

한국그린포스펌프 2022 비표준 가격 책자

[CR]

1. Oversized motor 2극 / MG
2. Shaft seal 변경
3. Air-cooled top
 - 1) 120°C ~ 150°C
 - 2) 120°C ~ 180°C
4. Low NPSH
5. Magnetic drive
6. Bearing flange
7. Certificate
 - 1) Inspection certificate (선급 인증)
 - 2) Material specification report 2.2
 - 3) Material rep w/ EN10204 3.1 certificate
 - 4) Standard Test report

[MTR/SPK]

1. Shaft seal 변경
2. Empty chambers
3. Certificate

CR

2022. 06

- * 기준이 되는 제품은 Product center에서 KEMCO 인증 모터가 장착된 제품으로 선정 해주시기 바랍니다.
- * 환율 등의 사유로 실제 제품 소비자가와 약간의 오차가 발생할 수 있습니다.
- * 추가 관련 문의 사항이 있으신 경우, 반드시 CSSC Team 공용 메일 (gpk@grundfos.com)로 문의하여 주시기 바랍니다.

1. Oversized motor 2극 / MG

- 범위 : CR/CR1/CRN 3상 모터 (Siemens > 22kW)
- CR(N) 10, 15, 20의 경우 최대 모터 크기는 18.5kW입니다. 더 큰 동력이 필요한 경우 커플링 가공이 필요하니 별도 금액 문의 바랍니다.
- 예시 1) 3kW에서 4kW 오버 사이즈 모터 적용하는 경우 : "3.0 → 4.0 kW"의 금액 적용
- 예시 2) 3kW에서 5.5kW 오버 사이즈 모터 적용하는 경우 : "3.0 → 4.0 kW"의 금액 + "4.0 → 5.5 kW" 금액 적용

	0.37 → 0.55 kW	0.55 → 0.75 kW	0.75 → 1.1 kW	1.1 → 1.5 kW	1.5 → 2.2 kW	2.2 → 3.0 kW	3.0 → 4.0 kW	4.0 → 5.5 kW	5.5 → 7.5 kW	7.5 → 11 kW	11 → 15 kW	15 → 18.5 kW	18.5 → 22 kW	22 → 30 kW	30 → 37 kW	37 → 45 kW	45 → 55 kW
CR 1s	45,000	53,000	111,000	111,000	174,000	205,000	298,000	392,000	659,000	267,000	468,000	566,000	1,096,000	2,045,000	2,005,000	1,800,000	3,747,000
CR 1	45,000	54,000	112,000	112,000	174,000	206,000	300,000	393,000	662,000	268,000	470,000	568,000	1,100,000	2,052,000	2,012,000	1,806,000	3,761,000
CR 3	45,000	54,000	112,000	112,000	174,000	206,000	300,000	393,000	662,000	268,000	470,000	568,000	1,100,000	2,052,000	2,012,000	1,806,000	3,761,000
CR 5	45,000	54,000	112,000	112,000	174,000	206,000	300,000	393,000	662,000	268,000	470,000	568,000	1,100,000	2,052,000	2,012,000	1,806,000	3,761,000
CR 10	40,000	48,000	100,000	100,000	157,000	185,000	269,000	353,000	594,000	241,000	421,000	510,000	Note: For CR(N) 10, 15, 20 the maximum motorsize is 18.5kW. If more power is needed a special coupling has to be machined.				
CR 15	38,000	46,000	96,000	96,000	150,000	176,000	257,000	338,000	568,000	230,000	403,000	487,000					
CR 20	43,000	51,000	107,000	107,000	166,000	196,000	286,000	375,000	631,000	256,000	448,000	541,000					
CR 32	43,000	51,000	107,000	107,000	167,000	197,000	287,000	377,000	633,000	257,000	449,000	544,000					
CR 45	42,000	51,000	106,000	106,000	166,000	195,000	285,000	374,000	629,000	255,000	446,000	540,000	1,045,000	1,045,000	1,045,000	1,045,000	1,045,000
CR 64	42,000	51,000	105,000	105,000	165,000	194,000	283,000	371,000	624,000	253,000	443,000	536,000	1,038,000	1,038,000	1,038,000	1,038,000	1,038,000
CR 95	51,000	61,000	128,000	128,000	199,000	235,000	343,000	450,000	757,000	307,000	537,000	649,000	1,258,000	1,258,000	1,258,000	1,258,000	1,258,000
CR 125	47,000	56,000	117,000	117,000	183,000	216,000	314,000	413,000	694,000	281,000	492,000	595,000	1,153,000	1,153,000	1,153,000	1,153,000	1,153,000
CR 155	41,000	50,000	104,000	104,000	162,000	191,000	278,000	365,000	614,000	249,000	436,000	527,000	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000
CR 185	41,000	50,000	104,000	104,000	162,000	191,000	278,000	365,000	614,000	249,000	436,000	527,000	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000
CR 215	45,000	54,000	113,000	113,000	176,000	207,000	302,000	396,000	666,000	270,000	473,000	572,000	1,108,000	1,108,000	1,108,000	1,108,000	1,108,000
CR 255	45,000	54,000	113,000	113,000	176,000	207,000	302,000	396,000	666,000	270,000	473,000	572,000	1,108,000	1,108,000	1,108,000	1,108,000	1,108,000

