

50Hz



GENERAL CATALOGUE

Edition 2022

www.pentax-pumps.it

Where there's water there's Pentax



Viale dell'Industria, 1
37040 Veronella (VR) - Italia
Tel. +39 0442 489500
Fax +39 0442 489510
com@pentax-pumps.it
www.pentax-pumps.it

PENTAX s.p.a.



6R/8R/10R

Deepwell Motors



6", 8", 10" submersible motors rewindable in water bath. Power from 4 kW up to 185 kW. Available with mechanical seal. Standard PPC winding, PE2+PA winding available for temperatures up to 50°C. AISI 304, AISI 316, DUPLEX versions available. NEMA coupling flange.
* PPC insulation is equivalent to PVC

Construction features

Upper and bottom support	G25 (6R / 8R / 10R) AISI 304 (6RS / 8RS / 10RS) AISI 316 (6RX / 8RX / 10RX) DUPLEX (6RD / 8RD / 10RD)
Stator sleeve	stainless steel AISI 304 - (R) stainless steel AISI 304 - (RS) stainless steel AISI 316 - (RX) Duplex - (RD)
Shaft end	stainless steel AISI 431 - (R) stainless steel AISI 431 - (RS) stainless steel AISI 316 - (RX) Duplex - (RD)
Seal type	lip seal (mechanical seal on request)
Bearings	radial and axial, water lubricated
Thrust bearing	Michell

Motor

Asynchronous 2 pole rewound in water filled	3- 3x400V ± 10% - 50Hz 3- 3x400/690V ± 10% -50Hz
Cooling flow	min 0,5 m/s
Insulation class	Y - PPC - Max temp. 30 °C F - LPE / PE2+PA - Max temp. 50 °C
Insulation*	PPC (double insulation LPE and PE2 + PA on request)
Protection degree	IP68
Depth if immersion	max 350m
Available on demand	- PT 100 - Star/Delta starting - Cooling Sleeve - Cer./Carb./NBR Seal - SIC/SIC/NBR Seal

