



CM 10

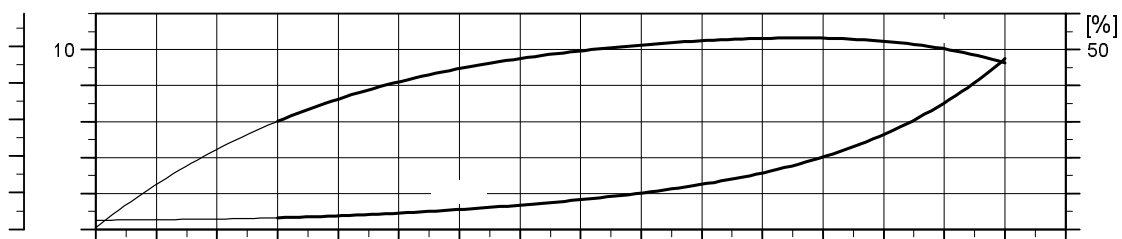
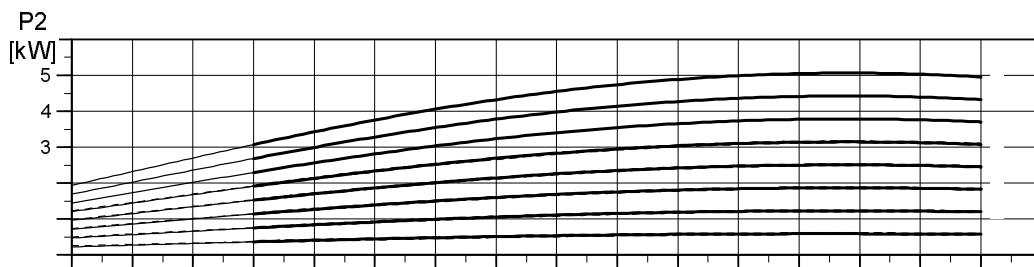
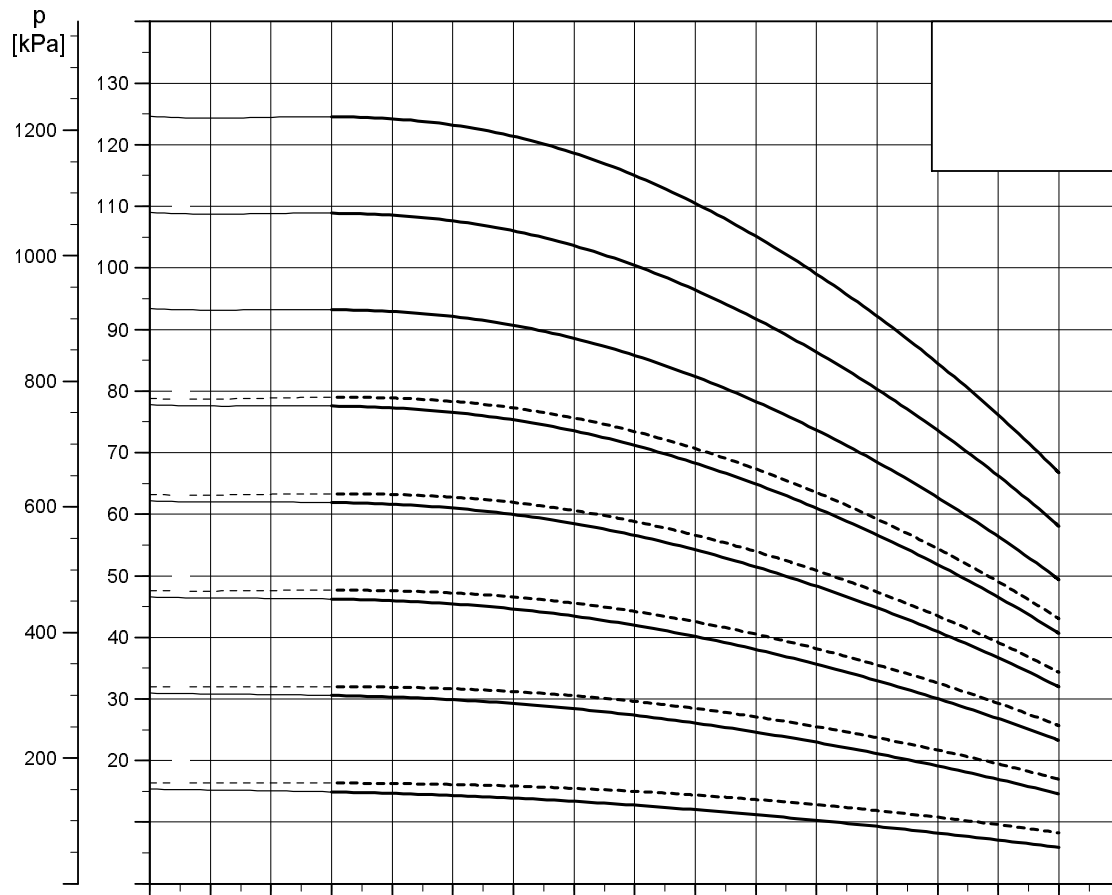
Horizontal, multistage centrifugal pumps
50/60 Hz



