

IDROSOM 4"



Electric submersible pumps IDROSOM for 4" boreholes



APPLICATION

Multistage electric submersible pumps for installations in domestic, agricultural, civil and industrial environments. Suitable to pump clean water from boreholes, tanks and reservoirs, they are designed to comply with the parameters of the European Directive ErP to ensure the best possible efficiency and reduce the consumption of energy to the lowest possible level. They are recommended to pressurize water plants in detached houses, block of flats, irrigation and fire-fighting systems.

CONSTRUCTION

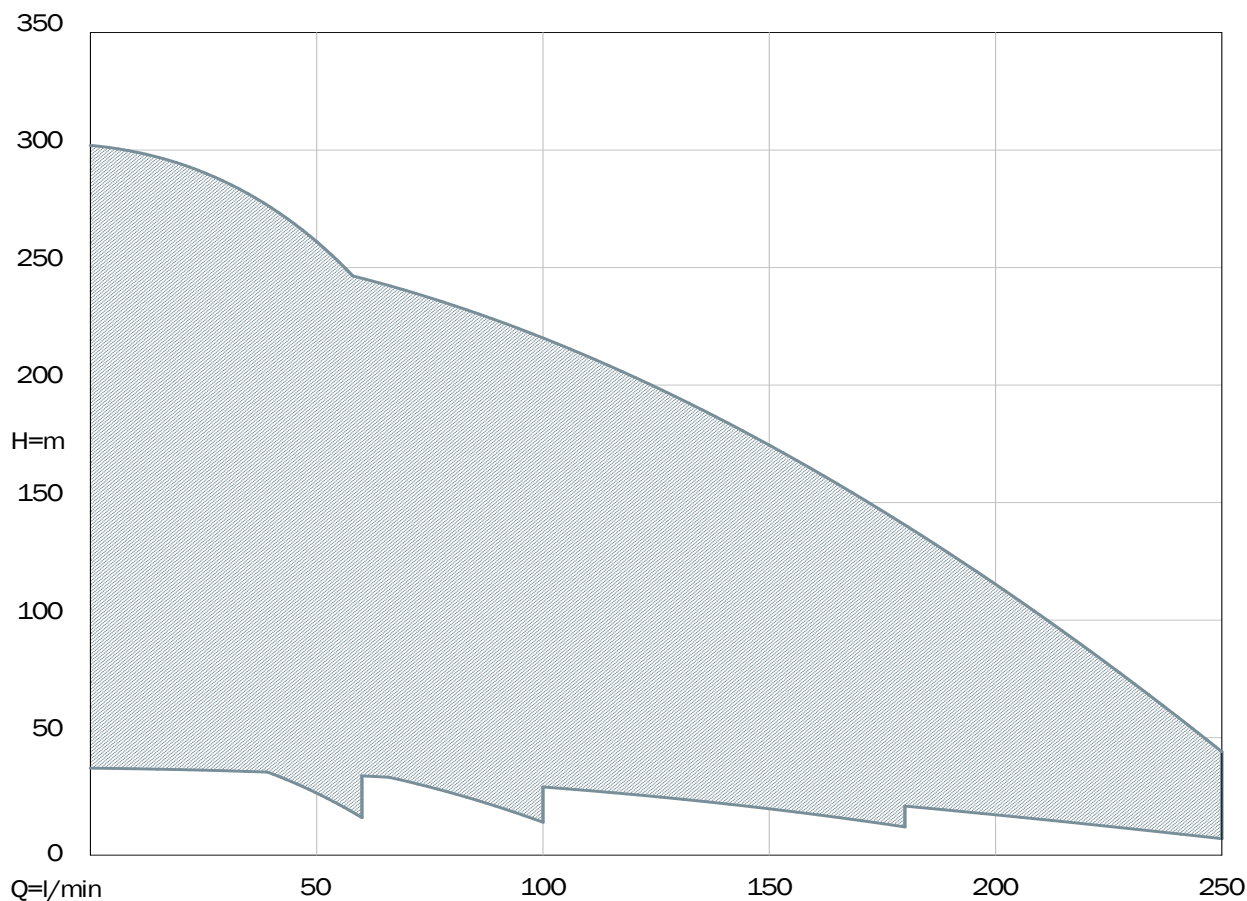
Coolant filled, asynchronous, rewindable electric AC motor with short circuit rotor. Insulation Class F

Resin-insulated cable kit to prevent penetration of water inside the motor ("S" series motors)

Shafts machined on ball bearings and mechanical seals location

Both shaft and coupling meet NEMA standards

APPLICATION RANGE



Electric submersible pumps IDROSOM

for 4" boreholes



ErP Directive

Eco-friendly design for water pumps. The submersible pumps Idrosom /60 and /100 successfully comply with the parameters of efficiency approved by the European commission on best technology available on the market (MEI Index $\geq 0,7$).



