

SCM 4 PLUS

4" MULTISTAGE CENTRIFUGAL SUBMERSED PUMPS COMPLETE WITH MOTOR

Maximum rigidity and resistance to water hammer, strong resistance to the abrasive action of sand, excellent hydraulic efficiency

SCM 4 PLUS submersible pumps consist of a multi-stage pumping unit directly coupled to a submersed motor. Particularly suitable for lifting from deep wells with \varnothing 4" (100 mm).

APPLICATIONS

- Lifting of water from boreholes.
- Automatic systems for garden irrigation.
- Irrigation for agricultural use.
- Aqueducts for drinking water.
- Lifting and supply of tanks and pressurization autoclaves, for civil and industrial systems.

USAGE DATA

- Type of liquid: clean, non-aggressive, non-explosive, free of solid particles.
- Maximum temperature of the liquid 35°C.
- Max. start-ups per hour: 30.
- Motor protection with thermal relay provided by the user.

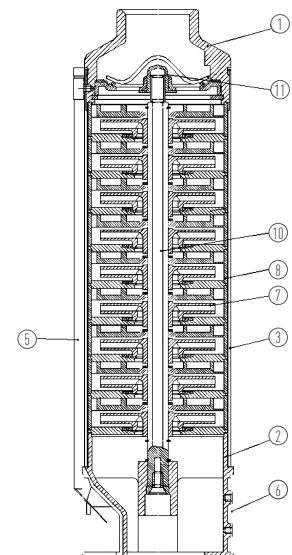
MOTOR

- Submersed 4" motor.
- Special resin impregnated sealed stator.
- Thrust bearings and bushings cooled with water.
- Extractable power cable about 1.75 m in length.
- Cooling in non-polluting water.
- Flange NEMA 4"
- Degree of protection IP 68
- Insulation class B.
- Speed of rotation 2850 rpm.
- Special mechanical gasket with sand-proof protection.



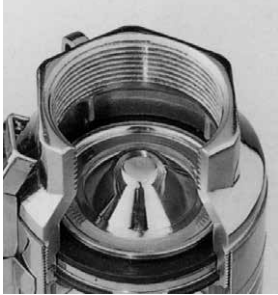
TABLE OF MATERIALS

Component	Material
1 Outlet	Stainless steel X5 CrNi1810 (AISI 304) casting
2 Intake flange	Stainless steel X5 CrNi1810 (AISI 304) casting
3 Pump body	Stainless steel X5 CrNi 1810 (AISI 304)
4 Non-return valve	Stainless steel X5 CrNi 1810 (AISI 304)
5 Cable protection conduit	Stainless steel X5 CrNi 1810 (Aisi 304)
6 Filter	Stainless steel X5 CrNi 1810 (Aisi 304)
7 Impellers	Acetal resin
8 Diffuser	Polycarbonate with ceramic insert at point of wear
9 Diffuser cap	Polycarbonate with ceramic insert at point of wear
10 Motor shaft	Hexagonal in stainless steel X10 CrNiS1809 (AISI 303) with ceramic insert at point of wear
11 Self-lubricating supply bearing	Polyamide molybdenum disulfide
-	Thrust ring in each stage



SCM 4 PLUS

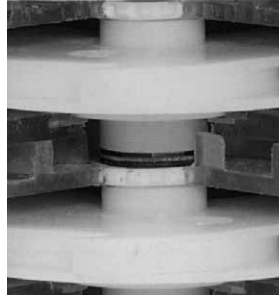
4" MULTISTAGE CENTRIFUGAL SUBMERSED PUMPS COMPLETE WITH MOTOR



Outlet made of stainless steel AISI 304 casting with a double inner conical profile with a stainless steel non-return valve and a double slot for a safety cable.

ADVANTAGES:

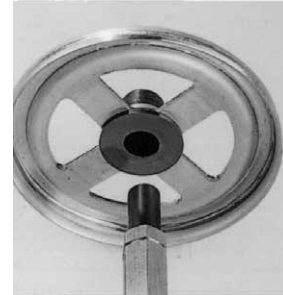
It eliminates the load losses offering maximum rigidity and great resistance to water hammers, thus protecting the pump.



Floating impeller with stainless steel inlet moulded with a diffuser cover. Thrust bearing inserted between the hub of the impeller and the diffuser consisting of 1 ceramic ring moulded with the diffuser and a free graphite ring. "International Patent"

ADVANTAGES:

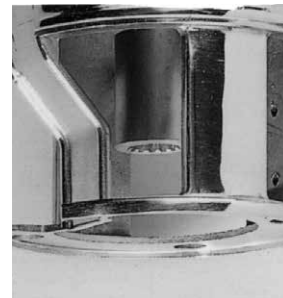
This extraordinary technological innovation determines a great increase of the yield as well as high resistance to the abrasive action of sand and to dry running.



Shaft guide bearing made with a self-lubricating closed bushing in polyamide molybdenum disulfide and shaft in stainless steel with ceramic insert at the point of wear.

ADVANTAGES:

It increases the life of the pump - protection against dry running - great resistance to sand.



Motor support and inlet made of stainless steel AISI 304 casting rigidly welded to the external sleeve made of stainless steel. Stainless steel intake grille

ADVANTAGES:

It eliminates the load losses offering maximum rigidity and great resistance to water hammers, thus protecting the pump.