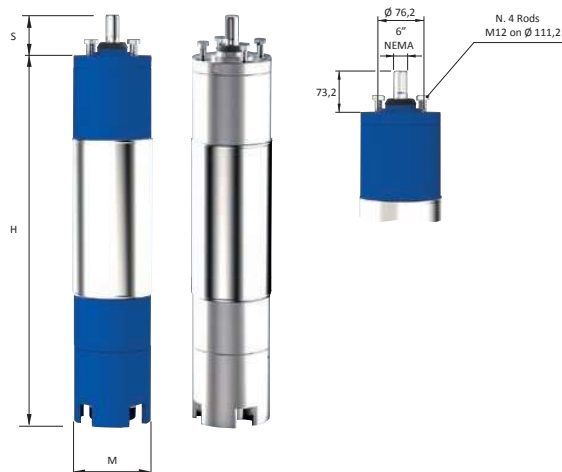


6R-6RS-6RX-6RD

Type	Power		V	A	RPM	η (Efficiency motor %) at % load			cos φ at % load			Starting				Axial load daN	Start/ hour (max)								
	HP	kW				50			75			100			Direct			Star-delta	Statoric						
						50	75	100	50	75	100	Cs/Cn	Is / In	Is / In	Is / In										
6R7	7,5	5,5	380	12,4	2846	77,0	82,0	81,0	0,67	0,78	0,83	1,60	5,60	1,90	3,40	1600	15								
			400	12,3	2859	76,0	81,0	80,0	0,65	0,76	0,81														
			415	12,3	2880	75,0	80,0	79,0	0,63	0,74	0,79														
6R10	10	7,5	380	16,6	2843	78,0	82,5	82,0	0,68	0,78	0,84	1,80	5,70	1,90	3,40			1600	15						
			400	16,3	2861	77,0	81,5	81,0	0,66	0,76	0,82														
			415	16,3	2882	76,0	80,5	80,0	0,64	0,74	0,80														
6R12	12,5	9,2	380	20,2	2846	79,0	83,0	82,0	0,68	0,79	0,85	1,80	5,70	1,90	3,40					1600	15				
			400	19,9	2864	78,0	82,0	81,0	0,66	0,77	0,83														
			415	19,9	2886	77,0	81,0	80,0	0,64	0,75	0,81														
6R15	15	11	380	23,7	2849	80,0	84,5	83,5	0,69	0,79	0,85	1,90	5,90	2,00	3,50							1600	15		
			400	23,4	2867	79,0	83,5	82,5	0,67	0,77	0,83														
			415	23,4	2882	78,0	82,5	81,5	0,65	0,75	0,81														
6R17	17,5	13	380	27,7	2851	81,0	84,5	84,0	0,69	0,79	0,85	1,80	6,00	2,00	3,60									1600	15
			400	27,3	2870	80,0	83,5	83,0	0,67	0,77	0,83														
			415	27,3	2887	79,0	82,5	82,0	0,65	0,75	0,81														
6R20	20	15	380	32	2852	82,0	85,0	84,0	0,69	0,79	0,85	1,70	5,90	2,00	3,50	1600	15								
			400	31,5	2871	81,0	84,0	83,0	0,67	0,77	0,83														
			415	31,5	2883	80,0	83,0	82,0	0,65	0,75	0,81														
6R25	25	18,5	380	38,9	2854	82,5	85,5	85,0	0,69	0,79	0,85	1,70	5,60	1,90	3,40			2500	15						
			400	38,3	2873	81,5	84,5	84,0	0,67	0,77	0,83														
			415	38,6	2889	80,0	83,0	82,5	0,65	0,75	0,81														
6R30	30	22	380	45,8	2857	82,5	85,5	85,0	0,70	0,80	0,86	1,70	5,90	2,00	3,50					2500	15				
			400	45,1	2877	81,5	84,5	84,0	0,68	0,78	0,84														
			415	45,3	2890	80,0	83,0	82,5	0,66	0,76	0,82														
6R35	35	26	380	53,8	2867	82,5	86,0	85,5	0,71	0,81	0,86	1,70	5,70	1,90	3,40							2500	15		
			400	52,9	2878	81,5	85,0	84,5	0,69	0,79	0,84														
			415	53,2	2891	80,0	83,5	83,0	0,67	0,77	0,82														
6R40	40	30	380	62,1	2861	82,5	86,0	85,5	0,72	0,81	0,86	1,70	5,60	1,90	3,40									2500	15
			400	61,1	2880	81,5	85,0	84,5	0,70	0,79	0,84														
			415	61,4	2892	80,0	83,5	83,0	0,68	0,77	0,82														
6R50	50	37	380	77	2863	83,0	86,5	85,0	0,72	0,81	0,86	1,60	5,60	1,90	3,40	2500	15								
			400	75,8	2882	82,0	85,5	84,0	0,70	0,79	0,84														
			415	76,2	2891	80,5	84,0	82,5	0,68	0,77	0,82														

Service factor: 50Hz=1 - Direction of rotation (view from shaft projection side: anti-clockwise)
Cs = Starting torque - Cn = Nominal couple - Is = Starting current - In = Nominal current

Type	6R - 6RS - 6RX - 6RD				Standard Cable length m	Max water temperature	
	Power		Cables			Winding type	
	HP	kW	Starting			PPC	PE2-PA / LPE
			Direct	Star Delta			
			400 V ± 5%	400 / 690 V			
6R7	7,5	5,5	4G × 4 mm ²	2×(4G × 4 mm ²)	3	30 °C	50 °C
6R10	10	7,5	4G × 4 mm ²	2×(4G × 4 mm ²)			
6R12	12,5	9,2	4G × 4 mm ²	2×(4G × 4 mm ²)			
6R15	15	11	4G × 4 mm ²	2×(4G × 4 mm ²)			
6R17	17,5	13	4G × 6 mm ²	2×(4G × 4 mm ²)			
6R20	20	15	4G × 6 mm ²	2×(4G × 4 mm ²)			
6R25	25	18,5	4G × 6 mm ²	2×(4G × 4 mm ²)			
6R30	30	22	4G × 6 mm ²	2×(4G × 4 mm ²)			
6R35	35	26	4G × 10 mm ²	2×(4G × 6 mm ²)			
6R40	40	30	4G × 10 mm ²	2×(4G × 6 mm ²)			
6R50	50	37	4G × 10 mm ²	2×(4G × 10 mm ²)			



