501953 96501954 96501955 96501956 96501957 96501958
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1	7.5 11 11 11 15 2d Connection	DN 50 DN 50 DN 50 DN 50 DN 50	- - - - - A FGJ H E	- - - - - E HQQE 96527776	3,737 4,342 4,612 4,878 6,243 A FGJ H E	96501953 96501954 96501955 96501956 96501957 96501958 HQQE
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1 CRN 15-1	7.5 11 11 11 15 2d Connection 1.1 2.2	DN 50	- - - - - A FGJ H E	- - - - E HQQE 96527776 96527777	3,737 4,342 4,612 4,878 6,243 A FGJ H E 1,803 2,095	96501953 96501954 96501955 96501956 96501957 96501958 HQQE 96527779
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1 CRN 15-2 CRN 15-3	7.5 11 11 11 15 16 Connection 1.1 2.2 3	DN 50		E HQQE 96527776 96527777	3,737 4,342 4,612 4,878 6,243 A FGJ H E 1,803 2,095 2,357	96501953 96501954 96501955 96501956 96501957 96501958 HQQE 96527779 96527782 96527782
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1 CRN 15-2 CRN 15-3 CRN 15-4	7.5 11 11 11 15 16 Connection 1.1 2.2 3	DN 50			3,737 4,342 4,612 4,878 6,243 A FGJ H E 1,803 2,095 2,357 2,682	96501953 96501954 96501955 96501956 96501957 96501958 HQQE 96527779 96527782 96527783 96527783
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1 CRN 15-2 CRN 15-3 CRN 15-4 CRN 15-5	7.5 11 11 11 15 d Connection 1.1 2.2 3 4	DN 50		96527776 96527777	3,737 4,342 4,612 4,878 6,243 A FGJ H E 1,803 2,095 2,357 2,682 2,813	96501953 96501954 96501955 96501956 96501957 96501958 HQQE 96527779 96527782 96527783 96527785 96527786
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1 CRN 15-2 CRN 15-3 CRN 15-4 CRN 15-5 CRN 15-6	7.5 11 11 11 15 cd Connection 1.1 2.2 3 4 4 5.5	DN 50		96527776 96527777	3,737 4,342 4,612 4,878 6,243 A FGJ H E 1,803 2,095 2,357 2,682 2,813 3,281	96501953 96501954 96501955 96501956 96501957 96501958 HQQE 96527779 96527782 96527783 96527785 96527786
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1 CRN 15-2 CRN 15-3 CRN 15-4 CRN 15-5 CRN 15-6 CRN 15-7	7.5 11 11 11 15 cd Connection 1.1 2.2 3 4 4 5.5 5.5	DN 50		96527776 96527777 -	3,737 4,342 4,612 4,878 6,243 A FGJ H E 1,803 2,095 2,357 2,682 2,813 3,281 3,416	96501953 96501954 96501955 96501956 96501957 96501958 HQQE 96527779 96527782 96527783 96527786 96527788 96527788
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1 CRN 15-2 CRN 15-3 CRN 15-3 CRN 15-6 CRN 15-6 CRN 15-7 CRN 15-7	7.5 11 11 11 15 ed Connection 1.1 2.2 3 4 4 5.5 5.5 7.5	DN 50	A FGJ H E 1,956 2,318	96527776 96527777 - - - -	3,737 4,342 4,612 4,878 6,243 A FGJ H E 1,803 2,095 2,357 2,682 2,813 3,281 3,416 3,915	96501953 96501954 96501955 96501956 96501957 96501958 HQQE 96527779 96527782 96527783 96527786 96527788 96527789
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1 CRN 15-2 CRN 15-3 CRN 15-3 CRN 15-4 CRN 15-5 CRN 15-6 CRN 15-7 CRN 15-7 CRN 15-8 CRN 15-9	7.5 11 11 11 15 ed Connection 1.1 2.2 3 4 4 5.5 5.5 7.5	DN 50		96527776 96527777 - - - -	3,737 4,342 4,612 4,878 6,243 A FGJ H E 1,803 2,095 2,357 2,682 2,813 3,281 3,416 3,915 4,050	96501953 96501954 96501955 96501956 96501957 96501958 HQQE 96527779 96527782 96527783 96527786 96527786 96527788 96527789 96527789 96527790
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1 CRN 15-2 CRN 15-3 CRN 15-4 CRN 15-5 CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-9 CRN 15-9 CRN 15-10	7.5 11 11 11 15 ed Connection 1.1 2.2 3 4 4 5.5 5.5 7.5 7.5	DN 50		96527776 96527777 - - - - - -	3,737 4,342 4,612 4,878 6,243 A FGJ H E 1,803 2,095 2,357 2,682 2,813 3,281 3,416 3,915 4,050 4,655	96501953 96501954 96501955 96501956 96501958 HQQE 96527779 96527782 96527783 96527786 96527788 96527789 96527789 96527790
CRN 15-6 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-10 CRN 15-12 CRN 15-14 CRN 15-17 Pumps with DIN Flange CRN 15-1 CRN 15-2 CRN 15-3 CRN 15-4 CRN 15-6 CRN 15-7 CRN 15-7 CRN 15-8 CRN 15-9 CRN 15-9 CRN 15-10 CRN 15-10	7.5 11 11 11 15 ed Connection 1.1 2.2 3 4 4 5.5 5.5 7.5 11 11	DN 50			3,737 4,342 4,612 4,878 6,243 A FGJ H E 1,803 2,095 2,357 2,682 2,813 3,281 3,416 3,915 4,050 4,655 4,925	96501953 96501954 96501955 96501956 96501957 96501958 **HQQE** 96527779 96527782 96527783 96527786 96527788 96527788 96527789 96527790 96527791 96527792

Motor specification, reference to accessories and operational details are on page 34.



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

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

	P2	Pipe		
Model	kW	connection	230V 1	1ph 50Hz
			£	Product Code
Pumps with "PJE"	Compatible Connecti	ons	APA	E HQQE
CRN 20-1	1.1	DN 50	1,674	96500304
CRN 20-2	2.2	DN 50	2,042	96500305
CRN 20-3	4	DN 50	-	-
CRN 20-4	5.5	DN 50	-	-
CRN 20-5	5.5	DN 50	-	-
CRN 20-6	7.5	DN 50	-	-
CRN 20-7	7.5	DN 50	-	-
CRN 20-8	11	DN 50	=	-
CRN 20-10	11	DN 50	=	-
CRN 20-12	15	DN 50	=	-
CRN 20-14	15	DN 50	=	-
CRN 20-17	18.5	DN 50	-	-
Pumps with DIN FI	anged Connection		A FGJ I	H E HQQE
CRN 20-1	1.1	DN 50	1,987	96527799
CDN 20-2	2.2	DN FO	2 255	06537901

400V 3	ph 50Hz		
£	Product Code		
A P A E HQQE			
1,521	96500381		
1,819	96500382		
2,549	96500559		
3,028	96500560		
3,167	96500561		
3,674	96500562		
3,813	96500563		
4,704	96500564		
4,974	96500565		
6,098	96500566		
6,368	96500567		
7,560	96500568		

Pumps with DIN F	langed Connection	
CRN 20-1	1.1	DN 50
CRN 20-2	2.2	DN 50
CRN 20-3	4.0	DN 50
CRN 20-4	5.5	DN 50
CRN 20-5	5.5	DN 50
CRN 20-6	7.5	DN 50
CRN 20-7	7.5	DN 50
CRN 20-8	11	DN 50
CRN 20-10	11	DN 50
CRN 20-12	15	DN 50
CRN 20-14	15	DN 50
CRN 20-17	18.5	DN 50

A FGJ H E HQQE		
1,987	96527799	
2,355	96527801	
-	-	
-	-	
-	-	
-	-	
-	-	
_	-	
_	-	
_	-	
_	-	
-	-	

E HQQE
96527802
96527805
96527807
96527808
96527809
96527811
96527813
96527815
96527817
96527818
96527819
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 60 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 46/47 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



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

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

			380-415V 3ph 5	0Hz
	P2	Pipe	£ Product Code	
Model	kW	connection	A F H E HQQ	E
CRN 32-1-1	1.5	DN 65	2,836	96536094
CRN 32-1	2.2	DN 65	2,983	96536114
CRN 32-2-2	3	DN 65	3,253	96536115
CRN 32-2	4	DN 65	3,549	96536116
CRN 32-3-2	5.5	DN 65	4,202	96536119
CRN 32-3	5.5	DN 65	4,202	96536130
CRN 32-4-2	7.5	DN 65	5,014	96536131
CRN 32-4	7.5	DN 65	5,014	96536132
CRN 32-5-2	11	DN 65	6,097	96536133
CRN 32-5	11	DN 65	6,097	96571672
CRN 32-6-2	11	DN 65	6,367	96536136
CRN 32-6	11	DN 65	6,367	96536138
CRN 32-7-2	15	DN 65	7,466	96536143
CRN 32-7	15	DN 65	7,466	96536145
CRN 32-8-2	15	DN 65	7,724	96536146
CRN 32-8-2	15	DN 65	7,724	96536148
CRN 32-9-2	18.5	DN 65	8,683	96536150
CRN 32-9-2	18.5	DN 65	· ·	
			8,683	96536152
CRN 32-10-2	18.5	DN 65	8,941	96536154
CRN 32-10	18.5	DN 65	8,941	96536156
CRN 32-11-2	22	DN 65	9,982	96536158
CRN 32-11	22	DN 65	9,982	96536159
CRN 32-12-2	22	DN 65	10,240	96536160
CRN 32-12	22	DN 65	10,240	96536162
CRN 32-13-2	30	DN 65	11,291	96536163
CRN 32-13	30	DN 65	11,291	96633659
CRN 32-14-2	30	DN 65	11,561	96536377
CRN 32-14	30	DN 65	11,561	96536379
			A F H E HQQ	
CRN 45-1-1	3	DN 80	3,254	96536405
CRN 45-1	4	DN 80	3,685	96536412
CRN 45-2-2	5.5	DN 80	4,276	96536416
CRN 45-2	7.5	DN 80	5,014	96536421
CRN 45-3-2	11	DN 80	6,109	96536423
CRN 45-3	11	DN 80	6,109	96536424
CRN 45-4-2	15	DN 80	7,479	96610965
CRN 45-4	15	DN 80	7,479	96691398
CRN 45-5-2	18.5	DN 80	8,660	96691399
CRN 45-5	18.5	DN 80	8,660	96560711
CRN 45-6-2	22	DN 80	9,825	96536457
CRN 45-6	22	DN 80	9,825	96536458
CRN 45-7-2	30	DN 80	10,847	96536459
CRN 45-7	30	DN 80	10,847	96536460
CRN 45-8-2	30	DN 80	11,129	96536461
CRN 45-8	30	DN 80	11,129	96536462
CRN 45-9-2	30	DN 80	11,412	96536463
CRN 45-9	37	DN 80	12,312	96536464
CRN 45-10-2	37	DN 80	12,579	96536465
CRN 45-10	37	DN 80	12,579	96536466
CRN 45-11-2	45	DN 80	15,895	96898225
CRN 45-11	45	DN 80	15,895	96536690
CRN 45-12-2	45	DN 80	16,242	96536691
CRN 45-12	45	DN 80	16,242	96536692

ELECTRIC MOTOR

380-415V 3ph 50Hz

IP55 Class F insulation

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

Please see page 60 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 46/47 for pipe connection accessories and list prices.



