



EBARA

SUBMERSIBLE SUMP PUMPS

BEST 2-5

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50Hz

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SUBMERSIBLE SUMP PUMPS

BEST 2-5

SPECIFICATIONS

50 Hz

PUMP		
Liquid Handled	Type of liquid	Clean / dirty water
	Max temperature [°C]	35
	Max solids size [mm]	10 (suspended particles)
Maximum immersion	[m]	10
Construction	Impeller	Open centrifugal type
	Shaft seal type	Double mechanical seal
	Bearing	Sealed ball bearing
Pipe Connection	Suction-Flange	Strainer
	Discharge-Flange [inch]	G 1½ UNI ISO 228
Material	Casing	AISI 304
	Impeller	AISI 304
	Casing cover	AISI 304
	Shaft seal	Pump side : Sic/Sic/NBR Motor side : Carbon/Ceramic/NBR
	Seal cover	AISI 304
	Shaft	AISI 303 (wet extension)
	Lubricating liquid	White mineral oil ESSO MARCOL 172 (180 cc)
Applicable standard of test	ISO 9906 - Annex A	

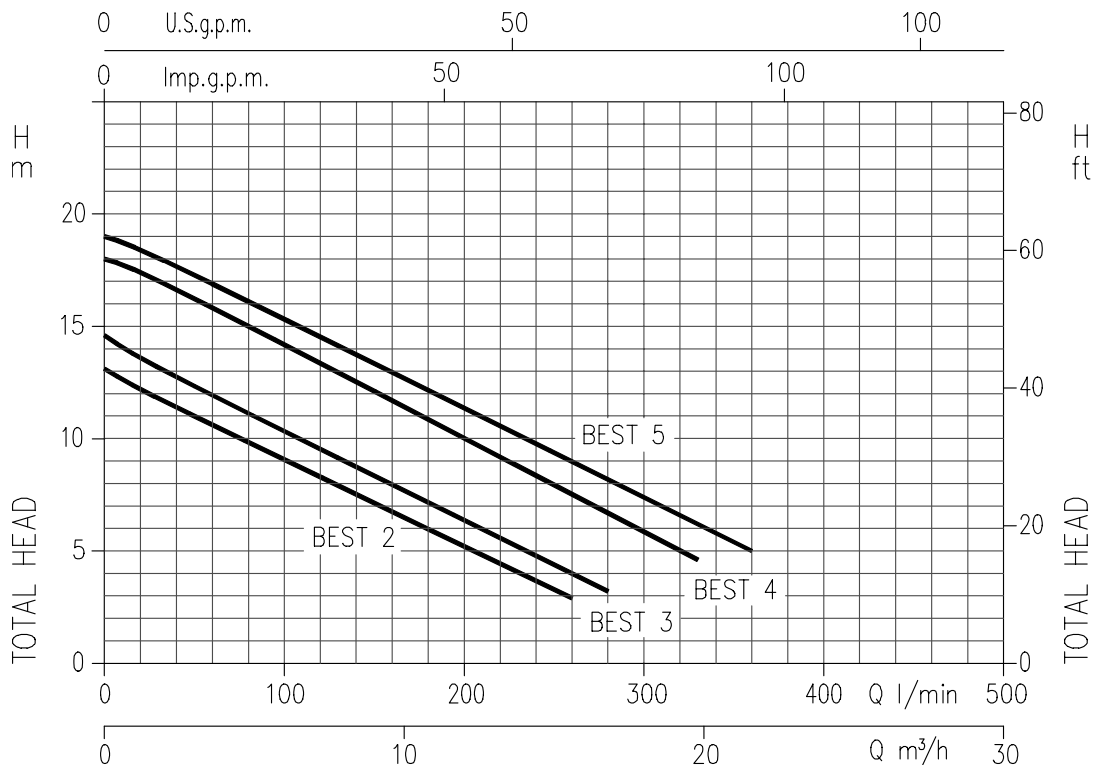
MOTOR		
Type	Submersible dry type	
	Single Phase	Three Phase
No. of Poles	2	
Rotation speed [min ⁻¹]	≈2800	
Insulation Class	F	
Protection degree	IP 68	
Power rating	[kW]	0.55 ÷ 1.1
	[HP]	0.75 ÷ 1.5
Frequency [Hz]	50	
Voltage [V]	230 ±10%	400 ±10%
Capacitor	Built in	-
Over load protection	Built in	-
Float Switch	Optional	-
Float Switch Cable	material	H07RN-F
	size	3G1
Casing material	AISI 304	
Base material/motor support	AISI 304	
Power cable	length [m]	10
	material	H07RN-F
	size	3G1 (Best 2) 3G1.5 (Best 3, 4)
Dimensions of cable entry	Cable Gland	