6R - 6RS - 6RX - 6RD				
Motor 50Hz - 2900 rpm	Overall dimensions and weights			
Type	H mm	S mm	M mm	Kg
6R7	671	73,2	145	45
6R10	701			55
6R12	751			60
6R15	811			65
6R17	841			70
6R20	931			75
6R25	991			83
6R30	1071			92
6R35	1181			100
6R40	1251			108
6R50	1341	118		



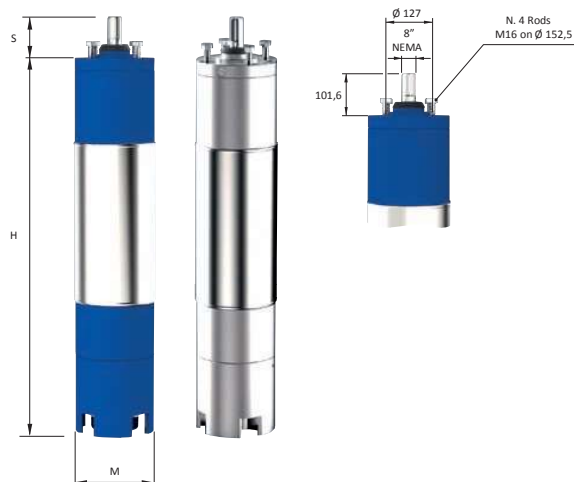
6R/8R/10R

8R-8RS-8RX-8RD

Type	Power		V	A	RPM	η (Efficiency motor %) at % load			cos φ at % load			Starting				Axial load daN	Start/ hour (max)						
	HP	kW				Direct		50	75	100	Star-delta		Cs/Cn	Is / In	Is / In			Is / In					
						50	75				75	100											
8R40	40	30	380	64,4	2859	79,8	85,2	84,3	0,77	0,81	0,84	2,05	6,40	2,10	3,80	4500	10						
			400	61,7	2875	80,1	85,0	84,7	0,76	0,80	0,83												
			415	60	2892	79,3	84,5	85,0	0,75	0,79	0,82												
8R50	50	37	380	75,4	2865	80,3	85,7	84,8	0,79	0,83	0,88	1,95	5,70	2,00	3,70			4500	10				
			400	73	2888	80,6	85,5	85,2	0,77	0,81	0,86												
			415	71,8	2904	79,8	85,0	85,5	0,75	0,79	0,84												
8R60	60	45	380	90,2	2882	80,8	86,2	85,3	0,76	0,86	0,87	1,95	5,80	2,00	3,70					4500	10		
			400	86,3	2893	81,1	86,0	85,7	0,74	0,81	0,86												
			415	84,8	2905	80,3	85,5	86,0	0,72	0,79	0,84												
8R75	75	55	380	110,2	2880	81,3	86,7	85,8	0,76	0,85	0,89	1,85	5,80	2,00	3,60							4500	10
			400	106,2	2889	81,6	86,5	86,2	0,74	0,81	0,87												
			415	105,4	2901	80,8	86,0	86,5	0,72	0,80	0,84												
8R90	90	66	380	130,7	2881	82,4	87,5	86,8	0,76	0,86	0,89	1,85	5,80	2,00	3,50	4500	10						
			400	126	2892	82,6	87,4	87,2	0,74	0,82	0,87												
			415	125,1	2905	81,9	86,9	87,5	0,72	0,79	0,84												
8R100	100	75	380	148,5	2882	82,3	87,7	86,8	0,75	0,85	0,89	1,80	5,80	2,00	3,50			4500	10				
			400	143,2	2893	82,6	87,5	87,2	0,73	0,81	0,87												
			415	142,1	2905	81,8	87,0	87,5	0,71	0,77	0,84												
8R125	125	92	380	183,5	2880	83,0	86,0	85,7	0,75	0,84	0,89	1,80	5,70	1,90	3,50					4500	10		
			400	175,1	2891	83,5	86,5	86,3	0,74	0,83	0,88												
			415	172,7	2903	83,0	86,0	86,3	0,72	0,81	0,86												
8R150	150	110	380	218,6	2885	85,5	86,5	86,0	0,74	0,83	0,89	1,80	5,70	1,90	3,50							4500	10
			400	211	2898	86,1	87,0	86,6	0,73	0,82	0,87												
			415	212,1	2908	85,5	86,5	86,0	0,72	0,81	0,84												