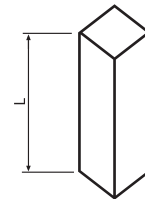
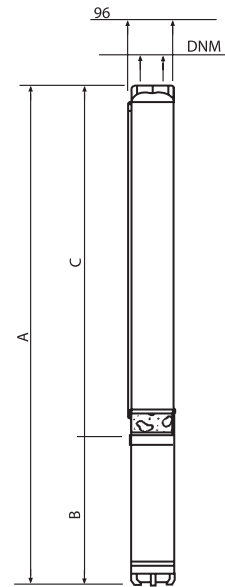


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4" MULTISTAGE CENTRIFUGAL SUBMERSED PUMPS COMPLETE WITH MOTOR

TABLE TO CALCULATE THE LENGTH OF THE PUMPS

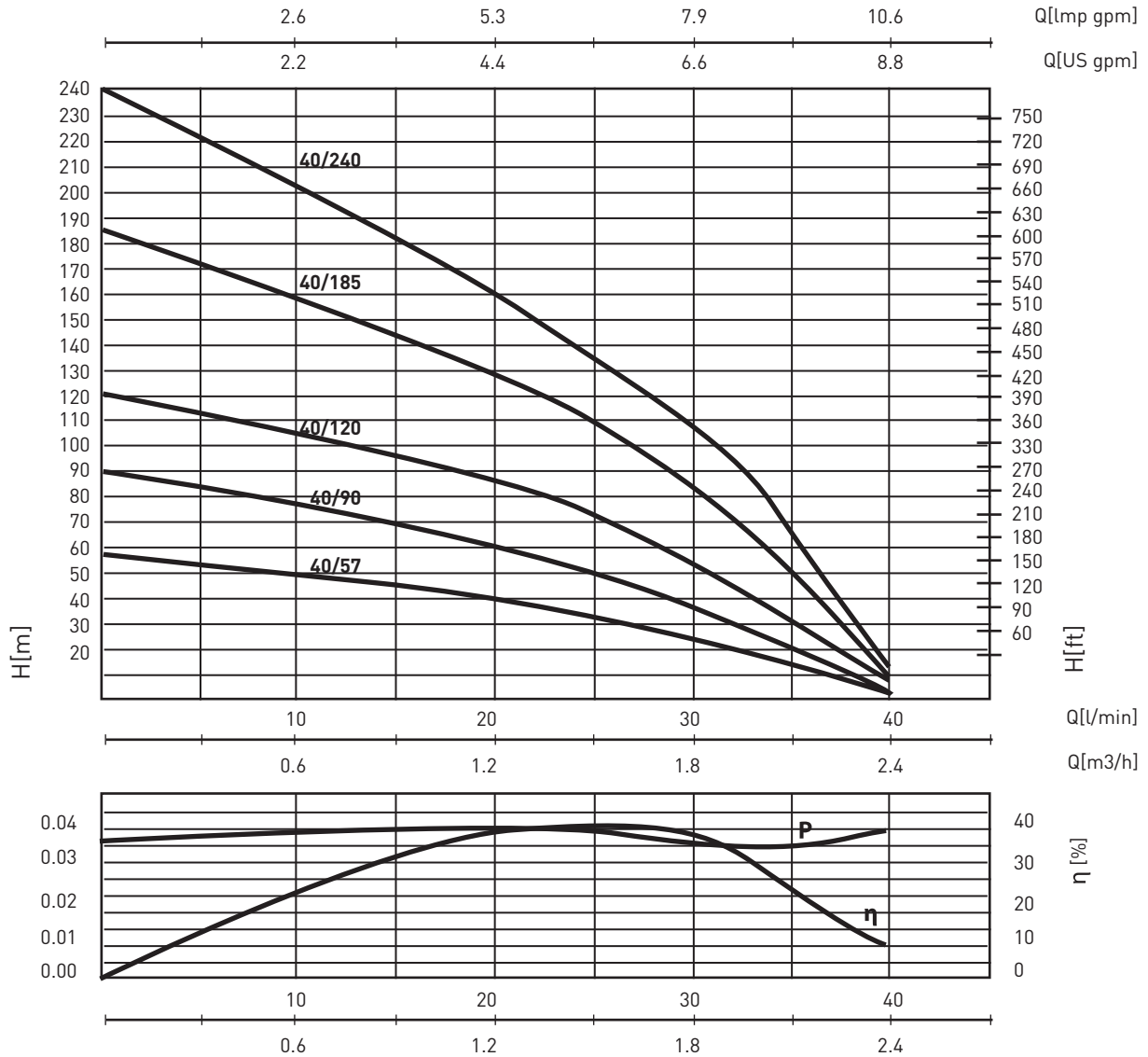
MODEL	A Total length mm	B Total length mm	C Total length mm	DNM	L Package length mm	Total weight (kg)
SCM 4 PLUS 40/57 M	584	250	334		610	11.8
SCM 4 PLUS 40/57 T	569	235	334		610	10.8
SCM 4 PLUS 40/90 M	711	265	446		800	14
SCM 4 PLUS 40/90 T	696	250	446		800	12.7
SCM 4 PLUS 40/120 M	853	295	558		960	16.1
SCM 4 PLUS 40/120 T	823	265	558		960	14.9
SCM 4 PLUS 40/185 M	1122	340	782		1330	19.2
SCM 4 PLUS 40/185 T	1077	295	782		1120	17.9
SCM 4 PLUS 40/240 M	1358	375	983		1580	22.2
SCM 4 PLUS 40/240 T	1323	340	983		1330	20.8
SCM 4 PLUS 55/50 M	517	250	267		610	11.3
SCM 4 PLUS 55/50 T	502	235	267		610	10.3
SCM 4 PLUS 55/80 M	622	265	357		800	13.1
SCM 4 PLUS 55/80 T	607	250	357		800	11.8
SCM 4 PLUS 55/105 M	696	295	401		800	14.9
SCM 4 PLUS 55/105 T	666	265	401		800	13.7
SCM 4 PLUS 55/160 M	875	340	535		960	17.3
SCM 4 PLUS 55/160 T	830	295	535		960	16
SCM 4 PLUS 55/200 M	1045	375	670		1120	19.8
SCM 4 PLUS 55/200 T	1010	340	670		1120	18.4
SCM 4 PLUS 55/300 T	1336	375	961		1580	22.3
SCM 4 PLUS 75/40 M	553	250	303	1"1/4	610	11.2
SCM 4 PLUS 75/40 T	538	235	303		610	10.2
SCM 4 PLUS 75/56 M	625	265	360		800	12.9
SCM 4 PLUS 75/56 T	610	250	360		800	11.6
SCM 4 PLUS 75/75 M	740	295	445		800	14.8
SCM 4 PLUS 75/75 T	710	265	445		800	13.6
SCM 4 PLUS 75/110 M	928	340	588		960	17.1
SCM 4 PLUS 75/110 T	883	295	588		960	15.8
SCM 4 PLUS 75/140 M	1077	375	702		1120	19.4
SCM 4 PLUS 75/140 T	1042	340	702		1120	18
SCM 4 PLUS 75/210 T	1391	375	1016		1580	21.5
SCM 4 PLUS 115/30 M	496	250	246		610	11
SCM 4 PLUS 115/30 T	481	235	246		610	10
SCM 4 PLUS 115/50 M	596	265	331		610	12.8
SCM 4 PLUS 115/50 T	581	250	331		610	11.5
SCM 4 PLUS 115/65 M	683	295	388		800	14.4
SCM 4 PLUS 115/65 T	653	265	388		800	13.2
SCM 4 PLUS 115/95 M	842	340	502		960	16.6
SCM 4 PLUS 115/95 T	797	295	502		960	15.3
SCM 4 PLUS 115/122 M	992	375	617		1120	18.8
SCM 4 PLUS 115/122 T	957	340	617		960	17.4
SCM 4 PLUS 115/185 T	1221	375	846		1330	20.8
SCM 4 PLUS 115/245 T	1582	480	1102		1870	25
SCM 4 PLUS 150/42 M	648	295	353		800	14
SCM 4 PLUS 150/42 T	618	265	353		800	12.8
SCM 4 PLUS 150/64 M	803	340	463		960	16.1
SCM 4 PLUS 150/64 T	758	295	463		800	14.8
SCM 4 PLUS 150/84 M	948	375	573		960	18.3
SCM 4 PLUS 150/84 T	913	340	573	2"	960	16.9
SCM 4 PLUS 150/120 T	1161	375	786		1330	20.1
SCM 4 PLUS 150/170 T	1523	480	1043		1580	24.2
SCM 4 PLUS 150/200 T	1781	555	1226		1870	33.1
SCM 4 PLUS 150/300 T	2378	675	1703		2590	42.3