APPLICATION FEATURES - PUMP END

	IDROSOM			
	/60	/100	/180	/250
Minimum depth of the liquid pumped (m)	0,8			
Maximum temperature of the water pumped (°C)	60			
PH of the liquid pumped	6 - 10			
Maximum sand content (g/m ³)	150			
Suitable to operate horizontally (included)	23/60	18/100	17/180	12/250

MATERIALS - PUMP END

	IDROSOM			
	/60	/100	/180	/250
Head and suction body	Stainless Steel AISI304			
Casing, bolts and nuts	Stainless Steel AISI304			
Shaft	Stainless Steel AISI304			
Coupling	Stainless Steel AISI316			
Impellers and diffusers	Noryl® reinforced with fibre-glass, certified for drinking water			
Top bearing	Rubber with rotating element in Stainless Steel AISI316			

APPLICATION FEATURES - MOTOR

	MOTOR	
	4" S series	4" E series
IP rating	IP68	
Duty	Continuous S1	
Maximum immersion depth (m)	150	
Maximum number of starts per hour	30	
Maximum temperature of the water pumped (°C)	35	
PH of the liquid pumped	6 - 10	
Suitable for inverter drive	Three-phase versions only	
Suitable to operate horizontally (Included)	5,5 hp	



MATERIALS - MOTOR

	MOTOR	
	4" S series	4" E series
Casing	Stainless steel AISI304	
Shaft terminal	Stainless steel AISI303	Stainless steel AISI304
Upper body	Brass OT58	Nickel plated cast iron, with protection Stainless steel AISI304
Elastomers	NBR Rubber	
Mechanical seal	Graphite and alumina	
Cable	PVC ACS AD8 (for permanent immersion in drinking water)	Cross-linked rubber ACS AD8 (for permanent immersion in drinking water)

Electric submersible pumps IDROSOM

for 4" boreholes

PERFORMANCE DATA - PUMP ENDS - 2 poles 50 Hz

Radial impeller 	P2		DNM (GAS)	Q	Flow																
	hp	kW		m³/h	0	0,6	1,2	1,8	2,4	3	3,6	4,5	6	7,2	8,4	9,6	10,8	12	13,5	15	
				l/min	0	10	20	30	40	50	60	75	100	120	140	160	180	200	225	250	
SERIES 60																					
IDROSOM 8/60	0,5	0,37	1"½	H (m)	49	48	45	41	35	27	16										
IDROSOM 12/60	0,75	0,55	1"½		74	73	69	62	52	40	24										
IDROSOM 15/60	1	0,75	1"½		92	90	85	78	66	50	30										
IDROSOM 23/60	1,5	1,1	1"½		140	137	130	119	101	77	45										
IDROSOM 30/60	2	1,5	1"½		184	179	169	155	132	100	59										
IDROSOM 43/60	3	2,2	1"½		263	257	243	222	189	144	84										
SERIES 100																					
IDROSOM 7/100	0,75	0,55	1"½	H (m)	45		44	43	41	39	36	29	14								
IDROSOM 9/100	1	0,75	1"½		57		55	54	53	50	46	38	18								
IDROSOM 14/100	1,5	1,1	1"½		88		86	85	82	78	72	60	28								
IDROSOM 18/100	2	1,5	1"½		113		110	107	104	99	91	76	36								
IDROSOM 27/100	3	2,2	1"½		170		167	163	156	148	137	112	53								
IDROSOM 36/100	4	3	1"½		226		220	215	208	197	182	151	71								
IDROSOM 48/100	5,5	4	1"½		302		295	288	277	261	242	200	96								
SERIES 180																					
IDROSOM 6/180	1	0,75	2"	H (m)	37					34	33	32	29	26	22	17	12				
IDROSOM 9/180	1,5	1,1	2"		55					50	49	48	44	38	32	26	18				
IDROSOM 12/180	2	1,5	2"		74					67	66	64	58	51	43	34	23				
IDROSOM 17/180	3	2,2	2"		104					96	94	91	82	72	61	48	33				
IDROSOM 24/180	4	3	2"		147					135	133	128	116	102	86	68	46				
IDROSOM 31/180	5,5	4	2"		190					174	171	165	149	131	111	87	59				
IDROSOM 42/180	7,5	5,5	2"		257					235	230	223	202	177	150	118	80				
SERIES 250																					
IDROSOM 6/250	1,5	1,1	2"	H (m)	40							35	33	32	29	26	23	19	14	7	
IDROSOM 8/250	2	1,5	2"		53								47	44	42	39	35	30	25	18	9
IDROSOM 12/250	3	2,2	2"		79								70	66	63	58	52	45	38	27	14
IDROSOM 17/250	4	3	2"		112								99	94	89	82	74	64	54	39	19
IDROSOM 22/250	5,5	4	2"		145								129	122	115	106	95	82	69	50	25
IDROSOM 30/250	7,5	5,5	2"		197								175	165	156	144	129	112	94	68	33
IDROSOM 40/250	10	7,5	2"		262								233	220	208	192	172	149	125	90	44

