OPTIMA

CE

Submersible pumps in AISI 304 stainless steel

Submersible pumps with standard mechanical seal used for draining wells, garages, cellars or places subject to flooding. Handling of seewage water or wastewater, water not containing solids. Thanks to their versatility, they can be used in permanent or portable installations. Impeller, diffuser and motor cover in technopolymer reinforced with fibreglass.

OPTIMA MS

OPTIMA MA

Sturdy design, corrosion resistant

Possibility to use in fixed and mobile installations

Pratical and easy to use

Technical data

Max. immersion	5 m with 10 m cable lenght 2 m with 5 m cable lenght
Max. temperature of the liquid	50°C
Max. solids passage	10 mm
Poles	2
Insulation class	F
Protection degree	IP68
Voltage	Single phase 230V ±10%

Materials

Pump body	AISI 304
Impeller	PPE + PS reinforced with fibreglass
Shaft	AISI 303 + AISI 303 ceramic coated shaft sleeve
Shaft seal	Ceramic/Carbon/NBR (mechanical seal) QQV in SiC/SiC/FPM (special mechanical seal) NBR (lip seal)

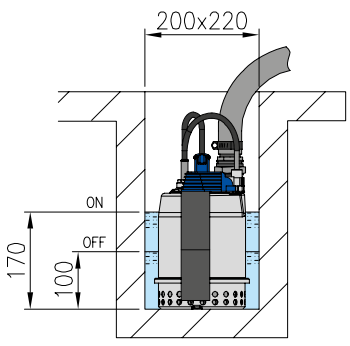
Accessories

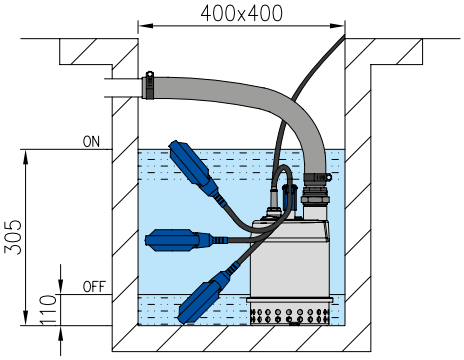
1"¼ hose connector and related clamp
Page 385 - **OPTIMA - BEST ONE accessories**

Minimum suction device up to 3 mm
Page 385 - **OPTIMA - BEST ONE accessories**

Control panels and Control systems
Page 367 - **Control panels**
1EP-1 - QA50/B - QA60/C

Installation

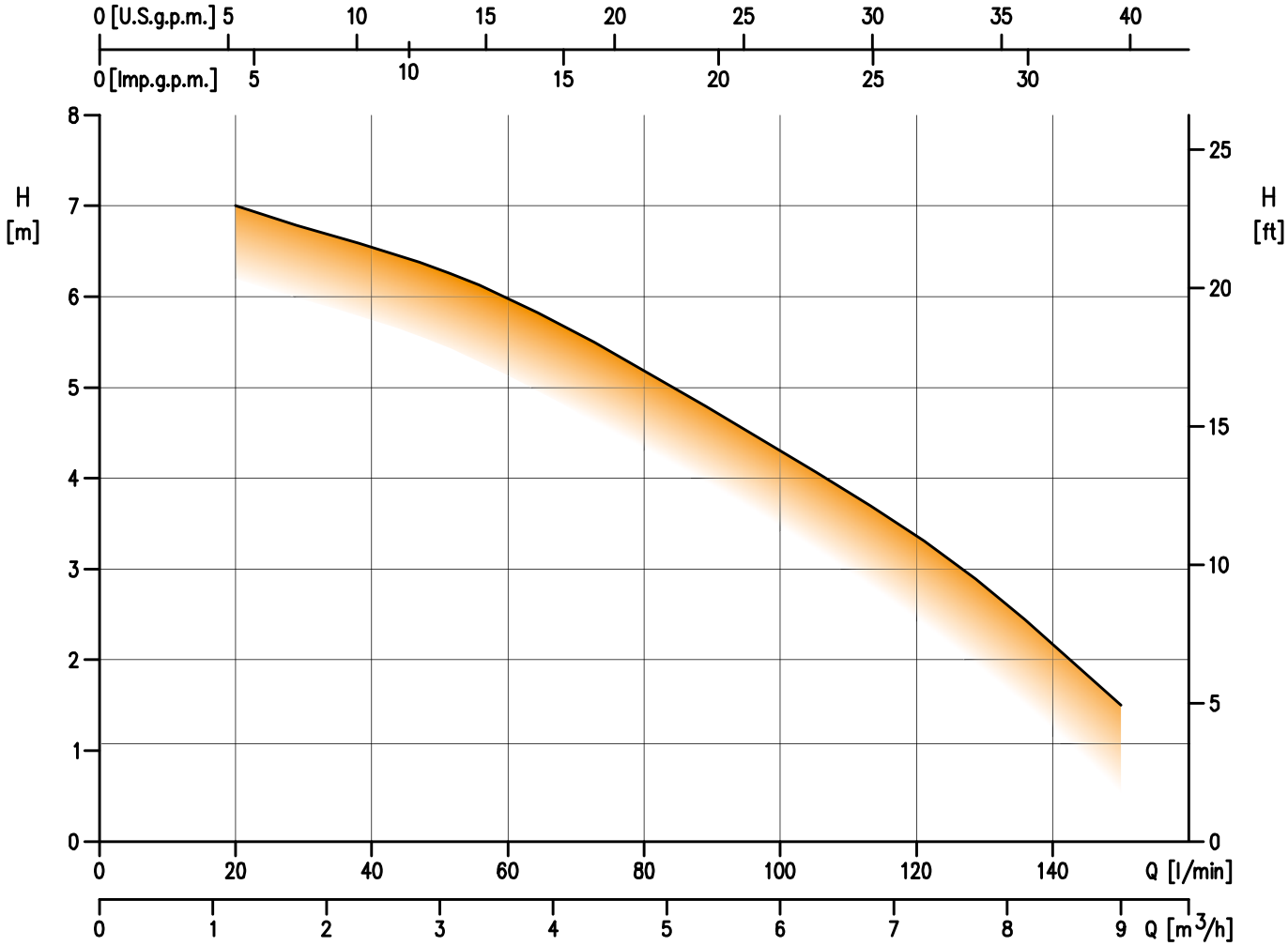




OPTIMA pumps have a great versatility of installation. The choice between vertical magnetic float (small size) or floating switch, allow to choose the best option, also depending on the available space to install the pump. In addition, the right switch type could depend on the water level that it is preferred to have for pump starting.

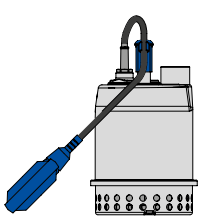
OPTIMA

Submersible pumps in AISI 304 stainless steel



Single phase 230V — **2 Poles**

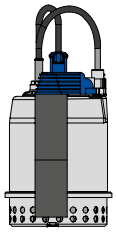
Model	Code	HP	kW	Q=Flow rate l/min	20	50	75	100	125	150	Abs. Curr. [A] 230V	DNA	Weight [kg]
				m³/h	1,2	3	4,5	6	7,5	9			
				H=Total head [m]									
OPTIMA MA	1751100000	0,33	0,25		7,0	6,3	5,4	4,3	3,1	1,5	1,9	G1¼	4,4
OPTIMA M	1751000000	0,33	0,25		7,0	6,3	5,4	4,3	3,1	1,5	1,9	G1¼	4,2
OPTIMA MA 10 m	1751101200	0,33	0,25		7,0	6,3	5,4	4,3	3,1	1,5	1,9	G1¼	4,5
OPTIMA M 10 m	1751001200	0,33	0,25		7,0	6,3	5,4	4,3	3,1	1,5	1,9	G1¼	4,3
OPTIMA MS	1752100000	0,33	0,25		7,0	6,3	5,4	4,3	3,1	1,5	1,9	G1¼	4,6
OPTIMA MA -QQV	1751107200	0,33	0,25		7,0	6,3	5,4	4,3	3,1	1,5	1,9	G1¼	4,4
OPTIMA M -QQV	1751007200	0,33	0,25		7,0	6,3	5,4	4,3	3,1	1,5	1,9	G1¼	4,2
OPTIMA MS -QQV	1752107200	0,33	0,25		7,0	6,3	5,4	4,3	3,1	1,5	1,9	G1¼	4,6



OPTIMA "MA"
is complete of float, the rest of the range has none

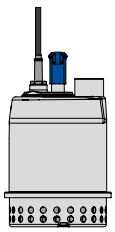
VERSION
5 m cable
- OPTIMA MA
- OPTIMA MA - QQV

10 m cable
- OPTIMA MA 10 m



OPTIMA "MS"
is complete of vertical magnetic float (Magnetic Switch) which allows minimum amount of space.

VERSION
- OPTIMA MS
- OPTIMA MA - QQV



OPTIMA "M"
without float

VERSION
5 m cable
- OPTIMA M
- OPTIMA M – QQV

10 m cable
- OPTIMA 10 m

BEST ONE - VOX

CE

Submersible pumps completely in AISI 304 stainless steel

Submersible pumps with standard mechanical seal used for draining wells, garages, cellars or places subject to flooding. Handling of seewage water or wastewater, water not containing solids. Thanks to their versatility, they can be used in permanent or portable installations.

BEST ONE

BEST ONE VOX

Sturdy design, corrosion resistant

Possibility to use in fixed and mobile installations

Pratical and easy to use

Technical data

Max. immersion	5 m with 10 m cable lenght 2 m with 5 m cable lenght
Max. temperature of the liquid	50°C
Max. solids passage	10 mm 20 mm VOX (Vortex version)
Poles	2
Insulation class	F
Protection degree	IP68
Voltage	Single phase 230V ± 10% Three phase 400 ±10%

Materials

Pump body	AISI 304
Impeller	AISI 304
Shaft	AISI 303 + AISI 303 ceramic coated shaft sleeve
Shaft seal	Ceramic/Carbon/NBR (mechanical seal) NBR (lip seal)

Accessories

1"¼ hose connector and related clamp
Page 385 - **OPTIMA - BEST ONE accessories**

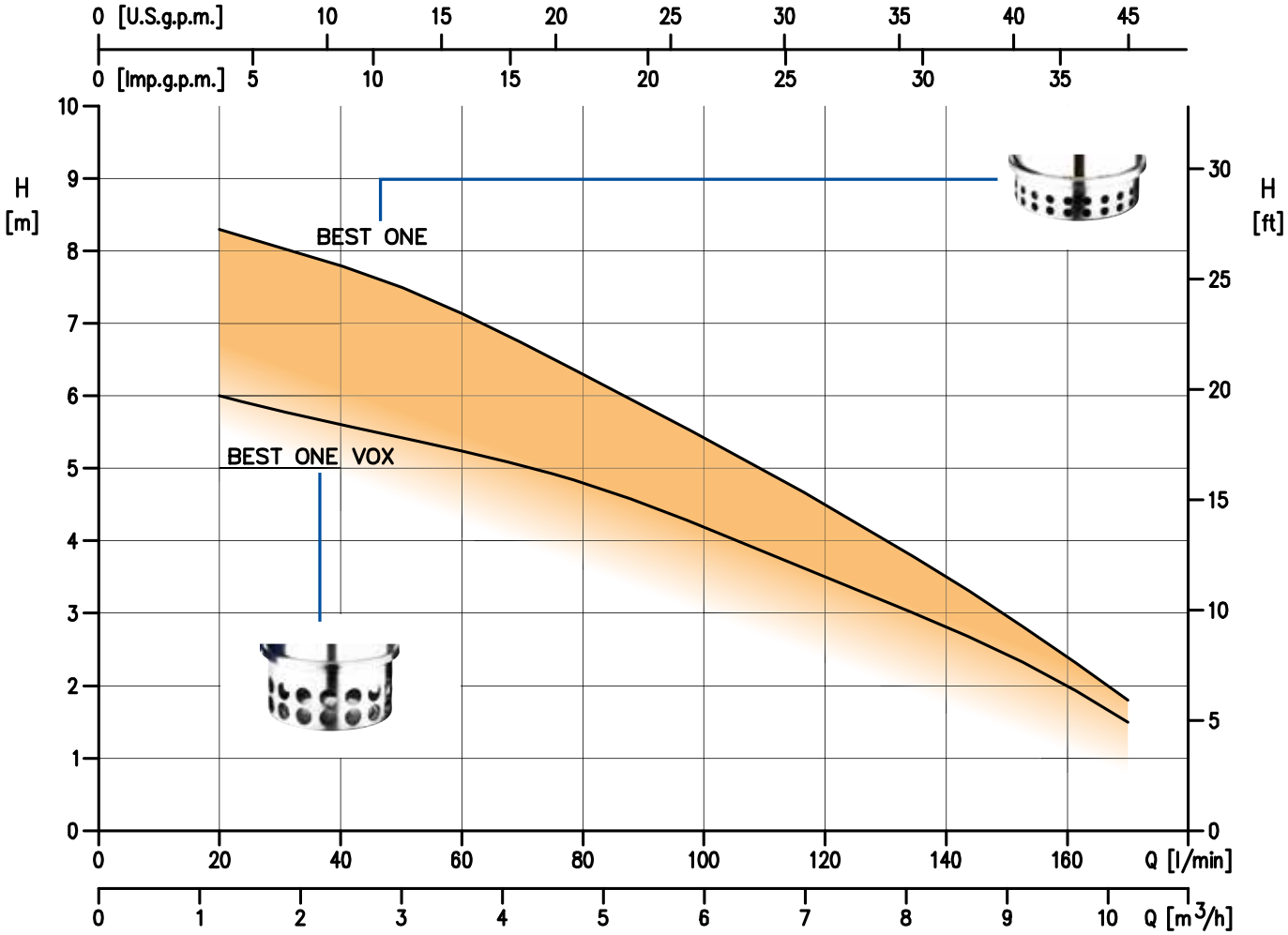
Minimum suction device up to 3 mm
Page 385 - **OPTIMA - BEST ONE accessories**

Control panels and Control systems
Page 387 - **Control panels**
1EP-1 - QA50/B - QA60/C

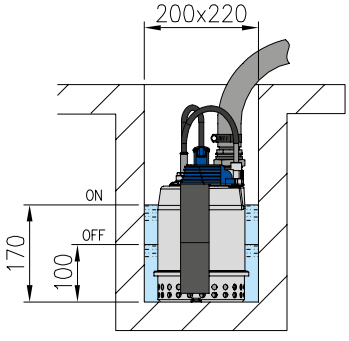
BEST ONE - VOX

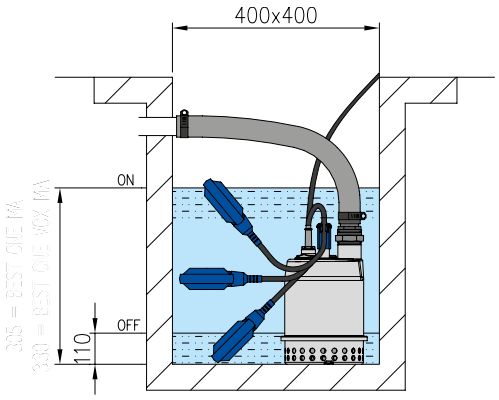
CE

Submersible pumps completely in AISI 304 stainless steel



Installation





BEST ONE (VOX) pumps have a great versatility of installation. The choice between vertical magnetic float (small size) or floating switch, allow to choose the best option, also depending on the available space to install the pump. In addition, the right switch type could depend on the water level that it is preferred to have for pump starting.