SCM 4 PLUS

4" MULTISTAGE CENTRIFUGAL SUBMERSED PUMPS COMPLETE WITH MOTOR

HYDRAULIC PERFORMANCE



The power curve refers to the shaft power per stage. η_p % indicates the hydraulic yield of the pump

MEI \geq 0.4 - Reference MEI \geq 0.70 - The information on the reference efficiency is available at the address: www.europump.org/efficiencycharts

PERFORMANCE TABLE

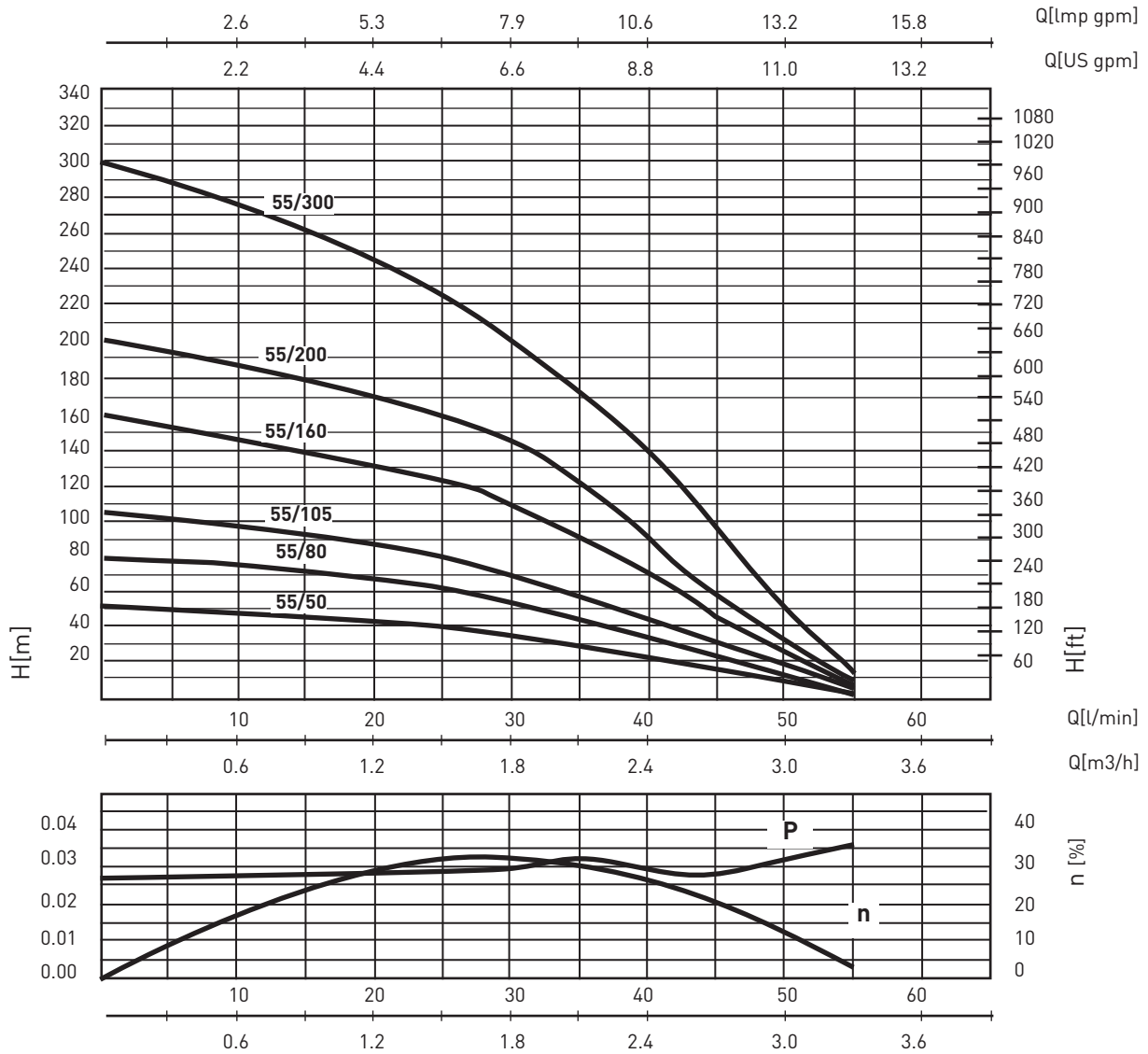
MODEL	N° Stages	Motor power (P2)		VOLT. (V)	In (A)	μ F	Ø	l/min	10	20	30	40	Ø DNM
		HP	kW										
SCM 4 PLUS-40/57 M SCM 4 PLUS-40/57 T	9	0.5	0.37	1 ~ 230 3 ~ 400	3.4 1.2	16			49	41	26	3	
SCM 4 PLUS-40/90 M SCM 4 PLUS-40/90 T	14	0.75	0.55	1 ~ 230 3 ~ 400	4.4 1.7	20			76	64	40	4	