Motor and pump end can be supplied coupled exclusively with "S" series motors

PERFORMANCE DATA - MOTORS - 2 poles 50 Hz

	Code	Voltage	Number of phases	Capaci- tor	P2		Axial load	Rotation	Nominal current	Start current	Start Torque	Efficiency %	Power factor	Size of cable	Length of cable
		μF		hp	kW	F	n _N	I _N	I _A	M _A	η _N	cos ø	mm²	m	
						N	min ⁻¹	A	A	Nm					
"S" SERIES COOLANT FILLED SUBMERSIBLE MOTORS - for 4" boreholes															
4M05	M4M05	230	1	20	0,5	0,37	2000	2870	3,6	12,5	1,1	52	0,89	4 x 1	2
4T05	M4T05	400	3					2900	1,8	9	6,1	57	0,5		
4M075	M4M075	230	1	25	0,75	0,55	2000	2800	4,4	12,5	1,1	60	0,93	4 x 1	2
4T075	M4T075	400	3					2850	2	9	6,1	64	0,7		
4M10	M4M10	230	1	31,5	1	0,75	2000	2810	6	17,4	1,42	59	0,93	4 x 1	2
4T10	M4T10	400	3					2805	2,3	9	6,1	66	0,75		
4M15	M4M15	230	1	40	1,5	1,1	2000	2800	8	22,9	2,2	65	0,92	4 x 1	2
4T15	M4T15	400	3					2800	3,2	12,8	12,1	68	0,74		
4M20	M4M20	230	1	50	2	1,5	2000	2820	11	37,4	2,3	67	0,9	4 x 1,5	2
4T20	M4T20	400	3					2815	4,2	13,6	16,3	71	0,76	4 x 1	
4M30	M4M30/2	230	1	60	3	2,2	2000	2830	15,7	48	3,3	68	0,91	4 x 1,5	2
4M30H	M4M30H	230	1	55			5000								
4T30	M4T30	400	3				2000	2800	5,7	28	23,9	72	0,78	4 x 1	
4T30H	M4T30H	400	3				5000								
4T40	M4T40	400	3		4	3	5000	2815	8	35,2	27,9	72	0,73	4 x 1	2
4T55	M4T55	400	3		5,5	4	5000	2860	10	51,7	37,2	78	0,75	4 x 1,5	2
4T75	M4T75	400	3		7,5	5,5	5000	2840	12,5	67	48	80	0,85	4 x 1,5	4
4T100	M4T100	400	3		10	7,5	5000	2850	16,7	91	66,5	80	0,8	4 x 1,5	4
"E" SERIES COOLANT FILLED SUBMERSIBLE MOTORS - for 4" boreholes															
4M075	MYE4M075	230	1	25	0,75	0,55	2000	2810	4,7	16,5	1,3	57	0,88	4 x 1,5	1,7
4M10	MYE4M10	230	1	35	1	0,75	2000	2825	5,9	18,9	1,72	62	0,9	4 x 1,5	1,7
4T10	MYE4T10	400	3					2825	2,5	9,4	5,1	63	0,77		
4M15	MYE4M15	230	1	40	1,5	1,1	2000	2840	8,3	26,2	2,3	64	0,91	4 x 1,5	1,7
4T15	MYE4T15	400	3					2825	3,4	15,5	9,64	68	0,69		
4M20	MYE4M20	230	1	60	2	1,5	2000	2845	10,7	35	3,27	66	0,93	4 x 1,5	1,7
4T20	MYE4T20	400	3					2835	4,8	18	10	71	0,63		