Performance curves, CM 50 Hz

CM 10
50 Hz

CM 10



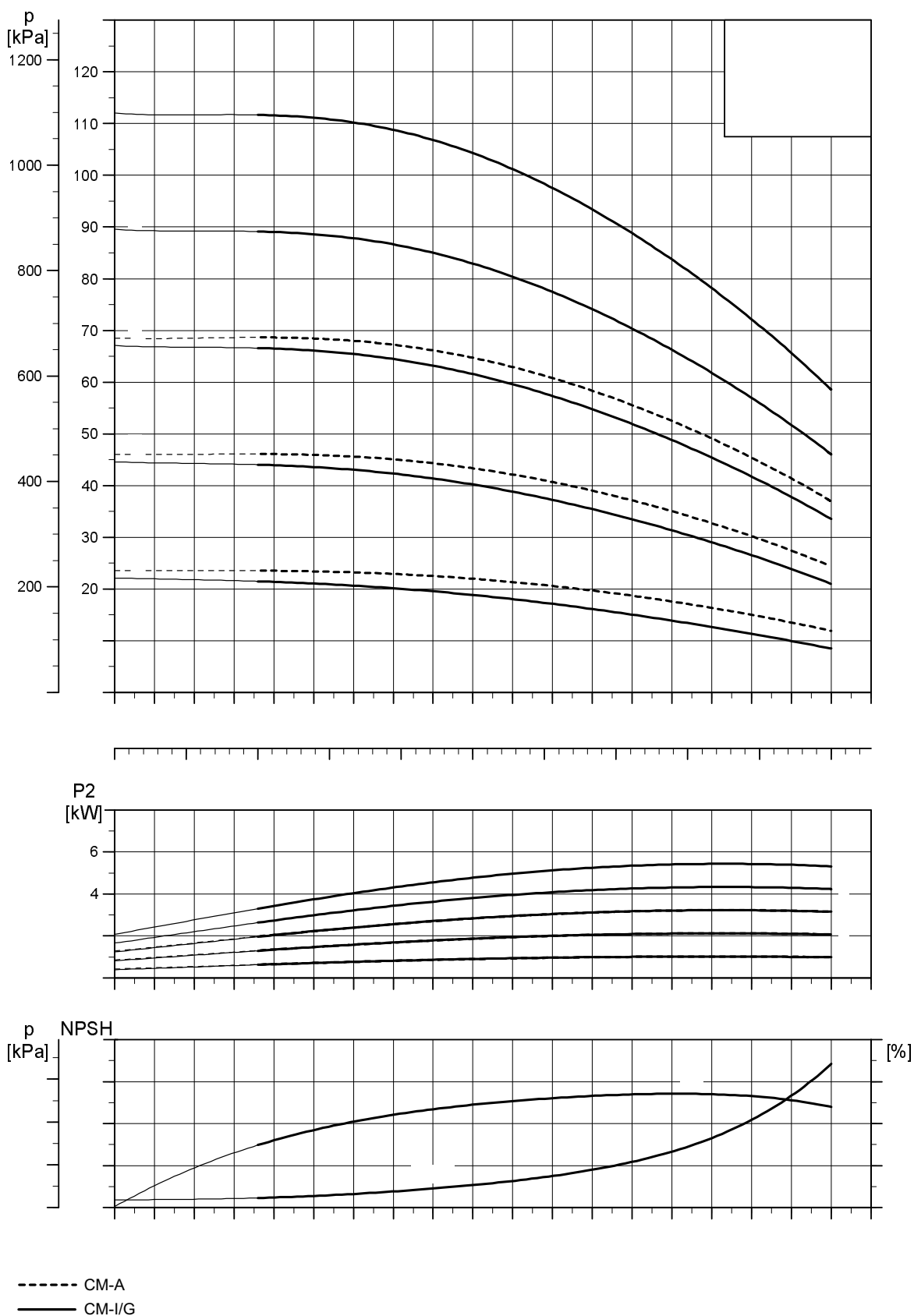
----- CM-A
———— CM-I/G

TM04 3337 0210

Performance curves, CM 60 Hz

CM 10
60 Hz

CM 10



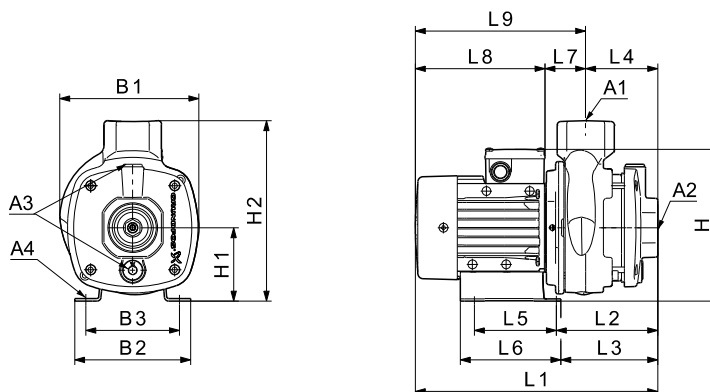
TM04 3373 0210

Dimensions, CM 50 Hz

CM 10-A
50 Hz

CM 10-A

(A = cast iron, EN-GJL-200)



TM04 6111 4909

Dimensions

3 x 220-240 V / 380-415 V, 50 Hz (supply voltage F)