Service factor: 50Hz=1 - Direction of rotation (view from shaft projection side: anti-clockwise)
 Cs = Starting torque - Cn = Nominal couple - Is = Starting current - In = Nominal current

Type	8R - 8RS - 8RX - 8RD				Standard Cable length m	Max water temperature	
	Power		Cables			Winding type	
	HP	kW	Starting			PPC	PE2-PA / LPE
			Direct	Star Delta			
			400 V \pm 5%	400 / 690 V			
8R40	40	30	3 x 1 x 10 mm ²	6 x 1 x 10 mm ²	3	30 °C	50 °C
8R50	50	37	3 x 1 x 10 mm ²	6 x 1 x 10 mm ²			
8R60	60	45	3 x 1 x 16 mm ²	6 x 1 x 10 mm ²			
8R75	75	55	3 x 1 x 16 mm ²	6 x 1 x 10 mm ²			
8R90	90	66	3 x 1 x 25 mm ²	6 x 1 x 16 mm ²			
8R100	100	75	3 x 1 x 25 mm ²	6 x 1 x 16 mm ²			
8R125	125	92	3 x 1 x 25 mm ²	6 x 1 x 16 mm ²			
8R150	150	110	3 x 1 x 35 mm ²	6 x 1 x 25 mm ²			



8R - 8RS - 8RX - 8RD				
Motor 50Hz - 2900 rpm	Overall dimensions and weights			
Type	H mm	S mm	M mm	kg
8R40	993	101,6	194	150
8R50	1043			160
8R60	1123			178
8R75	1233			200
8R90	1302			214
8R100	1383			230
8R125	1583			270
8R150	1733			300