Electric submersible pumps IDROSOM series 60

for 4" boreholes

PERFORMANCE DATA - 2 poles 50 Hz

Radial impeller 	Pump Code	Motor		Version		P2		A	Flow		DNM (GAS)	Dimensions (mm)			Cable	Weight
		Code	Series			hp	kW		l/min	m		A	B	C	m	kg
IDROSOM 8/60	P60/08	M4M05	S	230 V	1-phase	0,5	0,37	3,6	10 - 30 - 60	48 - 41 - 16	1"½	746	346	95	2	12
		M4T05	S	400 V	3-phase			1,8								12,1
IDROSOM 12/60	P60/12	M4M075	S	230 V	1-phase	0,75	0,55	4,4	10 - 30 - 60	73 - 62 - 24	1"½	837	346	95	2	12,6
		MYE4M075	E	230 V	1-phase			4,7							1,7	11,3
		M4T075	S	400 V	3-phase			2							2	12,7
IDROSOM 15/60	P60/15	M4M10	S	230 V	1-phase	1	0,75	6	10 - 30 - 60	90 - 78 - 30	1"½	935	376	95	2	14,4
		MYE4M10	E	230 V	1-phase			5,9							1,7	12,9
		M4T10	S	400 V	3-phase			2,3							2	13,1
		MYE4T10	E	400 V	3-phase			2,5							1,7	12,9
IDROSOM 23/60	P60/23	M4M15	S	230 V	1-phase	1,5	1,1	8	10 - 30 - 60	137 - 119 - 45	1"½	1145	406	95	2	16,9
		MYE4M15	E	230 V	1-phase			8,3							1,7	15,9
		M4T15	S	400 V	3-phase			3,2							2	15,5
		MYE4T15	E	400 V	3-phase			3,4							1,7	15
IDROSOM 30/60	P60/30	M4M20	S	230 V	1-phase	2	1,5	11	10 - 30 - 60	179 - 155 - 59	1"½	1396	456	95	2	20,4
		MYE4M20	E	230 V	1-phase			10,7							1,7	18,6
		M4T20	S	400 V	3-phase			4,2							2	18,1
		MYE4T20	E	400 V	3-phase			4,8							1,7	17,2
IDROSOM 43/60	P60/43	M4M30H	S	230 V	1-phase	3	2,2	15,7	10 - 30 - 60	257 - 222 - 84	1"½	1782	531	95	2	24,5
		M4T30H	S	400 V	3-phase			5,7								25,5

Motor and pump end can be supplied coupled exclusively with "S" series motors



SUPPLIED WITH

Capacitor
(for single-phase versions, "S" series)



OPTIONS

10 meters cable

20 meters cable

30 meters cable



Available up to 1.1 kW single-phase and up to 3 kW three-phase

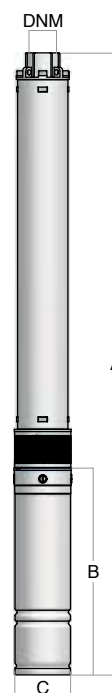
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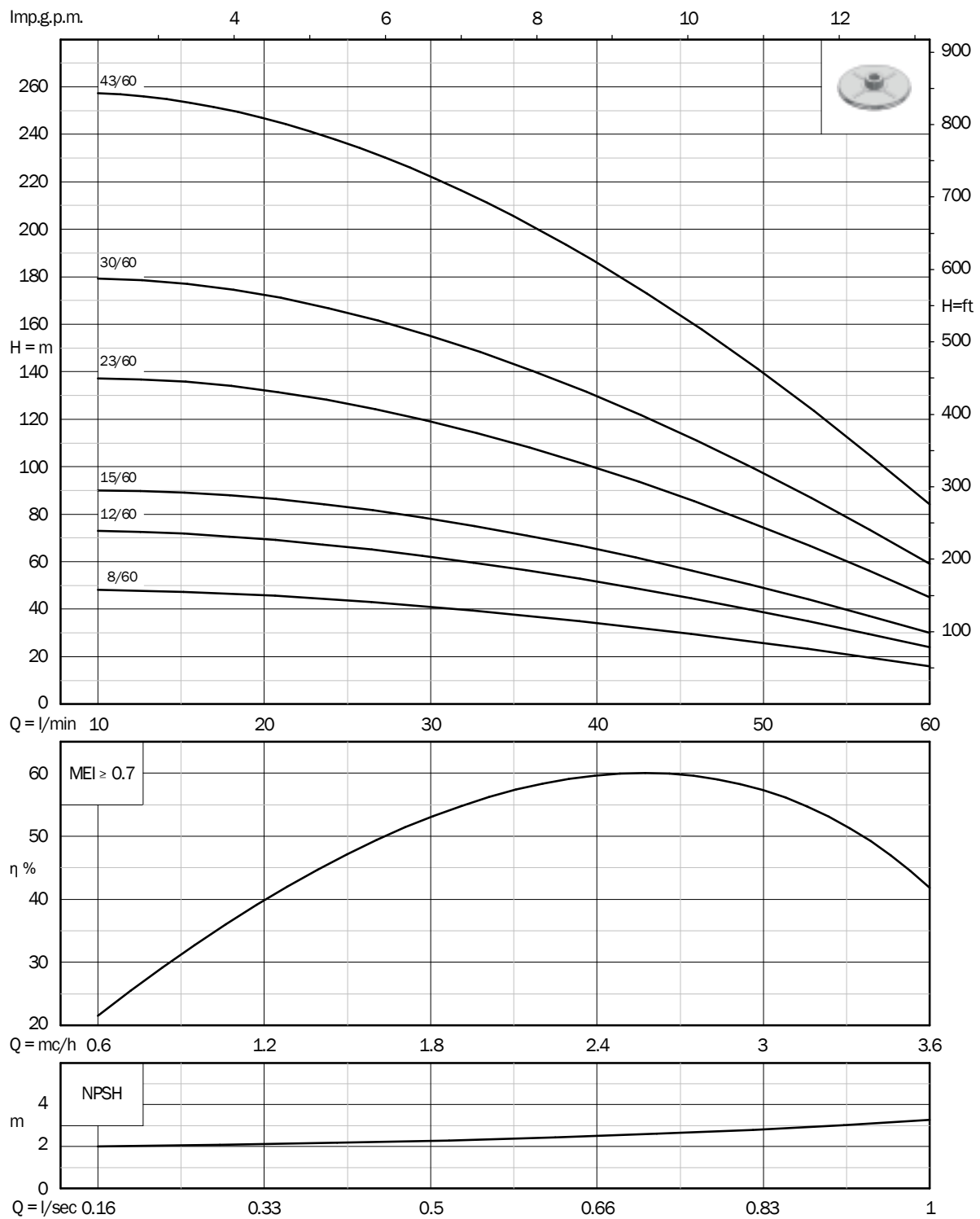
Description