	0.37 → 0.55 kW	0.55 → 0.75 kW	0.75 → 1.1 kW	1.1 → 1.5 kW	1.5 → 2.2 kW	2.2 → 3.0 kW	3.0 → 4.0 kW	4.0 → 5.5 kW	5.5 → 7.5 kW	7.5 → 11 kW	11 → 15 kW	15 → 18.5 kW	18.5 → 22 kW	22 → 30 kW	30 → 37 kW	37 → 45 kW	45 → 55 kW
CR1 1s	45,000	54,000	113,000	113,000	176,000	208,000	303,000	397,000	668,000	271,000	474,000	573,000	1,111,000	2,073,000	2,032,000	1,824,000	3,797,000
CR1 1	45,000	54,000	112,000	112,000	175,000	206,000	301,000	395,000	664,000	269,000	471,000	570,000	1,103,000	2,059,000	2,018,000	1,812,000	3,772,000
CR1 3	45,000	54,000	112,000	112,000	174,000	206,000	300,000	393,000	662,000	268,000	470,000	568,000	1,100,000	2,052,000	2,012,000	1,806,000	3,761,000
CR1 5	45,000	54,000	113,000	113,000	176,000	208,000	302,000	397,000	668,000	271,000	474,000	573,000	1,110,000	2,072,000	2,031,000	1,824,000	3,796,000
CR1 10	41,000	49,000	102,000	102,000	159,000	187,000	273,000	358,000	603,000	244,000	428,000	517,000	1,002,000	1,869,000	1,832,000	1,645,000	3,424,000
CR1 15	40,000	47,000	99,000	99,000	154,000	182,000	265,000	348,000	585,000	237,000	415,000	502,000	973,000	1,815,000	1,779,000	1,597,000	3,325,000
CR1 20	43,000	52,000	108,000	108,000	168,000	198,000	289,000	379,000	637,000	258,000	452,000	547,000	1,060,000	1,977,000	1,938,000	1,740,000	3,622,000

	0.37 → 0.55 kW	0.55 → 0.75 kW	0.75 → 1.1 kW	1.1 → 1.5 kW	1.5 → 2.2 kW	2.2 → 3.0 kW	3.0 → 4.0 kW	4.0 → 5.5 kW	5.5 → 7.5 kW	7.5 → 11 kW	11 → 15 kW	15 → 18.5 kW	18.5 → 22 kW	22 → 30 kW	30 → 37 kW	37 → 45 kW	45 → 55 kW
CRN 1s	46,000	55,000	115,000	115,000	180,000	212,000	309,000	406,000	683,000	277,000	485,000	586,000	1,136,000	2,119,000	2,078,000	1,865,000	3,883,000
CRN 1	45,000	54,000	113,000	113,000	177,000	208,000	303,000	399,000	670,000	272,000	476,000	575,000	1,114,000	2,079,000	2,038,000	1,830,000	3,809,000
CRN 3	45,000	54,000	112,000	112,000	175,000	207,000	301,000	396,000	666,000	270,000	472,000	571,000	1,107,000	2,065,000	2,025,000	1,818,000	3,784,000
CRN 5	45,000	54,000	112,000	112,000	175,000	207,000	301,000	396,000	666,000	270,000	472,000	571,000	1,107,000	2,065,000	2,025,000	1,818,000	3,784,000
CRN 10	40,000	48,000	100,000	100,000	155,000	183,000	267,000	351,000	590,000	239,000	418,000	506,000	Note: For CR(N) 10, 15, 20 the maximum motorsize is 18.5kW. If more power is needed a special coupling has to be machined.				
CRN 15	37,000	44,000	92,000	92,000	144,000	170,000	247,000	325,000	546,000	221,000	387,000	468,000					
CRN 20	42,000	50,000	104,000	104,000	163,000	192,000	280,000	368,000	618,000	251,000	439,000	531,000					
CRN 32	43,000	52,000	108,000	108,000	168,000	198,000	289,000	379,000	637,000	258,000	452,000	547,000					
CRN 45	43,000	51,000	107,000	107,000	167,000	197,000	287,000	377,000	633,000	257,000	449,000	544,000	1,053,000	1,053,000	1,053,000	1,053,000	1,053,000
CRN 64	42,000	51,000	106,000	106,000	165,000	195,000	284,000	373,000	627,000	254,000	444,000	538,000	1,041,000	1,041,000	1,041,000	1,041,000	1,041,000
CRN 95	49,000	59,000	122,000	122,000	191,000	225,000	327,000	430,000	723,000	293,000	513,000	621,000	1,202,000	1,202,000	1,202,000	1,202,000	1,202,000
CRN 125	49,000	59,000	123,000	123,000	191,000	225,000	328,000	431,000	725,000	294,000	515,000	623,000	1,206,000	1,206,000	1,206,000	1,206,000	1,206,000
CRN 155	44,000	52,000	109,000	109,000	170,000	201,000	292,000	384,000	646,000	262,000	458,000	554,000	1,073,000	1,073,000	1,073,000	1,073,000	1,073,000
CRN 185	45,000	54,000	113,000	113,000	176,000	207,000	302,000	396,000	666,000	270,000	473,000	572,000	1,108,000	1,108,000	1,108,000	1,108,000	1,108,000
CRN 215	45,000	54,000	113,000	113,000	176,000	207,000	302,000	396,000	666,000	270,000	473,000	572,000	1,108,000	1,108,000	1,108,000	1,108,000	1,108,000
CRN 255	45,000	54,000	113,000	113,000	176,000	207,000	302,000	396,000	666,000	270,000	473,000	572,000	1,108,000	2,067,000	2,026,000	1,819,000	3,787,000