BEST ONE - VOX

CE

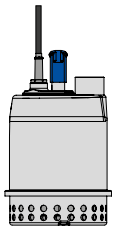
Submersible pumps completely in AISI 304 stainless steel

Single phase 230V — 2 Poles

Model	Code	HP	kW	Q=Flow rate l/min	20	40	80	120	160	170	Abs. Curr. [A] 230V	DNM	Weight [kg]
				m³/h	1,2	2,4	4,8	7,2	9,6	10,2			
				H=Total head [m]									
BEST ONE MA	1711100000	0,33	0,25		8,3	7,8	6,3	4,5	2,4	1,8	2,3	G1¼	4,6
BEST ONE M	1711000000	0,33	0,25		8,3	7,8	6,3	4,5	2,4	1,8	2,3	G1¼	4,4
BEST ONE MA 10 m	1711101400	0,33	0,25		8,3	7,8	6,3	4,5	2,4	1,8	2,3	G1¼	4,7
BEST ONE M 10 m	1711001400	0,33	0,25		8,3	7,8	6,3	4,5	2,4	1,8	2,3	G1¼	4,5
BEST ONE MS	1712100000	0,33	0,25		8,3	7,8	6,3	4,5	2,4	1,8	2,3	G1¼	4,8
BEST ONE VOX MA	1741100000	0,33	0,25		6,0	5,6	4,8	3,5	2,0	1,5	2,2	G1¼	4,7
BEST ONE VOX M	1741000000	0,33	0,25		6,0	5,6	4,8	3,5	2,0	1,5	2,2	G1¼	4,5
BEST ONE VOX MA 10 m	1741101400	0,33	0,25		6,0	5,6	4,8	3,5	2,0	1,5	2,2	G1¼	4,8
BEST ONE VOX M 10 m	1741001400	0,33	0,25		6,0	5,6	4,8	3,5	2,0	1,5	2,2	G1¼	4,6

Three phase 400V — 2 Poles

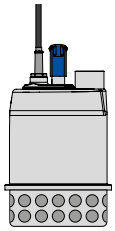
Model	Code	HP	kW	Q=Flow rate l/min	20	40	80	120	160	170	Abs. Curr. [A] 400V	DNM	Weight [kg]
				m³/h	1,2	2,4	4,8	7,2	9,6	10,2			
				H=Total head [m]									
BEST ONE	1711000004	0,33	0,25		8,3	7,8	6,3	4,5	2,4	1,8	0,8	G1¼	4,4
BEST ONE 10 m	1711001404	0,33	0,25		8,3	7,8	6,3	4,5	2,4	1,8	0,8	G1¼	4,5
BEST ONE VOX	1741000004	0,33	0,25		6,0	5,6	4,8	3,5	2,0	1,5	0,8	G1¼	4,5
BEST ONE VOX 10 m	1741001404	0,33	0,25		6,0	5,6	4,8	3,5	2,0	1,5	0,8	G1¼	4,6



BEST ONE
without float

VERSION
5 m cable
- BEST ONE M
- BEST ONE

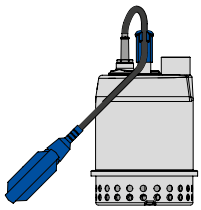
10 m cable
- BEST ONE M 10 m
- BEST ONE 10 m



BEST ONE VOX
without float

VERSION
5 m cable
- BEST ONE VOX M
- BEST ONE VOX

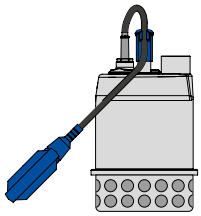
10 m cable
- BEST ONE VOX M 10 m
- BEST ONE VOX 10 m



BEST ONE "A"
is complete of float, the rest of the range has none

VERSION
5 m cable
- BEST ONE MA

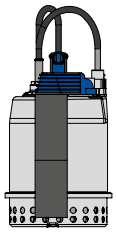
10 m cable
- BEST ONE MA 10



BEST ONE VOX "A"
is complete of float, the rest of the range has none

VERSION
5 m cable
- BEST ONE VOX MA

10 m cable
- BEST ONE VOX MA 10



BEST ONE "MS"
is complete with vertical magnetic float (Magnetic Switch) which allows minimum amount of space.

VERSION
- BEST ONE MS

BEST 2-5

Submersible pumps in AISI 304 stainless steel

Submersible pumps used for handling seewage water, draining cellars, garages and basements, draining small and medium-sized building sites. Thanks to their versatility, they can be used in permanent or portable installations.

Possibility to use in fixed and mobile installations

Materials

Pump body	AISI 304
Impeller	AISI 304
Shaft	AISI 303 (part in contact with the liquid)
Mechanical seal	upper in Carbon/Ceramic/NBR (motor side) lower in SiC/SiC/NBR (pump side)

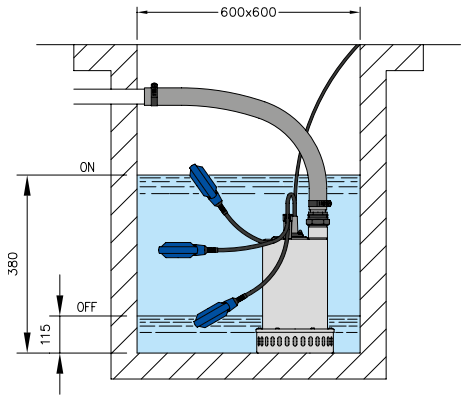
Technical data

Max. immersion	7 m
Max. temperature of the liquid	35°C
Max. solids passage	10 mm (suspended particles)
Poles	2
Insulation class	F
Protection degree	IP68
Voltage	Single phase 230V ± 10% Three phase 400V ±10%

Accessories

Control panels and Control systems
Page 367 - **Control panels**
1EP-1 - QA50/B - QA60/C - SMART - QM1 - QT1

Installation

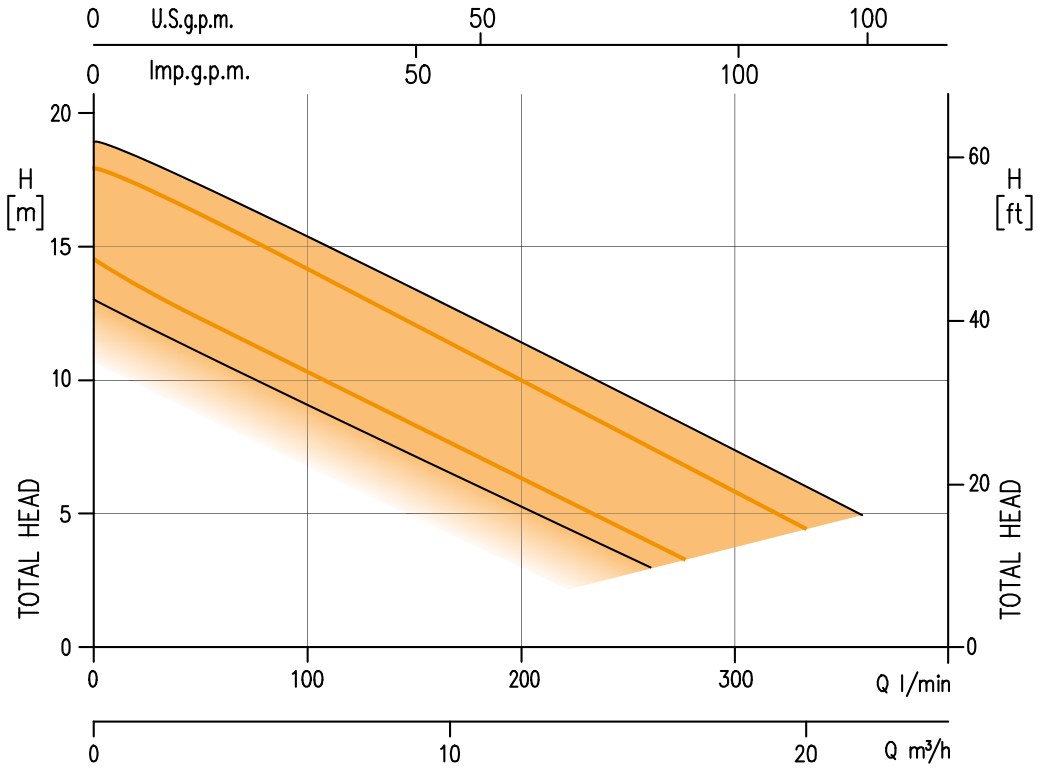


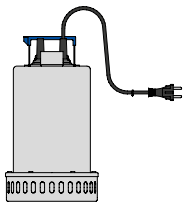
BEST 2 - 5 pumps are also available with a float switch. With this option, the flexibility of purpose of these pumps are increased. However, the choice to using the float switch requires minimum installation space to ensure the proper operation of the pump.

BEST 2-5

CE

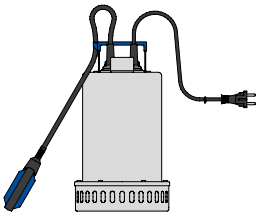
Submersible pumps in AISI 304 stainless steel





BEST 2-5
Without float

VERSIONS
- BEST 2-5 M
- BEST 2-5



BEST 2-5 MA
With float

VERSIONS
- BEST 2-5 MA

Single phase 230V — 2 Poles

Model	Code	HP	kW	Q=Flow rate l/min	20	80	160	200	280	330	Abs. Curr. [A] 230V	DNM	Weight [kg]
				m³/h	1,2	4,8	9,6	12	16,8	19,8			
				H=Total head [m]									
BEST 2 MA	1721090021	0,75	0,55		12,2	9,8	6,7	5,0	-	-	4,4	G1½	12,1
BEST 2 M	1721091221	0,75	0,55		12,2	9,8	6,7	5,0	-	-	4,4	G1½	12
BEST 3 MA	1721100021	1	0,75		13,6	11,1	7,9	6,4	3,2	-	5,6	G1½	12,8
BEST 3 M	1721101221	1	0,75		13,6	11,1	7,9	6,4	3,2	-	5,6	G1½	12,7
BEST 4 MA	1731150021	1,5	1,1		17,4	15,0	11,7	10,0	6,7	4,6	7,3	G1½	13,9
BEST 4 M	1731151221	1,5	1,1		17,4	15,0	11,7	10,0	6,7	4,6	7,3	G1½	13,8

"A" version is complete of float, the rest of the range has none

Three phase 400V — 2 Poles

Model	Code	HP	kW	Q=Flow rate l/min	20	80	160	200	280	330	Abs. Curr. [A] 400V	DNM	Weight [kg]
				m³/h	1,2	4,8	9,6	12	16,8	19,8			
				H=Total head [m]									
BEST 2	1721091204	0,75	0,55		12,2	9,8	6,7	5,0	-	-	2	G1½	12
BEST 3	1721101204	1	0,75		13,6	11,1	7,9	6,4	3,2	-	2,4	G1½	12,7
BEST 4	1731151204	1,5	1,1		17,4	15,0	11,7	10,0	6,7	4,6	3	G1½	13,8
BEST 5	1731201204	2	1,5		18,4	16,1	12,8	11,4	8,0	6,0	3,3	G1½	13,5

IDROGO

5" borehole centrifugal pumps

Borehole multistage centrifugal pumps suitable for clean water handling from tank or reservoir for first water collection. Use for domestic pressure boosting, small irrigation and car washing. Equipped with twin mechanical seal oil insert. Provided with 20 m cable H07RN-F type. Single phase version available with floats, on request ("A" version).

Low noise

Pratical and easy to use

Suitable for horizontal operation

Technical data

Max. working pressure	10 bar
Max. temperature of the liquid	40°C
Poles	2
Insulation class	F
Protection degree	IP68
Voltage	Single phase 230V ±10% Three phase 230/400V ±10%

Materials

External casing	AISI 304
Impeller	PPE+PS reinforced with fibreglass
Shaft	AISI 431
Mechanical seal	(motor side) in Carbon/Ceramic/NBR (pump side) in SiC/Carbon/NBR

Accessories

Hydraulic discharge kit IDROGO
Page 383 - **Hydraulic kit for two pumps** (manifold, valves, pressure switches, pressure gauge) for pressure tank or inverter driven

Tanks
Page 384 - **8/10 bar 5/10 litres tanks**

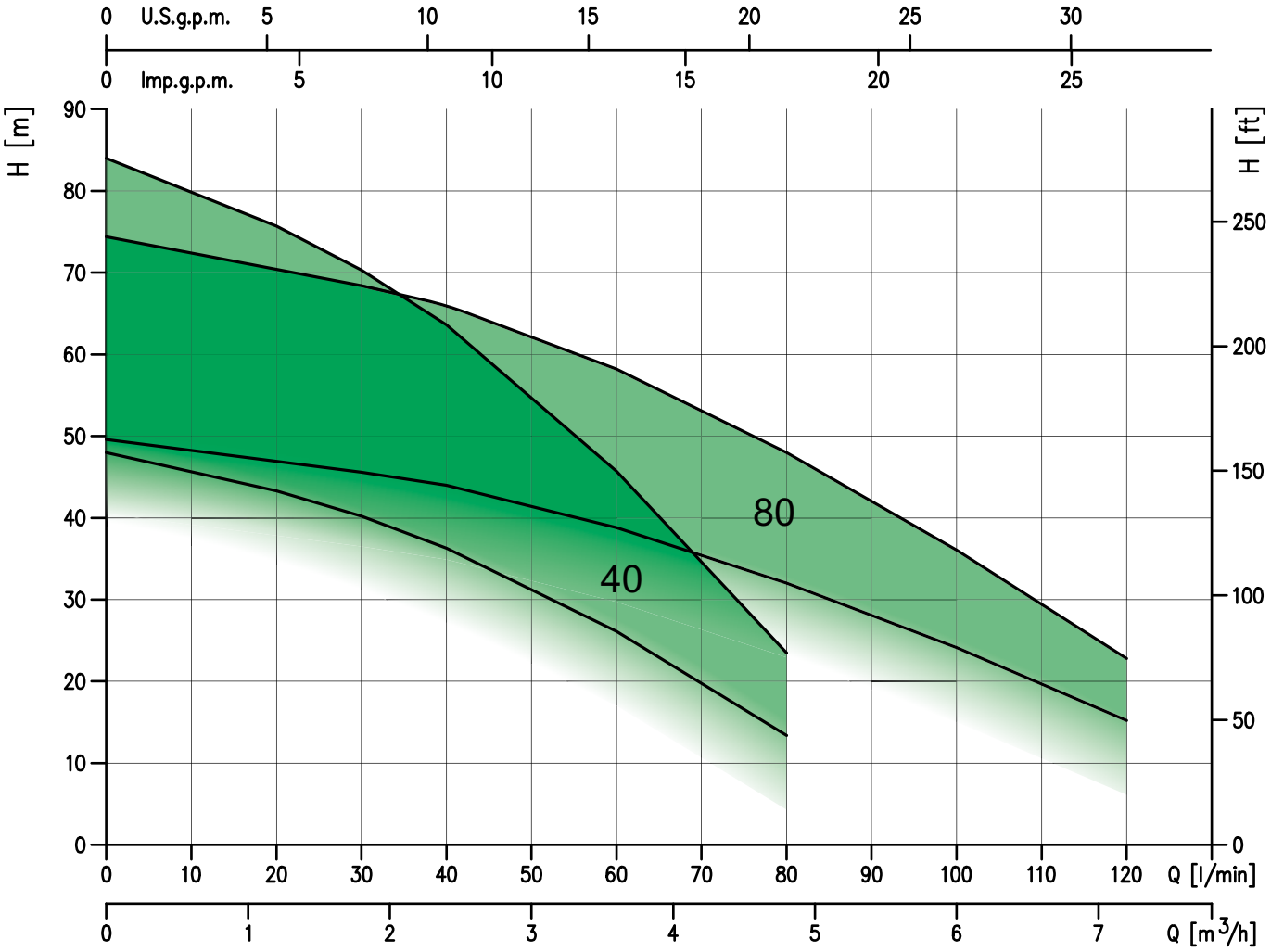
Floats
Page 379 - **Key floats with counterweight**

Pressure switches
Page 379 - **1,3÷12 bar pressure switches**

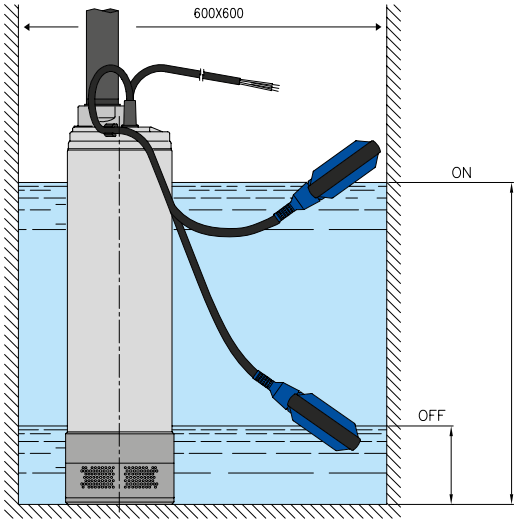
Control panels and Control systems
Page 366 - **Presscomfort**
Pressure regulator
Page 364 - **E-power**
Variable speed control systems
Page 362 - **E-*drive***
Variable speed control systems
Page 366 - **Control panels**
Q - 1EP-E - QA50/B - QA60/C - SMART

IDROGO

5” borehole centrifugal pumps



Installation



The key float with counterweight (5 m or 10 m) provided on request, is an efficient and useful accessory. It can allow the pump starting and stoping based on the water level in the tank. When it is installed, is necessary to respect the minimum required dimensions, to guarantee the right working of float.