CATEGORY 2 - CRN64, CRN95, CRN125 & CRN155 316 St St VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

			380-415V 3ph 50Hz		
	P2	Pipe	£		
Model	kW	connection	AFHE	IQQE	
CRN 64-1-1	4	DN 100	3,761	96536483	
CRN 64-1	5.5	DN 100	4,369	96536484	
CRN 64-2-2	7.5	DN 100	5,100	96536491	
CRN 64-2-1	11	DN 100	5,878	96536493	
CRN 64-2	11	DN 100	5,878	96536497	
CRN 64-3-2	15	DN 100	7,343	96641864	
CRN 64-3-1	15	DN 100	7,343	96692772	
CRN 64-3	18.5	DN 100	8,237	96620760	
CRN 64-4-2	18.5	DN 100	8,550	96692774	
CRN 64-4-1	22	DN 100	9,453	96536506	
CRN 64-4	22	DN 100	9,453	96536508	
CRN 64-5-2	30	DN 100	10,157	96536510	
CRN 64-5-1	30	DN 100	10,157	96536512	
CRN 64-5	30	DN 100	10,157	96536513	
CRN 64-6-2	30	DN 100	10,472	96536515	
CRN 64-6-1	37	DN 100	12,111	96536517	
CRN 64-6	37	DN 100	12,111	96536524	
CRN 64-7-2	37	DN 100	12,395	96536529	
CRN 64-7-1	37	DN 100	12,395	96536530	
CRN 64-7	45	DN 100	16,092	96536694	
CRN 64-8-2	45	DN 100	16,364	96536696	
CRN 64-8-1	45	DN 100	16,364	96536697	
	.5	5.1200	AFAEI		
CRN 95-1-1	5.5	DN 100	4,574	99141757	
CRN 95-1	7.5	DN 100	5,630	99141758	
CRN 95-2-2	11	DN 100	7,210	99141759	
CRN 95-2-2 CRN 95-2	15		·		
		DN 100	8,979	99141760	
CRN 95-3-2	18.5	DN 100	10,126	99141761	
CRN 95-3	22	DN 100	11,321	99141762	
CRN 95-4	30	DN 100	12,619	99141763	
CRN 95-5	37	DN 100	14,477	99141764	
CRN 95-6	45	DN 100	18,180	99141765	
CRN 95-7	55	DN 100	21,787	99141766	
CRN 95-8-2	55	DN 100	22,305	99141767	
			AFAEI		
CRN 125-1	11	DN 150	7,336	99142641	
CRN 125-2-2	15	DN 150	9,137	99142642	
CRN 125-2-1	18.5	DN 150	10,705	99142643	
CRN 125-2	22	DN 150	11,973	99142644	
CRN 125-3-1	30	DN 150	12,839	99142645	
CRN 125-3	37	DN 150	14,450	99142646	
CRN 125-4-2	37	DN 150	15,092	99142647	
CRN 125-4	45	DN 150	18,373	99142648	
CRN 125-5	55	DN 150	22,540	99142649	
CRN 125-6	75	DN 150	27,310	99142651	
CRN 125-7	75	DN 150	27,951	99142652	
CRN 125-8	90	DN 150	29,591	99142653	
CRN 125-9-2	90	DN 150	30,233	99142654	
CRN 125-9	110	DN 150	34,334	99142655	
CRN 125-10	110	DN 150	34,976	99142657	
			AFAEI		
CRN 155-1-1	11	DN 150	7,317	99143269	
CRN 155-1	15	DN 150	9,113	99143270	
CRN 155-2-2	22	DN 150	11,942	99143271	
CRN 155-2	30	DN 150	12,806	99143272	
CRN 155-3-2	37	DN 150	15,053	99143273	
CRN 155-3	45	DN 150	18,326	99143274	
CRN 155-4-1	55	DN 150	22,121	99143275	
CRN 155-5-2	75	DN 150	27,879	99143276	
CRN 155-5	75	DN 150	27,879	99143277	
CRN 155-6	90	DN 150	30,910	99143279	
CRN 155-7	110	DN 150	34,245	99143280	
CRN 155-8-2	110	DN 150	34,885	99143281	

Motor specification, reference to accessories and operational details are on page 37.



CATEGORY 2 - CRN185 316 St St VERTICAL MULTISTAGE PUMPS 50Hz

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

	P2	Pipe
Model	kW	connection
CRN 185-1-1	18.5	DN 200
CRN 185-1	22	DN 200
CRN 185-2-2	37	DN 200
CRN 185-2	45	DN 200
CRN 185-3-3	55	DN 200
CRN 185-3	75	DN 200
CRN 185-4-3	75	DN 200
CRN 185-4	90	DN 200
CRN 185-5-3	110	DN 200
CRN 185-5	110	DN 200
CRN 185-6-3	132	DN 200
CRN 185-6	132	DN 200
CRN 185-7-3	160	DN 200
CRN 185-7	160	DN 200
CRN 185-8-3	200	DN 200
CRN 185-8	200	DN 200

380-415V 3ph 50Hz				
£	Product Code			
AFHE	HQQE			
12,561	99143735			
13,790	99143736			
17,524	99143737			
21,759	99143738			
25,363	99143739			
30,374	99143740			
31,080	99143741			
36,171	99143742			
39,024	99143743			
39,024	99143744			
44,267	99143745			
44,267	99143746			
POA	99143747			
POA	99143748			
POA	99921028			
POA	99143750			

ELECTRIC MOTOR

380-415V 3ph 50Hz

IP55 Class F insulation

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

Please see page 60 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 46/47 for pipe connection accessories and list prices.

CATEGORY 2 - CRIE1 to CRIE20

CRIE 304 STAINLESS STEEL VARIABLE SPEED PUMPS WITHOUT SENSOR

CITIE 304 31A	IIIVEEDS STEEL	VARIABLE SI EI	D POINTS WITH	200-240V 1p	h E0/60Uz	380-480/500V	2nh E0/60H2
	P2	Pipe	Transducer	£	Product Code	£	Product Code
Model	kW	connection		A CA A E		A CA A E	
CRIE 1-4	0.37		Range	1,333	98389343	1,503	
CRIE 1-4	0.55	32mm	0 - 6 bar	1,451	98389344	1,623	98389360 98389361
CRIE 1-9	0.75	32mm	0 - 10 bar	1,610		1,803	98389362
CRIE 1-13	1.1	32mm 32mm	0 - 10 bar 0 - 16 bar	1,906	98389345 98389346	2,122	98389363
CRIE 1-13	1.5			2,390	98389347	2,561	98389364
CRIE 1-17	2.2	32mm 32mm	0 - 16 bar 0 - 25 bar	2,350	30303347	3,099	98389365
CRIE 1-25	2.2	3211111	U - 25 Dai	-		A FGJ A E	
CRIE 1-27	3	DN 25/32	0 - 25 bar			3,709	99072120
CRIE 1-27	3	DIN 25/52	U - 25 Dai	A CA A E	HOOF	A CA A E	
CRIE 3-2	0.37	22mm	0 - 4 bar	1,279	98389726	1,449	98389751
CRIE 3-4	0.55	32mm 32mm	0 - 4 bar	1,378	98389727	1,550	98389752
				1,517			
CRIE 3-5	0.75 1.1	32mm	0 - 6 bar	1,730	98389728	1,710 1,946	98389753
CRIE 3-8		32mm	0 - 10 bar		98389729		98389754
CRIE 3-11	2.2	32mm	0 - 16 bar	2,109	98389730	2,279 2,836	98389756
CRIE 3-17	2.2	32mm	0 - 25 bar		<u> </u>	A FGJ A E	98389757
CDIE 2 22	2	DN 25/22	0 25 h				
CRIE 3-23	3	DN 25/32	0 - 25 bar		-	3,316	99072151
CRIE 3-25	4	DN 25/32	0 - 25 bar	- A CA A F	-	3,972 A CA A E	99072152
CDIE E 3	0.55	22	0.4.5	A CA A E			
CRIE 5-2	0.55	32mm	0 - 4 bar	1,360	98390047	1,532	98390067
CRIE 5-4	1.1	32mm	0 - 6 bar	1,585	98390048	1,801	98390068
CRIE 5-5	1.5	32mm	0 - 6 bar	1,935	98390049	2,105	98390069
CRIE 5-9	2.2	32mm	0 - 10 bar	-	=	2,621	98390070
						A FGJ A E	
CRIE 5-12	3	DN 25/32	0 - 16 bar	-	-	3,068	99072212
CRIE 5-16	4	DN 25/32	0 - 25 bar	-	-	3,656	99072213
CRIE 5-22	5.5	DN 25/32	0 - 25 bar	-	-	4,420	99072214
CRIE 5-24	7.5	DN 25/32	0 - 25 bar		-	5,236	99075981
				A CA A E		A CA A E	
CRIE 10-1	0.75	50mm	0 - 4 bar	1,568	98390278	1,757	98390690
CRIE 10-2	1.5	50mm	0 - 4 bar	2,052	98390279	2,221	98390284
CRIE 10-3	2.2	50mm	0 - 6 bar		-	2,707	98390285
CRIE 10-5	3	50mm	0 - 10 bar	-		3,105	99071462
CRIE 10-6	4	50mm	0 - 10 bar			3,773	99071463
CRIE 10-9	5.5	50mm	0 - 16 bar	-	-	4,620	99071792
				A FGJ A E	HQQE	A FGJ A E	
CRIE 10-5	3	DN 40	0 - 10 bar		-	3,183	99071467
CRIE 10-6	4	DN 40	0 - 10 bar			3,852	99071469
CRIE 10-9	5.5	DN 40	0 - 16 bar	<u> </u>	-	4,699	99071799
CRIE 10-12	7.5	DN 40	0 - 25 bar	-	-	5,760	99071800
CRIE 10-17	11	DN 40	0 - 25 bar	-	-	7,445	99071801
CRIE 15-1	1.5	DN 50	0 - 4 bar	2,106	98390724	2,272	98390727
CRIE 15-2	3	DN 50	0 - 10 bar	-	-	3,134	99071546
CRIE 15-3	4	DN 50	0 - 10 bar		-	3,788	99071547
CRIE 15-4	5.5	DN 50	0 - 10 bar		-	4,550	99071548
CRIE 15-5	7.5	DN 50	0 - 16 bar	-	-	5,406	99071549
CRIE 15-8	11	DN 50	0 - 25 bar	-	-	6,996	99071551
CRIE 15-10	15	DN 50	0 - 25 bar	-	-	8,594	96514522
CRIE 15-12	18.5	DN 50	0 - 25 bar	-	-	10,380	96514523
CRIE 20-1	2.2	DN 50	0 - 4 bar	-	-	2,774	98390783
CRIE 20-2	4	DN 50	0 - 6 bar	-	-	3,828	99071681
CRIE 20-3	5.5	DN 50	0 - 10 bar	-	-	4,601	99071682
CRIE 20-4	7.5	DN 50	0 - 10 bar	-	-	5,467	99071683
CRIE 20-6	11	DN 50	0 - 16 bar	-	-	7,077	99071684
CRIE 20-8	15	DN 50	0 - 25 bar	-	-	8,696	96514656
CRIE 20-10	18.5	DN 50	0 - 25 bar	-	<u>-</u>	10,504	96514657
	20.0						

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 47

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 46/47 for pipe connection accessories and list prices.

ELECTRIC MOTOR

200-240V 1ph 50/60Hz

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

See page 22 for details.

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

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

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

CATEGORY 2 - CRIE1 to CRIE20

CRIE 304 STAINLESS STEEL VARIABLE SPEED PUMPS WITH SENSOR FITTED

				200-240V 1p	h 50/60Hz	380-480/500V	3ph 50/60Hz
	P2	Pipe	Transducer	£	Product Code	£	Product Code
Model	kW	connection	Range	N CA A I		N CA A E	HQQE
CRIE 1-4	0.37	32mm	0 - 6 bar	1,511	98389381	1,681	98389400
CRIE 1-6	0.55	32mm	0 - 10 bar	1,629	98389382	1,801	98389401
CRIE 1-9	0.75	32mm	0 - 10 bar	1,788	98389383	1,981	98389403
CRIE 1-13	1.1	32mm	0 - 16 bar	2,084	98389384	2,300	98389404
CRIE 1-17	1.5	32mm	0 - 16 bar	2,568	98389385	2,739	98389405
CRIE 1-25	2.2	32mm	0 - 25 bar		-	3,277	98389406
-				-	-	N FGJ A E	
CRIE 1-27	3	DN 25/32	0 - 25 bar		_	3,887	99072123
-				N CA A I	HQQE	N CA A E	
CRIE 3-2	0.37	32mm	0 - 4 bar	1,457	98389783	1,627	98389798
CRIE 3-4	0.55	32mm	0 - 6 bar	1,556	98389784	1,728	98389799
CRIE 3-5	0.75	32mm	0 - 6 bar	1,695	98389785	1,888	98389800
CRIE 3-8	1.1	32mm	0 - 10 bar	1,908	98389786	2,124	98389801
CRIE 3-11	1.5	32mm	0 - 16 bar	2,287	98389787	2,457	98389802
CRIE 3-17	2.2	32mm	0 - 25 bar		-	3,014	98389804
CITIE 5 17	2.2	32111111	0 23 501			N FGJ A E	
CRIE 3-23	3	DN 25/32	0 - 25 bar		_	3,494	99072158
CRIE 3-25	4	DN 25/32	0 - 25 bar			4,150	99072159
CITIL 3 23	-	DIV 23/32	0 23 001	N CA A I	HOOF	N CA A E	
CRIE 5-2	0.55	32mm	0 - 4 bar	1,538	98390079	1,710	98390089
CRIE 5-2	1.1	32mm	0 - 6 bar	1,763	98390080	1,979	98390090
CRIE 5-5	1.5	32mm	0 - 6 bar	2,113	98390082	2,283	98390091
-				2,113	-	2,799	
CRIE 5-9	2.2	32mm	0 - 10 bar		-	2,799 N FGJ A E	98390092
CDIF F 12	2	DN 25/22	0 16 har			3,246	
CRIE 5-12	3	DN 25/32	0 - 16 bar		<u> </u>		99072221
CRIE 5-16	4	DN 25/32	0 - 25 bar	-	<u> </u>	3,834	99072222
CRIE 5-22	5.5	DN 25/32	0 - 25 bar	-	<u> </u>	4,598	99072223
CRIE 5-24	7.5	DN 25/32	0 - 25 bar	N CA A I	-	5,414 N CA A E	99075984
CDIE 40.4	0.75						
CRIE 10-1	0.75	50mm	0 - 4 bar	1,741	98390290	1,931	98390694
CRIE 10-2	1.5	50mm	0 - 4 bar	2,225	98390291	2,395	98390296
CRIE 10-3	2.2	50mm	0 - 6 bar		<u> </u>	2,881	98390297
CRIE 10-5	3	50mm	0 - 10 bar		-	3,279	99071470
CRIE 10-6	4	50mm	0 - 10 bar		-	3,947	99071471
CRIE 10-9	5.5	50mm	0 - 16 bar	- NECLA	-	4,794	99071802
				N FGJ A	EHQUE	N FGJ A E	
CRIE 10-5	3	DN 40	0 - 10 bar	-	-	3,357	99071475
CRIE 10-6	4	DN 40	0 - 10 bar		<u> </u>	4,026	99071476
CRIE 10-9	5.5	DN 40	0 - 16 bar	-	-	4,872	99071808
CRIE 10-12	7.5	DN 40	0 - 25 bar		-	5,934	99071809
CRIE 10-17	11	DN 40	0 - 25 bar			7,619	99071810
CRIE 15-1	1.5	DN 50	0 - 4 bar	2,278	98390731	2,444	98390734
CRIE 15-2	3	DN 50	0 - 10 bar	-	-	3,306	99071565
CRIE 15-3	4	DN 50	0 - 10 bar		-	3,960	99071566
CRIE 15-4	5.5	DN 50	0 - 10 bar		-	4,722	99071568
CRIE 15-5	7.5	DN 50	0 - 16 bar	-	<u> </u>	5,578	99071569
CRIE 15-8	11	DN 50	0 - 25 bar		<u>-</u>	7,168	99071570
CRIE 15-10	15	DN 50	0 - 25 bar	-	-	8,766	96514591
CRIE 15-12	18.5	DN 50	0 - 25 bar	-	-	10,552	96514592
				-			
CRIE 20-1	2.2	DN 50	0 - 4 bar	-	-	2,946	98390786
CRIE 20-2	4	DN 50	0 - 6 bar	-	-	4,001	99071694
CRIE 20-3	5.5	DN 50	0 - 10 bar	-	-	4,773	99071695
CRIE 20-4	7.5	DN 50	0 - 10 bar	-	-	5,639	99071696
CRIE 20-6	11	DN 50	0 - 16 bar	-	-	7,249	99071698
	15	DN 50		-		8,868	96514717
CRIE 20-8	15	DN 30	0 - 25 bar	-		0,000	30314/1/

CRIE 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 CRIE pumps where the "stop" function is activated.