- 범위 : CR 185, 215, 255 & CRN 95, 125, 155, 185, 215, 255

≥75 kW : 펌프 베이스에 Thrust Handling, 모터 DE에 ball bearing 장착

	55 kW → 75 kW	75 → 90 kW	90 → 110 kW	110 → 132 kW	132 → 160 kW	160 → 200 kW
CR 185	431,000	2,178,000	3,696,000	3,385,000	4,994,000	6,529,000
CR 215	468,000	2,364,000	4,012,000	3,674,000	5,422,000	7,088,000
CR 255	468,000	2,364,000	4,012,000	3,674,000	5,422,000	7,088,000
CRN 95	508,000	2,565,000	4,354,000	3,987,000	5,883,000	7,692,000
CRN 125	510,000	2,573,000	4,367,000	4,000,000	5,902,000	7,715,000
CRN 155	454,000	2,290,000	3,886,000	3,559,000	5,252,000	6,866,000
CRN 185	468,000	2,364,000	4,012,000	3,674,000	5,422,000	7,088,000
CRN 215	468,000	2,364,000	4,012,000	3,674,000	5,422,000	7,088,000
CRN 255	468,000	2,364,000	4,012,000	3,674,000	5,422,000	7,088,000

2. Shaft seal 변경

12mm -표준 형: HQQE/V	HQBx (SiC/carbon)	HUUx (tungsten)	HUBx (tungsten/carbon)	HQUx (SiC/tungsten)	HxxF (FXM)	HxxK (FFKM)
CR 1	-	76,000	76,000	67,000	975,000	1,972,000
CR 3	-	76,000	76,000	67,000	975,000	1,972,000
CR 5	-	76,000	76,000	67,000	975,000	1,972,000
CRI 1	-	76,000	76,000	67,000	978,000	1,978,000
CRI 3	-	76,000	76,000	67,000	975,000	1,972,000
CRI 5	-	77,000	77,000	68,000	984,000	1,991,000
CRN 1	-	77,000	77,000	68,000	987,000	1,997,000
CRN 3	-	76,000	76,000	67,000	981,000	1,984,000
CRN 5	-	76,000	76,000	67,000	981,000	1,984,000

16mm -표준 형: HQQE/V	HQBx (SiC/carbon)	HUUx (tungsten)	HUBx (tungsten/carbon)	HQUx (SiC/tungsten)	HxxF (FXM)	HxxK (FFKM)
CR 10	-	104,000	104,000	84,000	951,000	2,111,000
CR 15	-	100,000	100,000	81,000	909,000	2,018,000
CR 20	-	111,000	111,000	90,000	1,010,000	2,242,000
CRI 10	-	106,000	106,000	86,000	965,000	2,142,000
CRI 15	-	103,000	103,000	83,000	937,000	2,080,000
CRI 20	-	112,000	112,000	90,000	1,021,000	2,266,000
CRN 10	-	104,000	104,000	84,000	944,000	2,095,000
CRN 15	-	96,000	96,000	77,000	874,000	1,940,000
CRN 20	-	109,000	109,000	88,000	990,000	2,198,000