IDROGO

5” borehole centrifugal pumps

Single phase 230V — 2 Poles

Model	Code	HP	kW	Q=Flow rate								Abs. Curr. [A] 230V	DNM	Weight [kg]
				l/min	20	30	40	60	80	100	120			
				m³/h	1,2	1,8	2,4	3,6	4,8	6	7,2			
				H=Total head [m]										
IDROGO M40/06A *	1581030621	0,6	0,44		33,1	30,8	27,8	20,0	10,3	-	-	3,8	G1¼	13,2
IDROGO M40/06 *	1581020521	0,6	0,44		33,1	30,8	27,8	20,0	10,3	-	-	3,8	G1¼	13,0
IDROGO M40/08A	1582031221	0,8	0,6		43,3	40,2	36,3	26,1	13,4	-	-	4,3	G1¼	14,8
IDROGO M40/08	1582030021	0,8	0,6		43,3	40,2	36,3	26,1	13,4	-	-	4,3	G1¼	14,6
IDROGO M40/10A	1582051221	1	0,75		54,1	50,2	45,4	32,6	16,8	-	-	5,7	G1¼	16,2
IDROGO M40/10	1582050021	1	0,75		54,1	50,2	45,4	32,6	16,8	-	-	5,7	G1¼	16,0
IDROGO M40/12A	1582061221	1,2	0,9		64,9	60,2	54,5	39,2	20,2	-	-	6,8	G1¼	17,4
IDROGO M40/12	1582060021	1,2	0,9		64,9	60,2	54,5	39,2	20,2	-	-	6,8	G1¼	17,2
IDROGO M40/15A	1582071221	1,5	1,1		75,7	70,3	63,6	45,7	23,5	-	-	7,3	G1¼	18,5
IDROGO M40/15	1582070021	1,5	1,1		75,7	70,3	63,6	45,7	23,5	-	-	7,3	G1¼	18,3
IDROGO M80/12A	1592061221	1,2	0,9		-	45,6	44,0	38,8	32,0	23,2	15,2	6,4	G1¼	16,7
IDROGO M80/12	1592060021	1,2	0,9		-	45,6	44,0	38,8	32,0	23,2	15,2	6,4	G1¼	16,5
IDROGO M80/15A	1592071221	1,5	1,1		-	57,0	55,0	48,5	40,0	28,0	19,0	7,5	G1¼	17,9
IDROGO M80/15	1592070021	1,5	1,1		-	57,0	55,0	48,5	40,0	28,0	19,0	7,5	G1¼	17,7

“A” version is complete with float
*= with 5 m cable HØ7RN-F (20 m for the rest of the range)

Three phase 230V — 2 Poles

Model	Code	HP	kW	Q=Flow rate								Abs. Curr. [A] 230V	DNM	Weight [kg]
				l/min	20	30	40	60	80	100	120			
				m³/h	1,2	1,8	2,4	3,6	4,8	6	7,2			
				H=Total head [m]										
IDROGO 40/08	1582030009	0,8	0,6		43,3	40,2	36,3	26,1	13,4	-	-	3,3	G1¼	14,8
IDROGO 40/10	1582050009	1	0,75		54,1	50,2	45,4	32,6	16,8	-	-	3,8	G1¼	16,1
IDROGO 40/12	1582060009	1,2	0,9		64,9	60,2	54,5	39,2	20,2	-	-	4,2	G1¼	17,4
IDROGO 40/15	1582070009	1,5	1,1		75,7	70,3	63,6	45,7	23,5	-	-	5,2	G1¼	18,3
IDROGO 80/12	1592060009	1,2	0,9		-	45,6	44,0	38,8	32,0	23,2	15,2	4	G1¼	16,4
IDROGO 80/15	1592070009	1,5	1,1		-	57,0	55,0	48,5	40,0	28,0	19,0	5,4	G1¼	17,4
IDROGO 80/20	1592080009	2	1,5		-	68,4	66,0	58,2	48,0	34,8	22,8	6,1	G1¼	18,0

Three phase 400V — 2 Poles

Model	Code	HP	kW	Q=Flow rate								Abs. Curr. [A] 400V	DNM	Weight [kg]
				l/min	20	30	40	60	80	100	120			
				m³/h	1,2	1,8	2,4	3,6	4,8	6	7,2			
				H=Total head [m]										
IDROGO 40/08	1582030004	0,8	0,6		43,3	40,2	36,3	26,1	13,4	-	-	1,9	G1¼	14,8
IDROGO 40/10	1582050004	1	0,75		54,1	50,2	45,4	32,6	16,8	-	-	2,2	G1¼	16,1
IDROGO 40/12	1582060004	1,2	0,9		64,9	60,2	54,5	39,2	20,2	-	-	2,4	G1¼	17,4
IDROGO 40/15	1582070004	1,5	1,1		75,7	70,3	63,6	45,7	23,5	-	-	3	G1¼	18,3
IDROGO 80/12	1592060004	1,2	0,9		-	45,6	44,0	38,8	32,0	23,2	15,2	2,3	G1¼	16,4
IDROGO 80/15	1592070004	1,5	1,1		-	57,0	55,0	48,5	40,0	28,0	19,0	3,1	G1¼	17,4
IDROGO 80/20	1592080004	2	1,5		-	68,4	66,0	58,2	48,0	34,8	22,8	3,5	G1¼	18,0

DS - DSF

Submersible electric pumps with semi-open impeller

Electric pumps with semi-open cast iron impeller and non-clogging filter. The semi-open impeller guarantees high pump efficiency. Fitted with seal in the lower and upper part (DF) they are suitable for the pumping of clear and rain waters in civil and industrial applications.

Possibility to use in fixed and mobile installations

Non-clogging filter

Impeller semiaperta a rasamento

Materials

Pump body	Cast iron
Impeller	Cast iron
Shaft	AISI 403 (DS) AISI 420B (DSF)
Mechanical seal	Impeller side: SiC/SiC/NBR Motor side: Carbon/Ceramic/NBR (from 6 kW and above for DSF)

Technical data

Max. immersion	7 m
Max. temperature of the liquid	40°C
Maximum length of fibres	50 mm
Max. solids passage	5 mm (50DS) 6 mm (65DS) (40DSF 1.5, 1.9 kW) 7 mm (80DS) (40DSF 6 kW) 8 mm (100DS)
Poles	2
Insulation class	F per DS H per DSF
Protection degree	IP68
Voltage	Three phase 380-415±10% (DS) Single phase 230±10% (DSF) Three phase 400/690±10% (DSF)

Accessories

Quick discharge connection

Pag. 386 - **Quick discharge connection (QDC)**
For DS, DVS, DML, DMLV, DL-DL W/C (with cutter)

Adaptors

Pag. 386 - **Lowering slide kit 2 DN50 guide pipes**
Adaptor for the use of lowering slide kit (QDC)

Pag. 386 - **Flange adaptor**
(Steel C40) JIS/DIN (DS, DVS, DL-DL W/C, DML, DMLV)

Pag. 386 - **Hook guide**
Adaptor (guide pipe) and flange for adaptor

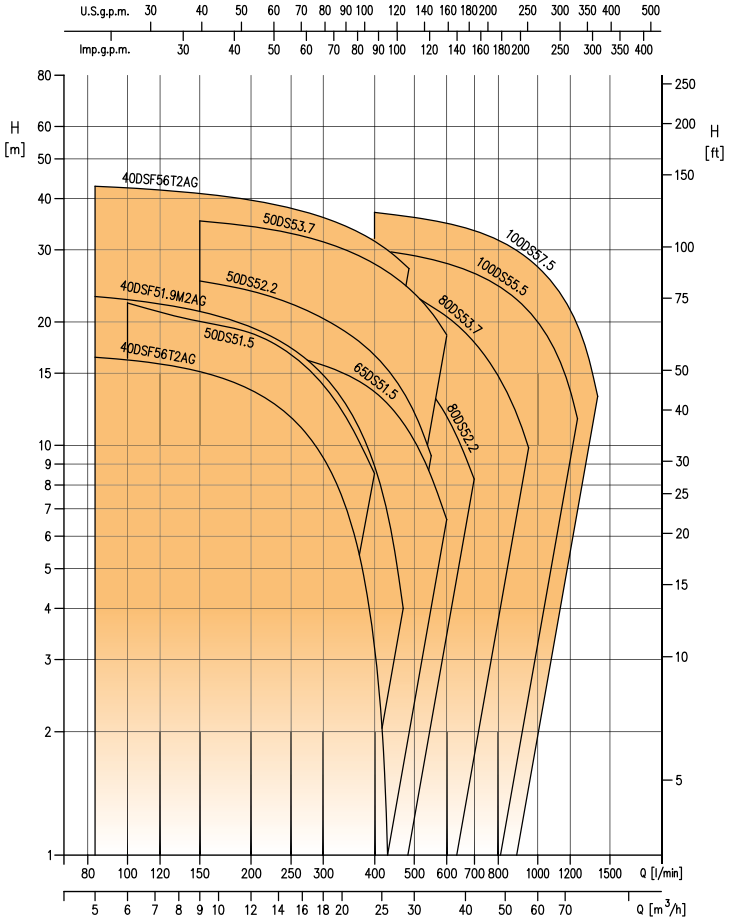
Various accessories

Pag. 387 - **DMLF-DMLVF-DSF-DRD-DRS Accessories**
- QDC - Quick discharge connection
- Elbow for discharge
- Tripod
- Threaded flange

DS - DSF

CE

Submersible electric pumps with semi-open impeller



Selection table

Model	HP	kW	Q=Flow rate l/min	83	100	150	200	250	300	400	433	467	483	550	600	700	800	950	1170	1250	1400
			m³/h	5	6	9	12	15	18	24	26	28	29	33	36	42	48	57	70,2	75	84
			H=Total head [m]																		
40DSF51.5M2CG	2	1,5		16,4	16,2	15,1	13,6	11,7	9,3	3,2	0,8	-	-	-	-	-	-	-	-	-	-
40DSF51.9M2AG	2,5	1,9		23,1	22,7	21,2	19,4	17,3	14,8	8,9	6,6	4,2	-	-	-	-	-	-	-	-	-
40DSF56T2AG	8	6		43	42,5	41	39,6	37,9	36	31,5	30	28	27,1	-	-	-	-	-	-	-	-
50DS51.5-3	2	1,5		-	22,3	20,7	18,8	16,5	14	8,5	-	-	-	-	-	-	-	-	-	-	-
50DS52.2-3	3	2,2		-	-	25,2	23,7	22,1	20,4	16,6	15,2	13,6	12,9	9,4	-	-	-	-	-	-	-
50DS53.7-3	5	3,7		-	-	35,3	34,2	32,9	31,4	27,7	26,4	25,0	24,2	21,1	18,6	-	-	-	-	-	-
65DS51.5-3	2	1,5		-	-	17,5	17,1	16,5	15,7	13,5	12,5	11	10,9	8,5	6,6	-	-	-	-	-	-
80DS52.2-3	3	2,2		-	-	-	20,8	20,2	19,4	17,6	16,8	15,9	15,5	13,4	11,8	8,3	-	-	-	-	-
80DS53.7-3	5	3,7		-	-	-	-	26,3	25,8	24,6	24,0	23,5	23,1	21,8	20,6	17,8	14,8	9,9	-	-	-
100DS55.5-3	7,5	5,5		-	-	-	-	-	30,7	30	30	29,4	29,2	28,4	27,8	26,3	24,5	21,3	14,8	11,6	-
100DS57.5-3	10	7,5		-	-	-	-	-	-	37	37	36,4	36,2	35,5	34,8	33,4	31,7	28,5	22,5	19,7	13,2

DS - DSF

Submersible electric pumps with semi-open impeller

Single phase 230V

Model	Code	HP	kW	rpm	Abs. Curr. [A] 230V	Passage [mm]	DNM	Weight [kg]
40DSF51.5M2CG	1875000112	2	1,5	2754	9	6	40	38,0
40DSF51.9M2AG	1875000110	2,5	1,9	2773	11,4	6	40	38,0

Three phase 400V

Model	Code	HP	kW	rpm	Abs. Curr. [A] 400V	Passage [mm]	DNM	Weight [kg]
40DSF56T2AG *	1875000118	8	6,0	2842	10,9	7	40	68,0
50DS51.5-3	1545500054	2	1,5	2800	3,3	5	50	25,0
50DS52.2-3	1545500055	3	2,2	2800	5	5	50	55,0
50DS53.7-3	1545500056	5	3,7	2800	7,8	5	50	61,0
65DS51.5-3	1545500057	2	1,5	2800	3,3	6	65	35,0
80DS52.2-3	1545500058	3	2,2	2800	5	7	80	59,0
80DS53.7-3	1545500059	5	3,7	2800	7,8	7	80	64,0
100DS55.5-3	1545500060	7,5	5,5	2800	10,8	8	100	92,0
100DS57.5-3	1545500061	10	7,5	2800	14,3	8	100	104,0

* Three phase 400/690V - SD start, for the rest of the range DOL start

OPTIMA

SUBMERSIBLE ELECTRIC PUMPS

in AISI 304 stainless steel

Submersible electric pumps for clear water with hydraulic equipment in AISI 304 stainless steel.

APPLICATIONS

- Draining wells, garages, cellars or other flooded enclosed areas
- Irrigation for gardens and vegetable gardens
- Handling infiltration water or drainage of unloaded water

TECHNICAL FEATURES

- Mechanical seal as standard supply
- Reliable, corrosion resistant
- Highly versatile
- Suited to fixed and mobile installations
- Equipped with 5 m power cable (H05 RN-F) for use indoors (10 m for outdoors applications), with/without float switch

TECHNICAL DATA

- Maximum submersion: 5 m
- Maximum fluid temperature: 50°C
- Maximum solid dimensions: 10 mm
- 2 pole asynchronous motor
- Insulation class F
- Protection rating IP68
- Single phase voltage 230V ±10% 50 Hz,
- Delivery connection G1¼

MATERIALS

- Pump body, suction grille, gasket disk and motor casing in AISI 304 stainless steel
- Impeller in PPE + PS reinforced with glass fibre
- Shaft made of AISI 303 stainless steel
- Standard mechanical seal (Carbon/ceramic/NBR)

SPECIAL VERSIONS

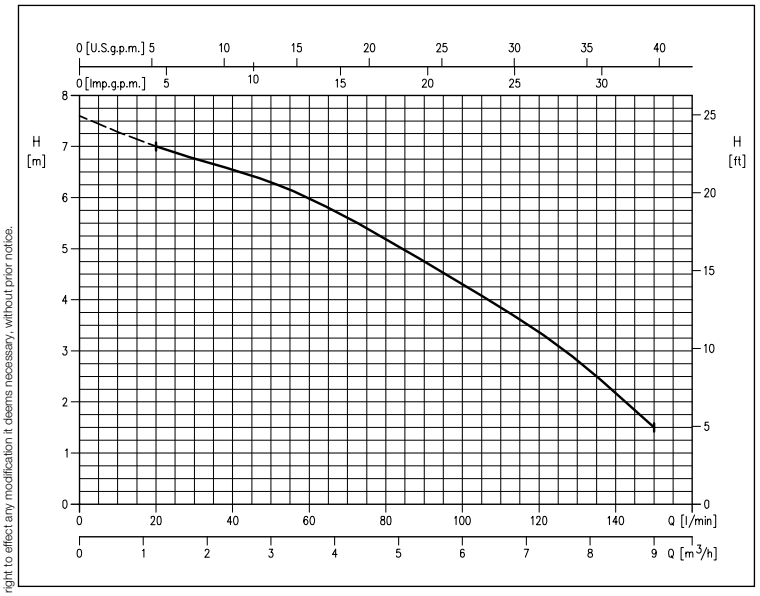
- MS version with MS vertical magnetic float switch (Magnetic Switch) and reduced footprint for clean water
- MA version with float switch

ACCESSORIES (on request)

- Hose connection 1"¼ with hose clamp
- Minimum suction device to 3 mm

For accessories and electrical enclosures, see page 151 onwards

PERFORMANCE CURVE (per ISO 9906 Annex A)



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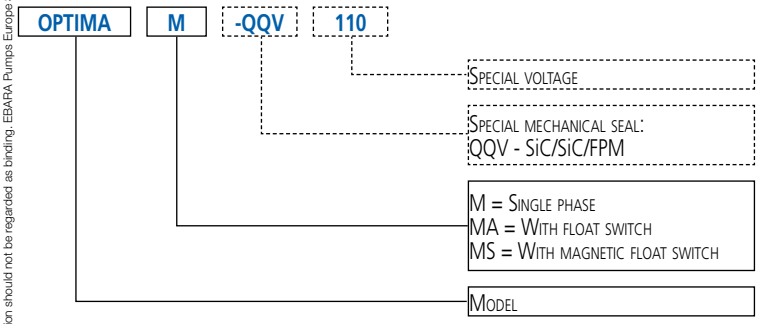

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OPTIMA

SUBMERSIBLE ELECTRIC PUMPS

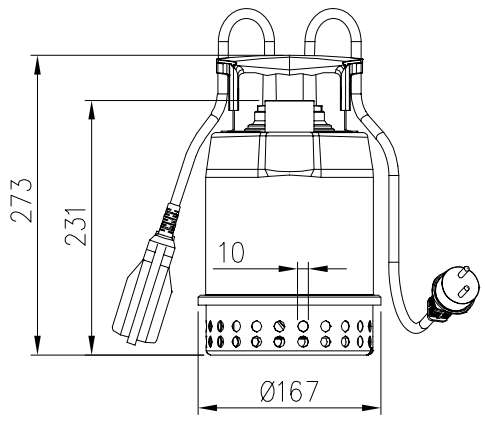
in AISI 304 stainless steel

PERFORMANCE TABLE

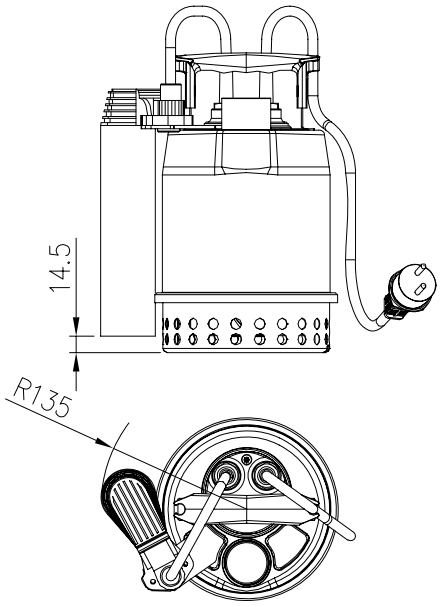
Model	P_2		Capacitor		Abs. Curr.	Q=Flow rate						Weight
	[HP]	[kW]	µF	Vc	[A]	l/min	20	50	75	100	125	150	[kg]
						m^3/h	1.2	3	4.5	6	7.5	9	
						H=Head [m]							
OPTIMA M	0.33	0.25	8	450	1.9	7.0		6.3	5.4	4.3	3.1	1.5	4.2
OPTIMA MA	0.33	0.25	8	450	1.9	7.0		6.3	5.4	4.3	3.1	1.5	4.4
OPTIMA MS	0.33	0.25	8	450	1.9	7.0		6.3	5.4	4.3	3.1	1.5	4.6