SCM 4 PLUS-40/120 M SCM 4 PLUS-40/120 T	19	1	0.75	1 ~ 230 3 ~ 400	5.9 2.2	30			104	86	55	7	1"1/4
SCM 4 PLUS-40/185 M SCM 4 PLUS-40/185 T	29	1.5	1.1	1 ~ 230 3 ~ 400	7.8 3	40			158	130	85	10	
SCM 4 PLUS-40/240 M SCM 4 PLUS-40/240 T	38	2	1.5	1 ~ 230 3 ~ 400	10.2 4	50			205	160	110	12	

m.c.a. / m.c.w.

SCM 4 PLUS 55

4" MULTISTAGE CENTRIFUGAL SUBMERSED PUMPS COMPLETE WITH MOTOR

HYDRAULIC PERFORMANCE



The power curve refers to the shaft power per stage. η_p % indicates the hydraulic yield of the pump

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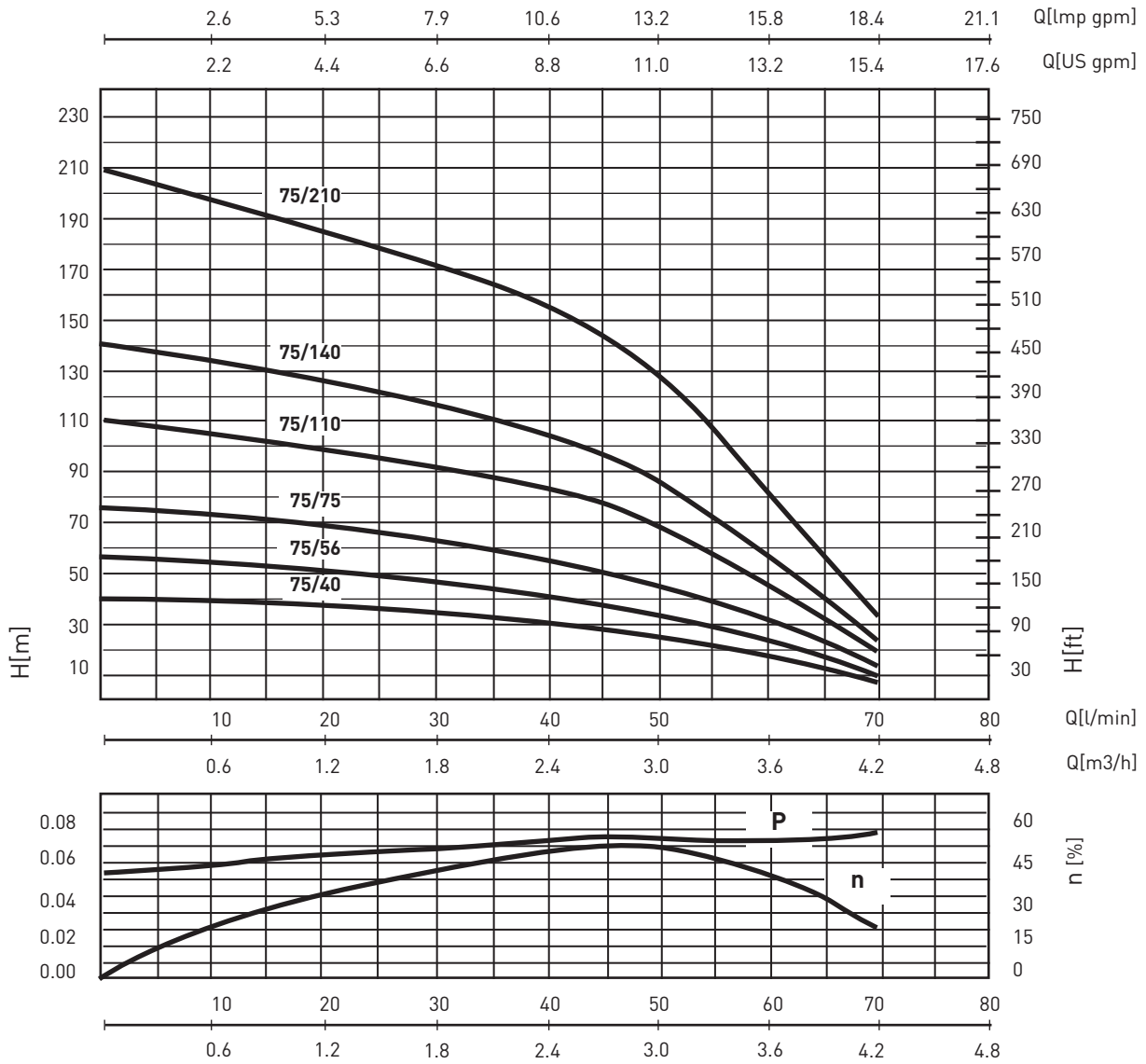
PERFORMANCE TABLE