REMEMBER: PUMPS with CA Bases normally need 2x 2 Bolt Oval Flanges - see page 47

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 46/47 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.

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

				200-240V	1ph 50/60Hz	380-480/500V	3ph 50/60Hz
				£	Product Code	£	Product Code
	P2	Pipe	Transducer	WITHO	UT SENSOR	WITH S	ENSOR
Model	kW	connection	Range	AFA	A E HQQE	NFAE	HQQE
CRE 32-1-1	2.2	DN 65	0 - 4 bar	3,066	98390932	3,246	98390933
CRE 32-1	3	DN 65	0 - 4 bar	3,454	99071938	3,634	99071957
CRE 32-2-1	5.5	DN 65	0 - 10 bar	5,094	99071942	5,273	99071958
CRE 32-2	7.5	DN 65	0 - 10 bar	6,216	99071953	6,396	99071959
CRE 32-4-2	11	DN 65	0 - 16 bar	8,265	99071955	8,444	99071960
CRE 32-5-2	15	DN 65	0 - 16 bar	9,969	96122663	10,148	96122671
CRE 32-6	18.5	DN 65	0 - 25 bar	11,813	96122664	11,992	96122672
CRE 32-7	22	DN 65	0 - 25 bar	13,559	96122665	13,738	96122673
CRE 45-1-1	5.5	DN 80	0 - 6 bar	4,988	99072009	5,167	99072016
CRE 45-1-1	7.5	DN 80	0 - 6 bar	,	99072011		99072017
CRE 45-1	11	DN 80	0 - 10 bar	6,095 8,027	99072011	6,275 8,206	99072019
CRE 45-2-1	15	DN 80	0 - 10 bar	9,742	96123405	9,921	96123413
CRE 45-3	18.5	DN 80	0 - 10 bar	,	96123405		96123414
CRE 45-4-2	22	DN 80	0 - 16 bar	11,629 13,171	96123407	11,809 13,350	96123414
CRL 43-4-2	22	DN 80	0 - 10 bai	13,171	30123407	13,330	30123413
CRE 64-1-1	7.5	DN 100	0 - 6 bar	5,867	99072057	6,043	99072061
CRE 64-1	11	DN 100	0 - 6 bar	7,988	99072059	8,164	99072062
CRE 64-2-2	15	DN 100	0 - 10 bar	9,349	96123994	9,525	96123999
CRE 64-2-1	18.5	DN 100	0 - 10 bar	11,242	96123995	11,418	96124000
CRE 64-3-2	22	DN 100	0 - 16 bar	12,554	96123996	12,730	96124001
CRE 95-1-1	11	DN 100	0 - 6 bar	7,439	99264346	7,613	99264415
CRE 95-1-1	15	DN 100	0 - 6 bar	9,122	99264358	9,297	99264416
CRE 95-2-2	18.5	DN 100	0 - 10 bar	10,846	99264359	11,021	99264417
CRE 95-2-1	22	DN 100	0 - 10 bar	12,211	99264360	12,386	99264418
CRL 93-2-1	22	DN 100	0 - 10 bai	12,211	33204300	12,360	33204418
CRE 125-1-1	15	DN 150	0 - 6 bar	9,115	99264393	9,291	99264451
CRE 125-1	18.5	DN 150	0 - 6 bar	11,804	99264394	11,980	99264452
						#N/A	
CRE 155-1-1	18.5	DN 150	0 - 6 bar	11,308	99264409		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 pre

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 46/47 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

				200-240V 1p	oh 50/60Hz	380-480/500V	3ph 50/60Hz
	P2	Pipe	Transducer	£	Product Code	£	Product Code
Model	kW	connection	Range	A FGJ A	E HQQE	A FGJ A	E HQQE
CRNE 1-4	0.37	DN 25/32	0 - 6 bar	1,531	98389459	1,699	98389501
CRNE 1-6	0.55	DN 25/32	0 - 10 bar	1,655	98389460	1,825	98389503
CRNE 1-9	0.75	DN 25/32	0 - 10 bar	1,829	98389462	2,019	98389504
CRNE 1-13	1.1	DN 25/32	0 - 16 bar	2,158	98389463	2,370	98389505
CRNE 1-17	1.5	DN 25/32	0 - 16 bar	2,673	98389464	2,839	98389506
CRNE 1-25	2.2	DN 25/32	0 - 25 bar	-	-	3,408	98389507
CRNE 1-27	3	DN 25/32	0 - 25 bar	=	=	4,009	99072128
				<u>-</u>			
CRNE 3-2	0.37	DN 25/32	0 - 4 bar	1,471	98389844	1,640	98389889
CRNE 3-4	0.55	DN 25/32	0 - 6 bar	1,576	98389845	1,748	98389890
CRNE 3-5	0.75	DN 25/32	0 - 6 bar	1,727	98389846	1,919	98389891
CRNE 3-8	1.1	DN 25/32	0 - 10 bar	1,959	98389847	2,174	98389892
CRNE 3-11	1.5	DN 25/32	0 - 16 bar	2,361	98389848	2,529	98389893
CRNE 3-17	2.2	DN 25/32	0 - 25 bar	-	=	3,123	98389894
CRNE 3-23	3	DN 25/32	0 - 25 bar		-	3,584	99072168
CRNE 3-25	4	DN 25/32	0 - 25 bar	=	=	4,273	99072169
				<u>-</u>			
CRNE 5-2	0.55	DN 25/32	0 - 4 bar	1,554	98390117	1,726	98390150
CRNE 5-4	1.1	DN 25/32	0 - 6 bar	1,800	98390118	2,016	98390151
CRNE 5-5	1.5	DN 25/32	0 - 6 bar	2,169	98390120	2,339	98390152
CRNE 5-9	2.2	DN 25/32	0 - 10 bar	-	-	2,885	98390153
CRNE 5-12	3	DN 25/32	0 - 16 bar	-	-	3,310	99072237
CRNE 5-16	4	DN 25/32	0 - 25 bar	-	=	3,931	99072238
CRNE 5-22	5.5	DN 25/32	0 - 25 bar	-	-	4,746	99072239
CRNE 5-24	7.5	DN 25/32	0 - 25 bar	-	-	5,609	99075989
				<u>-</u>			
CRNE 10-1	0.75	DN 40	0 - 4 bar	1,773	98390311	1,961	98390701
CRNE 10-2	1.5	DN 40	0 - 4 bar	2,278	98390312	2,445	98390323
CRNE 10-3	2.2	DN 40	0 - 6 bar	=	=	2,940	98390324
CRNE 10-5	3	DN 40	0 - 10 bar	-	-	3,362	99071488
CRNE 10-6	4	DN 40	0 - 10 bar	-	-	4,068	99071490
CRNE 10-9	5.5	DN 40	0 - 16 bar	-	-	4,972	99071826
CRNE 10-12	7.5	DN 40	0 - 25 bar	-	=	6,105	99071827
CRNE 10-17	11	DN 40	0 - 25 bar	-	-	7,895	99071829
CRNE 15-1	1.5	DN 50	0 - 4 bar	2,265	98390739	2,431	98390746
CRNE 15-2	3	DN 50	0 - 10 bar		-	3,308	99071604
CRNE 15-3	4	DN 50	0 - 10 bar	-	=	4,000	99071605
CRNE 15-4	5.5	DN 50	0 - 10 bar		-	4,811	99071606
CRNE 15-5	7.5	DN 50	0 - 16 bar		-	5,716	99071607
CRNE 15-8	11	DN 50	0 - 25 bar	-	=	7,404	99071608
CRNE 15-10	15	DN 50	0 - 25 bar	-	=	9,114	96514538
CRNE 15-12	18.5	DN 50	0 - 25 bar		-	11,010	96514539
CRNE 20-1	2.2	DN 50	0 - 4 bar	-	-	2,924	98390792
CRNE 20-2	4	DN 50	0 - 6 bar	-	-	4,041	99071718
CRNE 20-3	5.5	DN 50	0 - 10 bar	-	-	4,861	99071719
CRNE 20-4	7.5	DN 50	0 - 10 bar	<u> </u>	=	5,778	99071720
CRNE 20-6	11	DN 50	0 - 16 bar	-	-	7,486	99071722
CRNE 20-8	15	DN 50	0 - 25 bar	-	=	9,217	96514671
CRNE 20-10	18.5	DN 50	0 - 25 bar	<u> </u>	-	11,138	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]

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



CATEGORY 2 - CRNE1 to CRNE20

CRNE 316 STAINLESS STEEL VARIABLE SPEED PUMPS WITH SENSOR

	P2	Pipe	Transducer	200-240V 1p	h 50/60Hz	380-480/500V	3ph 50/60Hz
Model	kW	connection	Range	£	Product Code	£	Product Code
				N FGJ A E	HQQE	N FGJ A I	E HQQE
CRNE 1-4	0.37	DN 25/32	0 - 6 bar	1,709	98389538	1,876	98389584
CRNE 1-6	0.55	DN 25/32	0 - 10 bar	1,833	98389539	2,003	98389586
CRNE 1-9	0.75	DN 25/32	0 - 10 bar	2,007	98389542	2,197	98389587
CRNE 1-13	1.1	DN 25/32	0 - 16 bar	2,335	98389545	2,548	98389588
CRNE 1-17	1.5	DN 25/32	0 - 16 bar	2,850	98389546	3,017	98389589
CRNE 1-25	2.2	DN 25/32	0 - 25 bar	-	-	3,586	98389591
CRNE 1-27	3	DN 25/32	0 - 25 bar	-	-	4,187	99072135
CRNE 3-2	0.37	DN 25/32	0 - 4 bar	1,649	98389924	1,818	98389972
CRNE 3-4	0.55	DN 25/32	0 - 6 bar	1,754	98389925	1,925	98389973
CRNE 3-5	0.75	DN 25/32	0 - 6 bar	1,905	98389926	2,097	98389974
CRNE 3-8	1.1	DN 25/32	0 - 10 bar	2,137	98389927	2,352	98389975
CRNE 3-11	1.5	DN 25/32	0 - 16 bar	2,538	98389930	2,707	98389976
CRNE 3-17	2.2	DN 25/32	0 - 25 bar		-	3,301	98389977
CRNE 3-23	3	DN 25/32	0 - 25 bar		-	3,762	99072180
CRNE 3-25	4	DN 25/32	0 - 25 bar		-	4,451	99072181
CRNE 5-2	0.55	DN 25/32	0 - 4 bar	1,732	98390170	1,904	98390192
CRNE 5-4	1.1	DN 25/32	0 - 6 bar	1,978	98390171	2,194	98390193
CRNE 5-5	1.5	DN 25/32	0 - 6 bar	2,347	98390172	2,517	98390194
CRNE 5-9	2.2	DN 25/32	0 - 10 bar			3,063	98390195
CRNE 5-12	3	DN 25/32	0 - 16 bar	-	-	3,488	99072265
CRNE 5-16	4	DN 25/32	0 - 25 bar			4,109	99072266
CRNE 5-22	5.5	DN 25/32	0 - 25 bar			4,924	99072267
CRNE 5-24	7.5	DN 25/32	0 - 25 bar	-	-	5,787	99075995
CRNE 10-1	0.75	DN 40	0 - 4 bar	1,947	98390335	2,135	98390707
CRNE 10-2	1.5	DN 40	0 - 4 bar	2,452	98390336	2,619	98390347
CRNE 10-3	2.2	DN 40	0 - 6 bar		<u> </u>	3,114	98390348
CRNE 10-5	3	DN 40	0 - 10 bar		-	3,536	99071504
CRNE 10-6	4	DN 40	0 - 10 bar			4,241	99071506
CRNE 10-9	5.5	DN 40	0 - 16 bar		-	5,145	99071850
CRNE 10-12	7.5	DN 40	0 - 25 bar			6,279	99071851
CRNE 10-17	11	DN 40	0 - 25 bar			8,069	99071852
CRNE 15-1	1.5	DN 50	0 - 4 bar	2,437	98390752	2,603	98390758
CRNE 15-2	3	DN 50	0 - 10 bar		<u> </u>	3,480	99071636
CRNE 15-3	4	DN 50	0 - 10 bar	-	<u>-</u>	4,172	99071637
CRNE 15-4	5.5	DN 50	0 - 10 bar		<u>-</u>	4,983	99071638
CRNE 15-5	7.5	DN 50	0 - 16 bar	-	<u>-</u>	5,888	99071640
CRNE 15-8	11	DN 50	0 - 25 bar		-	7,576	99071641
CRNE 15-10	15	DN 50	0 - 25 bar		<u> </u>	9,286	96514607
CRNE 15-12	18.5	DN 50	0 - 25 bar	-	-	11,182	96514608
CDNIE 20.4	2.2	DN FO	0.45			2.000	22222722
CRNE 20-1	2.2	DN 50	0 - 4 bar			3,096	98390798
CRNE 20-2	4	DN 50	0 - 6 bar	-	-	4,213	99071765
CRNE 20-3	5.5	DN 50	0 - 10 bar	-	-	5,033	99071766
CRNE 20-4	7.5	DN 50	0 - 10 bar	-	-	5,950	99071767
CRNE 20-6	11	DN 50	0 - 16 bar		<u>-</u>	7,658	99071768
CRNE 20-8	15	DN 50	0 - 25 bar		-	9,389	96514731
CRNE 20-10	18.5	DN 50	0 - 25 bar		-	11,310	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