DIMENSIONS

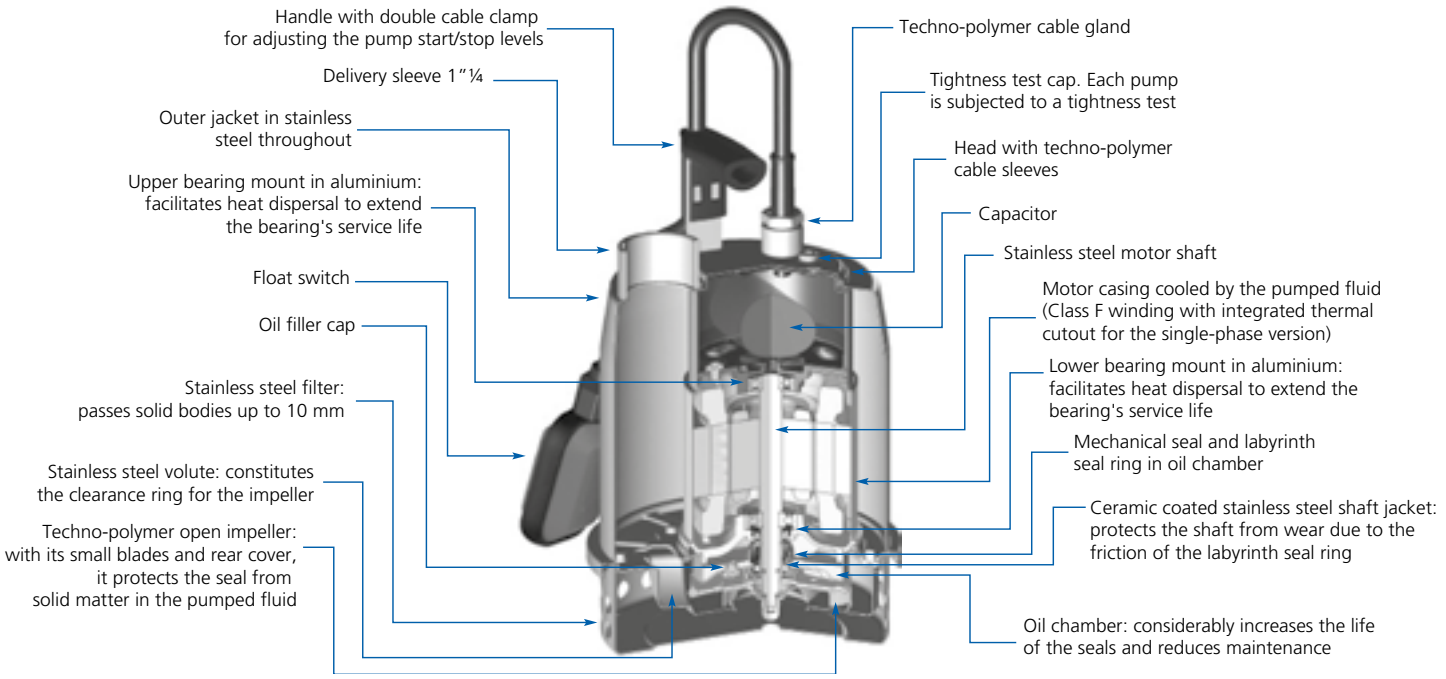
OPTIMA MA



OPTIMA MS



SECTIONAL VIEW



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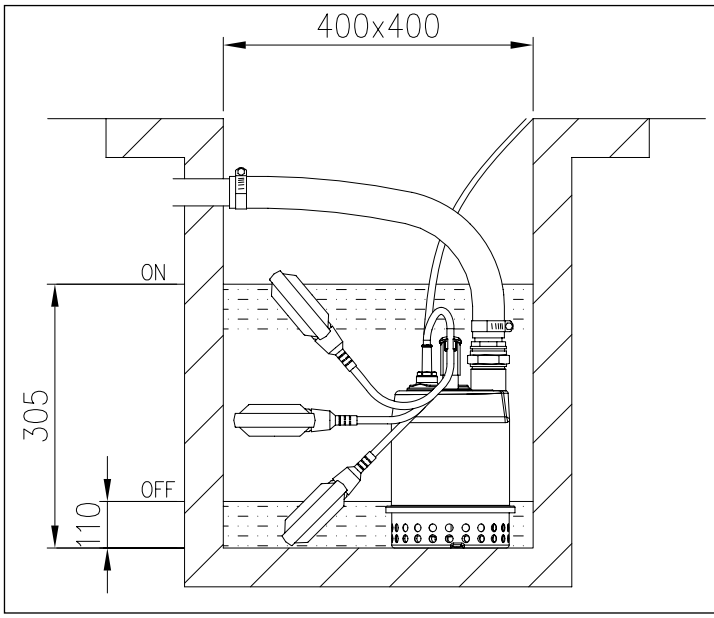
OPTIMA

SUBMERSIBLE ELECTRIC PUMPS

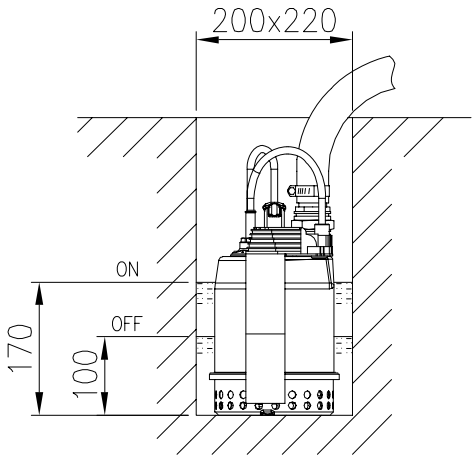
in AISI 304 stainless steel

INSTALLATION

OPTIMA MA



OPTIMA MS



OPTIONAL

MINIMUM SUCTION DEVICE

The minimum suction device draws the fluid up by as much as 3 mm from the ground (starting from at least 10 mm).

It pressure mounts to the OPTIMA.
The automatic operation of the pump with float switch prevents it from drawing the fluid up to 3 mm.

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IDROGO

CENTRIFUGAL ELECTRIC BOREHOLE PUMPS, 5"

in AISI 304 stainless steel

Multistage submersible centrifugal electric pumps, 5", in AISI 304.

APPLICATIONS

- Handling clear water from wells, cisterns and first collection tanks
- Pressurising domestic systems
- Small irrigation systems
- Washing vehicles
- Increasing pressure in general

TECHNICAL FEATURES

- Fitted with double mechanical seals with interposing oil chamber
- Supplied with 20 m power cord, type H07RN-F (5 m for IDROGO 40/06 M)
- Single phase version with float available on request (version "A")
- Available in the three phase 230V ±10% 50Hz version
- Installation: horizontal or vertical

PUMP TECHNICAL DATA

- Maximum operating pressure: 10 bar
- Maximum fluid temperature: 40°C
- Maximum immersion: 2 m (with 5 m cable)
  10 m (version "A" with 20 m cable)
  17 m (with 20 m cable)
- Maximum solid dimensions: 2.5 mm
- Delivery connection G1¼

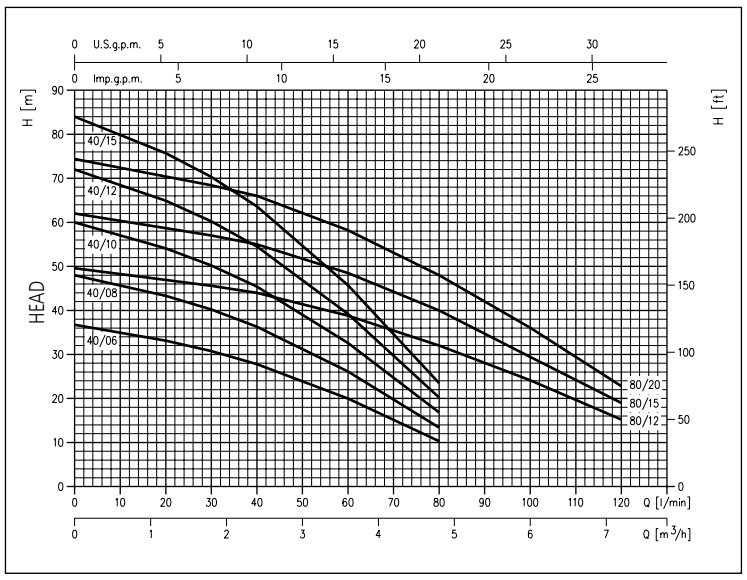
MOTOR TECHNICAL DATA

- 2 pole asynchronous self-ventilating motor cooled by the process fluid
- Insulation class F
- Protection degree IP68
- Single phase voltage 230V ±10% 50Hz,
  three phase voltage 230/400V ±10%, 50Hz
- Permanently active condenser and integrated automatic re-arming thermal cutout for the single phase motor
- Protection must be supplied by the user for the three phase version

MATERIALS

- External casing, motor cover, seal disk, filter and closing ring in AISI 304
- Impeller, diffuser and spacer in PPE + PS reinforced with fibreglass
- Shaft made of AISI 431 steel
- Upper mechanical seal (motor side) in Carbon/Ceramic/NBR and lower seal (pump side) in SiC/Carbon/NBR

PERFORMANCE CURVES (According ISO 9906 Annex 3B)



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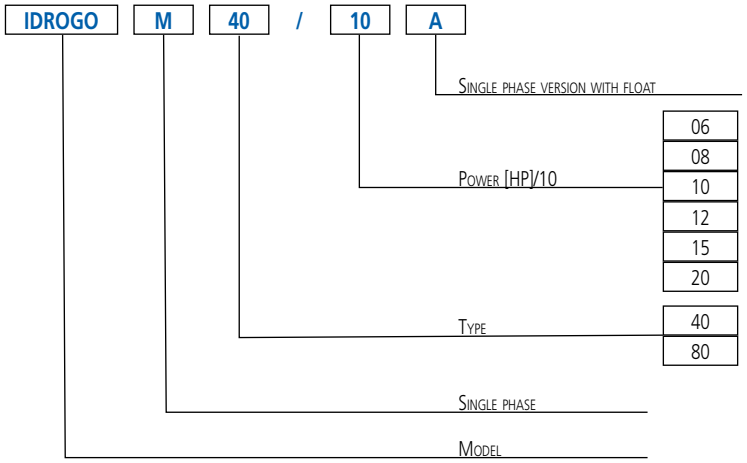

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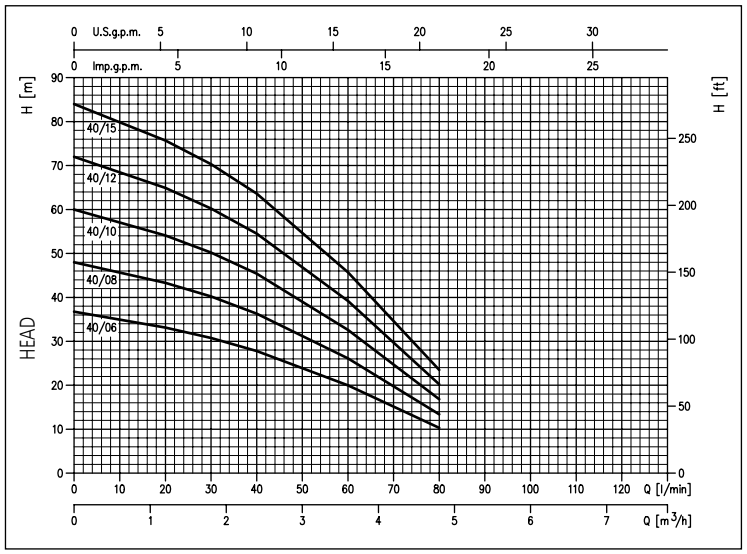
IDROGO

CENTRIFUGAL ELECTRIC BOREHOLE PUMPS, 5"

in AISI 304 stainless steel

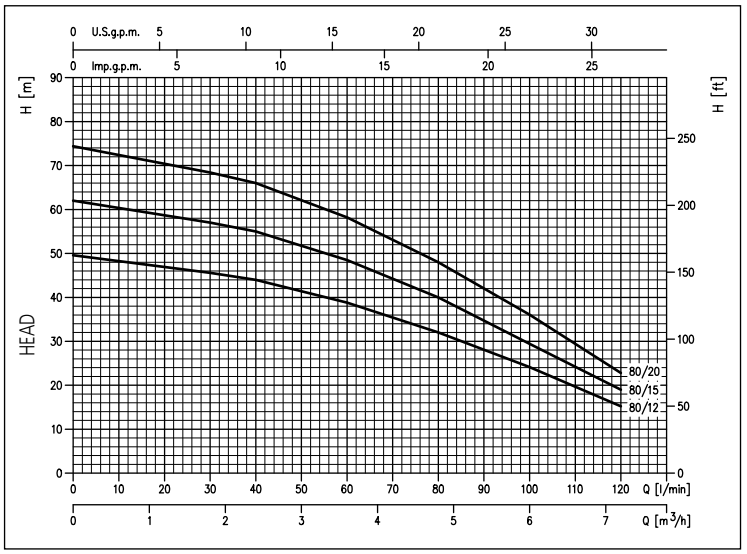
PERFORMANCE CURVES series IDROGO 40

(According ISO 9906 Annex 3B) - Impeller dia.: 104 mm



PERFORMANCE CURVES series IDROGO 80

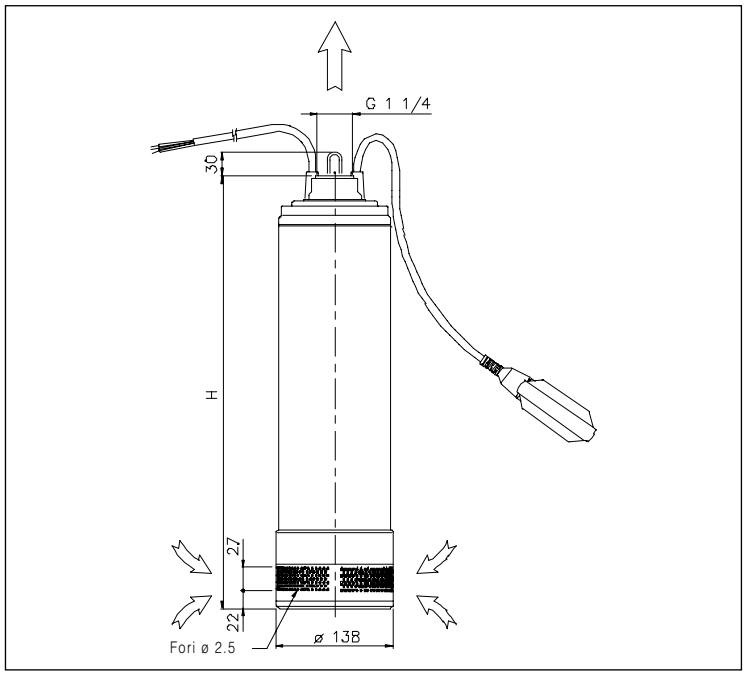
(According ISO 9906 Annex 3B) - Impeller dia.: 102 mm



PERFORMANCE TABLE

Model		P_2		Q=Flow rate						
single phase 230V	three phase 230V - 400V	[HP]	[kW]	l/min	20	30	40	60	80	100	120
				m³/h	1.2	1.8	2.4	3.6	4.8	6	7.2
				H=Head [m]							
IDROGO M 40/06	-	0.6	0.44		33.1	30.8	27.8	20.0	10.3	-	-
IDROGO M 40/08	IDROGO 40/08	0.8	0.6		43.3	40.2	36.3	26.1	13.4	-	-
IDROGO M 40/10	IDROGO 40/10	1	0.75		54.1	50.2	45.4	32.6	16.8	-	-
IDROGO M 40/12	IDROGO 40/12	1.2	0.9		64.9	60.2	54.5	39.2	20.2	-	-
IDROGO M 40/15	IDROGO 40/15	1.5	1.1		75.7	70.3	63.6	45.7	23.5	-	-
IDROGO M 80/12	IDROGO 80/12	1.2	0.9		-	45.6	44.0	38.8	32.0	23.2	15.2
IDROGO M 80/15	IDROGO 80/15	1.5	1.1		-	57.0	55.0	48.5	40.0	28.0	19.0
-	IDROGO 80/20	2	1.5		-	68.4	66.0	58.2	48.0	34.8	22.8