MODEL	N° Stages	Motor power (P2)		VOLT. (V)	I _n (A)	μF.	0	Q					Ø DNM		
		HP	kW					l/min	10	20	30	40		50	
								m³/h	0.6	1.2	1.8	2.4	3		
SCM 4 PLUS-55/50 M	6	0.5	0.37	1~230	3.4	16			47	42	36	23	8	1"1/4	
SCM 4 PLUS-55/50 T															3~400
SCM 4 PLUS-55/80 M	10	0.75	0.55	1~230	4.4	20		75	66	55	35	12			
SCM 4 PLUS-55/80 T													3~400		1.7
SCM 4 PLUS-55/105 M	12	1	0.75	1~230	5.9	30		98	87	72	46	12			
SCM 4 PLUS-55/105 T													3~400		2.2
SCM 4 PLUS-55/160 M	18	1.5	1.1	1~230	7.8	40		145	132	110	70	24			
SCM 4 PLUS-55/160 T													3~400		3
SCM 4 PLUS-55/200 M	24	2	1.5	1~230	10.2	50		187	169	145	90	30			
SCM 4 PLUS-55/200 T													3~400		4
SCM 4 PLUS-55/300 T	37	3	2.2	3~400	5.6			278	244	200	140	50			

SCM 4 PLUS 75

4" MULTISTAGE CENTRIFUGAL SUBMERSED PUMPS COMPLETE WITH MOTOR

HYDRAULIC PERFORMANCE



The power curve refers to the shaft power per stage. η_p % indicates the hydraulic yield of the pump
 MEI ≥ 0.4 - Reference MEI ≥ 0.70 - The information on the reference efficiency is available at the address: www.europump.org/efficiencycharts