CATEGORY 2 - CRNE32 to CRNE150

CRNE 316 STAINLESS STEEL VARIABLE SPEED PUMPS - WITHOUT AND WITH SENSOR

				380-480/50	0V 3ph 50/60Hz	380-480/500V 3	ph 50/60Hz
				£	Product Code	£	Product Code
	P2	Pipe	Transducer	WITHO	OUT SENSOR	WITH SE	NSOR
Model	kW	connection	Range	AF	A E HQQE	NFAEI	IQQE
CRNE 32-1-1	2.2	DN 65	0 - 4 bar	3,819	98390934	3,999	98390936
CRNE 32-1	3	DN 65	0 - 4 bar	4,153	99071972	4,333	99071999
CRNE 32-2-1	5.5	DN 65	0 - 10 bar	5,874	99071983	6,054	99072000
CRNE 32-2	7.5	DN 65	0 - 10 bar	6,992	99071984	7,172	99072001
CRNE 32-4-2	11	DN 65	0 - 16 bar	9,310	99071985	9,489	99072003
CRNE 32-5-2	15	DN 65	0 - 16 bar	11,623	96122699	11,803	96122707
CRNE 32-6	18.5	DN 65	0 - 25 bar	13,743	96122700	13,922	96122708
CRNE 32-7	22	DN 65	0 - 25 bar	15,493	96122701	15,672	96122709
				<u>-</u>		·	
CRNE 45-1-1	5.5	DN 80	0 - 6 bar	5,648	99072029	5,824	99072049
CRNE 45-1	7.5	DN 80	0 - 6 bar	6,844	99072030	7,021	99072050
CRNE 45-2-1	11	DN 80	0 - 10 bar	8,906	99072031	9,082	99072052
CRNE 45-2	15	DN 80	0 - 10 bar	11,133	96123437	11,310	96123445
CRNE 45-3	18.5	DN 80	0 - 16 bar	13,174	96123438	13,351	96123446
CRNE 45-4-2	22	DN 80	0 - 16 bar	15,039	96123439	15,215	96123447
				<u></u>			
CRNE 64-1-1	7.5	DN 80	0 - 6 bar	6,826	99072078	7,002	99072087
CRNE 64-1	11	DN 80	0 - 6 bar	9,031	99072079	9,207	99072088
CRNE 64-2-2	15	DN 80	0 - 10 bar	10,851	96124018	11,027	96124023
CRNE 64-2-1	18.5	DN 80	0 - 10 bar	12,842	96124019	13,019	96124024
CRNE 64-3-2	22	DN 80	0 - 16 bar	14,556	96124020	14,732	96124025
				<u>-</u>			
CRNE 95-1-1	11	DN 100	0 - 6 bar	9,127	99264375	9,303	99264434
CRNE 95-1	15	DN 100	0 - 6 bar	11,258	99264376	11,435	99264435
CRNE 95-2-2	18.5	DN 100	0 - 10 bar	13,023	99264377	13,199	99264436
CRNE 95-2-1	22	DN 100	0 - 10 bar	14,660	99264378	14,836	99264437
				<u></u>			
CRNE 125-1-1	15.0	DN 150	0 - 6 bar	11,135	99264399	11,312	99264455
CRNE 125-1	18.5	DN 150	0 - 6 bar	14,060	99264400	14,236	99264456
CRNE 155-1-1	18.5	DN 150	0 - 6 bar	13,861	99264411	14,037	99264465

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 pr

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 46/47 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



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	
	kW	connection	
CRNE 1-23 HS	4.6	PJE 42.2mm	
CRNE 1-23 HS	6	PJE 42.2mm	
CRNE 1-23 HS	7.5	PJE 42.2mm	
CRNE3-23 HS	4.6	PJE 42.2mm	
CRNE3-23 HS	6	PJE 42.2mm	
CRNE3-23 HS	7.5	PJE 42.2mm	

£	Product Code
QP	T E HQQE
POA	99050536
POA	99050537
POA	99050538
POA	99050564
POA	99050565
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

Model

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

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).

Pinework

	kW	connection	
CRN 3-31 SF	3	PJE 42.2mm	
CRN 5-34 SF	5.5	PJE 42.2mm	
CRN 10-21 SF	7.5	PJE 60.1mm	
CRN 15-16 SF	15	PJE 60.1mm	
CRN 20-16 SF	18.5	PJE 60.1mm	
	P2	Pipework	

3,337	30312200			
8,121	96512213			
8,600	96512261			
£	Product Code			
SF P A E HQQE				
DO 4				
POA	97515507			

S P A E HQQE

3,217

4,115

5 557

POA

Product Code

96892938

96521769

97566802

	P2	Pipework	
	kW	connection	
CRN 32-13 SF	30	PJE 88.9mm	
CRN 45-12 SF	45	PJE 114mm	
CRN 64-7 SF	45	PJE 114mm	

ELECTRIC MOTOR

380-415V 3ph 50Hz

IP55 Class F insulation

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

PIPE CONNECTIONS

All CRN High Pressure models are supplied $\mbox{\it without}$ 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-SF ACCESSORIES							
PJE couplings with pipe stub	Elastomer	Material	Pipe stub	PN	No Reqd	£	Product Code
42.2mm / DN32	EPDM	316 SS	for welding	80bar	2	66	419912
60.1mm / DN50	EPDM	316 SS	for welding	70bar	2	66	339910
88.9mm / DN80	EPDM	316 SS	for welding	70bar	2	218	98144746
114mm / DN100	EPDM	316 SS	for welding	70bar	2	361	98144752
PJE couplings without pipe stub					No Reqd	£	Product Code
42.2mm					2	36	00ID1781
60.1mm					2	39	00ID2643
88.9mm					2	72	00ID5530
114mm					2	101	96483370
Connecting pipe	For pump type				No Reqd	£	Product Code
42.2mm / DN32	CRN 3/5				1	258	98895730
60.1mm / DN50	CRN 10/15/20				1	105	420138
88.9mm / DN80	CRN 32				1	318	98144757
114mm / DN100	CRN 45/64/90				1	477	98144759

CATEGORY 2 - CRT TITANIUM VERTICAL MULTISTAGE PUMPS

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

		230V 1pn 50Hz		
	P2	£	Product Code	
Model	kW	APA	AUUE	
CRT2-2	0.37	2,104	96100265	
CRT2-3	0.37	2,207	96100266	
CRT2-4	0.55	2,421	96100267	
CRT2-5	0.55	2,649	96100268	
CRT2-6	0.75	2,952	96100269	
CRT2-7	0.75	3,218	96100270	
CRT2-9	1.1	3,572	96100271	
CRT2-11	1.1	3,967	96100272	
CRT2-13	1.5	4,475	96100273	
CRT2-15	1.5	4,897	96100274	
CRT2-18	2.2	5,431	96100275	
CRT2-22	2.2	6,095	96100276	

CRT4-1	0.37	2,254	96100764
CRT4-2	0.37	2,361	96100765
CRT4-3	0.55	2,589	96100766
CRT4-4	0.75	2,951	96100767
CRT4-5	1.1	3,445	96100768
CRT4-6	1.1	3,739	96100769
CRT4-7	1.5	4,298	96100770
CRT4-8	1.5	4,584	96100771
CRT4-10	2.2	5,237	96100772
CRT4-12	2.2	5,551	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.



		400V 3p	oh 50Hz
	P2	£	Product Code
Model	kW	APA	AUUE
CRT2-2	0.37	2,057	96100301
CRT2-3	0.37	2,194	96100302
CRT2-4	0.55	2,353	96100303
CRT2-5	0.55	2,714	96100304
CRT2-6	0.75	2,830	96100305
CRT2-7	0.75	3,183	96100306
CRT2-9	1.1	3,371	96100307
CRT2-11	1.1	3,791	96100308
CRT2-13	1.5	4,205	96100309
CRT2-15	1.5	4,628	96100310
CRT2-18	2.2	5,139	96100311
CRT2-22	2.2	5,803	96100312
CRT2-26	3	6,450	96100313
CRT4-1	0.37	2,019	96100794
CRT4-2	0.37	2,313	96100795
CRT4-3	0.55	2,520	96100796
CRT4-4	0.75	2,827	96100797
CRT4-5	1.1	3,241	96100798
CRT4-6	1.1	3,535	96100799
CRT4-7	1.5	4,025	96100800
CRT4-8	1.5	4,312	96100801
CRT4-10	2.2	5,231	96100802
CRT4-12	2.2	5,254	96100803
CRT4-14	3	6,079	96100804
CRT4-16	3	6,393	96100805
CRT4-19	4	7,346	96100806
CRT4-22	4	8,040	96100807
CRT8-1	0.37	3,801	96108239
CRT8-2	0.75	3,973	96108240
CRT8-3	1.1	4,287	96108241
CRT8-4	1.5	4,856	96108242
CRT8-5	2.2	5,294	96108243
CRT8-6	2.2	5,602	96108244
CRT8-8	3	6,518	96108245
CRT8-10	4	7,512	96117229
CRT8-12	4	8,187	96117230
CRT8-14	5.5	9,724	96117231
CRT8-16	5.5	10,474	96117232
CRT8-18	7.5	12,323	96117233
CRT8-20	7.5	13,068	96117234
CRT16-2	2.2	4,609	96108344
CRT16-3	3	5,613	96108345
CRT16-4	4	6,531	96117246
CRT16-5	5.5	7,952	96117247
CRT16-6	5.5	8,533	96117248
CRT16-7	7.5	9,486	96117249
CRT16-8	7.5	10,152	96117250
CRT16-10	11	12,570	96117251
CRT16-12	11	13,323	96117252
CRT16-14	15	16,528	96117253
CRT16-17	18.5	17,452	96117254

PJE COUPLINGS FOR CRT PUMPS

CRT ACCESSORIES		No Reqd	£	Product Code
PJE threaded couplings with EPDM	CRT2 and 4	2	158	415520
seals	CRT8 and 16	2	197	425935

		No Reqd	£	Product Code
Viton seals are available as an	CRT2 and 4	2	127	00ID6742
optional extra.	CRT8 and 16	2	245	98977142