Ø22 mm -표준 형: HQQE/V	HQBx (SiC/carbon)	HUUx (tungsten)	HUBx (tungsten/carbon)	HQUx (SiC/tungsten)	HxxF (FXM)	HxxK (FFKM)
CR 32	-	146,000	146,000	124,000	1,665,000	3,775,000
CR 45	-	144,000	144,000	123,000	1,653,000	3,748,000
CR 64	-	143,000	143,000	122,000	1,641,000	3,722,000
CRN 32	-	146,000	146,000	125,000	1,675,000	3,799,000
CRN 45	-	146,000	146,000	124,000	1,665,000	3,775,000
CRN 64	-	144,000	144,000	123,000	1,647,000	3,734,000

Ø22 mm (P2: ≤55 kW)	HQBx (SiC/carbon)	HUBx (tungsten/carbon)	HQUx (tungsten/SiC)	HUUx (tungsten)	HxxF (FXM)	HxxK (FFKM)
CR 95	-	179,000	179,000	179,000	2,066,000	4,684,000
CR 125	-	164,000	164,000	164,000	1,894,000	4,294,000
CR 155	-	145,000	145,000	145,000	1,676,000	3,800,000
CR 185	-	145,000	145,000	145,000	1,676,000	3,800,000
CR 215	-	158,000	158,000	158,000	1,819,000	4,125,000
CR 255	-	158,000	158,000	158,000	1,819,000	4,125,000
CRN 95	-	171,000	171,000	171,000	1,974,000	4,476,000
CRN 125	-	172,000	172,000	172,000	1,980,000	4,490,000
CRN 155	-	153,000	153,000	153,000	1,762,000	3,996,000
CRN 185	-	158,000	158,000	158,000	1,819,000	4,125,000
CRN 215	-	158,000	158,000	158,000	1,819,000	4,125,000
CRN 255	-	158,000	158,000	158,000	1,819,000	4,125,000

Ø28 mm (P2: 75-110 kW)	HQBE/V (SiC/carbon)	HUBE/V (tungsten/carbon)	HUQE/V (tungsten/SiC)	HUUE/V (tungsten)
CR 95	-	179,000	179,000	179,000
CR 125	-	164,000	164,000	164,000
CR 155	-	145,000	145,000	145,000
CR 185	-	145,000	145,000	145,000
CR 215	-	158,000	158,000	158,000
CR 255	-	158,000	158,000	158,000
CRN 95	-	171,000	171,000	171,000
CRN 125	-	172,000	172,000	172,000
CRN 155	-	153,000	153,000	153,000
CRN 185	-	158,000	158,000	158,000
CRN 215	-	158,000	158,000	158,000
CRN 255	-	158,000	158,000	158,000

Ø36 mm (P2: 132-200 kW)	HQBE/V (SiC/carbon)	HUBE/V (tungsten/carbon)	HUQE/V (tungsten/SiC)	HUUE/V (tungsten)
CR 95	-	179,000	179,000	179,000
CR 125	-	164,000	164,000	164,000
CR 155	-	145,000	145,000	145,000
CR 185	-	145,000	145,000	145,000
CR 215	-	158,000	158,000	158,000
CR 255	-	158,000	158,000	158,000
CRN 95	-	171,000	171,000	171,000
CRN 125	-	172,000	172,000	172,000
CRN 155	-	153,000	153,000	153,000
CRN 185	-	158,000	158,000	158,000
CRN 215	-	158,000	158,000	158,000
CRN 255	-	158,000	158,000	158,000

3. 고온용 Air-cooled top

Maximum six stages on a CR/CRN 95 (95-6). CR/CRN 125/155 limited only by motor power

1) 120°C ~ 150°C

- From 120°C to 150°C with EPDM rubber for water
- From 120°C to 240°C with FKM for oil