05405031

Non-return threaded valve 1"½ GAS



PERFORMANCE CURVES - 2 poles 50 Hz



Electric submersible pumps IDROSOM series 100

for 4" boreholes

PERFORMANCE DATA - 2 poles 50 Hz

 Radial impeller	Pump Code	Motor		Version		P2		A	Flow		DNM (GAS)	Dimensions (mm)			Cable	Weight
		Code	Series			hp	kW		l/min	m		A	B	C	m	kg
IDROSOM 7/100	P100/07	M4M075	S	230 V	1-phase	0,75	0,55	4,4	20 - 60 - 100	44 - 36 - 14	1"½	748	346	95	2	11,9
		MYE4M075	E					4,7				733	331		1,7	10,6
		M4T075	S	400 V	3-phase			2				748	346		2	12
IDROSOM 9/100	P100/09	M4M10	S	230 V	1-phase	1	0,75	6	20 - 60 - 100	55 - 46 - 18	1"½	830	376	95	2	13,6
		MYE4M10	E					5,9				810	356		1,7	12,1
		M4T10	S	400 V	3-phase			2,3				800	346		2	12,4
		MYE4T10	E					2,5				810	356		1,7	12,2
IDROSOM 14/100	P100/14	M4M15	S	230 V	1-phase	1,5	1,1	8	20 - 60 - 100	86 - 72 - 28	1"½	990	406	95	2	15,8
		MYE4M15	E					8,3				970	386		1,7	14,8
		M4T15	S	400 V	3-phase			3,2				960	376		2	14,4
		MYE4T15	E					3,4				955	371		1,7	13,9
IDROSOM 18/100	P100/18	M4M20	S	230 V	1-phase	2	1,5	11	20 - 60 - 100	110 - 91 - 36	1"½	1144	456	95	2	18,6
		MYE4M20	E					10,7				1124	436		1,7	16,8
		M4T20	S	400 V	3-phase			4,2				1346	406		2	16,4
		MYE4T20	E					4,8				1326	386		1,7	15,5
IDROSOM 27/100	P100/27	M4M30/2	S	230 V	1-phase	3	2,2	15,7	20 - 60 - 100	167 - 137 - 53	1"½	1470	506	95	2	23
		M4T30	S	400 V	3-phase			5,7				1420	456			20,3
IDROSOM 36/100	P100/36	M4T40	S	400 V	3-phase	4	3	8	20 - 60 - 100	220 - 182 - 71	1"½	1729	531	95	2	24,6
IDROSOM 48/100	P100/48	M4T55	S	400 V	3-phase	5,5	4	10	20 - 60 - 100	295 - 242 - 96	1"½	2167	587	95	2	30,4

Motor and pump end can be supplied coupled exclusively with "S" series motors



SUPPLIED WITH

Capacitor
(for single-phase versions, "S" series)