Pump type	Frame size	P ₂ [kW]	Dimensions																		
			A1	A2	A3	A4	B1	B2	B3	H	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9
CM10-1	71B	0.65	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	190	158	125	209	100	245	329	155	131	97	96	137	58	174	232
CM10-2	80B	1.20	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	190	158	125	209	100	245	369	155	131	97	96	137	58	214	272
CM10-3	90SB	2.20	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	190	199	160	210	100	245	451	220	205	127	140	170	93	232	324
CM10-4	100LA	3.2	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	198	199	160	220	100	245	537	265	249	157	140	172	108	272	380
CM10-5	100LA	3.2	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	198	199	160	220	100	245	567	295	279	187	140	172	108	272	380

1 x 220-240 V, 50 Hz (supply voltage C)

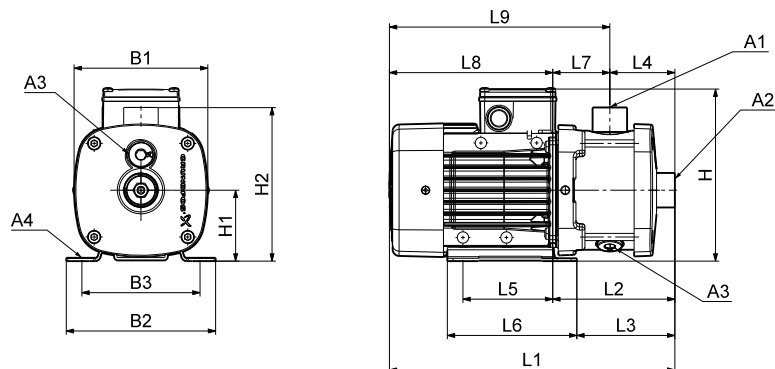
Pump type	Frame size	P ₂ [kW]	Dimensions																		
			A1	A2	A3	A4	B1	B2	B3	H	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9
CM10-1	80A	0.67	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	190	158	125	233	100	245	369	155	131	97	96	137	58	214	272
CM10-2	90SA	1.3	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	190	199	160	239	100	245	421	190	175	97	140	170	93	232	324
CM10-3	90SB	1.9	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	190	199	160	239	100	245	451	220	205	127	140	170	93	232	324

Dimensions, CM 50 Hz

CM 10-I and CM 10-G
50 Hz

CM 10-I and CM 10-G

(I = EN 1.4301/AISI 304 and G = EN 1.4401/AISI 316)



TM04 2246 2208

Dimensions

3 x 220-240 V / 380-415 V, 50 Hz (supply voltage F)

Pump type	Frame size	P ₂ [kW]	Dimensions																		
			A1	A2	A3	A4	B1	B2	B3	H	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9
CM10-1	71B	0.65	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	180	158	125	209	100	218	359	185	161	105	96	137	80	174	254
CM10-2	80B	1.20	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	180	158	125	209	100	218	399	185	161	105	96	137	80	214	294
CM10-3	90SB	2.20	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	180	199	160	210	100	218	450	219	204	105	140	170	114	232	345
CM10-4	100LA	3.2	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	198	199	160	220	100	218	537	265	249	135	140	172	130	272	402
CM10-5	100LA	3.2	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	198	199	160	220	100	218	597	325	309	195	140	172	130	272	402
CM10-6	100LB	4.0	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	198	199	160	220	100	218	597	325	309	195	140	172	130	272	402
CM10-7	132SB	5.8	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	220	228	190	246	112	230	709	407	391	255	140	172	152	302	454
CM10-8	132SB	5.8	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	220	228	190	246	112	230	709	407	391	255	140	172	152	302	454

Please note that the dimension H is smaller than H2 for CM 10-1, CM 10-2 and CM 10-3.

1 x 220-240 V, 50 Hz (supply voltage C)

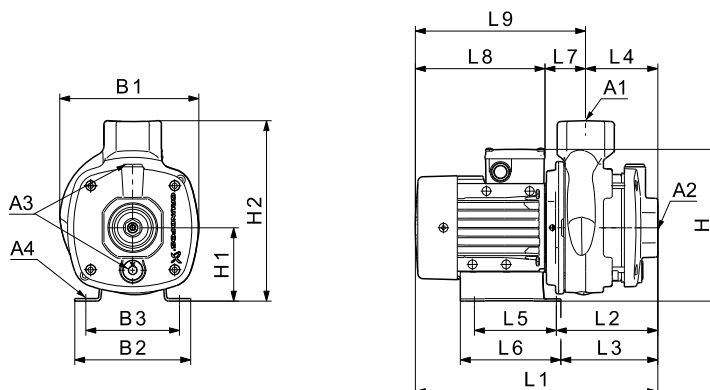
Pump type	Frame size	P ₂ [kW]	Dimensions																		
			A1	A2	A3	A4	B1	B2	B3	H	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9
CM10-1	80A	0.67	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	180	158	125	233	100	218	399	185	161	105	96	137	80	214	294
CM10-2	90SA	1.3	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	180	199	160	239	100	218	450	219	204	105	140	170	114	232	345
CM10-3	90SB	1.9	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	180	199	160	239	100	218	450	219	204	105	140	170	114	232	345

Dimensions, CM 60 Hz and 50/60 Hz

CM 10-A
60 Hz
50/60 Hz

CM 10-A

(A = cast iron, EN-GJL-200)