2) 120°C ~ 180°C

- From 120°C to 180°C with Flouraz/EPDM for water

Air-Cooled top	~150°C	~180°C
CR 32	5,868,000	10,130,000
CR 45	5,826,000	10,059,000
CR 64	5,785,000	9,987,000
CR 95	-	15,700,000
CR 125	-	18,916,000
CR 155	-	16,738,000
CR 1	5,216,000	5,880,000
CR 3	5,200,000	5,862,000
CR 5	5,250,000	5,918,000
CR 10	5,529,000	6,946,000
CR 15	5,369,000	6,745,000
CR 20	5,849,000	7,348,000
CRN 1	5,267,000	5,938,000
CRN 3	5,232,000	5,898,000
CRN 5	5,232,000	5,898,000
CRN 10	5,410,000	6,796,000
CRN 15	5,008,000	6,292,000
CRN 20	5,674,000	7,128,000
CRN 32	5,909,000	10,199,000
CRN 45	5,872,000	10,134,000
CRN 64	5,808,000	10,024,000
CRN 95	-	15,002,000
CRN 125	-	19,778,000
CRN 155	-	17,600,000

Pump range

The air-cooled top is available for these pump types:

Pump type	CR	CRI	CRN
1s, 1, 3, 5		•	•
10, 15, 20		•	•
32, 45, 64	•		•
95 ¹⁾ , 125 ¹⁾ , 155 ¹⁾	•		•
185, 215, 255			

• Available.

1) Available for pumps up to and including 55 kW.

Note that CRT and CRTE pumps are not available with an air-cooled top.

4. Low NPSH

: 첫 단 별도의 임펠러 장착

Low NPSH	
CR 3	376,000
CR 5	376,000
CR 10	630,000
CR 15	602,000
CR 20	669,000
CR 32	787,000
CR 45	782,000
CR 64	776,000
CRI 3	376,000
CRI 5	379,000
CRI 10	639,000
CRI 15	621,000
CRI 20	676,000
CRN 3	378,000
CRN 5	378,000
CRN 10	625,000
CRN 15	579,000
CRN 20	656,000
CRN 32	793,000
CRN 45	787,000
CRN 64	779,000

Pump range

These pump types are available as low-NPSH pumps:

Pump type	CR	CRI	CRN
1s, 1			
3, 5	•	•	•
10, 15, 20	•	•	•
32, 45, 64	•		•
95, 125, 155			
185, 215, 255			

• Available.

5. Magnetic drive

: Maximum temperature 120 °C

: Max pressure 25 bar

: 18.5 ~ 22 kW : Soft starter 또는 VFD기동으로 적용 (금액은 별도 문의 바랍니다.)

Standard rubber material - EPDM

	0.37 - 4.0 kW	5.5 - 7.5 kW	11 - 22 kW
CRN 1s	5,462,000	6,690,000	9,215,000
CRN 1	5,358,000	6,563,000	9,040,000
CRN 3	5,322,000	6,519,000	8,980,000
CRN 5	5,322,000	6,519,000	8,980,000
CRN 10	4,713,000	5,773,000	7,952,000
CRN 15	4,363,000	5,344,000	7,361,000
CRN 20	4,943,000	6,054,000	8,340,000
CRN 32	5,095,000	6,241,000	8,597,000
CRN 45	5,063,000	6,201,000	8,542,000
CRN 64	5,008,000	6,134,000	8,449,000

The MAGdrive solution is available for these pumps:

Pump type	CRN
1s, 1, 3, 5	•
10, 15, 20	•
32 ¹⁾ , 45 ¹⁾ , 64 ¹⁾	•
95, 125, 155	
185, 215, 255	

• Available.

1) Available up to 22 kW.

Rubber part change in MAG drive 120°C and pump

	FKM (Viton)	FXM (Flouraz)	Neoprene	FFKM (Kalrez)
CRN 1s	88,000	3,343,000	152,000	5,443,000
CRN 1	86,000	3,279,000	149,000	5,340,000
CRN 3	85,000	3,257,000	148,000	5,304,000
CRN 5	85,000	3,257,000	148,000	5,304,000
CRN 10	96,000	4,251,000	629,000	6,035,000
CRN 15	89,000	3,935,000	583,000	5,587,000
CRN 20	100,000	4,458,000	660,000	6,330,000
CRN 32	134,000	5,931,000		6,870,000
CRN 45	133,000	5,893,000		6,826,000
CRN 64	131,000	5,829,000		6,752,000

FFKM (Kalrez)
 : On CRN 32-64 sleeve sealings are made of FXM
 : All other O-rings is FFKM