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 Type PN rating Nº Reqd Material £ **Product Code** size Connection connection CRI 1s/1/3 Welding 25 bar Steel St37-2 44 409902 FGJ 25mm CRI 5 FGI Welding 32mm 25 har 2 Steel St37-2 59 419902 CRI 10 FGJ Welding 40mm 25 bar 2 Steel St37-2 79 429901 FGJ Threaded 2" BSPF 16 bar 2 Steel St37-2 85 339903 CRI 15/20 FGJ Welding 50mm 25 bar 2 Steel St37-2 105 339901 F 2" 1/2 BSPF 16 bar 59 Threaded Steel St37-2 349902 CR 32 F 3" BSPF 57 Threaded 16 bar Steel St37-2 349901 F Welding 65 mm 40 bar 2 Steel St37-2 125 349905 F 3" BSPF 72 Threaded 16 bar Steel St37-2 350540 CR 45 F Welding 80mm 40 bar Steel St37-2 125 350542 F Threaded 4" BSPF 16 bar 2 Steel St37-2 85 369901 CR 64/95 100 mm 25 bar Steel St37-2 99 369905 Welding 2 CR 125/155 F Welding 150 mm 40 bar 2 Steel St37-2 293 96750476 CRI/CRN 1s/1/3 FGJ 1" BSPF 250 Threaded 25 bar 2 316 stainless steel 91200656 CRI/CRN 5 FGJ Threaded 1" 1/4 BSPF 25 bar 316 stainless steel 161 91200657 FGJ Threaded 1" ½ BSPF 16 bar 316 stainless steel 275 91201023 CRI/CRN 10 FGJ 2 Welding 40 bar 193 40 mm 316 stainless steel 91201025 FGJ Threaded 2" BSPF 16 bar 316 stainless steel 201 91201026 CRI/CRN 15/20 FGJ Welding 50 mm 40 bar 2 209 316 stainless steel 91201028 F Threaded 2" 1/2 BSPF 16 bar 2 316 stainless steel 263 349910 16 bar **CRN 32** F 3" BSPF 263 349911 Threaded 2 316 stainless steel F Welding 65 mm 40 bar 2 316 stainless steel 263 349908 F Threaded 3" BSPF 16 bar 316 stainless steel 394 350543 CRN 45 Welding 80 mm 40 bar 316 stainless steel 394 350545 F 4" BSPF 2 427 Threaded 16 bar 316 stainless steel 369904 CRN 64/95 F Welding 100 mm 40 bar 2 316 stainless steel 427 369906 Welding 150 mm 16 bar 316 stainless steel 348 98052936 CRN 125/155 F Welding 150 mm 40 har 2 316 stainless steel 1.010 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	Tuno	Size	PN rating	Nº Read	Rubber	£	Product Code
size	Connection	Туре	Size	riviating	N= Kequ	Rubbei	r	Product Code
	PJE	Threaded	1" ¼ BSPF	69 bar	2	EPDM	66	419911
CRN 1s/1/3/5	PJE	Threaded	1" ¼ BSPF	69 bar	2	FKM	164	419905
CNN 15/1/5/5	PJE	Welding	32mm	69 bar	2	EPDM	66	419912
	PJE	Welding	32mm	69 bar	2	FKM	164	419904
	PJE	Threaded	2" BSPF	69 bar	2	EPDM	66	339911
CRN 10/15/20	PJE	Threaded	2" BSPF	69 bar	2	FKM	164	339918
CKN 10/13/20	PJE	Welding	50 mm	69 bar	2	EPDM	66	339910
	PJE	Welding	50 mm	69 bar	2	FKM	164	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	46	96449746
CRI 1s/1/3/5	CA	2 bolt oval	1" ¼ BSPF	16 bar	2	Klingersil	46	96449747
CINI 13/1/3/3	CA	DIN Flange	DN 25/32	16 bar	2	EPDM	197	96449745
•	CA	DIN Flange	DN 25/32	16 bar	2	FKM	210	96449900
CRI 10/15/20	CA	2 bolt oval	1" ½ BSPF	16 bar	2	Klingersil	62	96498728
	CA	2 bolt oval	2" BSPF	16 bar	2	Klingersil	66	96498835
	CA	DIN Flange	DN 40	16 bar	2	EPDM	137	96500263
	CA	DIN Flange	DN 40	16 bar	2	FKM	193	96500264
	CA	DIN Flange	DN 50	16 bar	2	EPDM	150	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].







Bolt kit

		No Reqd	£	Product Code
Bolt kit for use replacing the CR2 with CRI 3 CA base	M10x70mm bolts, nuts, gask	1	53	96449748
Bolt kit for use replacing the CR4 with CRI 5 CA base	M10x70mm bolts, nuts, gask	1	53	96449749
Bolt kit for use replacing the CR8 with CRI 10 CA base	M12x90mm bolts, nuts, gask	2	46	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 FOR LEGACY PRODUCTS

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	70	96547329
CR/CRN 30-110/9 to CR/CRN 30-160 replaced by a CR/CRN32	2	110	96587892
CR/CRN 60-20 to CR/CRN 60-80 replaced by a CR/CRN64	2	80	96587893



CR120 / CR150 ACCESSORIES	No Reqd	£	Product Code
DN125 PN40 weld counter flanges	2	202	96750475
DN125 to DN150 adapter kit	2	440	96638169
CRN120 / CRN150 ACCESSORIES	No Reqd	£	Product Code
DN125 PN40 weld counter flanges	2	677	96750477
DN125 to DN150 adapter kit		1.354	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.

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)	1,032	96556429
LiqTec with sensor and 5m of interconnection cable (80-130V)	1,249	96556430
Extra 15m sensor cable kit	164	96443676
Extra 15m sensor cable kit	164	96443

For new permanent magnet MGE motors, models H, I and J	£	Product Code
LiqTec sensor unit with 5m cable	207	99337830

NOTE - THE ABOVE LIQTEC IS A CATEGORY 2 PRODUCT FOR DISCOUNT PURPOSES.

CATEGORY 2 - CM- I 304 STAINLESS STEEL HORIZONTAL MULTISTAGE PUMPS 50Hz

230V 1nh 50Hz

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

			50Hz			400V 3ph 50Hz	
		£	Product Code		_	£	Product Code
Model	P2 (kW) / Frame	CMx-x A F	R I E AQQE CAAN	Model	P2 (kW) / Frame	CMx-x	A R I E AQQE FAAN
CM 1-2-I	0.30 / 71	523	97514162	CM 1-2-I	0.46 / 71	510	97514413
CM 1-3-I	0.30 / 71	572	97514439	CM 1-3-I	0.46 / 71	559	97515109
CM 1-4-I	0.50 / 71	615	97514999	CM 1-4-I	0.46 / 71	597	97515121
CM 1-5-I	0.50 / 71	659	97515000	CM 1-5-I	0.46 / 71	641	96807014
CM 1-6-I	0.50 / 71	669	97515021	CM 1-6-I	0.46 / 71	651	97515122
CM 1-7-I	0.50 / 71	754	97515023	CM 1-7-I	0.65 / 71	736	97515123
CM 1-7-1	0.67 / 80	775	97515023	CM 1-8-I	0.65 / 71	752	96976902
	•				·		
CM 1-9-I	0.67 / 80	788	97644331	CM 1-9-I	0.65 / 71	765	97644332
CM 1-10-I	0.67 / 80	808	97644334	CM 1-10-I	1.1 / 80	785	98662772
CM 1-11-I	0.90 / 80	881	97644335	CM 1-11-I	1.1 / 80	844	98694631
CM 1-12-I	0.90 / 80	942	97644336	CM 1-12-I	1.1 / 80	906	98694632
CM 1-13-I	0.90 / 80	986	97577832	CM 1-13-I	1.1 / 80	950	98694633
CM 1-14-I	1.30 / 90	1,344	97644337	CM 1-14-I	1.1 / 80	1,107	98694634
	1						
CM 3-2-I	0.30 / 71	541	96961011	CM 3-2-I	0.46 / 71	528	96961023
CM 3-3-I	0.50 / 71	584	96961025	CM 3-3-I	0.46 / 71	566	96961026
CM 3-4-I	0.50 / 71	623	96961045	CM 3-4-I	0.46 / 71	605	96961047
CM 3-5-I	0.50 / 71	669	96961051	CM 3-5-I	0.65 / 71	651	96961052
CM 3-6-I	0.67 / 80	747	97515032	CM 3-6-I	0.65 / 71	723	97515126
CM 3-7-I	0.90 / 80	808	97515033	CM 3-7-I	1.1 / 80	772	98662725
CM 3-8-I	0.90 / 80	860	97515034	CM 3-8-I	1.1 / 80	824	98725225
CM 3-9-I	1.30 / 90	1,112	97569313	CM 3-9-I	1.1 / 80	875	99080201
CM 3-10-I	1.30 / 90	1,177	97644339	CM 3-10-I	1.5 / 90	940	99059802
CM 3-11-I	1.30 / 90	1,298	97620738	CM 3-11-I	1.5 / 90	1,061	98694635
CM 3-12-I	1.30 / 90	1,334	97644340	CM 3-12-I	1.5 / 90	1,097	99080202
CM 3-13-I	1.70 / 90	1,375	97621172	CM 3-13-I	2.2 / 90	1,117	98694637
CM 3-14-I	1.70 / 90	1,398	97644352	CM 3-14-I	2.2 / 90	1,141	98694638
CNAFAL	0.50 / 74	525	07545042	CAA F 2 I	0.46 / 74	F47	00004054
CM 5-2-I	0.50 / 71	535	97515042	CM 5-2-I	0.46 / 71	517	96961054
CM 5-3-I	0.50 / 71	623	97515044	CM 5-3-I	0.65 / 71	605	96961057
CM 5-4-I	0.67 / 80	747	96961065	CM 5-4-I	1.1 / 80	723	98798510
CM 5-5-I	0.90 / 80	824	96961097	CM 5-5-I	1.1 / 80	788	98725313
CM 5-6-I	1.30 / 90	1,089	97507749	CM 5-6-I	1.5 / 90	852	98664188
CM 5-7-I	1.30 / 90	1,200	97515047	CM 5-7-I	1.5 / 90	963	98725228
CM 5-8-I	1.70 / 90	1,246	97515048	CM 5-8-I	2.2 / 90	989	98717944
CM 5-9-I	1.70 / 90	1,377	97644353	CM 5-9-I	2.2 / 90	1,120	98896343
CM 5-10-I	1.70 / 90	1,418	97621173	CM 5-10-I	2.2 / 90	1,161	99059803
CM 5-11-I	1.70 / 90	1,496	97620739	CM 5-11-I	2.2 / 90	1,238	99080204
				CM 5-12-I	3 / 100	1,480	98694640
CM 10-1-I	0.67 / 80	811	97515062	CM 5-13-I	3 / 100	1,529	98694641
CM 10-2-I	1.30 / 90	1,081	96946004				
CM 10-3-I	1.70 / 90	1,323	96946005	CM 10-1-I	0.65 / 71	788	97515133
	•	i		CM 10-2-I	1.5 / 90	844	98719394
CM 15-1-I	1.30 / 90	1,491	97515064	CM 10-3-I	2.2 / 90	1,065	98693606
CM 15-2-I	1.70 / 90	1,694	97515063	CM 10-4-I	3 / 100	1,454	98777053
	2.70 / 30	-,	5.52555	CM 10-5-I	3 / 100	1,572	98979299
CM 25-1-I	1.70 / 90	1,635	97515065	CM 10-6-I	4 / 112	1,603	99057080
CIAI 52.1-1	1.70 / 30	1,000	37313003	CM 10-7-I	5.5 / 132	1,732	98694642
ELECTRIC MOTOR S		Spal materials				2,064	98694643
		Seal materials	C coal faces	CM 10-8-I	5.5 / 132	2,004	30034043
380-415V 3ph		AQQE seal has SiC Si		CN 15 1 L	1 5 / 00	1 254	00007405
220-240V 1ph		and EPDM elastome	ri .	CM 15-1-I	1.5 / 80	1,254	99087495
IP55 Class F ins	suiation	Pump materials	204 1 1 1 1 1	CM 15-2-I	2.2 / 90	1,437	99080205
_		CM x - x I pumps are	304 stainless steel	CM 15-3-I	4 / 112	1,653	98669726
Pump pipe cor		(EN1.4301)		CM 15-4-I	5.5 / 132	1,854	98958451
CM 1 & CM3 -							
	1"1/4BSPF Discharge	1"BSPF		CM 25-1-I	2.2 / 90	1,377	98979367
CM 10 - Roth 1	1"1/2BCDE			CM 25-2-I	1/112	1 019	08603604

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 53.