OPTIONS

10 meters cable

20 meters cable

30 meters cable



Available up to 1.1 kW single-phase and up to 3 kW three-phase

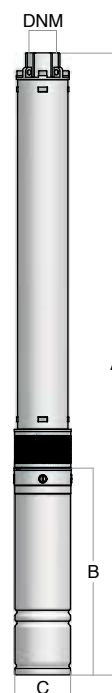
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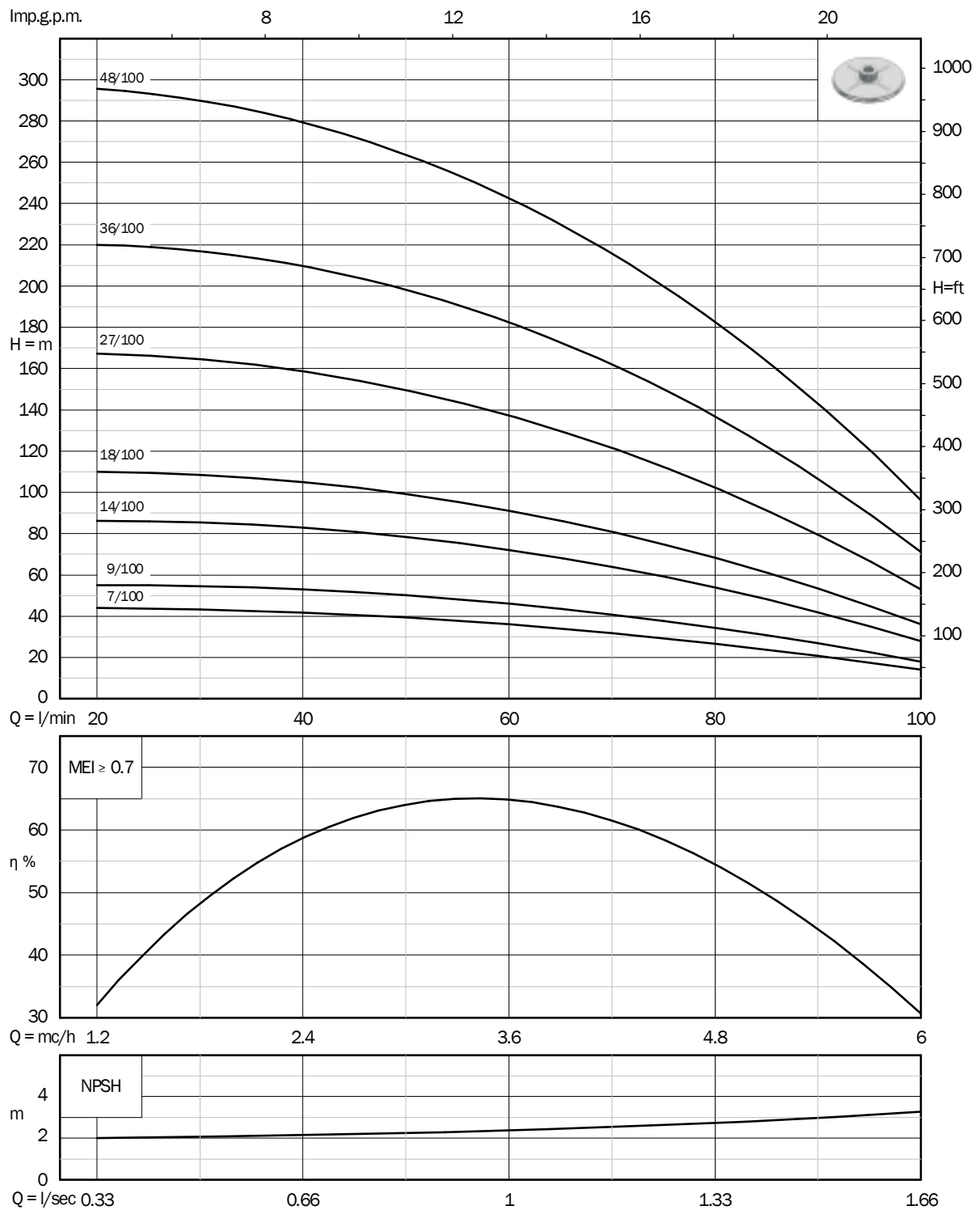
Description