TM04 6111 4909

Dimensions

3 x 208-230 V / 440-480 V, 60 Hz (supply voltage E)

3 x 575 V, 60 Hz (supply voltage H)

3 x 400 V, 50/60 Hz (supply voltage I)

3 x 380-415 V, 50 Hz; 3 x 440-480 V, 60 Hz (supply voltage J)

3 x 220-240/380-415 V, 50 Hz; 3 x 220-255/380-440 V, 60 Hz (supply voltage O)

Pump type	Frame size	P ₂ [kW]		Dimensions																		
		50 Hz	60 Hz	A1	A2	A3	A4	B1	B2	B3	H	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9
CM10-1	80BA	0.74/1.28*	1.28	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	190	158	125	216	100	245	369	155	131	97	96	137	58	214	272
CM10-2	90CB	1.45/2.5*	2.5	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	190	199	160	210	100	245	421	190	175	97	140	170	93	232	324
CM10-3	100BB	2.36/4.0*	4	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	198	199	160	220	100	245	507	235	219	127	140	172	108	272	380

* Applies to supply voltage I.

Note: Until further notice, pumps for supply voltage I are only suitable for connection to a frequency of 60 Hz. A dual frequency version is expected to be ready for sales in January 2011.

1 x 115/230 V, 60 Hz (supply voltage B)

1 x 220 V, 60 Hz (supply voltage A)

Pump type	Frame size	P ₂ [kW]	Dimensions																		
			A1	A2	A3	A4	B1	B2	B3	H	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9
CM5-5	90CC	1.50	NPT 1	NPT 1 1/4	Rp 3/8	10	178	178	140	229	90	201	446	222	207	140	125	155	82	224	306

* Applies to supply voltage A.

3 x 200/346 V, 50 Hz; 3 x 200-220/346-380 V, 60 Hz (supply voltage G)

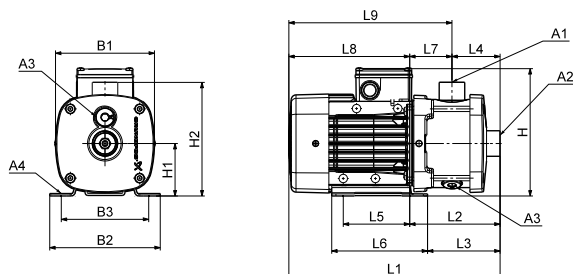
Pump type	Frame size	P ₂ [kW]		Dimensions																		
		50 Hz	60 Hz	A1	A2	A3	A4	B1	B2	B3	H	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9
CM10-1	80B	0.74	1.28	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	190	158	125	209	100	245	369	155	131	97	96	137	58	214	272
CM10-2	90SB	1.40	2.5	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	190	199	160	210	100	245	421	190	175	97	140	170	93	232	324
CM10-3	100LB	2.3	4.0	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	198	199	160	220	100	245	507	235	219	127	140	172	108	272	380

Dimensions, CM 60 Hz and 50/60 Hz

CM 10-I and CM 10-G
60 Hz
50/60 Hz

CM 10-I and CM 10-G

(I = EN 1.4301/AISI 304 and G = EN 1.4401/AISI 316)



TM04 2246 2208

Dimensions

3 x 208-230 V / 440-480 V, 60 Hz (supply voltage E)

3 x 575 V, 60 Hz (supply voltage H)

3 x 400 V, 50/60 Hz (supply voltage I)

3 x 380-415 V, 50 Hz; 3 x 440-480 V, 60 Hz (supply voltage J)

3 x 220-240/380-415 V, 50 Hz; 3 x 220-255/380-440 V, 60 Hz (supply voltage O)

Pump type	Frame size	P ₂ [kW]					Dimensions																
		50 Hz	60 Hz	A1	A2	A3	A4	B1	B2	B3	H	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9	
CM10-1	80BA	0.74/1.28*	1.28	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	180	158	125	216	100	218	399	185	161	105	96	137	80	214	294	
CM10-2	90CB	1.45/2.5*	2.5	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	180	199	160	210	100	218	450	219	204	105	140	170	114	232	345	
CM10-3	100BB	2.36/4.0*	4	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	198	199	160	220	100	218	507	235	219	105	140	172	130	272	402	
CM10-4	132AB	4.2/6.2*	6.2	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	220	228	190	246	112	230	589	287	271	135	140	172	152	302	454	
CM10-5	132AB	4.2/6.2*	6.2	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	220	228	190	246	112	230	649	347	331	195	140	172	152	302	454	

* Applies to supply voltage I.

Note: The dimension H is smaller than H2 for CM 10-1 and CM 10-2.

CM 10-2, CM 10-3, CM 10-4 and CM 10-5 are not available with supply voltage O

Note: Until further notice, pumps for supply voltage I are only suitable for connection to a frequency of 60 Hz. A dual frequency version is expected to be ready for sales in January 2011.

1 x 115/230 V, 60 Hz (supply voltage B)

1 x 220 V, 60 Hz (supply voltage A)

Pump type	Frame size	P ₂ [kW]	Dimensions																		
			A1	A2	A3	A4	B1	B2	B3	H	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9
CM5-5	90CC	1.50	NPT 1	NPT 1 1/4	Rp 3/8	10	178	178	140	229	90	180	431	207	192	108	125	155	99	224	323

* Applies to supply voltage A.