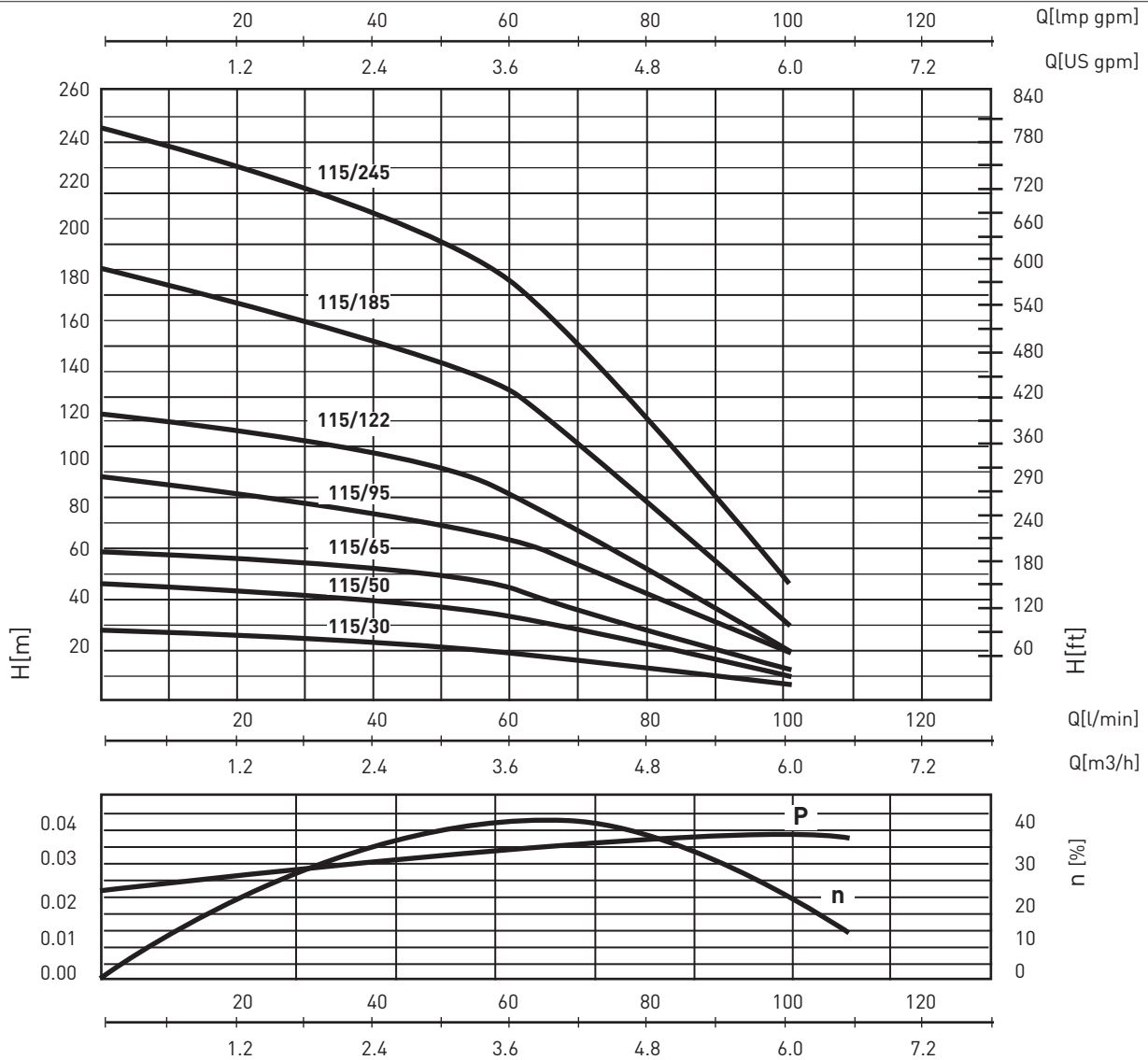
PERFORMANCE TABLE

MODEL	N° Stages	Motor power (P2)		VOLT. (V)	In (A)	μ F.	Q	l/min					\emptyset DNM
		HP	kW					20	30	40	50	60	
								1.2	1.8	2.4	3	3.6	
SCM 4 PLUS-75/40 M	6	0.5	0.37	1-230	3.4	16	m.c.a. / m.c.w.	36	33	28	23	15	1"1/4
SCM 4 PLUS-75/40 T				3-400	1.2								
SCM 4 PLUS-75/56 M	8	0.75	0.55	1-230	4.4	20		50	45	40	32	21	
SCM 4 PLUS-75/56 T				3-400	1.7								
SCM 4 PLUS-75/75 M	11	1	0.75	1-230	5.9	30		67	62	55	45	30	
SCM 4 PLUS-75/75 T				3-400	2.2								
SCM 4 PLUS-75/75 T				3-230	3.8								
SCM 4 PLUS-75/110 M	16	1.5	1.1	1-230	7.8	40		100	92	82	68	44	
SCM 4 PLUS-75/110 T				3-400	3								
SCM 4 PLUS-75/140 M	20	2	1.5	1-230	10.2	50		127	116	105	86	57	
SCM 4 PLUS-75/140 T				3-400	4								
SCM 4 PLUS-75/210 T	30	3	2.2	3-400	5.6			186	170	155	130	80	

SCM 4 PLUS 115

4" MULTISTAGE CENTRIFUGAL SUBMERSED PUMPS COMPLETE WITH MOTOR

HYDRAULIC PERFORMANCE



The power curve refers to the shaft power per stage η_p % indicates the hydraulic yield of the pump
 MEI ≥ 0.4 - Reference MEI ≥ 0.70 - The information on the reference efficiency is available at the address: www.europump.org/efficiencycharts