DIMENSIONS



DIMENSIONAL TABLE

Model	H [mm]	Weight [kg]	
		single phase	three phase
IDROGO 40/06	513	13.0	-
IDROGO 40/08	513	14.6	14.8
IDROGO 40/10	539	16.0	16.1
IDROGO 40/12	590	17.2	17.4
IDROGO 40/15	616	18.3	18.3
IDROGO 80/12	540	16.5	16.4
IDROGO 80/15	564	17.7	17.4
IDROGO 80/20	590	-	18.0

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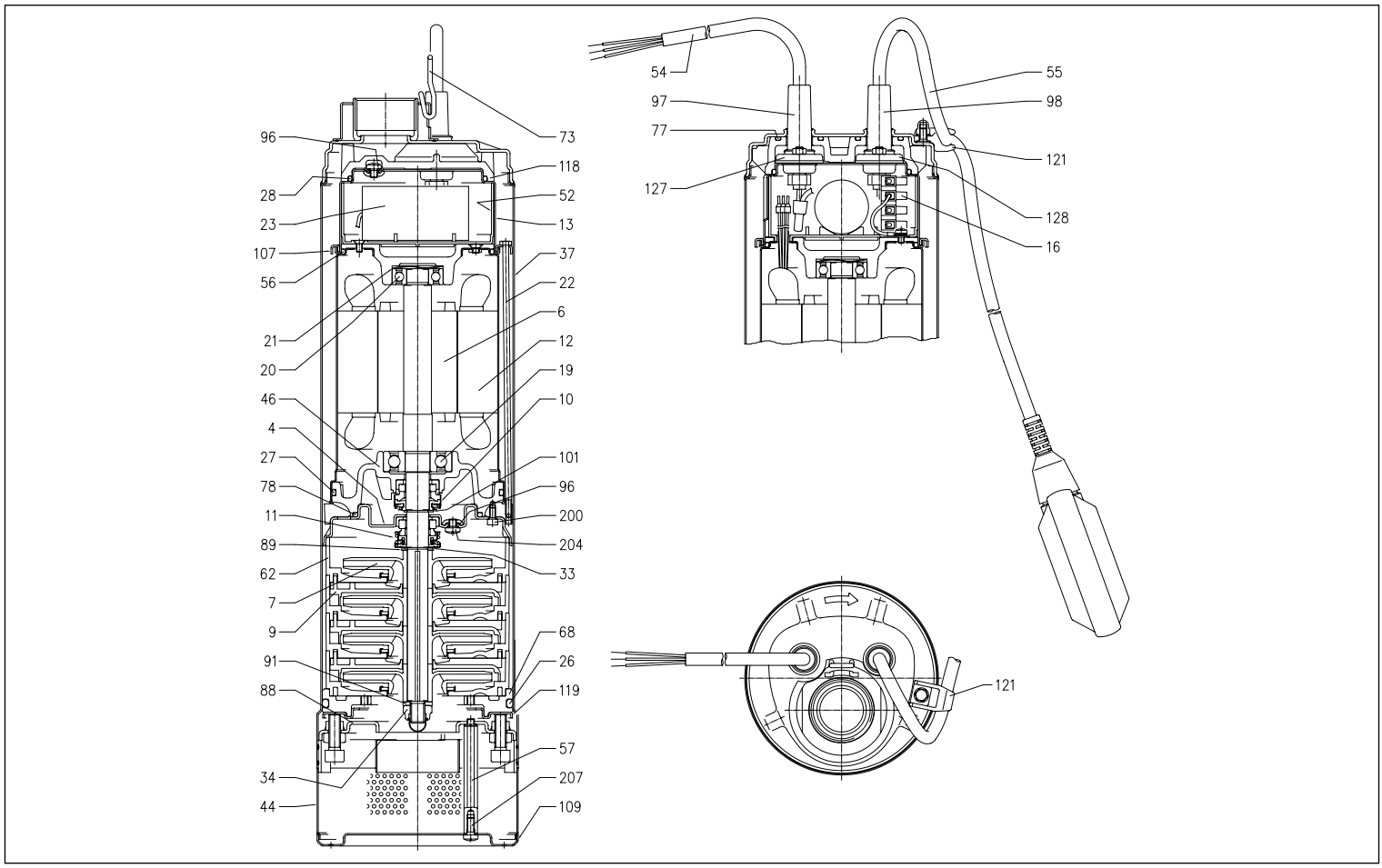
IDROGO

CENTRIFUGAL ELECTRIC BOREHOLE PUMPS, 5"

in AISI 304 stainless steel

SECTIONAL VIEW



MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
4	Gasket disk	EN 1.4301 (AISI 304)	55	Float [2]	-
6	Shaft	EN 1.4057 (AISI 431)	56	O-ring	NBR
7	Impeller	PPE + PS reinforced with fibreglass	57	Filter spacer	EN 1.4305 (AISI 303)
9	Diffuser	PPE + PS reinforced with fibreglass	62	Stage bracket	PPE + PS reinforced with fibreglass
10	Motor side mechanical seal	Carbon/Ceramic/NBR	68	Lower spacer	PPE + PS reinforced with fibreglass
11	Pump side mechanical seal	SiC/Carbon/NBR	73	Borehole hook	EN 1.4301 (AISI 304)
12	Motor casing	-	77	O-ring	NBR
13	Motor cover	EN 1.4301 (AISI 304)	78	O-ring	NBR
16	Terminal block	-	88	Mounting flange	EN 1.4301 (AISI 304)
19	Bearing (pump side)	-	89	Washer	EN 1.4301 (AISI 304)
20	Bearing (motor side)	-	91	Washer	EN 1.4301 (AISI 304)
21	Compensator ring	C70 steel	96	O-ring	NBR
22	Linkage	EN 1.4305 (AISI 303)	97	Cable gland (power)	NBR
23	Capacitor [1]	-	98	Cable gland (float) [2]	NBR
26	O-ring	NBR	101	Circlip	EN 1.4021 (AISI 420)
27	O-ring	NBR	107	Locking ring	EN 1.4301 (AISI 304)
28	O-ring	NBR	109	Filter base	EN 1.4301 (AISI 304)
33	Circlip	EN 1.4301 (AISI 304)	118	Upper spacer	PPE + PS reinforced with fibreglass
34	Impeller nut	EN 1.4301 (AISI 304)	119	Flange for lower spacer	EN 1.4301 (AISI 304)
37	Jacket	EN 1.4301 (AISI 304)	121	Float mount [2]	PPE + PS reinforced with fibreglass
44	Filter	EN 1.4301 (AISI 304)	127	Cable gland connector (power)	EN 1.4301 (AISI 304)
46	Bearing mount support	Brass	128	Cable gland connector (float)	EN 1.4301 (AISI 304)
52	Capacitor mount box	PA66 reinforced with fibreglass	200	Screw	Stainless steel A2 UNI 7323
54	Power cable	-	204-207	Screw	Stainless steel A2 UNI 7323

[1]= Single phase only
[2]= Single phase with float only

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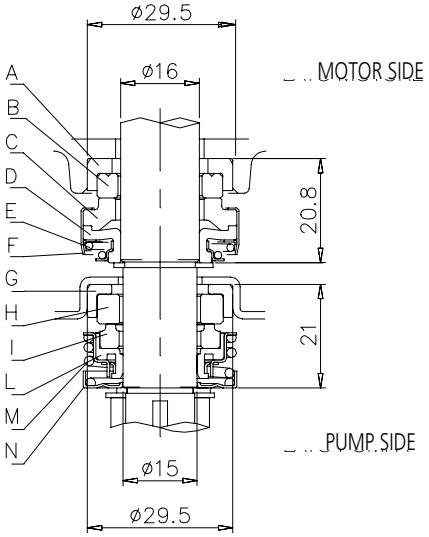
IDROGO

CENTRIFUGAL ELECTRIC BOREHOLE PUMPS, 5”

in AISI 304 stainless steel

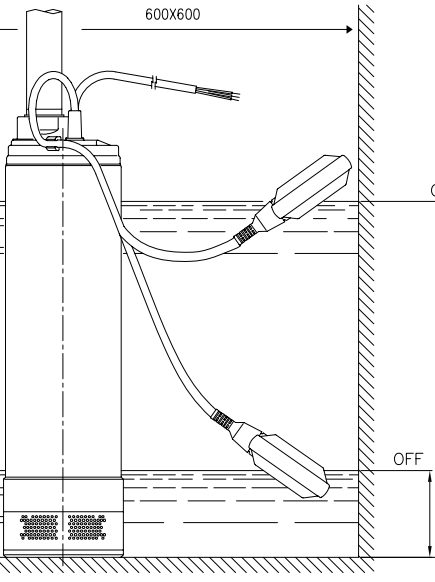
MECHANICAL SEAL



MATERIALS TABLE

Ref.	Name	Material
A	Fixed gasket	NBR
B	Fixed seal ring	Ceramic
C	Rotating seal ring	Carbon
D	Rotating gasket	NBR
E	Spring	AISI 304
F	Structure/frame	AISI 304
G	Fixed gasket	NBR
H	Fixed seal ring	SiC
I	Rotating seal ring	Carbon
L	Rotating gasket	NBR
M	Spring	AISI 304
N	Structure/frame	AISI 304

INSTALLATION



INSTALLATION TABLE

Model	Dimensions [mm]	
	ON	OFF
IDROGO 40/06	560	180
IDROGO 40/08	560	180
IDROGO 40/10	590	190
IDROGO 40/12	660	220
IDROGO 40/15	730	240
IDROGO 80/12	590	190
IDROGO 80/15	640	210

ELECTRICAL DATA TABLE

Model		P_2		Capacitor single phase		P_1		Absorbed current [A]		
single phase 230V	three phase 230V - 400V	[HP]	[kW]	µF	V_c	single phase [kW]	three phase [kW]	single phase 230V	three phase 230V	three phase 400V
IDROGO M 40/06	-	0.6	0.44	16	450	0.82	-	3.8	-	-
IDROGO M 40/08	IDROGO 40/08	0.8	0.6	16	450	1	0.95	4.3	3.3	1.9
IDROGO M 40/10	IDROGO 40/10	1	0.75	20	450	1.25	1.18	5.7	3.8	2.2
IDROGO M 40/12	IDROGO 40/12	1.2	0.9	20	450	1.42	1.33	6.8	4.2	2.4
IDROGO M 40/15	IDROGO 40/15	1.5	1.1	31.5	450	1.6	1.55	7.3	5.2	3.0
IDROGO M 80/12	IDROGO 80/12	1.2	0.9	20	450	1.33	1.22	6.4	4.0	2.3
IDROGO M 80/15	IDROGO 80/15	1.5	1.1	31.5	450	1.62	1.52	7.5	5.4	3.1
-	IDROGO 80/20	2	1.5	-	-	-	1.9	-	6.1	3.5

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DS - DSF

SUBMERSIBLE ELECTRIC PUMPS
WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER

in cast iron

Submersible electric pumps with semi-open impeller for clear and rain water.

APPLICATIONS

- Drainage tanks
- Lifting rain water
- Lifting clear water and water with small suspended particles
- Draining reservoirs

TECHNICAL FEATURES

- High efficiency semi-open impeller
- Non-clogging filter
- Top and bottom seal ring (DS)

TECHNICAL DATA

- Maximum fluid temperature: 40°C
- Maximum solid dimensions: 5 mm (50DS)
  6 mm (65DS) (40DSF 1.1, 1.8 kW)
  7 mm (80DS) (40DSF 6 kW)
  8 mm (100DS)
  10 mm (65DSF)
- Maximum length of fibres: 50mm (all DS models)
- Sealed submersible motor
- Insulation class F (DS)
- Insulation class H (DSF)
- Protection rating IP68
- Voltage: three-phase 380-415±10%, 50Hz (DS)
  single phase: 230±10%, 50Hz (DSF)
  three-phase: 400/690±10%, 50Hz (DSF)
- Flanges: DN50,DN65,DN80,DN100 (DS)
- Flanges: DN40, DN 65 (DSF)
- Power up to 7.5 kW

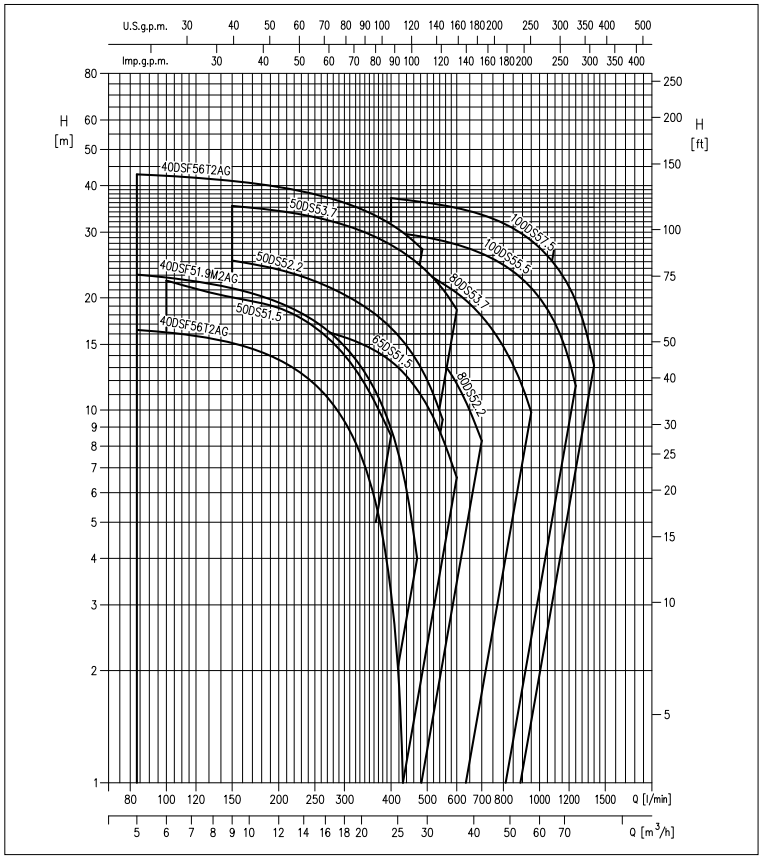
MATERIALS

- Pump body, semi-open impeller, elbow (bend) in cast iron
- Shaft in AISI 403 (DS) and AISI 420B (DSF)
- Mechanical seal: SiC/SiC/NBR (impeller side)
  Carbon/Ceramic/NBR (motor side)
  (6 kW and above for DSF)

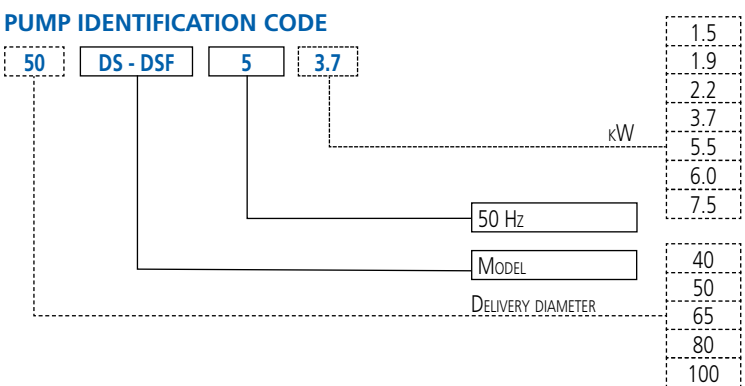
ACCESSORIES (on request)

For accessories, see page 151 onwards

PERFORMANCE RANGE (per ISO 9906 Annex A)



PUMP IDENTIFICATION CODE



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DS - DSF

SUBMERSIBLE ELECTRIC PUMPS
WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER

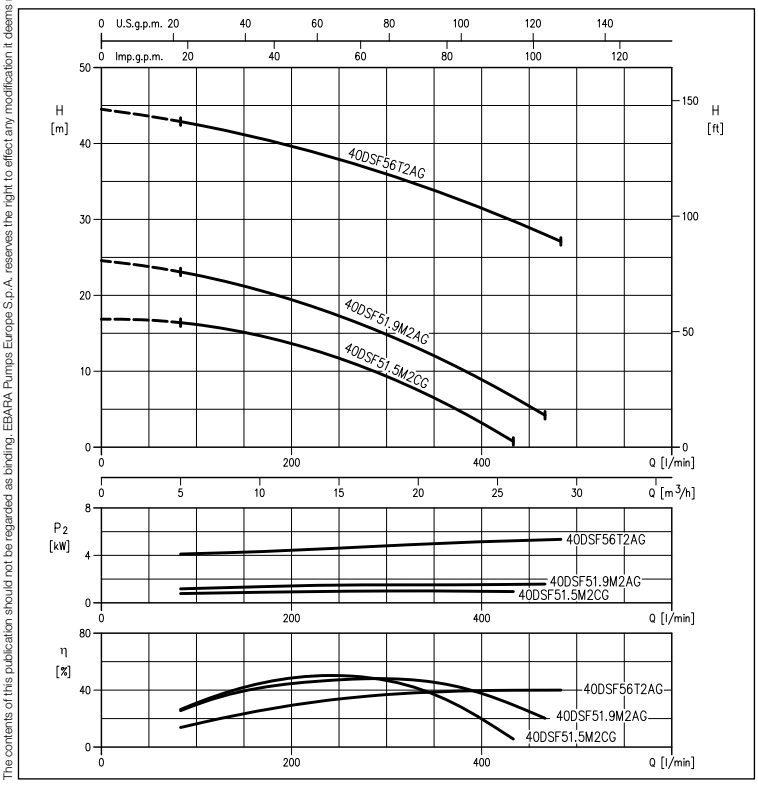
in cast iron

PERFORMANCE TABLE

Model	P2		Q=Flow rate																							
			l/min 83	100	150	200	250	300	400	433	450	467	473	483	500	550	580	600	700	800	950	1000	1170	1200	1250	1400
	[HP]	[kW]	m³/h 5	6	9	12	15	18	24	26	27	28	28.4	29	30	33	34.8	36	42	48	57	60	70.2	72	75	84
			H=Head [m]																							
40DSF51.5M2CG	2	1.5	16.4	16.2	15.1	13.6	11.7	9.3	3.2	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40DSF51.9M2AG	2.5	1.9	23.1	22.7	21.2	19.4	17.3	14.8	8.9	6.6	5.4	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40DSF56T2AG	8	6.0	43	42.5	41	39.6	37.9	36	31.5	30	28.9	28	27.7	27.1	-	-	-	-	-	-	-	-	-	-	-	-
50DS51.5	2	1.5	-	22.3	20.7	18.8	16.5	14	8.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50DS52.2	3	2.2	-	-	25.2	23.7	22.1	20.4	16.6	15.2	14.4	13.6	13.3	12.9	12	9.4	-	-	-	-	-	-	-	-	-	-
50DS53.7	5	3.7	-	-	35.3	34.2	32.9	31.4	27.7	26.4	25.7	25.0	24.6	24.2	23.5	21.1	19.5	18.6	-	-	-	-	-	-	-	-
65DS51.5	2	1.5	-	-	17.5	17.1	16.5	15.7	13.5	12.5	12	11	11.2	10.9	10.3	8.5	7.3	6.6	-	-	-	-	-	-	-	-
80DS52.2	3	2.2	-	-	-	20.8	20.2	19.4	17.6	16.8	16.4	15.9	15.8	15.5	15	13.4	12.5	11.8	8.3	-	-	-	-	-	-	-
80DS53.7	5	3.7	-	-	-	-	26.3	25.8	24.6	24.0	23.7	23.5	23.3	23.1	22.8	21.8	21.2	20.6	17.8	14.8	9.9	-	-	-	-	-
100DS55.5	7.5	5.5	-	-	-	-	-	30.7	30	30	29.5	29.4	29.3	29.2	29	28.4	28	27.8	26.3	24.5	21.3	20.0	14.8	13.6	11.6	-
100DS57.5	10	7.5	-	-	-	-	-	-	37	37	36.6	36.4	36.3	36.2	36	35.5	35.1	34.8	33.4	31.7	28.5	27.3	22.5	21.4	19.7	13.2

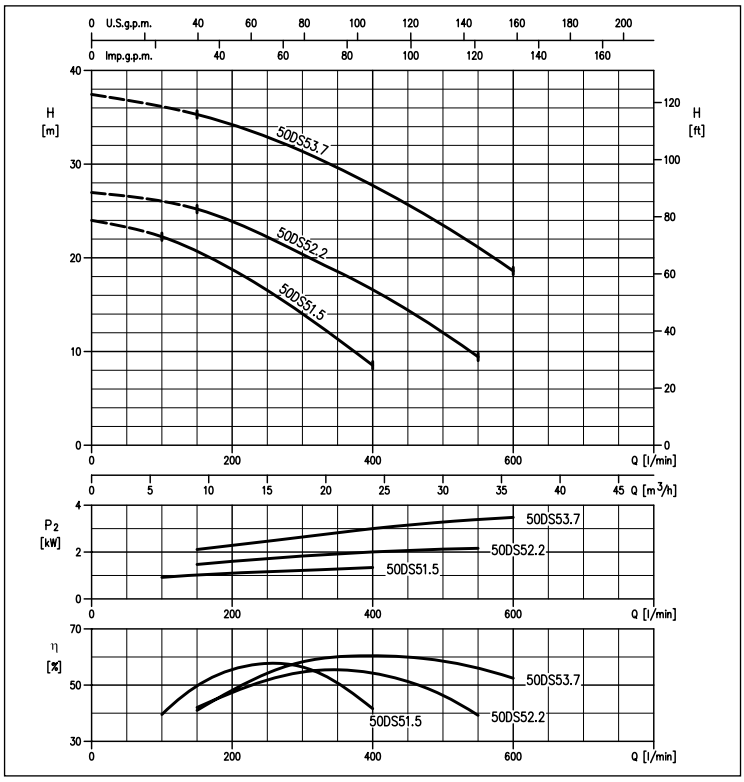
PERFORMANCE CURVES
(per ISO 9906 Annex A)

series 40DSF51.5M2CG (1.5 kW)
series 40DSF51.9M2AG (1.9 kW)
series 40DSF56T2AG (6.0 kW)



PERFORMANCE CURVES
(per ISO 9906 Annex A)

series 50DS51.5 (1.5 kW)
series 50DS52.2 (2.2 kW)
series 50DS53.7 (3.7 kW)



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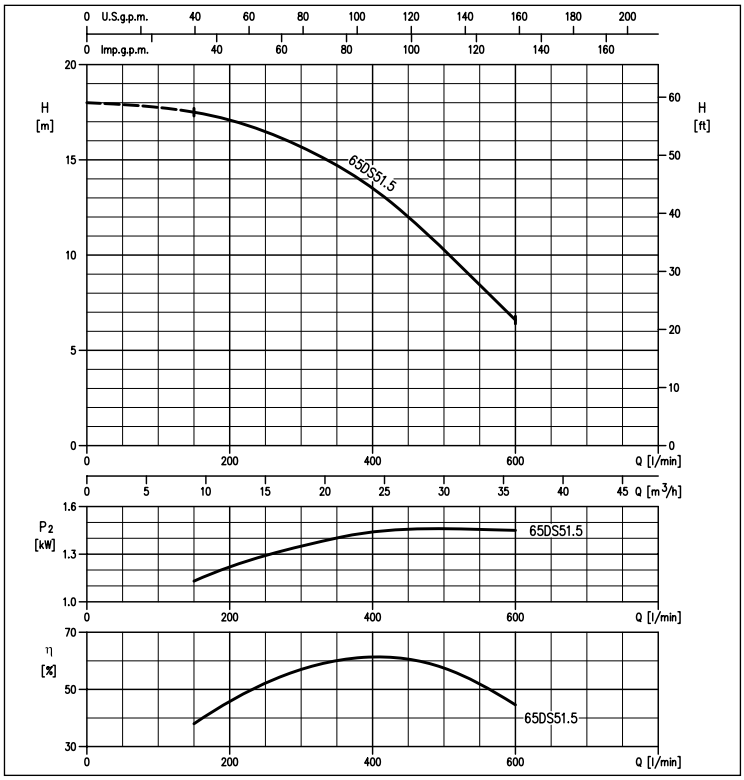
SUBMERSIBLE ELECTRIC PUMPS
WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER

in cast iron

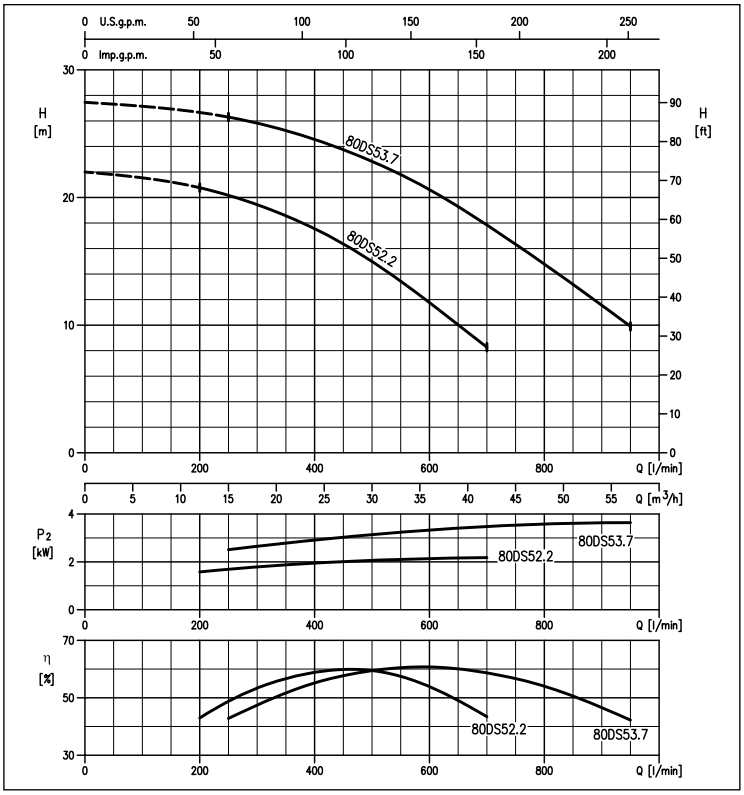
PERFORMANCE CURVES series 65DS51.5 (1.5 kW)

(per ISO 9906 Annex A)



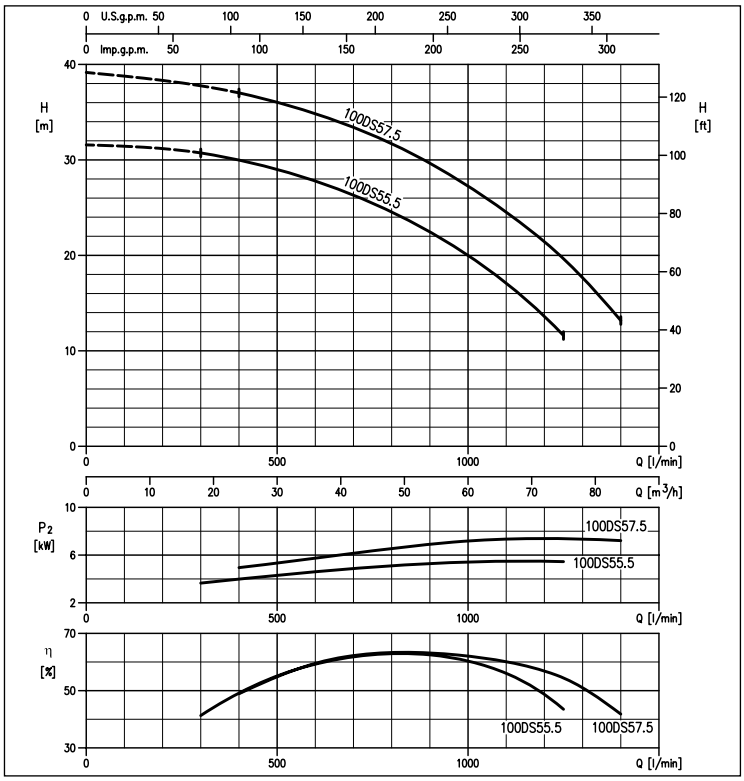
PERFORMANCE CURVES series 80DS52.2 (2.2 kW) series 80DS53.7 (3.7 kW)

(per ISO 9906 Annex A)



PERFORMANCE CURVES series 100DS55.5 (5.5 kW) series 100DS57.5 (7.5 kW)

(per ISO 9906 Annex A)



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DS - DSF

SUBMERSIBLE ELECTRIC PUMPS
WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER.

in cast iron

DIMENSIONS DS

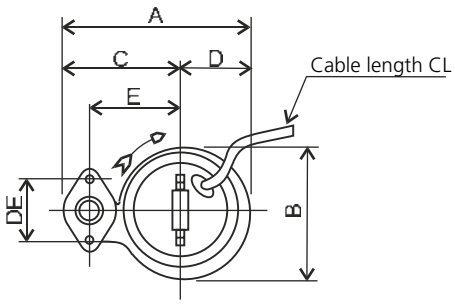


Figure 1

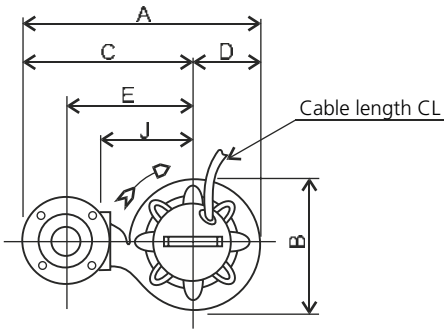
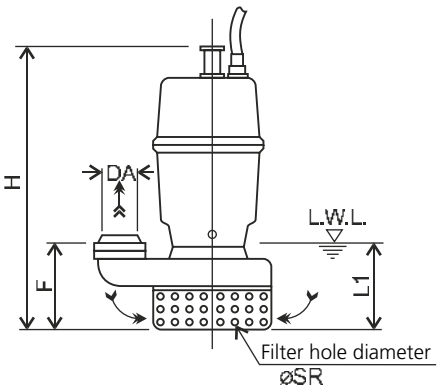
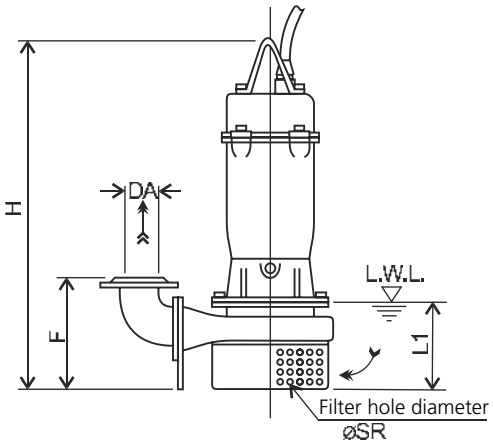
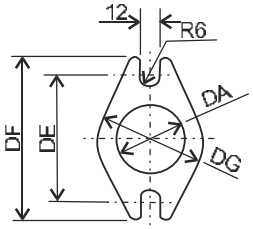


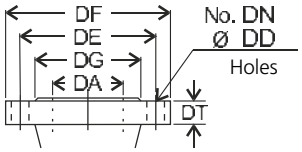
Figure 2







Oval flange



Round flange

Flange dimensions table [mm] - EN 1092-2

Type	DA	DE	DF	DG	DT	DN	DD
Oval	50	96	114	76	-	-	-
Round		125	165	99	17	4	19
	65	145	185	118			
	80	160	220	132	19	8	
	100	180	220	156	21		

TABLE OF DIMENSIONS DS

DA	Model	Fig.	Flange type	[kW]	DA	A	B	C	D	E	F	H	DE	J	L1 (*)	ØSR	CL [m]	Weight [kg]
50	50DS51.5	1	Oval	1.5	G2	266	200	168	98	130	115	450	96	-	120	10	6	25
	50DS52.2	2	Round	2.2	50	433	245	313	120	235	198	619	-	180	160		10	55
	50DS53.7			3.7														61
65	65DS51.5			1.5	65	407	210	303	104	215	197	503	-	150	120		6	35
80	80DS52.2			2.2	80	503	268	368	135	275	215	625	-	200	160		10	59
	80DS3.7			3.7														64
100	100DS55.5			5.5	100	615	309	460	155	355	257	730	-	250	200	13		92
	100DS57.5			7.5														104

(*) - L.W.L (minimum fluid level)

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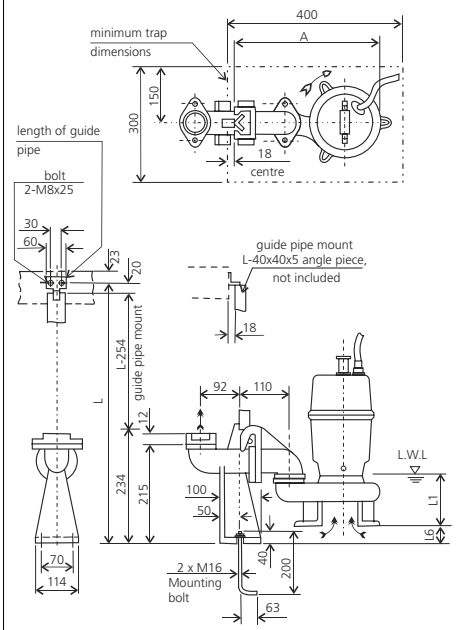
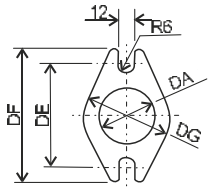
SUBMERSIBLE ELECTRIC PUMPS
WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER.

in cast iron

DIMENSIONS DS with QDC (lowering device) (1.5 - 3.7 kW)