3 x 200/346 V, 50 Hz; 3 x 200-220/346-380 V, 60 Hz (supply voltage G)

Pump type	Frame size	P ₂ [kW]				Dimensions																
		50 Hz	60 Hz	A1	A2	A3	A4	B1	B2	B3	H	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	L9
CM10-1	80B	0.74	1.28	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	180	158	125	209	100	218	399	185	161	105	96	137	80	214	294
CM10-2	90SB	1.40	2.5	Rp 1 1/2	Rp 1 1/2	Rp 3/8	10	180	199	160	210	100	218	450	219	204	105	140	170	114	232	345
CM10-3	100LB	2.3	4.0	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	198	199	160	220	100	218	507	235	219	105	140	172	130	272	402
CM10-4	112MB	3.6	6.2	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	220	228	190	246	112	230	589	287	271	135	140	172	152	302	454
CM10-5	112MB	3.6	6.2	Rp 1 1/2	Rp 1 1/2	Rp 3/8	12	220	228	190	246	112	230	649	347	331	195	140	172	152	302	454

Note: The dimension H is smaller than H2 for CM 10-1 and CM 10-2.

CM 5-A

(A = cast iron, EN-GJL-200)

Supply voltage	Pump type	Net weight [kg]	Gross weight [kg]	Shipping volume [m ³]
1 x 220-240 V, 50 Hz (supply voltage C)	CM 5-2	2.9	5.4	0.0296
	CM 5-3	3.2	5.7	0.0296
	CM 5-4	3.4	5.9	0.0370
	CM 5-5	3.7	6.2	0.0370
	CM 5-6	23.0	25.5	0.0444
	CM 5-7	23.3	25.8	0.0444
	CM 5-8	23.5	26.0	0.0444
	CM 5-2	13.0	15.5	0.0296
1 x 115/230 V, 60 Hz (supply voltage B) 1 x 220 V, 60 Hz (supply voltage A)	CM 5-3	14.4	16.9	0.0370
	CM 5-4	24.3	26.8	0.0370
	CM 5-2	10.9	13.4	0.0296
3 x 220-240 V / 380-415 V, 50 Hz (supply voltage F)	CM 5-3	11.9	14.4	0.0296
	CM 5-4	13.5	16.0	0.0370
	CM 5-5	14.9	17.4	0.0370
	CM 5-6	15.2	17.7	0.0370
	CM 5-7	23.3	25.8	0.0444
	CM 5-8	23.5	26.0	0.0444
	CM 5-2	11.6	14.1	0.0296
	CM 5-3	13.3	15.8	0.0370
3 x 200/346 V, 50 Hz; 3 x 200-220/346-380 V, 60 Hz (supply voltage G)	CM 5-4	24.3	26.8	0.0370
	CM 5-5	24.5	27.0	0.0444
	CM 5-2	11.6	14.1	0.0296
3 x 208-230 V / 440-480 V, 60 Hz (supply voltage E) 3 x 575 V, 60 Hz (supply voltage H) 3 x 400 V, 50/60 Hz (supply voltage I)* 3 x 380-415 V, 50 Hz; 3 x 440-480 V, 60 Hz (supply voltage J) 3 x 220-240/380-415 V, 50 Hz; 3 x 220-255/380-440 V, 60 Hz (supply voltage O)	CM 5-3	13.3	15.8	0.0370
	CM 5-4	24.3	26.8	0.0370
	CM 5-5	24.5	27.0	0.0444
	CM 5-2	11.6	14.1	0.0296

* Until further notice, pumps for supply voltage I are only suitable for connection to a frequency of 60 Hz. A dual frequency version is expected to be ready for sales in January 2011.

CM 10-A

(A = cast iron, EN-GJL-200)

Supply voltage	Pump type	Net weight [kg]	Gross weight [kg]	Shipping volume [m ³]
1 x 220-240 V, 50 Hz (supply voltage C)	CM 10-1	22.2	24.7	0.0370
	CM 10-2	29.8	32.3	0.0444
	CM 10-3	32.6	35.1	0.0444
1 x 115/230 V, 60 Hz (supply voltage B) 1 x 220 V, 60 Hz (supply voltage A)	CM 10-1	23.4	25.9	0.0370
	CM 10-1	20.9	23.4	0.0370
3 x 220-240 V / 380-415 V, 50 Hz (supply voltage F)	CM 10-2	24.0	26.5	0.0370
	CM 10-3	32.6	35.1	0.0444
	CM 10-4	38.6	41.1	0.0495
	CM 10-5	39.3	41.8	0.0495
	CM 10-11	23.4	25.9	0.0370
	CM 10-12	31.9	34.4	0.0444
3 x 200/346 V, 50 Hz; 3 x 200-220/346-380 V, 60 Hz (supply voltage G)	CM 10-13	40.8	43.3	0.0444
	CM 10-1	23.4	25.9	0.0370
	CM 10-2	31.9	34.4	0.0444
3 x 208-230 V / 440-480 V, 60 Hz (supply voltage E) 3 x 575 V, 60 Hz (supply voltage H) 3 x 400 V, 50/60 Hz (supply voltage I)* 3 x 380-415 V, 50 Hz; 3 x 440-480 V, 60 Hz (supply voltage J) 3 x 220-240/380-415 V, 50 Hz; 3 x 220-255/380-440 V, 60 Hz (supply voltage O)	CM 10-3	40.8	43.3	0.0444

* Until further notice, pumps for supply voltage I are only suitable for connection to a frequency of 60 Hz. A dual frequency version is expected to be ready for sales in January 2011.