98693604

98935349

99205260

1,918

2,374

2,752

400V 3nh 50Hz

CM 25-2-I

CM 25-3-I

CM 25-4-I

4/112

5.5 / 132

7.5 / 132

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

COMPLETE WITH DIRECT COUPLED 2900 RPM ELECTRIC MOTOR

		230V 1	ph 50Hz		
		£	Product Code		
Model	P2 (kW) / Frame	СМх-х А	R G E AQQE CAAN	Model	P2 (kW) / Frar
CM 1-2-G	0.30 / 71	656	97516635	CM 1-2-G	0.46 / 71
CM 1-3-G	0.30 / 71	726	97516636	CM 1-3-G	0.46 / 71
CM 1-4-G	0.50 / 71	775	97516638	CM 1-4-G	0.46 / 71
CM 1-5-G	0.50 / 71	821	97516640	CM 1-5-G	0.46 / 71
CM 1-6-G	0.50 / 71	842	97516642	CM 1-6-G	0.46 / 71
CM 1-7-G	0.50 / 71	911	97516644	CM 1-7-G	0.65 / 71
CM 1-8-G	0.67 / 80	978	97516646	CM 1-8-G	0.65 / 71
CM 1-9-G	0.67 / 80	994	97515025	CM 1-9-G	0.65 / 71
CM 1-10-G	0.67 / 80	1,019	97515026	CM 1-10-G	1.1 / 80
CM 1-11-G	0.90 / 80	1,107	96935421	CM 1-11-G	1.1 / 80
CM 1-12-G	0.90 / 80	1,189	96935423	CM 1-12-G	1.1 / 80
CM 1-13-G	0.90 / 80	1,241	96935425	CM 1-13-G	1.1 / 80
CM 1-14-G	1.30 / 90	1,643	96935427	CM 1-14-G	1.1 / 80
CM 3-2-G	0.30 / 71	682	96806880	CM 3-2-G	0.46 / 71
CM 3-3-G	0.50 / 71	734	96806865	CM 3-3-G	0.46 / 71
CM 3-4-G	0.50 / 71	785	96806889	CM 3-4-G	0.46 / 71
CM 3-5-G	0.50 / 71	844	96806882	CM 3-5-G	0.65 / 71
CM 3-6-G	0.67 / 80	919	97516648	CM 3-6-G	0.65 / 71
CM 3-7-G	0.90 / 80	973	97516650	CM 3-7-G	1.1 / 80
CM 3-8-G	0.90 / 80	1,063	97516652	CM 3-8-G	1.1 / 80
CM 3-9-G	1.30 / 90	1,344	97515035	CM 3-9-G	1.1 / 80
CM 3-10-G	1.30 / 90	1,429	97515036	CM 3-10-G	1.5 / 90
CM 3-11-G	1.30 / 90	1,583	96935447	CM 3-11-G	1.5 / 90
CM 3-12-G	1.30 / 90	1,630	96935449	CM 3-12-G	1.5 / 90
CM 3-13-G	1.70 / 90	1,679	96935451	CM 3-13-G	2.2 / 90
CM 3-14-G	1.70 / 90	1,704	96935453	CM 3-14-G	2.2 / 90
CM 5-2-G	0.50 / 71	698	97516654	CM 5-2-G	0.46 / 71
CM 5-3-G	0.50 / 71	821	97516655	CM 5-3-G	0.65 / 71
CM 5-4-G	0.67 / 80	880	96806893	CM 5-4-G	1.1 / 80
CM 5-5-G	0.90 / 80	1,027	96806881	CM 5-5-G	1.1 / 80
CM 5-6-G	1.30 / 90	1,316	97516656	CM 5-6-G	1.5 / 90
CM 5-7-G	1.30 / 90	1,460	97516657	CM 5-7-G	1.5 / 90
CM 5-8-G	1.70 / 90	1,514	97516658	CM 5-8-G	2.2 / 90
CM 5-9-G	1.70 / 90	1,681	97515050	CM 5-9-G	2.2 / 90
CM 5-10-G	1.70 / 90	1,730	97515061	CM 5-10-G	2.2 / 90
CM 5-11-G	1.70 / 90	1,833	96935475	CM 5-11-G	2.2 / 90
	.,	,		CM 5-12-G	3 / 100
CM 10-1-G	0.67 / 80	971	97516660	CM 5-13-G	3 / 100
CM 10-2-G	1.30 / 90	1,328	96943217		.,
CM 10-3-G	1.90 / 90	1,624	96943250	CM 10-1-G	0.65 / 71
	,	,-		CM 10-2-G	1.5 / 90
CM 15-1-G	1.30 / 90	1,766	97516661	CM 10-3-G	2.2 / 90
CM 15-2-G	1.70 / 90	2,008	97516662	CM 10-4-G	3 / 100
	.,	,		CM 10-5-G	3 / 100
CM 25-1-G	1.70 / 90	1,895	97516666	CM 10-6-G	4 / 112
	.,	,		CM 10-7-G	5.5 / 132
ELECTRIC MOT	OR			CM 10-8-G	5.5 / 132
380-415V 3ph					,
220-240V 1ph				CM 15-1-G	1.5 / 80
IP55 Class F ins				CM 15-2-G	2.2 / 90
	-			CM 15-3-G	4 / 112

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 EPDM elastomer

PUMP MATERIALS

CM x - x G pumps are 316 stainless 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 53.



400V 3ph 50Hz

713

757

803

824

893

955

971

996

1,071

1.153

1,205

1,406

669

716

767

826

896

937

1,027

1,107

1.192

1,346

1,393

1.421

1,447

680

803

857

991

1,079

1.223

1.256

1,424

1,473

1.576

1,879

1,944

947

1,092

1.367

1,799

1,895

2.034

2,198

2.621

1,529

1,751

2.021

2,309

1,637

2,286

2,829

3.280

CMx-x A R G E AQQE FAAN

/ Frame

5.5 / 132

2.2 / 90

4/112

5.5 / 132

7.5 / 132

Product Code

97509582

97516637

97516639

97516641

97516643

97516645

97516647

97515124

98979314

98979315

98979317

98680017

98979319

96806870

96806871

96806884

96806868

97516649

98979427

98979442

99131400

98979406

98979407

99093825

98979411

98979419

96806874

96806873

98976437

98960734

98945987

98668861

98979485

98979488

98979445

99131402

98979448

98979449

96943183

98665164

98664185

98946033

98917310

98979300

98979312

98761008

99131455

99131456

98979347

98979361

98687477

98880198

98838915

99205261

CM 15-4-G

CM 25-1-G

CM 25-2-G

CM 25-3-G

CM 25-4-G

CATEGORY 2 CME - I 304 STAINLESS STEEL HORIZONTAL MULTISTAGE PUMPS 50/60Hz

COMPLETE WITH VARIABLE SPEED 3500 RPM ELECTRIC MOTOR

		_	200-240V 1ph 50/60Hz	
	Motor	_	£	Product Code
Model	Frame size	Transducer	CMx-x A	R I E AQQE UADN
CME 1-2-I	71	0 - 4 bar	1,080	98394750
CME 1-3-I	71	0 - 6 bar	1,110	98394760
CME 1-4-I	71	0 - 6 bar	1,151	98394770
CME 1-5-I	80	0 - 10 bar	1,211	98394937
CME 1-6-I	80	0 - 10 bar	1,267	98394957
CME 1-7-I	80	0 - 10 bar	1,308	98394963
CME 1-8-I	80	0 - 16 bar	1,372	98394967
CME 3-2-I	71	0 - 4 bar	1,080	98394780
CME 3-3-I	80	0 - 6 bar	1,166	98394972
CME 3-4-I	80	0 - 10 bar	1,207	98394981
CME 3-5-I	80	0 - 10 bar	1,277	98394993
CME 3-6-I	90	0 - 10 bar	1,494	98395306
CME 3-7-I	90	0 - 10 bar	1,584	98395316
CME 5-2-I	80	0 - 4 bar	1,149	98395001
CME 5-3-I	80	0 - 6 bar	1,204	98395013
CME 5-4-I	90	0 - 6 bar	1,552	98395326
CME 10-1-I	80	0 - 4 bar	1,391	98394930

ELECTRIC MOTOR

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

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

CIVIE 3-0-1	90	0 - 10 bai	2,105	30330723
CME 5-7-I	100	0 - 16 bar	2,350	99077754
CME 5-8-I	100	0 - 16 bar	2,547	99073792
CME 10-1-I	80	0 - 4 bar	1,611	98395109
CME 10-2-I	90	0 - 6 bar	2,073	98396267
CME 10-3-I	112	0 - 10 bar	2,852	99077759
CME 10-4-I	132	0 - 16 bar	3,248	99077760
CME 10-5-I	132	0 - 16 bar	3,346	99073816
CME 15-1-I	90	0 - 4 bar	2,330	98396593
CME 15-2-I	112	0 - 6 bar	3,102	99077762
CME 15-3-I	132	0 - 10 bar	3,926	99077764
CME 25-1-I	100	0 - 4 bar	2,934	99077766
CME 25-2-I	132	0 - 6 bar	4,261	99077768

Motor

Frame size

71

71

80

80

80

80

90

71

80

80

80

90

90

90

90

80

80

90

90

Transducer

0 - 4 bar

0 - 6 bar

0 - 6 bar

0 - 10 bar

0 - 10 har

0 - 10 bar

0 - 16 bar

0 - 16 bar

0 - 6 bar

0 - 6 bar

0 - 10 bar

0 - 10 bar

0 - 10 har

0 - 16 bar

0 - 16 bar

0 - 16 bar

0 - 4 bar

0 - 6 har

0 - 10 bar

0 - 10 bar

0 - 10 hai

Model

CME 1-2-I

CME 1-3-I

CME 1-4-I

CME 1-5-I

CMF 1-6-I

CME 1-7-I

CME 1-8-I

CME 1-9-I

CME 3-2-I

CME 3-3-I

CME 3-4-I

CME 3-5-I

CMF 3-6-I

CME 3-7-I

CME 3-8-I

CME 3-9-I

CME 5-2-I

CMF 5-3-I

CME 5-4-I

CME 5-5-I

380-500V 3ph 50/60Hz

1,257

1.287

1,327

1,431

1.486

1,527

1.592

1.766

1,257

1.385

1,426

1,497

1.669

1,759

2,066

2.099

1,368

1.424

1,727

2,049

CMx-x A R I E AQQE SADN

Product Code

98394849

98394859

98394868

98395119

98395127

98395143

98395148

98395354

98394877 98395157

98395166

98395177

98395359

98395366

98396708

98396713

98395195

98395207

98395373

98396719

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.

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.

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 53.

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

COMPLETE WITH VARIABLE SPEED 3500 RPM ELECTRIC MOTOR

			200-240V 1ph 50/60Hz	
	Motor		£	Product Code
Model	Frame size	Transducer	CMx-x A R G E AQQE UADN	
CME 1-2-G	71	0 - 4 bar	1,196	98394748
CME 1-3-G	71	0 - 6 bar	1,259	98394758
CME 1-4-G	71	0 - 6 bar	1,315	98394768
CME 1-5-G	80	0 - 10 bar	1,375	98394935
CME 1-6-G	80	0 - 10 bar	1,403	98394954
CME 1-7-G	80	0 - 10 bar	1,453	98394960
CME 1-8-G	80	0 - 16 bar	1,543	98394965
CME 1-9 G	90	0 - 16 bar	1,768	98395299
CME 3-2-G	71	0 - 4 bar	1,220	98394777
CME 3-3-G	80	0 - 6 bar	1,302	98394970
CME 3-4-G	80	0 - 10 bar	1,345	98394979
CME 3-5-G	80	0 - 10 bar	1,423	98394989
CME 3-6-G	90	0 - 10 bar	1,645	98395303
CME 3-7-G	90	0 - 10 bar	1,798	98395313
CME 5-2-G	80	0 - 4 bar	1,302	98395003
CME 5-3-G	80	0 - 6 bar	1,373	98395009
CME 5-4-G	90	0 - 6 bar	1,716	98395328
	•			
CME 10-1-G	80	0 - 4 bar	1,567	98394932

ELECTRIC MOTOR

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

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 10 - Both 11/2"BSPF	CME 25-1-G
CM 15 & CM25 - Both 2"BSPF	CME 25-2-G
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	e.

different voltage ranges etc can be configured and priced of 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.

ADAPTOR BASEPLATES

For assisting with the replacement of CH, CHN and CHI units with motor frame size 71/80 only - see page 53.





380-500V 3ph 50/60Hz

1,368

1.430

1,486

1,589

1.617

1,666

1.756

1.934

1,391

1.516

1,559

1,636

1.812

1,964

2,291

2.332

1,516

1.587

1,883

2,239

2.338

2,604

2,858

1,780

2.280

3,124

3,585

3,761

2,561

3.276

4.180

3,323

4.545

CMx-x A R G E AQQE SADN

Product Code

98394846

98394855

98394864

98395116

98395124

98395130 98395145

98395352

98394873

98395153

98395162

98395172

98395356

98395362

98396705

98396709

98395197

98395201

98395375

98396721

98396725

99176057

99176058

98395111

98396306

99176091

99176092

99176105

98396678

99176124

99176125

99176126

99176127

Motor

Frame size

71

71

80

80

80

80

90

71

80

80

80

90

90

90

90

80

80

90

90

90

100

100

80

90

112

132

132

90

112

132

100

132

Transducer

0 - 4 bar

0 - 6 bar

0 - 6 bar

0 - 10 bar

0 - 10 har

0 - 10 bar

0 - 16 bar

0 - 16 bar

0 - 6 bar

0 - 6 bar

0 - 10 bar

0 - 10 bar

0 - 10 har

0 - 16 bar

0 - 16 bar

0 - 16 bar

0 - 4 bar

0 - 6 har

0 - 10 bar

0 - 10 bar

0 - 10 bar

0 - 16 bar

0 - 16 bar

0 - 4 bar

0 - 6 bar

0 - 10 bar

0 - 16 bar

0 - 16 bar

0 - 4 bar

0 - 6 bar

0 - 10 bar

0 - 4 bar

0 - 6 bar

Model

CME 1-2-G

CME 1-3-G

CME 1-4-G

CME 1-5-G

CME 1-6-G

CME 1-7-G

CME 1-8-G

CME 1-9-G

CME 3-2-G

CME 3-3-G

CME 3-4-G

CME 3-5-G

CMF 3-6-G

CME 3-7-G

CME 3-8-G

CME 3-9-G

CME 5-2-G

CMF 5-3-G

CME 5-4-G

CME 5-5-G

CME 5-6-G

CME 5-7-G

CME 5-8-G

CME 10-1-G

CME 10-2-G

CME 10-3-G

CME 10-4-G

CME 10-5-G

CME 15-1-G

CME 15-2-G

CME 15-3-G

CATEGORY 2 CM SP - SELF-PRIMING STAINLESS STEEL HORIZONTAL MULTISTAGE PUMPS

		P2	220-240	V 1ph 50Hz	220-240	V 1ph 50Hz
Model	Motor/Frame	kW	£	Product Code	£	Product Code
			max suc	ction lift: 4m	max suc	tion lift: 8m
			CM x-x S R	I E AQQE CAAN	CM x-x O R	I E AQQE CAAN
CM 1-3	MG71A	0.30	615	98482156	not a	ıvailable
CM 1-4	MG71B	0.50	659	98482157	not a	ıvailable
CM 1-5	MG71B	0.50	711	98482158	not a	ıvailable
CM 1-6	MG71B	0.50	721	98482159	not a	vailable
CM 3-3	MG71B	0.50	628	98482147	628	98482173
CM 3-4	MG71B	0.50	667	98482148	667	98482174
CM 3-5	MG71B	0.50	721	98482149	721	98482175
CM 3-6	MG80A	0.67	798	98482150	798	98482176
CM 5-3	MG71B	0.50	667	98482179	667	98482186
CM 5-4	MG80A	0.67	790	98482180	790	98482187
CM 5-5	MG80B	0.90	875	98482181	875	98482188
CM 5-6	MG90SA	1.30	1,140	98482182	1,140	98482189
CM 5-7	MG90SA	1.30	1,251	98482183	1,251	98482190