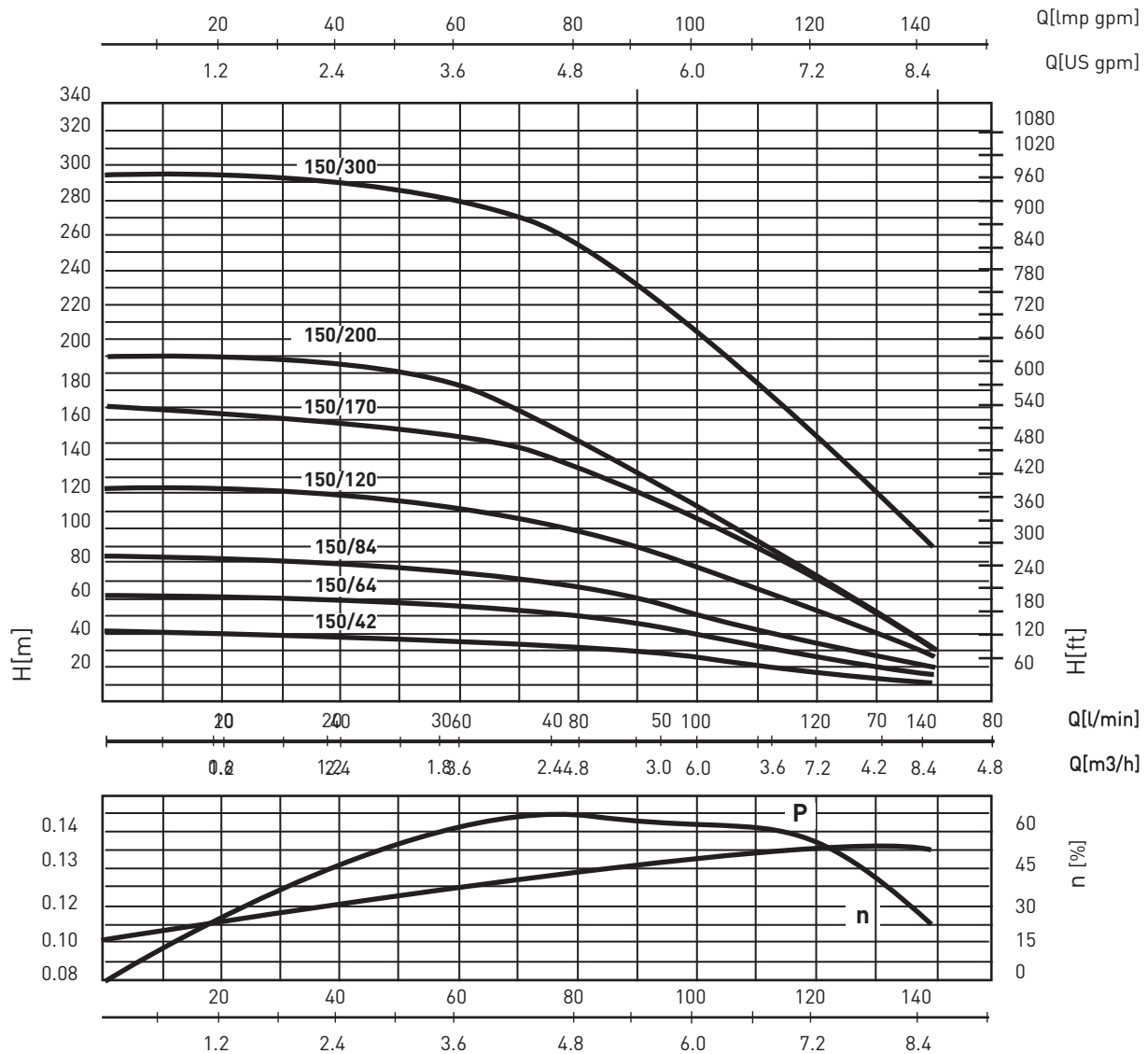
PERFORMANCE TABLE

MODEL	N° Stages	Motor power (P2)		VOLT. (V)	In (A)	μ F.	Q	l/min	30	40	50	60	80	90	100	\emptyset DNM
		HP	kW					m³/h	1.8	2.4	3	3.6	4.8	5.4	6	
SCM 4 PLUS-115/30 M	4	0.5	0.37	1-230	3.4	16	m.c.a. / m.c.w.	26	24	22	20	13	9	6.4	1"1/4	
SCM 4 PLUS-115/30 T				3-400	1.2											
SCM 4 PLUS-115/50 M	7	0.75	0.55	1-230	4.4	20		46	43	40	36	23	16	10		
SCM 4 PLUS-115/50 T				3-400	1.7											
SCM 4 PLUS-115/65 M	9	1	0.75	1-230	5.9	30		58	55	51	46	29	20	11		
SCM 4 PLUS-115/65 T				3-400	2.2											
SCM 4 PLUS-115/95 M	13	1.5	1.1	1-230	7.8	40		83	80	74	67	43	30	18		
SCM 4 PLUS-115/95 T				3-400	3											
SCM 4 PLUS-115/95 T				3-230	5.2											
SCM 4 PLUS-115/122 M	17	2	1.5	1-230	10.2	50		109	106	98	88	55	38	21		
SCM 4 PLUS-115/122 T				3-400	4											
SCM 4 PLUS-115/185 T	24	3	2.2	3-400	5.6	160		153	143	130	85	58	31			
SCM 4 PLUS-115/245 T	33	4	3	3-400	7.5	218		210	198	179	118	84	47			

SCM 4 PLUS 150

4" MULTISTAGE CENTRIFUGAL SUBMERSED PUMPS COMPLETE WITH MOTOR

HYDRAULIC PERFORMANCE



The power curve refers to the shaft power per stage η_p % indicates the hydraulic yield of the pump

MEI \geq 0.4 - Reference MEI \geq 0.70 - The information on the reference efficiency is available at the address: www.europump.org/efficiencycharts

PERFORMANCE TABLE

MODEL	N° Stages	Motor power (P2)		VOLT. (V)	In (A)	μ F.	Q	Q							\emptyset DNM	
		HP	kW					l/min	40	50	60	80	100	120		140
								m³/h	2.4	3	3.6	4.8	6	7.2		8.4
SCM 4 PLUS-150/42 M	6	1	0.75	1 ~ 230	5.9	30	m.c.a. / m.c.w.	38	37	36	33	26	17	10	2"	
SCM 4 PLUS-150/42 T				3 ~ 400	2.2											
SCM 4 PLUS-150/42 T				3 ~ 230	3.8											
SCM 4 PLUS-150/64 M	9	1.5	1.1	1 ~ 230	7.8	40		59	58	57	50	39	27	15		
SCM 4 PLUS-150/64 T				3 ~ 400	3											
SCM 4 PLUS-150/64 T				3 ~ 230	5.2											
SCM 4 PLUS-150/84 M	12	2	1.5	1 ~ 230	10.2	50		80	78	75	64	50	34	20		
SCM 4 PLUS-150/84 T				3 ~ 400	4											
SCM 4 PLUS-150/84 T				3 ~ 230	6.9											
SCM 4 PLUS-150/120 T	17	3	2.2	3 ~ 400	5.6	116		113	108	96	77	53	26			
SCM 4 PLUS-150/170 T	24	4	3	3 ~ 400	7.5	160		157	152	134	106	69	30			
SCM 4 PLUS-150/200 T	29	5.5	4	3 ~ 400	10.1	191		188	179	152	112	71	32			
SCM 4 PLUS-150/300 T	42	7.5	5.5	3 ~ 400	13.6	292		290	285	252	210	155	82			

4" MOTORS

ELECTRIC MOTORS Ø 4" FOR SUBMERSED PUMPS

4" SINGLE PHASE

Code	Model	V	Axial thrust N	kW	Hp	In A	I start A	RPM	CosØ	Ts/Tn	EFF %	C run µF	Weight KG	H mm	Length of cable mt
222P0590	4ESM kW0.37/Hp 0.5 1~230V 50Hz	1-230	1500	0.37	0.5	3.4	11	2850	0.91	0.65	58	16	6.8	250	1.75
222P0600	4ESM kW0.55/Hp 0.75 1~230V 50Hz	1-230	1500	0.55	0.75	4.4	16.6	2840	0.92	0.63	62	20	8.1	265	1.75
222P0610	4ESM kW0.75/Hp 1 1~230V 50Hz	1-230	1500	0.75	1	5.9	19.8	2860	0.94	0.62	65	30	10.6	295	1.75
222P0620	4ESM kW1.1/Hp 1.5 1~230V 50Hz	1-230	3000	1	1.5	7.8	29.5	2850	0.94	0.62	66	40	11.2	340	1.75
222P0630	4ESM kW1.5/Hp 2 1~230V 50Hz	1-230	3000	1.5	2	10.2	36.4	2850	0.95	0.61	68	50	14	375	1.75