6. Bearing flange

: Large CR (CR/I/N 15-)은 3kW부터 가능

CR/I/N 1-20	0.37 - 1.1 kW	1.5 - 2.2 kW	3.0 - 4.0 kW	5.5 - 7.5 kW for CR 1, 3, 5	5.5 - 7.5 kW for CR 10, 15, 20	11 - 22 kW
CR 1	729,000	1,100,000	1,136,000	1,784,000		4,789,000
CR 3	729,000	1,100,000	1,136,000	1,784,000		4,789,000
CR 5	729,000	1,100,000	1,136,000	1,784,000		4,789,000
CR 10	654,000	987,000	1,020,000		3,817,000	4,299,000
CR 15	625,000	944,000	974,000		3,648,000	4,108,000
CR 20	695,000	1,049,000	1,083,000		4,054,000	4,566,000
CRI 1	731,000	1,103,000	1,139,000	1,790,000		4,804,000
CRI 3	729,000	1,100,000	1,136,000	1,784,000		4,789,000
CRI 5	736,000	1,110,000	1,147,000	1,801,000		4,834,000
CRI 10	664,000	1,002,000	1,034,000		3,872,000	4,361,000
CRI 15	644,000	973,000	1,004,000		3,760,000	4,234,000
CRI 20	702,000	1,060,000	1,094,000		4,096,000	4,613,000
CRN 1	738,000	1,114,000	1,150,000	1,807,000		4,851,000
CRN 3	733,000	1,107,000	1,143,000	1,795,000		4,818,000
CRN 5	733,000	1,107,000	1,143,000	1,795,000		4,818,000
CRN 10	649,000	980,000	1,012,000		3,789,000	4,267,000
CRN 15	601,000	907,000	937,000		3,507,000	3,950,000
CRN 20	681,000	1,028,000	1,061,000		3,974,000	4,475,000

CR 32-255	1.5 - 2.2 kW	3.0 - 4.0 kW	5.5 - 7.5 kW	11 - 22 kW	30 - 37 kW	45 kW	55 - 90 kW	110 - 200 kW
CR 32	1,053,000	1,087,000	4,074,000	5,303,000	6,364,000	7,160,000	10,691,000	10,691,000
CR 45	1,045,000	1,079,000	4,046,000	5,265,000	6,319,000	7,110,000	10,615,000	10,615,000
CR 64	1,038,000	1,072,000	4,017,000	5,228,000	6,274,000	7,059,000	10,540,000	10,540,000
CR 95	1,258,000	1,299,000	4,869,000	6,336,000	7,605,000	8,556,000	12,775,000	12,775,000
CR 125	1,153,000	1,191,000	4,463,000	5,808,000	6,971,000	7,843,000	11,711,000	11,711,000
CR 155	1,020,000	1,054,000	3,949,000	5,140,000	6,168,000	6,940,000	10,362,000	10,362,000
CR 185	1,020,000	1,054,000	3,949,000	5,140,000	6,168,000	6,940,000	10,362,000	10,362,000
CR 215	1,108,000	1,144,000	4,287,000	5,579,000	6,696,000	7,534,000	11,249,000	11,249,000
CR 255	1,108,000	1,144,000	4,287,000	5,579,000	6,696,000	7,534,000	11,249,000	11,249,000

CRN 32-255	1.5 - 2.2 kW	3.0 - 4.0 kW	5.5 - 7.5 kW	11 - 22 kW	30 - 37 kW	45 kW	55 - 90 kW	110 - 200 kW
CRN 32	1,060,000	1,094,000	4,100,000	5,337,000	6,405,000	7,206,000	10,759,000	10,759,000
CRN 45	1,053,000	1,087,000	4,074,000	5,303,000	6,364,000	7,160,000	10,691,000	10,691,000
CRN 64	1,041,000	1,075,000	4,030,000	5,245,000	6,295,000	7,082,000	10,574,000	10,574,000
CRN 95	1,202,000	1,241,000	4,652,000	6,055,000	7,266,000	8,175,000	12,207,000	12,207,000
CRN 125	1,206,000	1,245,000	4,666,000	6,073,000	7,289,000	8,201,000	12,244,000	12,244,000
CRN 155	1,073,000	1,108,000	4,153,000	5,404,000	6,486,000	7,298,000	10,896,000	10,896,000
CRN 185	1,108,000	1,144,000	4,287,000	5,579,000	6,696,000	7,534,000	11,249,000	11,249,000
CRN 215	1,108,000	1,144,000	4,287,000	5,579,000	6,696,000	7,534,000	11,249,000	11,249,000
CRN 255	1,108,000	1,144,000	4,287,000	5,579,000	6,696,000	7,534,000	11,249,000	11,249,000

7. Certificate

(1) Inspection certificate (선급 인증)

: P2≥100 kW 제품은 별도 문의 바랍니다.