CM 10-I and CM 10-G

(I = EN 1.4301/AISI 304 and G = EN 1.4401/AISI 316)

Supply voltage	Pump type	Net weight [kg]	Gross weight [kg]	Shipping volume [m ³]
1 x 220-240 V, 50 Hz (supply voltage C)	CM 10-1	17.6	20.1	0.0370
	CM 10-2	24.8	27.3	0.0444
	CM 10-3	27.1	29.6	0.0444
1 x 115/230 V, 60 Hz (supply voltage B) 1 x 220 V, 60 Hz (supply voltage A) 3 x 220-240 V / 380-415 V, 50 Hz (supply voltage F)	CM 10-1	18.8	21.3	0.0370
	CM 10-1	16.3	18.8	0.0370
	CM 10-2	19.0	21.5	0.0370
	CM 10-3	27.1	29.6	0.0444
	CM 10-4	33.2	35.7	0.0495
	CM 10-5	34.6	37.1	0.0847
	CM 10-6	37.7	40.2	0.0847
	CM 10-7	54.3	56.8	0.0847
	CM 10-8	54.5	57.0	0.0847
	CM 10-1	18.8	21.3	0.0370
3 x 200/346 V, 50 Hz; 3 x 200-220/346-380 V, 60 Hz (supply voltage G)	CM 10-2	26.9	29.4	0.0444
	CM 10-3	35.3	37.8	0.0444
	CM 10-4	44.3	46.8	0.0495
	CM 10-5	45.7	48.2	0.0847
	CM 10-1	18.8	21.3	0.0370
3 x 208-230 V / 440-480 V, 60 Hz (supply voltage E) 3 x 575 V, 60 Hz (supply voltage H) 3 x 400 V, 50/60 Hz (supply voltage I)* 3 x 380-415 V, 50 Hz; 3 x 440-480 V, 60 Hz (supply voltage J) 3 x 220-240/380-415 V, 50 Hz; 3 x 220-255/380-440 V, 60 Hz (supply voltage O)	CM 10-2	26.9	29.4	0.0444
	CM 10-3	35.3	37.8	0.0444
	CM 10-4	44.3	46.8	0.0495
	CM 10-5	45.7	48.2	0.0847
	CM 10-1	18.8	21.3	0.0370

* Until further notice, pumps for supply voltage I are only suitable for connection to a frequency of 60 Hz. A dual frequency version is expected to be ready for sales in January 2011.

CM 15-I and CM 15-G

(I = EN 1.4301/AISI 304 and G = EN 1.4401/AISI 316)

Supply voltage	Pump type	Net weight [kg]	Gross weight [kg]	Shipping volume [m ³]
1 x 220-240 V, 50 Hz (supply voltage C)	CM 15-1	24.5	27.0	0.0444
	CM 15-2	26.8	29.3	0.0444
3 x 220-240 V / 380-415 V, 50 Hz (supply voltage F)	CM 15-1	18.6	21.1	0.0370
	CM 15-2	26.8	29.3	0.0444
	CM 15-3	35.2	37.7	0.0444
	CM 15-4	51.2	53.7	0.0495
	CM 15-1	26.6	29.08	0.0444
3 x 200/346 V, 50 Hz; 3 x 200-220/346-380 V, 60 Hz (supply voltage G)	CM 15-2	35.0	37.46	0.0444
	CM 15-3	43.3	45.82	0.0495
	CM 15-1	26.6	29.1	0.0444
3 x 208-230 V / 440-480 V, 60 Hz (supply voltage E) 3 x 575 V, 60 Hz (supply voltage H) 3 x 400 V, 50/60 Hz (supply voltage I)* 3 x 380-415 V, 50 Hz; 3 x 440-480 V, 60 Hz (supply voltage J)	CM 15-2	35.0	37.5	0.0444
	CM 15-3	43.3	45.8	0.0495
	CM 15-1	26.6	29.1	0.0444

* Until further notice, pumps for supply voltage I are only suitable for connection to a frequency of 60 Hz. A dual frequency version is expected to be ready for sales in January 2011.

R100 remote control



GrA5953

Fig. 52 R100 remote control

Use the R100 for wireless communication with the CME pump. The communication takes place by means of infrared light.

Product	Product number
R100	00625333

Sensors for CME

The sensors must be fitted to the pipework with suitable fittings.