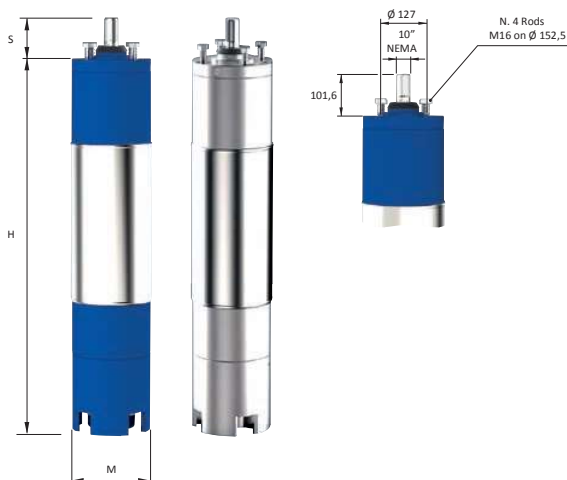


10R-10RS-10RX-10RD

Type	Power		V	A	RPM	η (Efficiency motor %) at % load			cos φ at % load			Starting				Axial load daN	Start/hour (max)
	HP	kW				Direct		Star-delta	Statoric	Cs/Cn	Is / In	Is / In	Is / In				
						50	75							100	50		
10R100	100	75	380	154,3	2884	86,9	87,0	88,0	0,73	0,80	0,84	1,80	6,40	1,90	3,40	6000	10
			400	142,7	2896	85,9	88,0	88,3	0,72	0,84	0,86						
			415	143,9	2909	86,4	88,3	88,5	0,64	0,77	0,82						
10R125	125	92	380	188,7	2890	87,2	87,3	88,3	0,74	0,83	0,84	1,60	6,30	1,80	3,40	6000	10
			400	174,5	2904	86,2	88,3	88,6	0,71	0,83	0,86						
			415	176	2914	86,7	88,6	88,8	0,63	0,75	0,82						
10R150	150	110	380	222,2	2930	87,9	88,0	89,0	0,71	0,81	0,85	1,55	6,70	1,80	3,30	6000	10
			400	207	2937	86,9	89,0	89,3	0,73	0,84	0,86						
			415	211,3	2943	87,4	89,3	89,5	0,63	0,77	0,81						
10R175	175	130	380	265,6	2895	87,5	88,2	89,0	0,73	0,81	0,83	1,85	5,80	2,00	3,60	6000	10
			400	245,3	2915	86,5	89,3	89,4	0,71	0,83	0,85						
			415	244,6	2928	87,1	89,5	89,6	0,62	0,75	0,82						
10R200	200	150	380	299,1	2898	87,1	88,2	89,0	0,72	0,82	0,84	1,55	6,50	1,80	3,30	6000	10
			400	277,2	2917	86,1	88,5	89,1	0,71	0,81	0,86						
			415	278,1	2931	86,5	88,1	88,7	0,65	0,75	0,83						
10R225	225	165	380	337,2	2901	86,5	87,5	88,6	0,72	0,82	0,84	1,55	6,50	1,80	3,30	6000	10
			400	313,3	2920	85,4	87,2	88,5	0,71	0,81	0,86						
			415	313,9	2930	86,0	87,3	88,2	0,65	0,75	0,83						
10R250	250	185	380	370	2904	87,4	88,0	89,0	0,73	0,83	0,85	1,50	6,50	1,80	3,30	6000	10
			400	342,2	2924	86,5	88,7	89,3	0,72	0,82	0,87						
			415	340,9	2936	87,3	89,3	89,5	0,65	0,77	0,84						

Service factor: 50Hz=1 - Direction of rotation (view from shaft projection side: anti-clockwise)
 Cs = Starting torque - Cn = Nominal couple - Is = Starting current - In = Nominal current

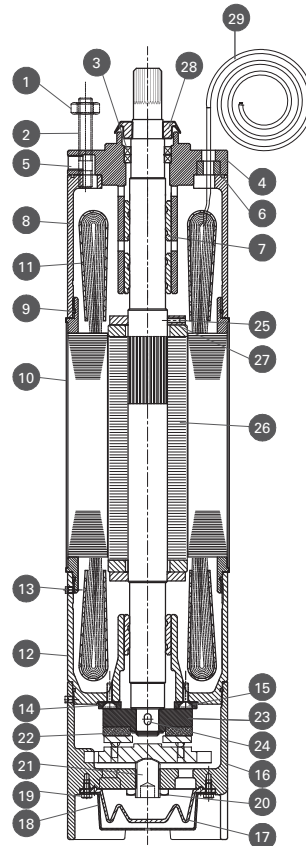
Type	10R -10RS - 10RX - 10RD				Standard Cable lenght m	Max water temperature	
	Power		Cables			Winding type	
	HP	kW	Starting			PPC	PE2-PA / LPE
			Direct	Star Delta			
			400 V \pm 5%	400 / 690 V			
10R100	100	75	3 x 1 x 25 mm ²	6 x 1 x 16 mm ²	3	30 °C	50 °C
10R125	125	92	3 x 1 x 25 mm ²	6 x 1 x 16 mm ²			
10R150	150	110	3 x 1 x 35 mm ²	6 x 1 x 16 mm ²			
10R175	175	130	3 x 1 x 35 mm ²	6 x 1 x 25 mm ²			
10R200	200	150	3 x 1 x 50 mm ²	6 x 1 x 25 mm ²			
10R225	225	165	3 x 1 x 50 mm ²	6 x 1 x 35 mm ²			
10R250	250	185	3 x 1 x 50 mm ²	6 x 1 x 35 mm ²			