CM ACCESSORIES			CM/CMB-SP
		£	Product Code
Spring loaded fact valves in Cast iron	1" BSPF	83	956110
Spring loaded foot valves in Cast iron	1" ¼ BSPF	125	956112
Cover for CM motors, frame sizes 71 and 80		78	97528743
Angled cable gland with O-ring and lock nut		POA	97842998

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

CATEGORY 2 - CME BOOSTERS CMBE VARIABLE SPEED PACKAGE SET 200-240V 1ph 50/60Hz Pump build code Model **Product Code** CMBE 1-44 IUCDDA 1,323 98374679 CMBE 1-75 IUCDDA 98374680 1,482 CMBE 1-99 IUCDDA 98374691 1,615 CMBE 3-30 IUCDDA 1,431 98374692 CMBE 3-62 LUCDDA 1.590 98374693 CMBE 3-93 IUCDDA 1,750 98374694 98374695 CMBE 5-31 IUCDDB 2.160 CMBE 5-62 IUCDDB 2,319 98374696 CMBE 10-54 IUCDDC 2,585 98382190

ELECTRIC MOTOR

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

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



PRESSUI	RE MANAGER		١	WRAS Approved
			1x220-2	40V 50/60 Hz
Model		Max current	£	Product Code
PM1 15	cut in 1.5bar, cut out at no flow.	6A	184	96848670
PM1 22	cut in 2.2bar, cut out at no flow.	6A	184	96848701
PM2	cut in variable from 1.5 to 5.5bar in steps of 0.5bar, cut out at no flow.	10A	213	96848738

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





		£	Product Code
Pressure tank (additional to PM2)	8 Litre vertical tank	66	96526321
OTHER ACCESSORIES		£	Product Code
Float level switch		130	GBPS0099
Spring loaded foot valves in Cast iron	1" BSPF	83	956110
	1"¼ BSPF	125	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
CH(N) 2 to CM 1 or CM 3	48	96960786
CH(N) 4 to CM 3 or CM 5	48	96960786
CH 8 to CM 10	48	96960787
CH 12 to CM 10 or CM 15	48	96960787

	£	Product Code
CHI(E) 2 to CM(E) 1 or CM(E) 3	48	96960788
CHI(E) 4 to CM(E) 3 or CM(E) 5	48	96960788
CHI(E) 8 to CM(E) 10	48	96960788
CHI(E) 12 to CM(E) 10 or CM(E) 15	48	96960788

NOTE - THE ABOVE CM ADAPTOR PLATE PRICES ARE CATEGORY 2 ITEMS FOR DISCOUNT PURPOSES

CATEGORY 2 - MTA FLANGED MOUNTED IMMERSIBLE PUMPS COMPLETE WITH DIRECT COUPLED 50Hz 2900RPM ELECTRIC MOTOR Pipe outlet Depth B Watts Connections Model (mm) **Product Code** PUMP WITH TOP SUCTION INLET 220-240/380-440V 3ph 60Hz AWAT 200 MTA 30-150 86 G 1/2" 150 97989170 220-240/380-415V 3ph 50Hz 220-240/380-440V 3ph 60Hz PUMP WITH BOTTOM SUCTION INLET AWAB MTA 30-150 86 G 1/2" 200 97989184 153 220-240/380-415V 3ph 50Hz 220-240/380-440V 3ph 60Hz PUMP WITH TOP SUCTION INLET AWAT MTA 60-130 200 G 3/4" 125 257 97989186 MTA 60-180 200 G 3/4" 175 97989187 MTA 60-250 200 G 3/4' 320 97989188 245 MTA 60-350 200 G 3/4" 345 352 97989206 220-240/380-415V 3ph 50Hz 220-240/380-440V 3ph 60Hz PUMP WITH BOTTOM SUCTION INLET AWAB MTA 60-130 200 G 3/4" 130.5 257 97989208 MTA 60-180 200 G 3/4" 180.5 289 97989221 MTA 60-250 200 G 3/4" 250.5 320 97989231 G 3/4" 352 97989236 MTA 60-350 200 350.5 220-240/380-415V 3ph 50Hz 220-240/380-440V 3ph 60Hz PUMP WITH TOP SUCTION INLET AWAT MTA 90-130 G 3/4" 97989245 270 128 301 MTA 90-180 G 3/4" 270 178 339 97989246 MTA 90-250 270 G 3/4" 248 378 97989248 MTA 90-350 270 G 3/4' 348 416 97989250 220-240/380-415V 3ph 50Hz 220-240/380-440V 3ph 60Hz PUMP WITH BOTTOM SUCTION INLET AWAB MTA 90-130 270 G 3/4" 132.5 301 97989251 G 3/4" 97989252 MTA 90-180 270 182.5 339 MTA 90-250 270 G 3/4" 252.5 378 97989254 MTA 90-350 270 G 3/4" 352.5 416 97989273 220-240/380-415V 3ph 50Hz 220-240/380-440V 3ph 60Hz PUMP WITH TOP SUCTION INLET AWAT MTA 120-180 440 G 1"1/4 180 338 97989275 MTA 120-250 440 G 1"1/4 250 385 97989276 440 MTA 120-280 G 1"1/4 280 433 97989278 MTA 120-350 440 G 1"1/4 350 481 97989280 220-240/380-415V 3ph 50Hz 220-240/380-440V 3ph 60Hz PUMP WITH BOTTOM SUCTION INLET AWAB 440 338 MTA 120-180 G 1"1/4 183 97989292 MTA 120-250 440 G 1"1/4 253 385 97989293 MTA 120-280 440 G 1"1/4 283 433 97989294 440 G 1"1/4 481 97989297 MTA 120-350 353 220-240/380-415V 3ph 50Hz 220-240/380-440V 3ph 60Hz PUMP WITH BOTTOM SUCTION INLET AWBB 790 MTA 200-250 645 97989298 G 1"1/2 250 MTA 200-280 790 G 1"1/2 280 726 97989299 97989300 MTA 200-350 790 807 220-240/380-415V 3ph 50Hz 220-240/380-440V 3ph 60Hz PUMP WITH TOP SUCTION INLET AWBT MTA 20H-150 95 G 1/2" 150 257 97989301 MTA 40H-180 230 G 3/4" 336 97989302 180 97989303 MTA 70H-250 281 G 3/4' 250 384

ELECTRIC MOTOR (Dual voltage/Dual frequency)

445

G 1"

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

MTA 100H-280

All motors 750W and above are IE3 Efficiency.



280

633

97989304

CATEGORY 2 - SPK and MTH FLANGED MOUNTED IMMERSIBLE PUMPS

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

				40	0V 3ph 50Hz
	P2	Pipe	Depth B	£	Product Code
Model	kW	connections	(mm)		A W A AUUV
SPK1-1/1	0.06	G 3/4" (3/4" BSPF)	140	482	39AH5001
SPK1-3/3	0.12	G 3/4" (3/4" BSPF)	182	535	39AH5103
SPK1-5/5	0.12	G 3/4" (3/4" BSPF)	224	603	39AH5205
SPK1-8/8	0.18	G 3/4" (3/4" BSPF)	287	756	39AH5308
SPK1-11/11	0.25	G 3/4" (3/4" BSPF)	350	839	39AH0411
SPK1-15/15	0.37	G 3/4" (3/4" BSPF)	434	961	39AH0515
SPK1-19/19	0.37	G 3/4" (3/4" BSPF)	518	1,020	39AH0619
SPK1-23/23	0.55	G 3/4" (3/4" BSPF)	602	1,197	39AH0723
SPK2-1/1	0.06	G 3/4" (3/4" BSPF)	140	478	39DH5001
SPK2-3/3	0.12	G 3/4" (3/4" BSPF)	182	593	39DH5103
SPK2-5/5	0.18	G 3/4" (3/4" BSPF)	224	647	39DH5205
SPK2-8/8	0.37	G 3/4" (3/4" BSPF)	287	769	39DH0308
SPK2-11/11	0.37	G 3/4" (3/4" BSPF)	350	834	39DH0411
SPK2-15/15	0.55	G 3/4" (3/4" BSPF)	434	954	39DH0515
SPK2-19/19	0.75	G 3/4" (3/4" BSPF)	518	1,013	98776571
SPK2-23/23	0.75	G 3/4" (3/4" BSPF)	602	1,189	98776573
SPK4-1/1	0.25	G 3/4" (3/4" BSPF)	140	518	39GH0001
SPK4-3/3	0.25	G 3/4" (3/4" BSPF)	182	590	39GH0103
SPK4-5/5	0.37	G 3/4" (3/4" BSPF)	224	676	39GH0205
SPK4-8/8	0.55	G 3/4" (3/4" BSPF)	287	796	39GH0308
SPK4-11/11	0.75	G 3/4" (3/4" BSPF)	350	924	98776576
SPK4-15/15	1.1	G 3/4" (3/4" BSPF)	434	1,130	98776578
SPK4-19/19	1.1	G 3/4" (3/4" BSPF)	518	1,240	98776582

ELECTRIC MOTOR

380-415V 3ph 50Hz

IP55 Class F insulation

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

COMPLETE WITH DIR	ECT COUPLED 2900	RPM ELECTRIC IES	MOTOR (0.75	kW AND ABOVE)		
					400V 3ph 50Hz	
	P2	Pipe	Depth B	· -	£	Product Code
Model	kW	connections	(mm)	·	AWA	A AQQV
MTH 2-3/3	0.55	Rp 3/4"	145		725	98992572
MTH 2-4/4	0.75	Rp 3/4"	163		742	98992589
MTH 2-5/5	0.75	Rp 3/4"	181		760	98992605
MTH 2-6/6	1.1	Rp 3/4"	199		778	98992621
MTH 2-7/7	1.1	Rp 3/4"	217		796	98992633
MTH 2-8/8	1.1	Rp 3/4"	235		817	98992642
MTH 2-9/9	1.1	Rp 3/4"	253		835	98992649
MTH 2-10/10	1.1	Rp 3/4"	271		852	98992652
MTH 2-11/11	1.1	Rp 3/4"	289		870	98992654
MTH 4-2/1	0.55	Rp 3/4"	145		724	98993021
MTH 4-2/2	0.55	Rp 3/4"	145		742	98993029
MTH 4-3/3	0.75	Rp 3/4"	172		760	98993037
MTH 4-4/4	1.1	Rp 3/4"	199		778	98993044
MTH 4-5/5	1.1	Rp 3/4"	226		795	98993050
MTH 4-6/6	1.1	Rp 3/4"	253		817	98993060
MTH 4-7/7	1.5	Rp 3/4"	280		1,158	98993068
MTH 4-8/8	1.5	Rp 3/4"	307		1,197	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.



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)

		_	400V 3p	oh 50Hz
	P2	Depth B	£	Product Code
Model	kW	(mm)		HUUV
MTR 1s-2/2	0.37	160	906	96514842
MTR 1s-3/3	0.37	178	921	96514843
MTR 1s-4/4 MTR 1s-5/5	0.37	196 214	936 946	96514844 96514845
MTR 1s-6/6	0.37	232	961	96514846
MTR 1s-7/7	0.37	250	974	96514847
MTR 1s-8/8	0.37	268	989	96514848
MTR 1s-9/9	0.37	286	1,002	96514849
MTR 1s-10/10	0.37	304	1,017	96514850
MTR 1s-11/11	0.37	322	1,027	96514851
MTR 1s-12/12	0.37	340	1,042	96514853
MTR 1s-13/13	0.55	358	1,052	96514854
MTR 1s-15/15	0.55	394	1,102	96514855
MTR 1s-17/17	0.55	430	1,130	96514857
MTR 1s-19/19	0.55	466	1,157	96514858
MTR 1s-21/21 MTR 1s-22/22	0.75	502 520	1,230 1,240	98406764 98511194
MTR 1s-23/23	0.75	538	1,255	98511195
MTR 1s-25/25	0.75	574	1,283	98511196
MTR 1s-26/26	1.1	592	1,290	98511197
MTR 1s-27/27	1.1	610	1,343	98511198
MTR 1s-30/30	1.1	664	1,393	98511200
MTR 1s-33/33	1.1	718	1,423	98511251
MTR 1s-36/36	1.1	772	1,463	98511252
MTR 1-2/2	0.37	160	976	96514868
MTR 1-3/3	0.37	178	986	96514869
MTR 1-4/4	0.37	196	993	96514870
MTR 1-5/5	0.37	214	1,000	96514871
MTR 1-6/6	0.37	232	1,012	96514872
MTR 1-7/7 MTR 1-8/8	0.37	250 268	1,020 1,037	96514873 96514874
MTR 1-9/9	0.55	286	1,056	96514875
MTR 1-10/10	0.55	304	1,064	96514876
MTR 1-11/11	0.55	322	1,071	96514877
MTR 1-12/12	0.75	340	1,103	98511253
MTR 1-13/13	0.75	358	1,115	98511254
MTR 1-15/15	0.75	394	1,135	98511255
MTR 1-17/17	1.1	430	1,215	98511256
MTR 1-19/19	1.1	466	1,230	98511257
MTR 1-21/21	1.1	502	1,250	98511258
MTR 1-22/22 MTR 1-23/23	1.1	520 538	1,257 1,267	98511259 98511260
MTR 1-25/25	1.5	574	1,602	98511261
MTR 1-26/26	1.5	592	1,612	98511262
MTR 1-27/27	1.5	610	1,619	98511263
MTR 1-30/30	1.5	664	1,661	98511264
MTR 1-33/33	2.2	718	1,846	98513535
MTR 1-36/36	2.2	772	1,871	98492759
MTR 3-2/2	0.37	160	961	96514893
MTR 3-3/3	0.37	178	968	96514894
MTR 3-4/4	0.37	196	981	96514895
MTR 3-5/5	0.37	214	988	96514896
MTR 3-6/6	0.55	232	1,022	96514897
MTR 3-7/7 MTR 3-8/8	0.55	250 268	1,032 1,061	96514898 98511266
MTR 3-9/9	0.75	286	1,074	98511267
MTR 3-10/10	0.75	304	1,086	98511268
MTR 3-11/11	0.75	322	1,091	98511269
MTR 3-12/12	1.1	340	1,191	98511270
MTR 3-13/13	1.1	358	1,201	98511271
MTR 3-15/15	1.1	394	1,218	98511272
MTR 3-17/17	1.5	430	1,579	97946744
MTR 3-19/19	1.5	466	1,598	98494988
MTR 3-21/21	2.2	502	1,723	98511273
MTR 3-22/22	2.2	520	1,731	98511274
MTR 3-23/23	2.2	538 574	1,743	98511275
MTR 3-25/25 MTR 3-26/26	2.2	574	1,758 1,767	98511276 98509384
MTR 3-27/27	2.2	610	1,775	98494192
MTR 3-30/30	2.2	664	1,895	98511281
MTR 3-33/33	3	718	1,932	98511282
MTR 3-36/36	3	772	1,956	98511283