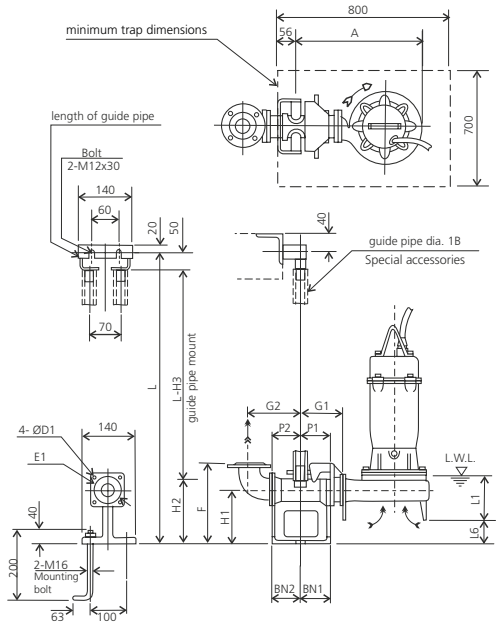
Figure 1

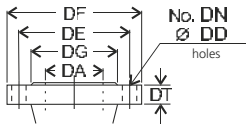




Oval flange

Figure 2





Round flange

Flange dimensions table [mm] - EN 1092-2							
Type	**DA**	**DE**	**DF**	**DG**	**DT**	**DN**	**DD**
Oval	50	96	114	76	-	-	-
Round		125	165	99	17	4	19
	65	145	185	118			
	80	160	220	132	19	8	

TABLE OF DIMENSIONS DS with QDC (lowering device kit) (1.5 - 3.7 kW)

DA	Model	Fig.	Flange type	[kW]	DA	A	P1	P2	G1	G2	F	H1	H2	H3	L1 (*)	L6	BN1	BN2	D1	E1	QDC (lowering device kit) Model	QDC (lowering device kit) Weight [kg]
50	50DS51.5	1	Oval	1.5	G2	-	-	-	-	-	-	-	-	-	120	25	-	-	-	-	LS50	9
	50DS52.2	2	Round	2.2	50	415	75	80	115	135	230	135	165	215	160	32	75	80	12	120	LM50	11
	50DS53.7			3.7																		
65	65DS51.5			1.5	65	374	75	95	120	160	250	145	190	240	120	53		95	12	140	LM65	14
80	80DS52.2			2.2	80	460	75	90	125	165	285	175	230	280	160	70		90	15	155	LM80	17
	80DS3.7			3.7																		

(*) - L.W.L (minimum fluid level)

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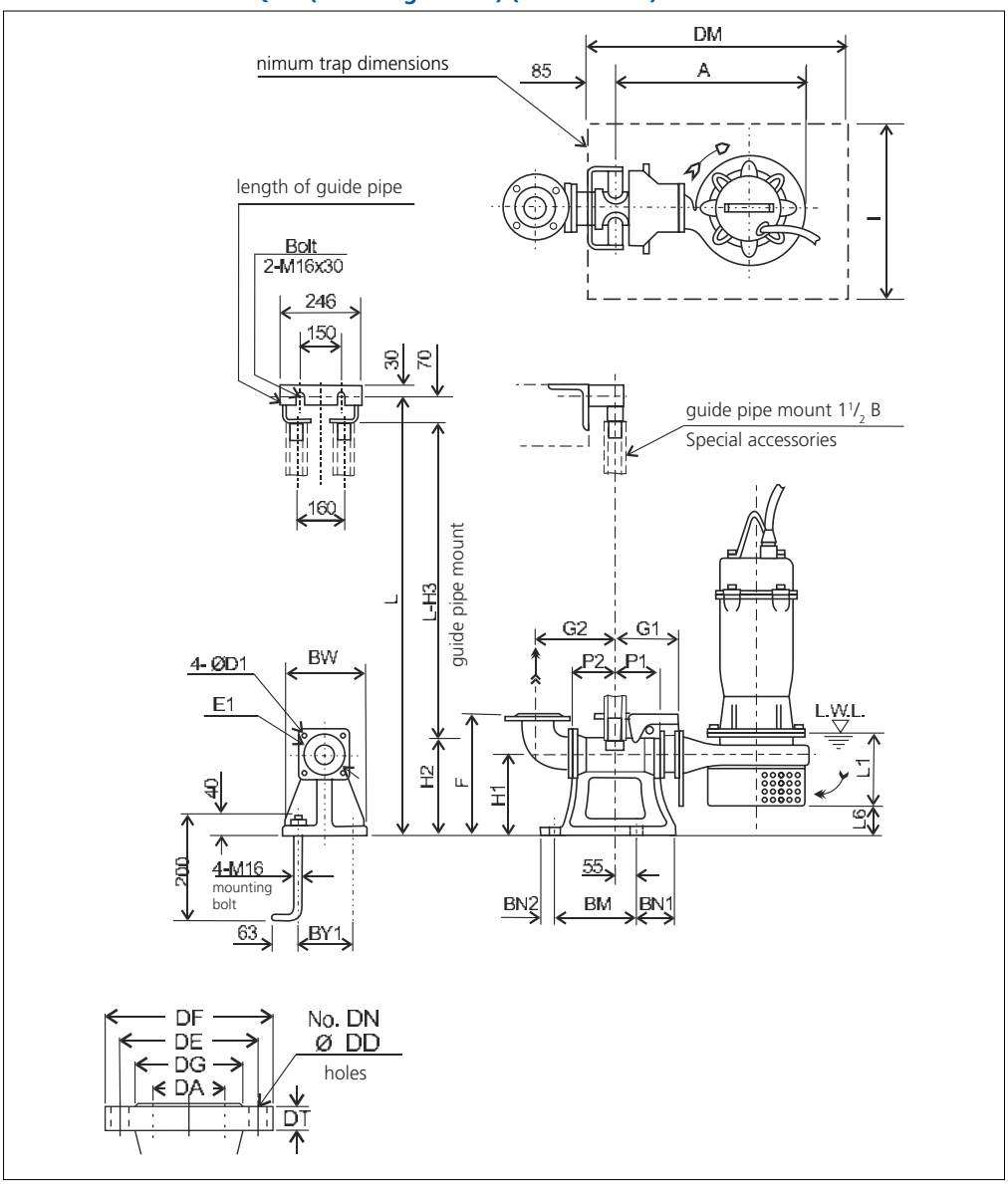
SUBMERSIBLE ELECTRIC PUMPS
WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER.

in cast iron

DIMENSIONS DS with QDC (lowering device) (5.5 - 7.5 kW)



Flange dimensions table [mm] - EN 1092-2							
Type	DA	DE	DF	DG	DT	DN	DD
Round	100	180	220	156	21	8	19

TABLE OF DIMENSIONS DS with QDC (lowering device kit) (5.5 - 7.5 kW)

DA	Model	[kW]	A	P1	P2	G1	G2	F	H1	H2	H3	L1 (*)	L6	BN1	BN2	BM	BY1	BW	DM	I	D1	E1	QDC (lowering device kit) Model	QDC (lowering device kit) Weight [kg]
100	100DS55.5 100DS57.5	5.5 7.5	590	105	105	185	210	365	240	265	335	200	108	100	40	220	180	230	800	700	19	175	LL100	46

(*) - L.W.L (minimum fluid level)

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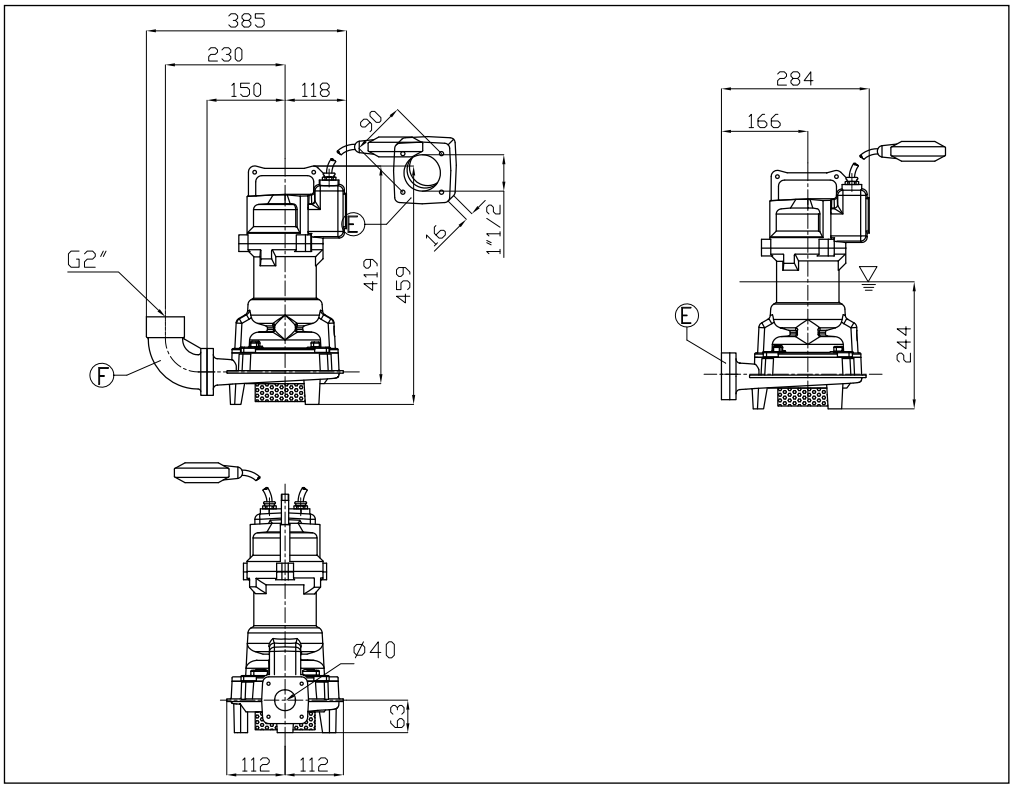
SUBMERSIBLE ELECTRIC PUMPS
WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER.
in cast iron

DIMENSIONS 40DSF/40DSF with QDC (1.5 - 1.9 kW)



DIMENSIONS CHART
40DSF/40DSF with QDC (1.5 - 1.9 kW)

DA	Model	[kW]	Weight [kg]
40	40DSF51.5M2CG	1.5	38
	40DSF51.9M2AG	1.9	38

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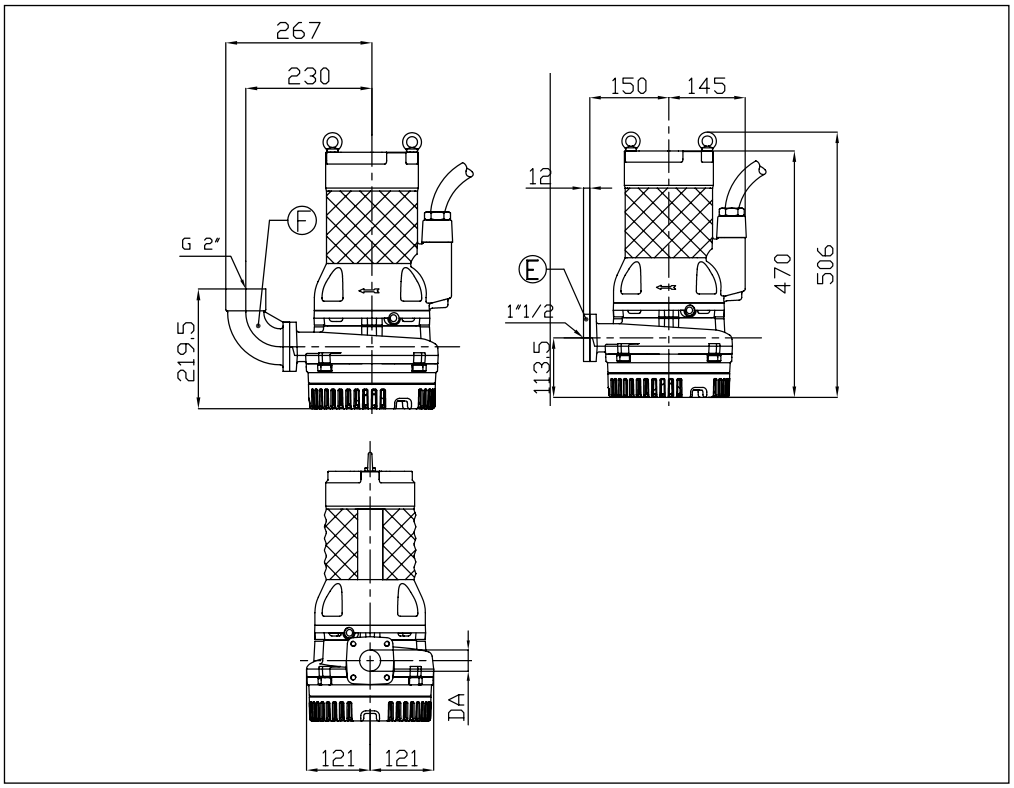
SUBMERSIBLE ELECTRIC PUMPS
WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER.

in cast iron

DIMENSIONS 40DSF/40DSF WITH QDC (6.0 kW)



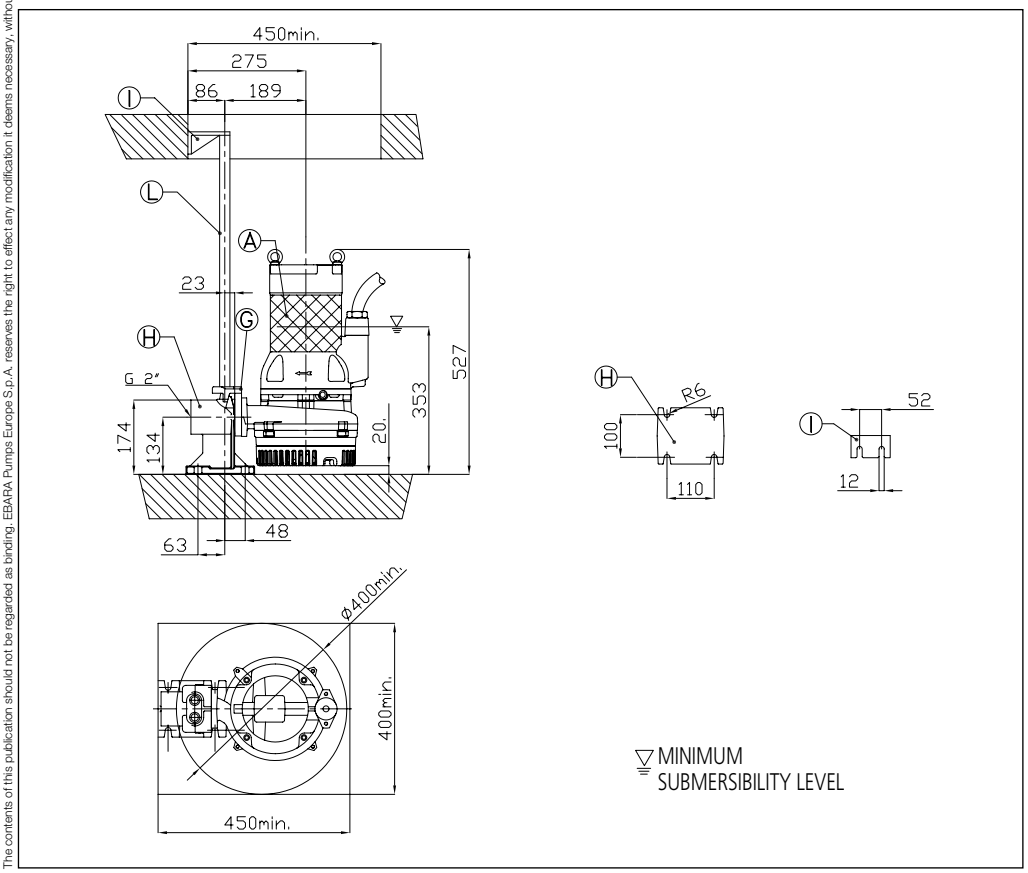


TABLE OF DIMENSIONS 40DSF (6.0 kW)