10R - 10RS - 10RX - 10RD				
Motor 50Hz - 2900 rpm	Overall dimensions and weights			
Type	H mm	S mm	M mm	kg
10R100	1284	101,6	240	270
10R125	1354			310
10R150	1504			350
10R175	1634			385
10R200	1734			415
10R225	1854			444
10R250	1984			480



6R/8R/10R

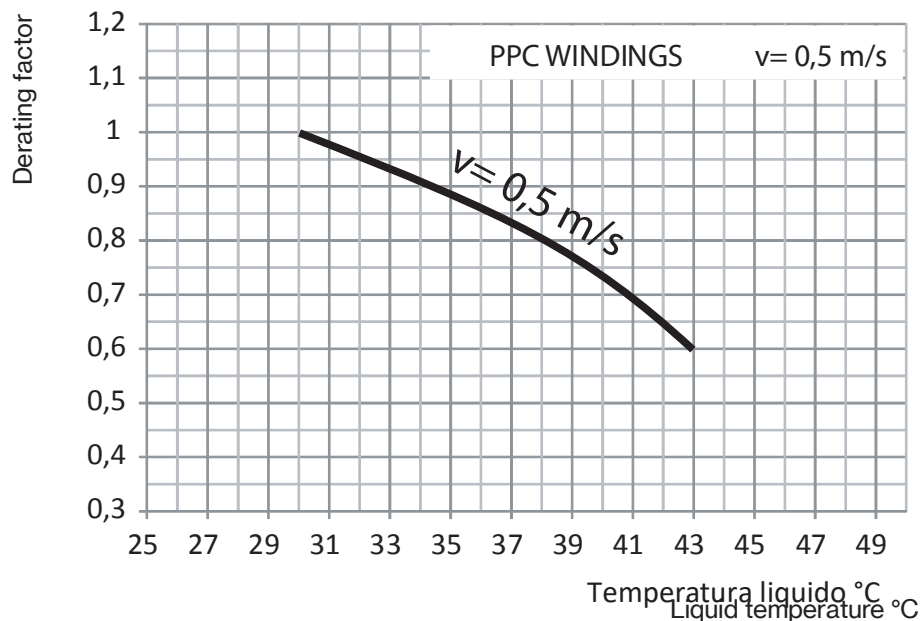


N. Code	(*) N°	Description	MATERIAL STANDARD VERSION R	MATERIAL VERSION RS-RX-RD
1		N.4 Nuts	AISI 304	AISI 304 / AISI 316 / DUPLEX
2		N.4 Studs	AISI 304	AISI 304 / AISI 316 / DUPLEX
3(*)	1	N.2 Seal rings	NBR	NBR
4		Upper support	CAST IRON	AISI 304 / AISI 316 / DUPLEX
5		N.2 Grains for Liquid filling	AISI 304	AISI 304 / AISI 316 / DUPLEX
6		Grommet	NBR	NBR
7(*)	3	N.3 Bearings	GRAPHITE	GRAPHITE
8		Motor casing	CAST IRON	AISI 304 / AISI 316 / DUPLEX
9(*)	4	N.4 O-ring	NBR	NBR
10		Motor external sleeve	AISI 304	AISI 304 / AISI 316 / DUPLEX
11		N.2 Covers winding protection	POM	POM
12		Lower support	CAST IRON	AISI 304 / AISI 316 / DUPLEX
13		N.3 Screw	AISI 304	AISI 304 / AISI 316 / DUPLEX
14(*)	2	N.2 Disks controsuspention	TEFLON	TEFLON
15		N.2 Screws for controsuspention	AISI 304	AISI 304
16		Base motor	CAST IRON	AISI 304 / AISI 316 / DUPLEX
17(*)	1	Diaphram	NBR	NBR
18		Cover diaphram	AISI 304	AISI 304 / AISI 316 / DUPLEX
19		N.4 Screw for cover diaphram	AISI 304	AISI 304 / AISI 316 / DUPLEX
20		Nut	AISI 304	AISI 304
21		Screw	AISI 304	AISI 304
22		Seeger	AISI 304	AISI 304
23(*)	1	Trust bearing	AISI + GRAPHITE	AISI + GRAPHITE
24		Key	AISI 304	AISI 304
25		N.2 Grains for stabilizer	AISI 304	AISI 304
26		Complete rotor	AISI	AISI
27		N.2 Stabilizers	AISI	AISI
28(*)		Deflector	NBR	NBR
29		Cable	H07 RNF	H07 RNF