	LRS Lloyds Register	DNV Det Norske Veritas	BV Bureau Veritas	ABS American Bureau of Shipping
	96507898	99171231	96507921	96507922
CR 1s	2,865,000	2,352,000	3,319,000	3,257,000
CR 1	2,875,000	2,361,000	3,331,000	3,269,000
CR 3	2,875,000	2,361,000	3,331,000	3,269,000
CR 5	2,875,000	2,361,000	3,331,000	3,269,000
CR 10	2,581,000	2,119,000	2,990,000	2,934,000
CR 15	2,466,000	2,025,000	2,858,000	2,804,000
CR 20	2,741,000	2,251,000	3,176,000	3,116,000
CR 32	2,932,000	2,880,000	3,527,000	4,241,000
CR 45	2,911,000	2,860,000	3,502,000	4,211,000
CR 64	2,899,000	2,840,000	3,477,000	4,181,000
CR 95 (<100kW)	7,001,000	6,935,000	7,738,000	8,627,000
CR 125 (<100kW)	6,418,000	6,357,000	7,093,000	7,909,000
CR 155 (<100kW)	5,679,000	5,625,000	6,276,000	6,998,000
CR 185	On request			
CR 215				
CR 255				
CR I 1s	2,903,000	2,384,000	3,364,000	3,301,000
CR I 1	2,884,000	2,368,000	3,341,000	3,279,000
CR I 3	2,875,000	2,361,000	3,331,000	3,269,000
CR I 5	2,902,000	2,383,000	3,363,000	3,300,000
CR I 10	2,618,000	2,150,000	3,033,000	2,976,000
CR I 15	2,542,000	2,088,000	2,945,000	2,890,000
CR I 20	2,769,000	2,274,000	3,209,000	3,149,000
CR N 1s	2,969,000	2,438,000	3,439,000	3,375,000
CR N 1	2,912,000	2,391,000	3,374,000	3,311,000
CR N 3	2,893,000	2,375,000	3,352,000	3,289,000
CR N 5	2,893,000	2,375,000	3,352,000	3,289,000
CR N 10	2,562,000	2,103,000	2,968,000	2,912,000
CR N 15	2,371,000	1,947,000	2,747,000	2,696,000
CR N 20	2,687,000	2,206,000	3,113,000	3,054,000
CR N 32	2,950,000	2,899,000	3,549,000	4,268,000
CR N 45	2,932,000	2,880,000	3,527,000	4,241,000
CR N 64	2,900,000	2,849,000	3,488,000	4,195,000
CR N 95 (<100kW)	6,690,000	6,626,000	7,393,000	8,244,000
CR N 125 (<100kW)	6,710,000	6,647,000	7,416,000	8,269,000
CR N 155 (<100kW)	5,971,000	5,915,000	6,600,000	7,359,000
CR N 185	On request			
CR N 215				
CR N 255				

(2) Material specification report 2.2

(3) Material rep w/ EN10204 3.1 certificate from mats.suppl

	Material report 2.2	Material report 3.1
	96507928	96507929
CR 1s	361,000	1,599,000
CR 1	362,000	1,605,000
CR 3	362,000	1,605,000
CR 5	362,000	1,605,000
CR 10	325,000	1,441,000
CR 15	311,000	1,377,000
CR 20	345,000	1,531,000
CR 32	347,000	1,536,000
CR 45	344,000	1,526,000
CR 64	342,000	1,515,000
CR 95	414,000	1,836,000
CR 125	380,000	1,683,000
CR 155	336,000	1,489,000
CR 185	336,000	1,489,000
CR 215	365,000	1,617,000
CR 255	365,000	1,617,000
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CRI 1s	366,000	1,621,000
CRI 1	363,000	1,610,000
CRI 3	362,000	1,605,000
CRI 5	366,000	1,621,000
CRI 10	330,000	1,462,000
CRI 15	320,000	1,419,000
CRI 20	349,000	1,546,000
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CRN 1s	374,000	1,657,000
CRN 1	367,000	1,626,000
CRN 3	364,000	1,615,000
CRN 5	364,000	1,615,000
CRN 10	323,000	1,430,000
CRN 15	299,000	1,324,000
CRN 20	338,000	1,500,000
CRN 32	349,000	1,546,000
CRN 45	347,000	1,536,000
CRN 64	343,000	1,520,000
CRN 95	396,000	1,754,000
CRN 125	397,000	1,760,000
CRN 155	353,000	1,566,000
CRN 185	365,000	1,617,000
CRN 215	365,000	1,617,000
CRN 255	365,000	1,617,000