Accessory	Type	Supplier	Measuring range	Product number
Flowmeter	SITRANS FM MAGFLO MAG 5100 W	Siemens	1-5 m ³ (DN 25)	ID8285
Flowmeter	SITRANS FM MAGFLO MAG 5100 W	Siemens	3-10 m ³ (DN 40)	ID8286
Flowmeter	SITRANS FM MAGFLO MAG 5100 W	Siemens	6-30 m ³ (DN 65)	ID8287
Flowmeter	SITRANS FM MAGFLO MAG 5100 W	Siemens	20-75 m ³ (DN 100)	ID8288
Temperature sensor	TTA (0) 25	Carlo Gavazzi	0 °C to +25 °C	96432591
Temperature sensor	TTA (-25) 25	Carlo Gavazzi	-25 °C to +25 °C	96430194
Temperature sensor	TTA (50) 100	Carlo Gavazzi	+50 °C to +100 °C	96432592
Temperature sensor	TTA (0) 150	Carlo Gavazzi	0 °C to +150 °C	96430195
Accessory for temperature sensor. All with 1/2 RG connection.	Protecting tube Ø 9 x 50 mm	Carlo Gavazzi		96430201
	Protecting tube Ø 9 x 100 mm	Carlo Gavazzi		96430202
	Cutting ring bush	Carlo Gavazzi		96430203
Temperature sensor, ambient temperature	WR 52	tmg (Plesner)	-50 °C to +50 °C	ID8295
Differential-temperature sensor	ETSD	Honsberg	0 °C to +20 °C	96409362
Differential-temperature sensor	ETSD	Honsberg	0 °C to +50 °C	96409363

Note: All sensors have 4-20 mA signal output.

Danfoss pressure sensor kits for CME pumps and CM pumps connected to Grundfos CUE

The kit comprises:

- Danfoss pressure transmitter, type MBS 3000, with 2 m screened cable Connection: G 1/2 A (DIN 16288 - B6kt)
- 5 cable clips (black)
- Installation and operating instructions PT (400212)

Pressure range [bar]	Temperature range	Product number
0-4	-40 °C to +85 °C	96428014
0-6		96428015
0-10		96428016
0-16		96428017
0-25		96428018

DPI differential-pressure sensor kit

The kit comprises:

- 1 sensor incl. 0.9 m screened cable (7/16" connections)
- 1 original DPI bracket (for wall mounting)
- 1 Grundfos bracket (for mounting on motor)
- 2 M4 screws for mounting of sensor on bracket
- 1 M6 screw (self-cutting) for mounting on MGE 90/100
- 1 M8 screw (self-cutting) for mounting on MGE 112/132
- 3 capillary tubes (short/long)
- 2 fittings (1/4" - 7/16")
- 5 cable clips (black)
- Installation and operating instructions (480675)
- Service kit instructions

Pressure range [bar]	Product number
0 - 0.6	96611522
0 - 1.0	96611523
0 - 1.6	96611524
0 - 2.5	96611525
0 - 4.0	96611526
0 - 6.0	96611527
0 - 10	96611550

MP 204 motor protector



TM03 1471 2205

Fig. 53 MP 204

The MP 204 is an electronic motor protector and data collecting unit. Apart from protecting the motor, it can also send information to a control unit via GENIbus, like for instance:

- trip
- warning
- energy consumption
- input power
- motor temperature.

The MP 204 protects the motor primarily by measuring the motor current by means of a true RMS measurement.

The pump is protected secondarily by measuring the temperature with a Tempcon sensor, a Pt100/Pt1000 sensor and a PTC sensor/thermal switch.

The MP 204 is designed for single- and three-phase motors.

Note: The MP 204 must not be used together with frequency converters.

Features

- Phase-sequence monitoring
- indication of current or temperature
- input for PTC sensor/thermal switch
- indication of temperature in °C or °F
- 4-digit, 7-segment display
- setting and status reading with the Grundfos R100 remote control
- setting and status reading via the Grundfos GENIbus fieldbus.

Tripping conditions

- Overload
- underload (dry running)
- temperature
- missing phase
- phase sequence
- overvoltage
- undervoltage
- power factor ($\cos \phi$)
- current unbalance.

Warnings

- Overload
- underload
- temperature
- overvoltage
- undervoltage
- power factor ($\cos \phi$)
- run capacitor (single-phase operation)
- starting capacitor (single-phase operation)
- loss of communication in network
- harmonic distortion.

Learning function

- Phase sequence (three-phase operation)
- run capacitor (single-phase operation)
- starting capacitor (single-phase operation)
- identification and measurement of Pt100/Pt1000 sensor circuit.

Product number

Description	Product number
MP 204 motor protector	96079927

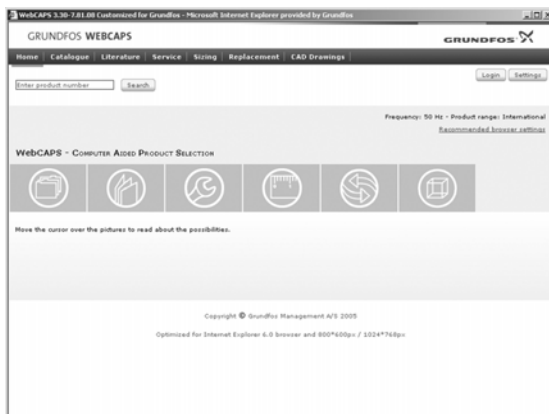
Cover for CM motor

The cover protects the motor from ingress of liquid, especially if the pump is installed in a vertically tilted position with the motor end pointing upwards.