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 60 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)

		<u>-</u>	400V 3	ph 50Hz
Madal	P2	Depth B	£	Product Code A HUUV
Model MTR 5-2/2	0.37	(mm) 169	938	96514917
MTR 5-3/3	0.55	196	977	96514918
MTR 5-4/4	0.55	223	987	96514919
MTR 5-5/5	0.75	250	1,036	98511284
MTR 5-6/6	1.1	277	1,131	98511286
MTR 5-7/7	1.1	304	1,144	98096418
MTR 5-8/8	1.1	331	1,158	98511287
MTR 5-9/9 MTR 5-10/10	1.5	358 385	1,504 1,518	97938362 98511288
MTR 5-12/12	2.2	439	1,621	98330756
MTR 5-14/14	2.2	493	1,643	98513569
MTR 5-16/16	2.2	547	1,670	98513570
MTR 5-17/17	3	583	1,780	98513571
MTR 5-18/18	3	601	1,793	98513572
MTR 5-19/19	3	628	1,807	98513573
MTR 5-20/20	3 4	655	1,820	98513574
MTR 5-21/21 MTR 5-22/22	4	682 709	1,827 2,197	98513575 98429669
MTR 5-24/24	4	763	2,224	98513576
MTR 5-26/26	4	817	2,246	98513577
MTR 5-29/29	4	898	2,282	98513578
MTR 5-32/32	5.5	979	2,843	98513579
MTR 8-1/1	0.37	196	832	98825612
MTR 8-2/2-1	0.55	223	871	98825613
MTR 8-2/2 MTR 8-3/3-1	0.75 0.75	223 250	908	98825614
MTR 8-3/3	1.1	250	947	98825615 98825616
MTR 8-4/4-1	1.1	277	974	98825617
MTR 8-4/4	1.5	277	1,298	98825618
MTR 8-5/5-1	1.5	304	1,362	98825619
MTR 8-5/5	2.2	304	1,408	98825696
MTR 8-6/6-1	2.2	331	1,462	98825697
MTR 8-6/6	2.2	331	1,503	98825698
MTR 8-7/7-1	2.2	358	1,542	98825699
MTR 8-7/7 MTR 8-8/8-1	3	358 385	1,569 1,828	98825700 98825701
MTR 8-8/8	3	385	1,840	98825702
MTR 8-9/9-1	3	412	1,855	98825703
MTR 8-9/9	3	412	1,867	98825704
MTR 8-10/10-1	3	439	1,882	98825705
MTR 8-10/10	3	439	1,894	98825706
MTR 8-11/11	4	466	2,275	98825707
MTR 8-12/12 MTR 8-13/13	4	493 520	2,301	98825708
MTR 8-14/14	5.5	547	2,328 2,829	98825709
MTR 8-15/15	5.5	574	2,855	98825710
MTR 8-16/16	5.5	601	2,882	98825712
MTR 8-17/17	5.5	628	2,909	98825713
MTR 8-18/18	5.5	655	2,951	98825714
MTR 8-19/19	7.5	682	3,004	98825715
MTR 8-20/20	7.5	709	3,031	98825716
MTR 8-21/21 MTR 8-22/22	7.5 7.5	736 763	3,058	98825717
MTR 8-23/23	7.5	790	3,085 3,114	98825719 98825720
MTR 8-24/24	7.5	817	3,141	98825721
MTR 8-25/25	7.5	844	3,168	98825722
MTR 10-2/1	0.75	148	1,315	98511303
MTR 10-2/2	0.75	148	1,357	98511304
MTR 10-3/3	1.1	178	1,431	98511305
MTR 10-4/4	1.5	208	1,676	98511306
MTR 10-5/5 MTR 10-6/6	2.2	238 268	1,777	98513584 98513585
MTR 10-7/7	3	298	1,893	98513586
MTR 10-8/8	3	328	1,930	98513587
MTR 10-9/9	3	358	1,966	98513589
MTR 10-10/10	4	388	2,426	98513590
MTR 10-12/12	4	448	2,500	98513591
MTR 10-14/14	5.5	508	2,947	98513592
MTR 10-16/16	5.5	568	3,021	98513594
MTR 10-18/18	7.5	628	3,109	98513595
MTR 10-20/20 MTR 10-22/22	7.5 7.5	688 748	3,181 3,254	98513596 98513597
10 22/22	7.5	7-10	3,234	20313337

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 60 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

			400V 3p	h 50Hz
	P2	Depth B	£	Product Code
Model	kW	(mm)	AWA	
MTR 15-2/1	1.1	178	1,423	98407083
MTR 15-2/2	2.2	178	1,628	98513599
MTR 15-3/3	3	223	1,810	98513600
MTR 15-4/4	4	268	2,133	98513601
MTR 15-5/5	4	313	2,187	98513602
MTR 15-6/6	5.5	358	2,581	98282545
MTR 15-7/7	5.5	403	2,635	98513654
MTR 15-8/8	7.5	448	2,837	98330630
MTR 15-9/9	7.5	493	2,891	98513656
MTR 15-10/10	11	538	4,329	98513657
MTR 15-12/12	11	628	4,435	98513658
MTR 15-14/14	11	718	4,544	98513659
MTR 15-16/16	15	808	5,787	98383020
MTR 15-17/17	15	853	5,841	98513660
MTR 20 -2/1	1.1	178	1,550	98511336
MTR 20 -2/2	2.2	178	1,772	98513662
MTR 20 -3/3	4	223	2,379	98513663
MTR 20 -4/4	5.5	268	2,815	98513664
MTR 20 -5/5	5.5	313	2,869	98513666
MTR 20 -6/6	7.5	358	3,093	98513667
MTR 20 -7/7	7.5	403	3,149	98513668
MTR 20 -8/8	11	448	4,841	98513669
MTR 20 -10/10	11	538	4,950	98513670
MTR 20 -12/12	15	628	6,249	98441644
MTR 20 -14/14	15	718	6,359	98513671
MTR 20 -16/16	18.5	808	7,371	98513672
MTR 20 -17/17	18.5	853	7,478	98513673
MTR 32-2/1-1	1.5	223	2,056	98511349
MTR 32-2/1	2.2	223	2,056	98513676
MTR 32-2/2-2	3	223	2,435	98513677
MTR 32-2/2	4	223	2,862	98513678
MTR 32-3/3	5.5	293	3,700	98446579
MTR 32-4/4	7.5	363	4,609	98349230
MTR 32-5/5	11	433	5,889	98513679
MTR 32-6/6	11	503	6,208	98349249
MTR 32-7/7	15	573	7,306	98513680
MTR 32-8/8	15	643	7,628	98513681
MTR 32-9/9	18.5	713	8,660	98381028
MTR 32-10/10	18.5	783	8,979	98513682
MTR 32-11/11	22	853	10,077	98513683
MTR 32-12/12	22	923	10,399	98395376
MTR 32-13/13	30	993	12,588	98513685
MTR 32-14/14	30	1063	12,905	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 60 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

COMM ELTE WI	III DIRLET	COUPLED 2900 K		ph 50Hz
	P2	Depth B	£	Product Code
Model	kW	(mm)		HUUV
MTR 45-2/1-1	3	244	2,512	98513687
MTR 45-2/1	4	244	2,730	98513688
MTR 45-2/2-2	5.5	244	3,563	98513697
MTR 45-2/2	7.5	244	4,453	98513698
MTR 45-3/3-2	11	324	5,916	98513699
MTR 45-3/3	11	324	5,916	98513700
MTR 45-4/4-2	15	404	7,347	98513701
MTR 45-4/4	15	404	7,347	98513702
	18.5	484		
MTR 45-5/5-2			8,744	98513704
MTR 45-5/5	18.5	484	8,744	98513705
MTR 45-6/6-2	22	564	9,920	98513706
MTR 45-6/6	22	564	9,920	98513707
MTR 45-7/7-2	30	644	10,814	98513708
MTR 45-7/7	30	644	10,814	98513709
MTR 45-8/8-2	30	724	11,520	98513710
MTR 45-8/8	30	724	11,520	98513711
MTR 45-9/9-2	30	804	11,883	98513712
MTR 45-9/9	37	804	12,951	98513713
MTR 45-10/10-2	37	884	13,275	98513714
MTR 45-10/10	37	884	13,275	98513715
MTR 45-11/11-2	45	964	17,139	98513716
MTR 45-11/11	45	964	17,139	98513717
MTR 45-12/12-2	45	1044	17,544	98513718
MTR 45-12/12	45	1044	17,544	98513719
MTR 45-13/13-2	45	1124	17,948	98513720
MTR 64-2/1-1	4	249	2,711	98513732
MTR 64-2/1	5.5	249	3,367	98513733
MTR 64-2/2-2	7.5	249	4,304	98513735
MTR 64-2/2-1	11	249	5,326	98513736
MTR 64-2/2	11	249	5,630	98513737
MTR 64-3/3-2	15	332	7,073	98513738
MTR 64-3/3-1	15	332	7,073	98513739
MTR 64-3/3	18.5	332	8,130	98513740
MTR 64-4/4-2	18.5	414	8,534	98513742
MTR 64-4/4-1	22	414	9,451	98513743
MTR 64-4/4	22	414	9,451	98513744
MTR 64-5/5-2	30	497	10,085	98513745
MTR 64-5/5-1	30	497	10,085	98513746
MTR 64-5/5	30	497	10,085	98513747
MTR 64-6/6-2	30	579	10,493	98513748
MTR 64-6/6-1	37	579	12,429	98513749
MTR 64-6/6	37	579	12,429	98513750
MTR 64-7/7-2	37	662	12,832	98513752
MTR 64-7/7-1	37	662	12,832	98513753
MTR 64-7/7	45	662	17,077	98513754
MTR 64-8/8-2	45	744	17,481	98513755
MTR 64-8/8-1	45	744	17,481	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 60 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 - 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
Model	kW	(mm)		HS W A HUUV
MTRE 1s-19/19	4	466	3,032	99159851
MTRE 1-19/19	5.5	466	3,33	7 99159863
MTRE 3-19/19	7.5	466	3,642	99159865

Pipe Connections

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

ELECTRIC MOTOR

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

IMPORTANT



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	3	Motor Manufacturers used	
	Motor Rating	A/C Htrs	Thermistors	IP56		
					CR / MTR	NB / NK
1ph	0.37-1.1 kW	FPV	FPV	FPV	MG	N/A
-p	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
Spii	15 kW	FPV	STANDARD	FPV	MG	MG
	18.5 kW	FPV	STANDARD	FPV	MG	MG/SIEMEN
	22 kW	FPV	STANDARD	FPV	MG	MG/SIEMEN
	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	CM	£ NET	Product Code
SALES OFFICE GENERATED CERTIFICATES (NOT COVERED BY EN10204)					PER PUMP	
Letter of conformity						
(Certificate of Compliance with the Order 2.1 - Non specific inspection and testing)	✓	✓	✓	✓	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	√	√	1	√	POA	96507895
Certificate of Compliance with the order according to EN 10204 2.1	•	•	•	•	PUA	90507895
Typical Test Certificate	√	√	1	√	POA	96507896
Test report according to EN 10204 2.2 - Non specific inspection and testing	•	•			PUA	30307630
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

- 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
- 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

Notes

Notes	

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

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 Equipment;

(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; $\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2}$ (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

Grundfos in accordance with condition 12 3: or (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

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-



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