05405031

Non-return threaded valve 1"½ GAS



PERFORMANCE CURVES - 2 poles 50 Hz



Electric submersible pumps IDROSOM series 180

for 4" boreholes

PERFORMANCE DATA - 2 poles 50 Hz

 Radial impeller	Pump Code	Motor		Versione		P2		A	Flow		DNM (GAS)	Dimensions (mm)			Cable	Weight
		Code	Series			hp	kW		l/min	m		A	B	C	m	kg
IDROSOM 6/180	P180/06/1	M4M10	S	230 V	1-phase	1	0,75	6	50 - 120 - 180	34 - 26 - 12	2"	817	376	95	2	13,5
		MYE4M10	E					5,9				797	356		1,7	12
		M4T10	S	400 V	3-phase			2,3				787	346		2	13,5
		MYE4T10	E					2,5				797	356		1,7	13,3
IDROSOM 9/180	P180/09/1	M4M15	S	230 V	1-phase	1,5	1,1	8	50 - 120 - 180	50 - 38 - 18	2"	951	406	95	2	15,5
		MYE4M15	E					8,3				931	386		1,7	14,5
		M4T15	S	400 V	3-phase			3,2				921	376		2	14,1
		MYE4T15	E					3,4				916	371		1,7	13,6
IDROSOM 12/180	P180/12/1	M4M20	S	230 V	1-phase	2	1,5	11	50 - 120 - 180	67 - 51 - 23	2"	1104	456	95	2	18,3
		MYE4M20	E					10,7				1084	436		1,7	16,5
		M4T20	S	400 V	3-phase			4,2				1054	406		2	16
		MYE4T20	E					4,8				1034	386		1,7	15,1
IDROSOM 17/180	P180/17/1	M4M30/2	S	230 V	1-phase	3	2,2	15,7	50 - 120 - 180	96 - 72 - 33	2"	1370	506	95	2	21,4
		M4T30	S	400 V	3-phase			5,7				1320	456			19,7
IDROSOM 24/180	P180/24/1	M4T40	S	400 V	3-phase	4	3	8	50 - 120 - 180	135 - 102 - 46	2"	1637	531	95	2	23,7
IDROSOM 31/180	P180/31/1	M4T55	S	400 V	3-phase	5,5	4	10	50 - 120 - 180	174 - 131 - 59	2"	1978	587	95	2	29,4
IDROSOM 42/180	P180/42/1	M4T75	S	400 V	3-phase	7,5	5,5	12,5	50 - 120 - 180	235 - 177 - 80	2"	2448	677	95	4	36,4

Motor and pump end can be supplied coupled exclusively with "S" series motors



SUPPLIED WITH

Capacitor
(for single-phase versions, "S" series)



OPTIONS

10 meters cable

20 meters cable

30 meters cable



Available up to 1.1 kW single-phase and up to 3 kW three-phase

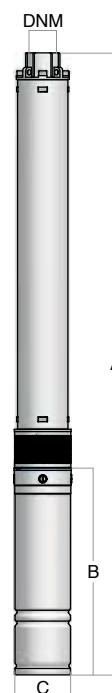
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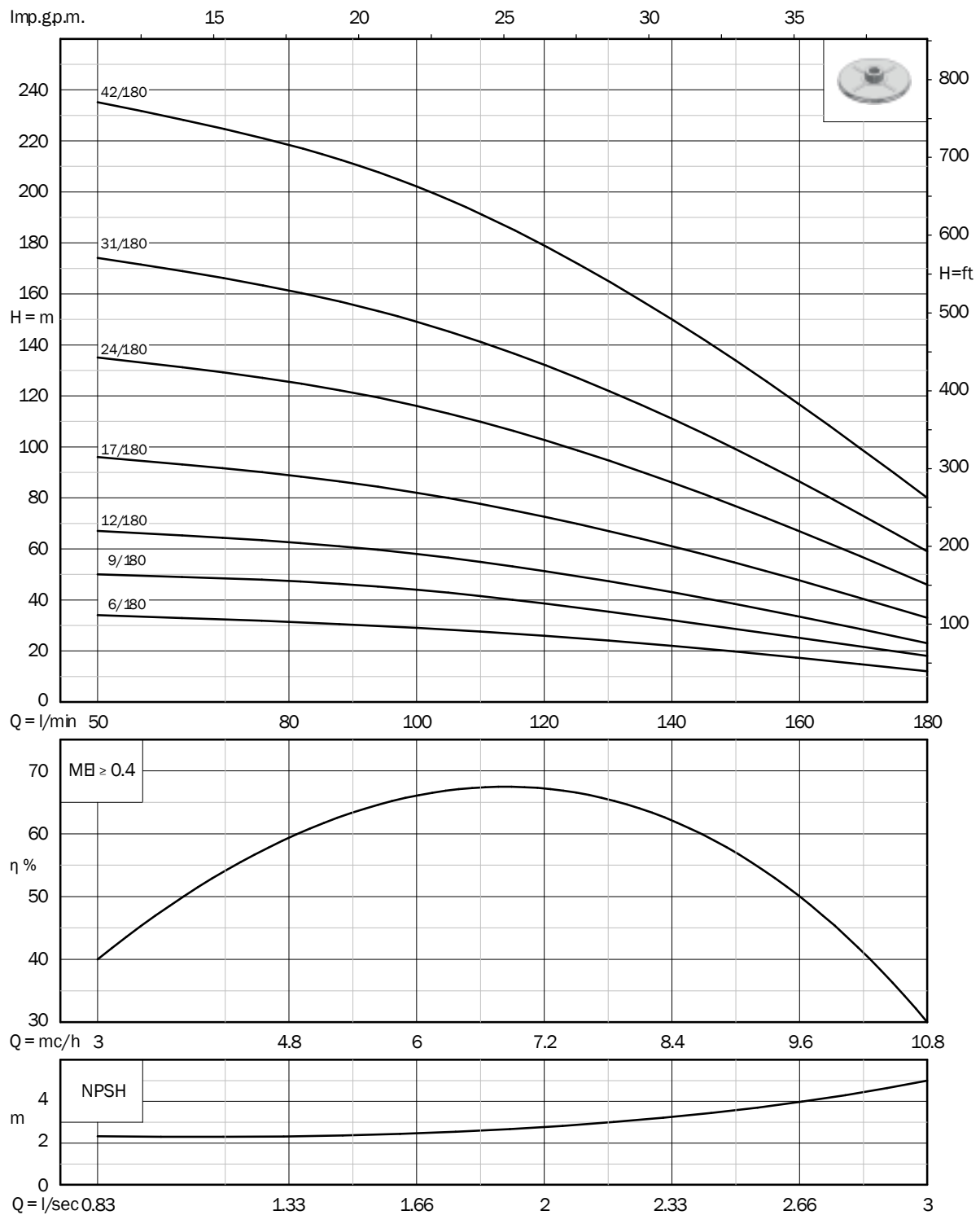
Description