DA	Model	[kW]	Weight [kg]
40	40DSF56T2AG	6	68

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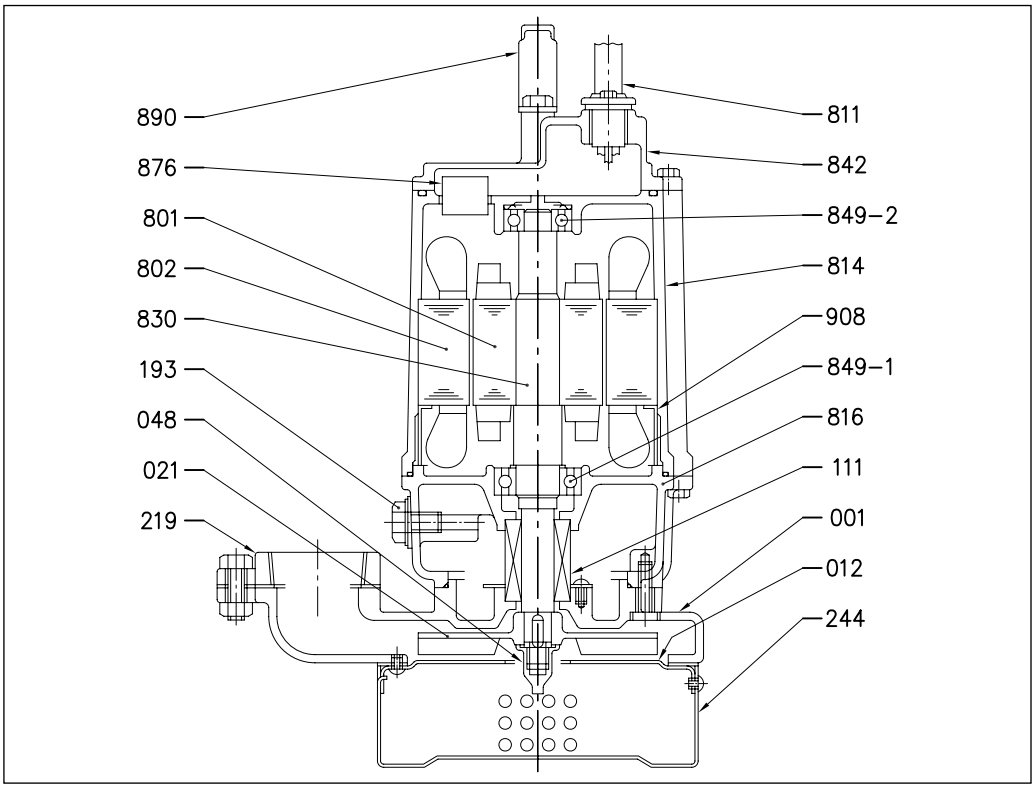
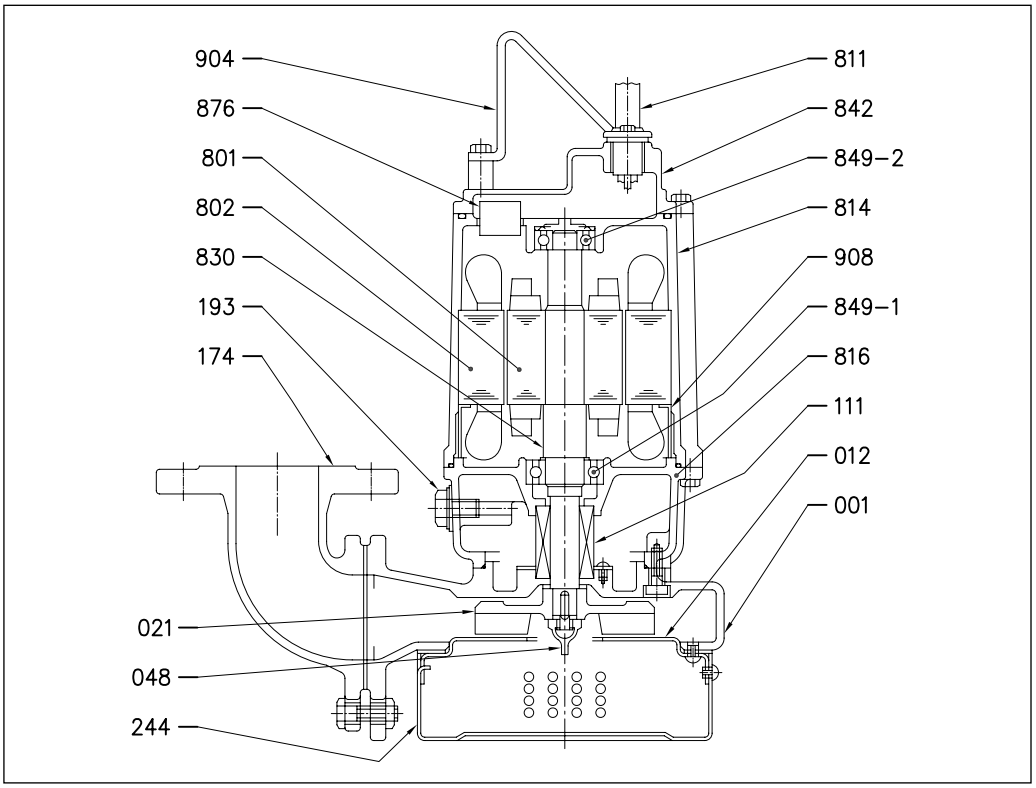
SUBMERSIBLE ELECTRIC PUMPS
WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER.

in cast iron

SECTIONAL VIEW 50 DS (1.5kW)



SECTIONAL VIEW 65 DS (1.5kW)



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in cast iron

SECTIONAL VIEW 50(80) DS (2.2 - 3.7 kW) - 100 DS (5.5 - 7.5 kW)

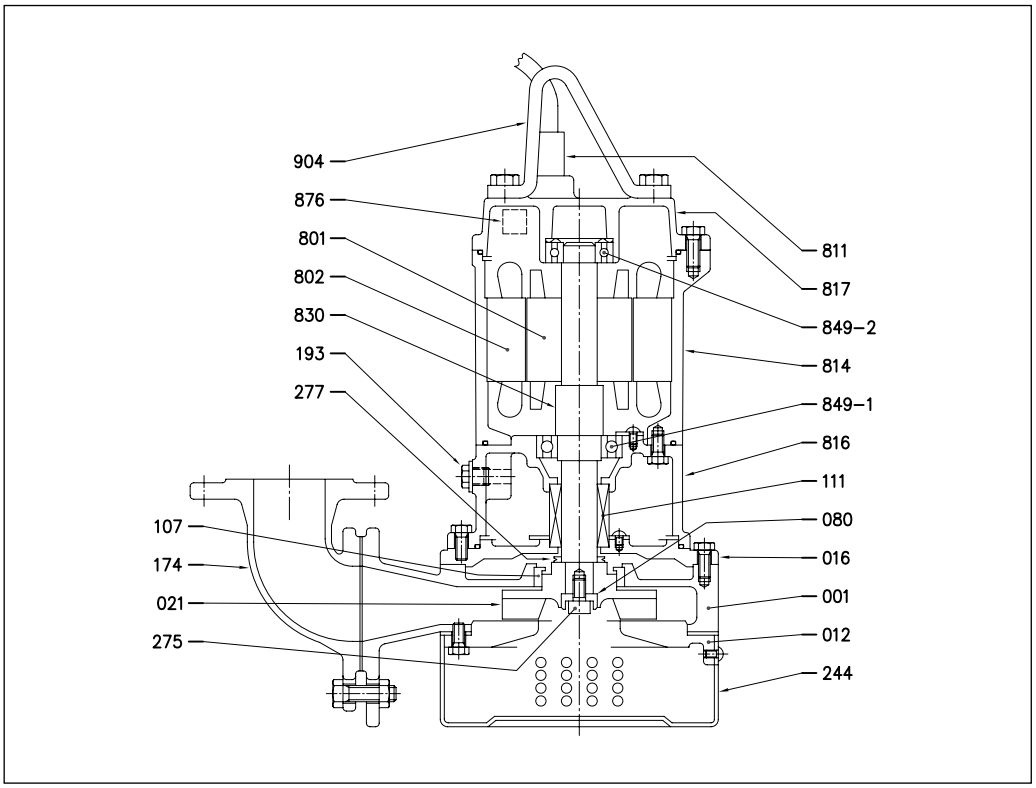

TABLE OF MATERIALS DS

Ref.	Name	Material	Ref.	Name	Material
001	Pump body	Cast iron EN-GHJL-200-EN 1561	811	Cable	-
012	Suction side cover	EN 1.4301 (AISI 304 stainless steel)	814	Motor casing	Cast iron EN-GHJL-200-EN 1561
021	Impeller	Cast iron EN-GHJL-200-EN 1561	816	Motor mount	Cast iron EN-GHJL-200-EN 1561
048	Impeller nut	Brass	830	Shaft	EN 1.4006 (AISI403)
111	Mechanical seal	-	842	Motor cover	Cast iron EN-GHJL-200-EN 1561
174	Drain bend	Cast iron EN-GHJL-200-EN 1561	849-1	Ball bearing	-
193	Oil cap	NBR/EN 1.4301 (AISI 304 stainless steel)	849-2	Ball bearing	-
244	Filter	EN 1.4301 (AISI 304 stainless steel)	876	Motor cutout	-
801	Rotor	-	904	Lifting hook	Stainless steel
802	Stator	-	908	Spacer	Steel

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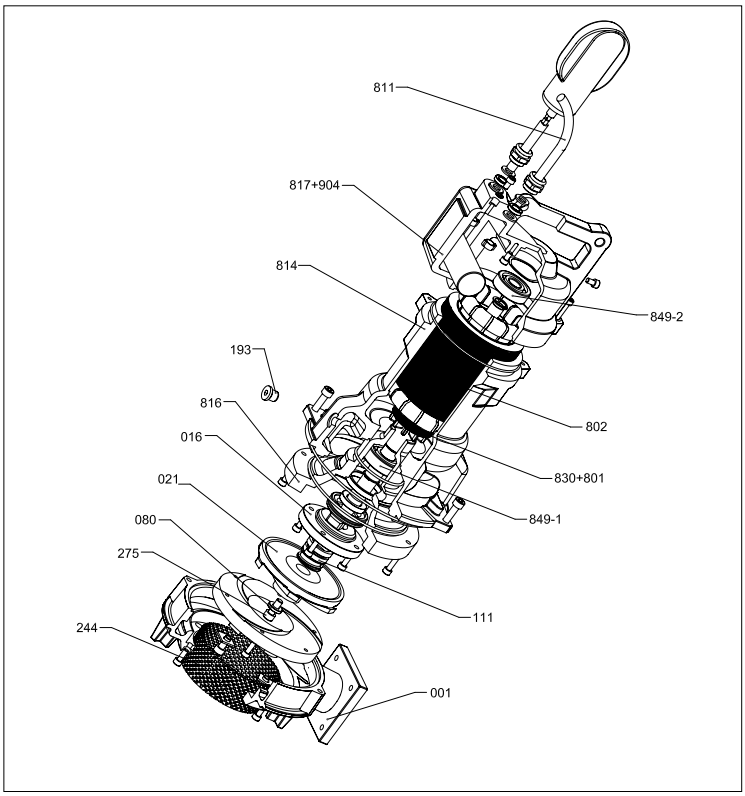
DS - DSF

SUBMERSIBLE ELECTRIC PUMPS
WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER.

in cast iron

SECTIONAL VIEW 40 DSF (1.5 - 1.9 kW)



SECTIONAL VIEW 40 DSF (6 kW)

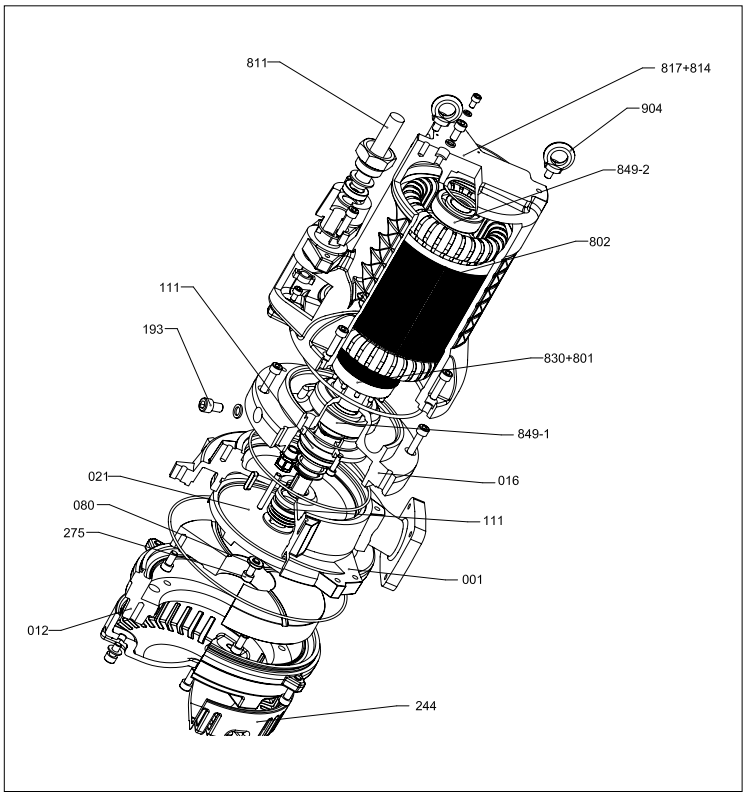


TABLE OF MATERIALS DSF

Ref.	Name	Material	Ref.	Name	Material
001	Pump body	Cast iron EN-GJL-250	811	Cable	-
012	Suction side cover	Cast iron EN-GJL-250	814	Motor casing	Cast iron EN-GJL-250
016	Mechanical seal cover	Cast iron EN-GJL-250	816	Upper mount	Cast iron EN-GJL-250
021	Impeller	Ductile cast iron GS400 UNI-EN1563	817	Lower bearing	Cast iron EN-GJL-250
080	Bushing	Steel	830	Shaft	AISI 420B
111	Mechanical seal	-	842-1	Motor cover	Cast iron EN-GJL-250
193	Oil cap	NBR/stainless steel	842-2	Motor cover	Cast iron EN-GJL-250
244	Filter	AISI 316L	849-1	Ball bearing	-
275	Impeller nut	Class A2 AISI 304 stainless steel	849-2	Ball bearing	-
801	Rotor	-	904	Lifting hook [1]	Cast iron EN-GJL-250
802	Stator	-	904	Lifting hook [2]	Steel

[1] - For models 40 DSF (1.5 - 1.9 kW)
[2] - For models 40 DSF (6 kW) and 40 DSF (15.9 kW)

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DS - DSF

SUBMERSIBLE ELECTRIC PUMPS WITH SEMI-OPEN IMPELLER FOR CLEAR AND RAIN WATER.

in cast iron

ELECTRICAL DATA TABLE DS (1.5 - 3.7 kW)

[P_2]			[kW]	1.5			2.2			3.7		
Resistance at 20°C			[Ω]	11.973			4.942			2.647		
GD²			[kg/m²]	0.0057			0.0082			0.011		
Voltage			[V]	380	400	415	380	400	415	380	400	415
Full load	0%	Current	[A]	1.25	1.32	1.30	1.95	2.15	2.33	3.20	3.30	3.90
		Power	[W]	430	405	400	500	500	252	800	500	600
	75%	Current	[A]	2.92	2.62	2.61	4.07	4.06	3.82	7.07	6.32	6.45
		Efficiency	[%]	63.59	69.18	70.11	71.23	69.69	77.58	68.00	75.54	74.26
		Power factor	[%]	91.93	89.54	85.68	86.44	84.27	77.40	87.75	83.92	80.61
		rpm	[min⁻¹]	2872	2887	2898	2895	2901	2927	2890	2917	2922
	100%	Current	[A]	3.70	3.30	3.30	5.10	5.00	4.60	8.80	7.80	7.80
		Efficiency	[%]	65.61	71.25	70.89	73.05	72.28	79.33	70.79	77.64	76.74
		Power factor	[%]	93.88	92.08	89.21	89.71	87.87	83.88	90.24	88.18	86.00
		rpm	[min⁻¹]	2821	2847	2854	2851	2864	2900	2847	2886	2890
Torque with rotor locked			[%]	243	295	303	161	186	184	175	216	233
Starting current			[A]	20.5	21.1	22.5	28.7	30.0	31.5	51.2	51.0	53.0
Starts per hour				10								
Model				ZDSEU								

ELECTRICAL DATA TABLE DS (5.5 - 7.5 kW)

[P_2]			[kW]	5.5			7.5		
Resistance at 20°C			[Ω]	2.001			1.345		
GD²			[kg/m²]	0.03			0.037		
Voltage			[V]	380	400	415	380	400	415
Full load	0%	Current	[A]	3.00	2.70	2.70	3.65	3.20	3.27
		Power	[W]	340	800	340	400	800	400
	75%	Current	[A]	8.37	8.36	7.59	11.43	11.02	10.17
		Efficiency	[%]	82.89	77.34	83.68	83.36	79.51	84.44
		Power factor	[%]	90.37	92.05	90.40	89.70	92.68	91.14
		rpm	[min⁻¹]	2944	2932	2945	2941	2928	2942
	100%	Current	[A]	10.80	10.80	9.80	14.80	14.30	13.20
		Efficiency	[%]	83.87	79.10	84.51	84.26	80.96	85.13
		Power factor	[%]	92.25	92.92	92.39	91.34	93.50	92.85
		rpm	[min⁻¹]	2922	2905	2923	2917	2900	2918
Torque with rotor locked			[%]	168	155	168	159	154	159
Starting current			[A]	77.0	70.0	70.0	105.0	93.5	94.0
Starts per hour				10					
Model				ZDSEU					

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DS - DSF

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in cast iron

ELECTRICAL DATA TABLE DSF (1.5 - 6 kW)

[P_2]			[kW]	1.5	1.9	6
Resistance at 20°C			[Ω]	-	-	-
GD^2			[kg/m²]	0.0021	0.0025	0.015
Voltage			[V]	230	230	400/690
Full load	0%	Current	[A]	-	-	-
		Power	[W]	-	-	-
	75%	Current	[A]	-	-	-
		Efficiency	[%]	72	80	73
		Power factor	[%]	0.97	0.97	0.84
		rpm	[min⁻¹]	-	-	-
	100%	Current	[A]	-	-	-
		Efficiency	[%]	73	73	90
		Power factor	[%]	0.99	0.99	0.88
		rpm	[min⁻¹]	-	-	-
Torque with rotor locked			[%]	-	-	-
Starting current			[A]	33.3	35	64.3
Phases				1		3
Starts per hour				15		
Model				M271M-1.5-230/50NY-IE	M271M-1.9-230/50NY-IE	M210T-6-400/50YY-IE3
Type of pump				40DSF51.5M2CG	40DSF51.9M2AG	40DSF56T2AG

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