(4) Standard Test report acc. to ISO9906: 2012, Grade 3B

	Test report
	96507930
CR 1s	766,000
CR 1	769,000
CR 3	769,000
CR 5	769,000
CR 10	690,000
CR 15	660,000
CR 20	733,000
CR 32	736,000
CR 45	731,000
CR 64	728,000
CR 95	880,000
CR 125	806,000
CR 155	713,000
CR 185	713,000
CR 215	775,000
CR 255	775,000
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CRI 1s	777,000
CRI 1	771,000
CRI 3	769,000
CRI 5	776,000
CRI 10	700,000
CRI 15	680,000
CRI 20	741,000
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CRN 1s	794,000
CRN 1	779,000
CRN 3	774,000
CRN 5	774,000
CRN 10	685,000
CRN 15	634,000
CRN 20	719,000
CRN 32	741,000
CRN 45	736,000
CRN 64	728,000
CRN 95	840,000
CRN 125	843,000
CRN 155	750,000
CRN 185	775,000
CRN 215	775,000
CRN 255	775,000

MTR

2022-06

- * 기준이 되는 제품은 Product center에서 KEMCO 인증 모터가 장착된 제품으로 선정 해주시기 바랍니다.
- * 환율 등의 사유로 실제 제품 소비자가와 약간의 오차가 발생할 수 있습니다.
- * 추가 관련 문의 사항이 있으신 경우, 반드시 CSSC Team 공용 메일 (gpk@grundfos.com)로 문의하여 주시기 바랍니다.

1. Shaft seal 변경

12mm : HUUV(standard)	HQBE/V	HQQE/V	HUBE/V	HUUE	HUUK/HUBK/ HQK/HQBK	HUUF/ HUBF/HQQF	AQQE	AQQK
MTR 1s	73,000	73,000	73,000	73,000	1,876,000	930,000	76,000	892,000
MTR 1	68,000	68,000	68,000	68,000	1,759,000	871,000	71,000	836,000
MTR 2	70,000	70,000	70,000	70,000	1,805,000	895,000	73,000	859,000
MTR 3	68,000	68,000	68,000	68,000	1,748,000	866,000	70,000	831,000
MTR 5	79,000	79,000	79,000	79,000	2,023,000	1,003,000	81,000	962,000
MTR 8	69,000	69,000	69,000	69,000	1,765,000	875,000	71,000	839,000

16mm : HUUV(standard)	HQBE/V	HQQE/V	HUBE/V	HUUE	RUUE/V	HUUK/HUBK/ HQK/HQBK	HUUF/ HUBF/HQQF	AQQE	AQQK
MTR 10	102,000	102,000	102,000	102,000	102,000	2,040,000	918,000	102,000	943,000
MTR 15	102,000	102,000	102,000	102,000	102,000	2,039,000	918,000	102,000	943,000
MTR 20	101,000	101,000	101,000	101,000	101,000	2,019,000	909,000	101,000	934,000

22mm : HUUV(standard)	HQBE/V	HQQE/V	HUBE/V	HUUE	HUUK/HUBK/ HQK/HQBK	HUUF/HUBF /HQQF
MTR 32	132,000	132,000	132,000	132,000	3,407,000	1,505,000
MTR 45	139,000	139,000	139,000	139,000	3,571,000	1,577,000
MTR 64	142,000	142,000	142,000	142,000	3,653,000	1,614,000

12mm : AUUV(standard)	AUUE	BUBE/V	BQQE/V	CVBV	CVUV	BBVP	AQQE/V	RUUE/V	AUUK	AQQK
SPK 1	58,000	58,000	58,000	58,000	58,000	159,000	58,000	59,000	1,450,000	843,000
SPK 2	56,000	56,000	56,000	56,000	56,000	153,000	56,000	57,000	1,398,000	813,000
SPK 4	56,000	56,000	56,000	56,000	56,000	153,000	56,000	57,000	1,398,000	813,000

2. Empty chambers (공 챔버)

: 예시 1) MTR5-16/4의 12개 공 챔버 추가 금액 = 12 x 18,000 = 216,000원

	공 챔버
MTR 1s	11,000
MTR 1	10,000
MTR 2	11,000
MTR 3	10,000
MTR 5	18,000
MTR 8	24,000
MTR 10	56,000
MTR 15	66,000
MTR 20	66,000
MTR 32	278,000
MTR 45	350,000
MTR 64	417,000

3. Certificates

	Material specification report	Standard Test report
	PN 96507928	PN 96507930
MTR 1s	222,000	722,000
MTR 1	208,000	677,000
MTR 2	214,000	695,000
MTR 3	207,000	673,000
MTR 5	239,000	779,000
MTR 8	209,000	680,000
MTR 10	203,000	662,000
MTR 15	203,000	661,000
MTR 20	201,000	655,000
MTR 32	201,000	655,000
MTR 45	211,000	686,000
MTR 64	216,000	702,000