4" THREE-PHASE

Code	Model	V	Axial thrust N	kW	Hp	In A	I start A	RPM	CosØ	Ts/Tn	EFF %	Weight KG	H mm	Length of cable mt
221P1190	4ESM kW0.37/Hp 0.5 3~400V 50Hz	3~400	1500	0.37	0.5	1.2	5.1	2840	0.73	2.1	63	5.8	235	1.75
221P1200	4ESM kW0.55/Hp 0.75 3~400V 50Hz	3~400	1500	0.55	0.75	1.7	6.5	2840	0.73	2	64	7	250	1.75
221P1210	4ESM kW0.75/Hp 1 3~230V 50Hz	3~230	1500	0.75	1	3.8	15.9	2840	0.75	1.9	67	8.3	265	1.75
221P1220	4ESM kW0.75/Hp 1 3~400V 50Hz	3~400	1500	0.75	1	2.2	9.2	2840	0.75	1.9	67	8.3	265	1.75
221P1230	4ESM kW1.1/Hp 1.5 3~230V 50Hz	3~230	1500	1.1	1.5	5.2	24.6	2840	0.76	2.3	71	10.9	295	1.75
221P1240	4ESM kW1.1/Hp 1.5 3~400V 50Hz	3~400	3000	1.1	1.5	3	14.2	2840	0.76	2.3	71	10.9	295	1.75
221P1360	4ESM kW1.5/Hp 2 3~230V 50Hz	3~230	3000	1.5	2	6.9	32	2830	0.78	2.1	72	11.4	340	1.75
221P1250	4ESM kW1.5/Hp 2 3~400V 50Hz	3~400	3000	1.5	2	4	18.5	2830	0.78	2.1	72	11.4	340	1.75
221P1260	4ESM kW2.2/Hp 3 3~400V 50Hz	3~400	3000	2.2	3	5.6	26.5	2830	0.79	2.4	74	14.2	375	2.5
221P1270	4ESM kW3/Hp 4 3~400V 50Hz	3~400	6500	3	4	7.5	34.3	2830	0.79	2.2	76	18.3	480	2.5
221P1280	4ESM kW4/Hp 5.5 3~400V 50Hz	3~400	6500	4	5.5	10.1	44	2840	0.77	2.3	75	23.4	555	2.5
221P1290	4ESM kW5.5/Hp 7.5 3~400V 50Hz	3~400	6500	5.5	7.5	13.6	62	2840	0.8	2.2	76	29.4	675	4

4" MOTORS

CHOOSING THE ELECTRIC CABLE FOR SUBMERSED PUMPS



Motor 4ESM	HP	kW	CABLE SECTION (mm ²)					
			4X1	4X1.5	4X2.5	4X4	4X6	4X10
SINGLE PHASE 230V/50Hz	0.5	0.37	50	75	125			
	0.75	0.55	38	57	65	152		
	1	0.75	30	45	75	120	174	
	1.5	1.1	22	33	53	85	127	210
	2	1.5		23	38	63	92	154
	3	2.2			28	45	67	112
THREE-PHASE 400V/50Hz	0.5	0.37	240					
	0.75	0.55	164	246				
	1	0.75	133	200	333			
	1.5	1.1	97	146	244	390		
	2	1.5	72	109	180	290	435	
	3	2.2	51	78	130	207	310	516
	4	3	41	62	104	167	250	416
	5.5	4	31	46	77	124	186	310
	7.5	5.5		33	56	90	135	225
THREE-PHASE 230V/50Hz	0.5	0.37	90	135				
	0.75	0.55	60	90	150	240		
	1	0.75	47	71	118	190		
	1.5	1.1	35	52	87	140	210	
	2	1.5	26	40	66	106	160	266
	3	2.2		29	48	76	115	191
	4	3			37	60	90	150
	5.5	4			27	44	66	110
	7.5	5.5				32	48	80

CABLES AND FITTINGS



ZA000420	CABLE 4X1	NEOPRENE CABLE H07 RNF 4 1 SQ.MM WIRES
ZA000430	CABLE 4X1.5	NEOPRENE CABLE H07 RNF 4 1.5 SQ.MM WIRES
ZA000440	CABLE 4X2.5	NEOPRENE CABLE H07 RNF 4 2.5 SQ.MM WIRES
ZA000450	CABLE 4X4	NEOPRENE CABLE H07 RNF 4 4 SQ.MM WIRES
ZA000460	CABLE 4X6	NEOPRENE CABLE H07 RNF 4 6 SQ.MM WIRES
ZA000470	CABLE 4X10	NEOPRENE CABLE H07 RNF 4 10 SQ.MM WIRES

ZA003370	JOINT KIT 2.5	KIT FOR HEAT SHRINK JOINTS FOR CABLES UP TO 4 X 2.5
ZA003390	JOINT KIT 6	KIT FOR HEAT SHRINK JOINTS FOR CABLES UP TO 4 X 6
ZA003380	JOINT KIT 10	KIT FOR CASTING RESIN JOINTS FOR CABLES UP TO 4X10
ZA009410	JOINT 2.5	HEAT SHRINK JOINT 1 - 2.5 sq.mm
ZA009430	JOINT 6	HEAT SHRINK JOINT 4 - 6 sq.mm
ZA009450	JOINT 10	CASTING RESIN JOINT UP TO 4 X 10 sq.mm