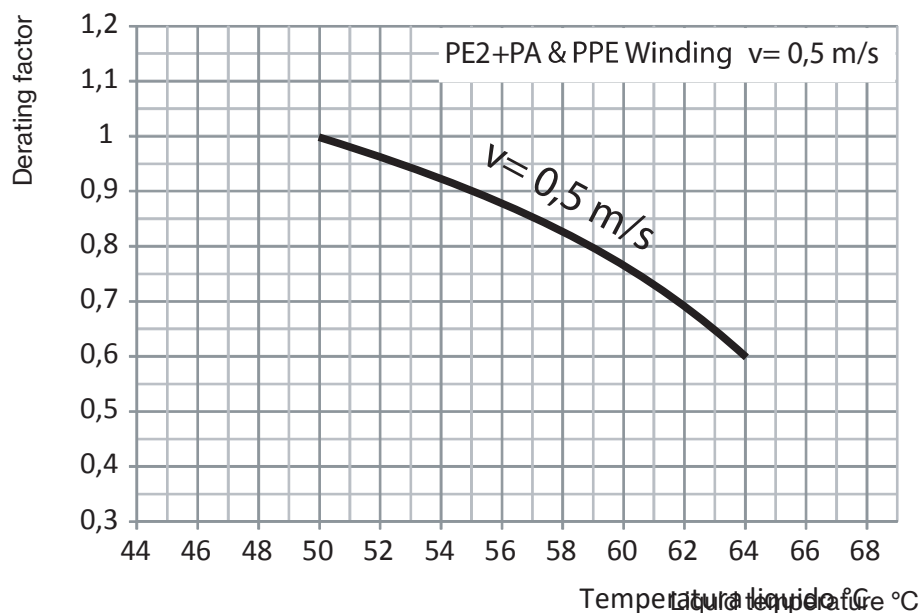
*Reccomended spare parts



OPERATING CONDITIONS VS WATER TEMPERATURE



All 6" - 8" - 10" standard motors with PPC windings can operate at liquid temperatures up to 30 °C without derating factor. From 31 °C till 43 °C the motors have to be derated according to the factor shown in the following graph.



All 6" - 8" - 10" motors with LPE or PE2+PA windings can operate at liquid temperatures up to 50 °C without derating factor. From 51 °C till 64 °C the motors have to be derated according to the factor shown in the following graph.

Motor size	Max motor sharing per hour	Winding max temperature (°C)			Liquid max temperature (°C)		
		PPC	LPE	PE2+PA	PPC	LPE	PE2+PA
6"	15	70	80	80	30	50	50
8"	10	70	80	80	30	50	50
10"	8	70	80	80	30	50	50

PPC = Y insulation class

LPE = F insulation class

PE2+PA = / F insulation class

Minimum liquid velocity for motor 6" - 8" - 10": 0,5 m/s