Product number

Description	Product number
Cover for CM motors, frame sizes 71 and 80	97528743

WebCAPS

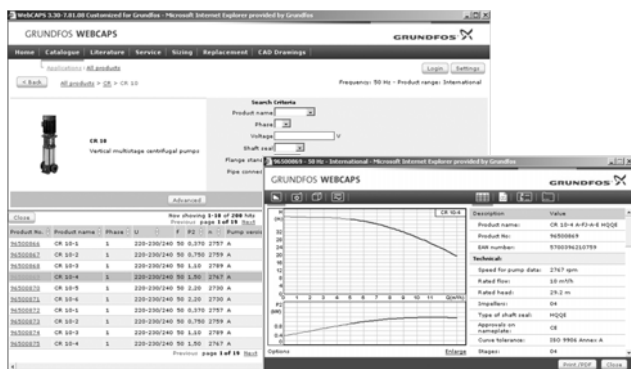


WebCAPS is a **Web-based Computer Aided Product Selection** program available on www.grundfos.com.

WebCAPS contains detailed information on more than 185,000 Grundfos products in more than 20 languages.

In WebCAPS, all information is divided into six sections:

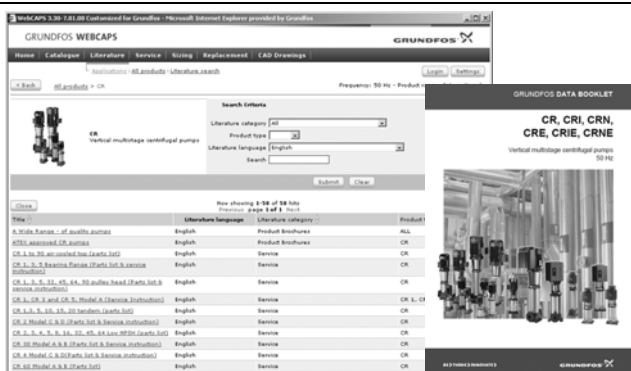
- Catalogue
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



Catalogue

This section is based on fields of application and pump types, and contains

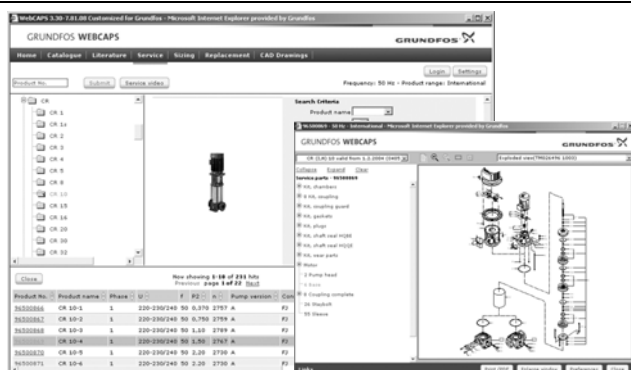
- technical data
- curves (QH, Eta, P1, P2, etc) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



Literature

In this section you can access all the latest documents of a given pump, such as

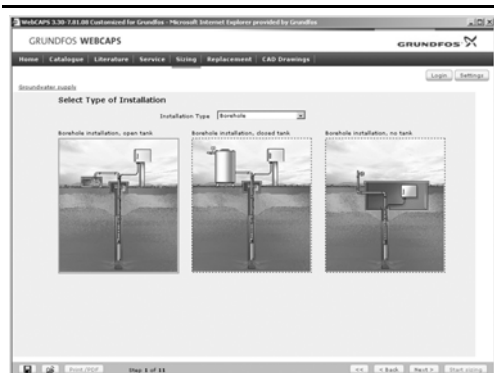
- data booklets
- installation and operating instructions
- service documentation, such as Service kit catalogue and Service kit instructions
- quick guides
- product brochures.



Service

This section contains an easy-to-use interactive service catalogue. Here you can find and identify service parts of both existing and discontinued Grundfos pumps.

Furthermore, this section contains service videos showing you how to replace service parts.



Sizing

This section is based on different fields of application and installation examples, and gives easy step-by-step instructions in how to

- select the most suitable and efficient pump for your installation
- carry out advanced calculations based on energy consumption, payback periods, load profiles, life cycle costs, etc.
- analyse your selected pump via the built-in life cycle cost tool
- determine the flow velocity in wastewater applications, etc.



Replacement

In this section you find a guide to selecting and comparing replacement data of an installed pump in order to replace the pump with a more efficient Grundfos pump.

The section contains replacement data of a wide range of pumps produced by other manufacturers than Grundfos.

Based on an easy step-by-step guide, you can compare Grundfos pumps with the one you have installed on your site. When you have specified the installed pump, the guide will suggest a number of Grundfos pumps which can improve both comfort and efficiency.



CAD drawings

In this section it is possible to download 2-dimensional (2D) and 3-dimensional (3D) CAD drawings of most Grundfos pumps.

These formats are available in WebCAPS:

2-dimensional drawings:

- .dxf, wireframe drawings
- .dwg, wireframe drawings.

3-dimensional drawings:

- .dwg, wireframe drawings (without surfaces)
- .stp, solid drawings (with surfaces)
- .eprt, E-drawings.



WinCAPS

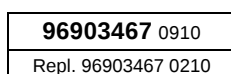


Fig. 54 WinCAPS CD-ROM

WinCAPS is a **Windows-based Computer Aided Product Selection** program containing detailed information on more than 185,000 Grundfos products in more than 20 languages.

The program contains the same features and functions as WebCAPS, but is an ideal solution if no Internet connection is available.

WinCAPS is available on CD-ROM and updated once a year.



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ECM: 1065503

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