05405035

Non-return threaded valve 2" GAS



PERFORMANCE CURVES - 2 poles 50 Hz



Electric submersible pumps IDROSOM series 250

for 4" boreholes

PERFORMANCE DATA - 2 poles 50 Hz

 Radial impeller	Pump Code	Motor		Version		P2		A	Flow		DNM (GAS)	Dimensions (mm)			Cable	Weight
		Code	Series			hp	kW		l/min	m		A	B	C	m	kg
IDROSOM 6/250	P250/06	M4M15	S	230 V	1-phase	1,5	1,1	8	75 - 160 - 250	35 - 26 - 7	2"	876	406	95	2	15
		MYE4M15	E					8,3				856	386		1,7	14
		M4T15	S	400 V	3-phase			3,2				846	376		2	13,6
		MYE4T15	E					3,4				841	371		1,7	13,1
IDROSOM 8/250	P250/08	M4M20	S	230 V	1-phase	2	1,5	11	75 - 160 - 250	47 - 35 - 9	2"	1005	456	95	2	17,7
		MYE4M20	E					10,7				985	436		1,7	15,9
		M4T20	S	400 V	3-phase			4,2				955	406		2	15,4
		MYE4T20	E					4,8				935	386		1,7	14,5
IDROSOM 12/250	P250/12	M4M30/2	S	230 V	1-phase	3	2,2	15,7	75 - 160 - 250	70 - 52 - 14	2"	1213	506	95	2	20,2
		M4T30	S	400 V	3-phase			5,7				1163	456			18,5
IDROSOM 17/250	P250/17	M4T40	S	400 V	3-phase	4	3	8	75 - 160 - 250	99 - 74 - 19	2"	1479	531	95	2	22,8
IDROSOM 22/250	P250/22	M4T55	S	400 V	3-phase	5,5	4	10	75 - 160 - 250	129 - 95 - 25	2"	1732	587	95	2	27,2
IDROSOM 30/250	P250/30	M4T75	S	400 V	3-phase	7,5	5,5	12,5	75 - 160 - 250	175 - 129 - 33	2"	2180	677	95	4	34,7
IDROSOM 40/250	P250/40	M4T100	S	400 V	3-phase	10	7,5	16,7	75 - 160 - 250	233 - 172 - 44	2"	2655	757	95	4	40,5

Motor and pump end can be supplied coupled exclusively with "S" series motors



SUPPLIED WITH

Capacitor
(for single-phase versions, "S" series)



OPTIONS

- 10 meters cable
- 20 meters cable
- 30 meters cable



Available up to 1.1 kW single-phase and up to 3 kW three-phase

ACCESSORIES

Code	Description
05405035	Non-return threaded valve 2" GAS



PERFORMANCE CURVES - 2 poles 50 Hz