SUBMERSIBLE SUMP PUMPS

BEST 2-5

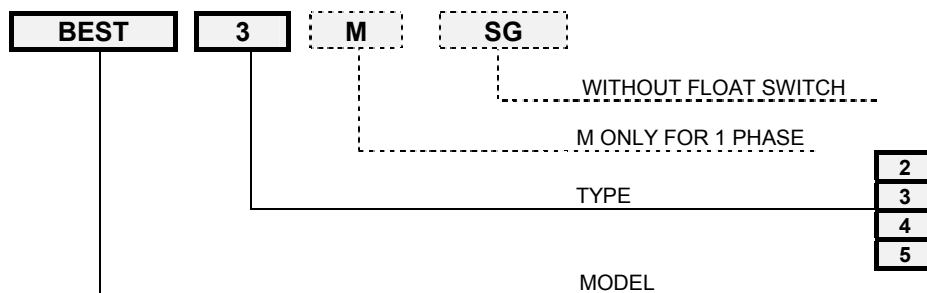
SELECTION CHART

50Hz



Pump type	kW	HP	Q=Capacity												
			l/min 20	40	80	120	160	170	200	260	280	300	330	360	
			H=Total manometric head in meters												
BEST 2	0.55	0.75	12.2	11.4	9.8	8.3	6.7	6.3	5	2.9	-	-	-	-	
BEST 3	0.74	1	13.6	12.7	11.1	9.5	7.9	7.6	6.4	4	3.2	-	-	-	
BEST 4	1.1	1.5	17.4	16.6	15	13.4	11.7	11.3	10	7.5	6.7	5.9	4.6	-	
BEST 5	1.5	2	18.4	17.7	16.1	14.5	12.8	12.5	11.4	9	8	7.4	6	5	

TYPE KEY:



SUBMERSIBLE SUMP PUMPS

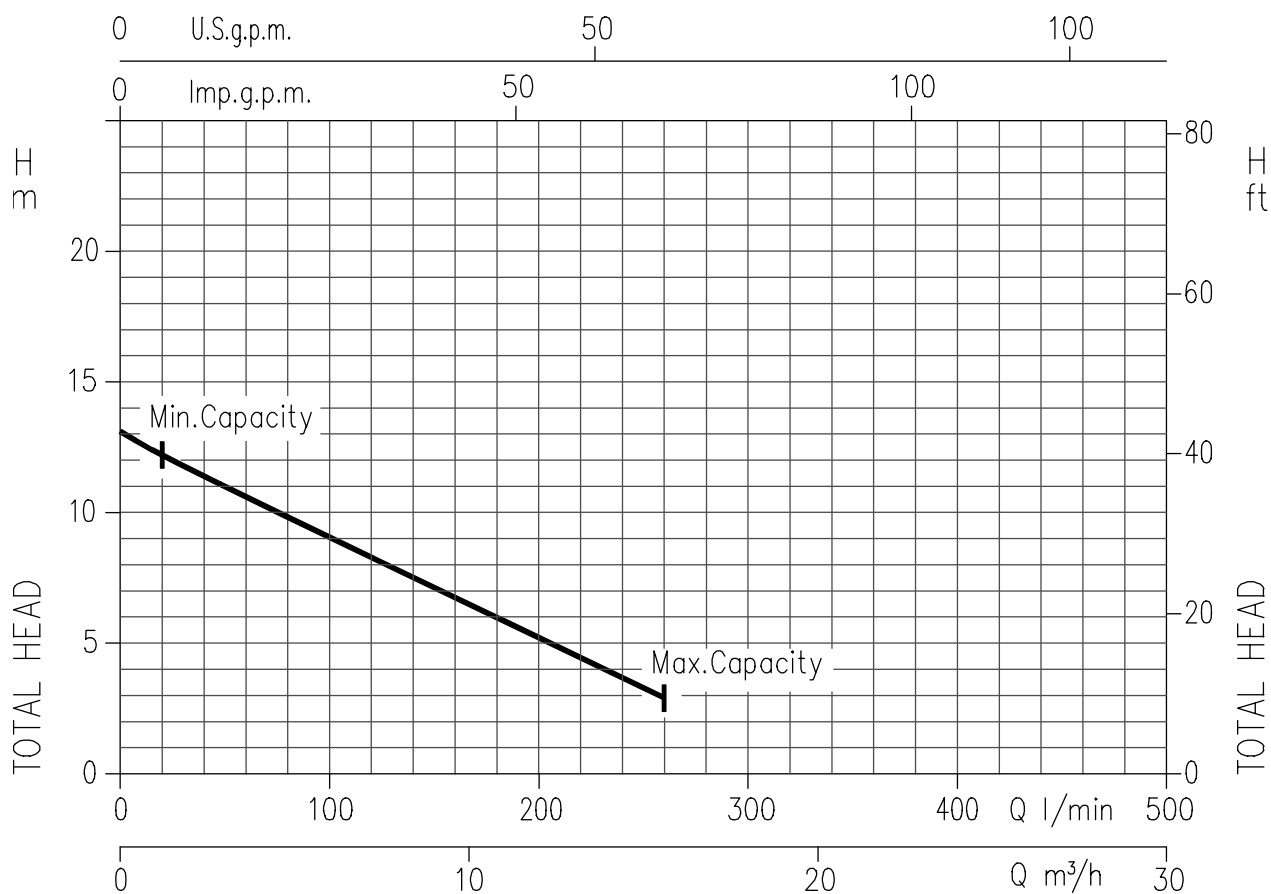
BEST 2-5

PERFORMANCE CURVE

50Hz

PUMP CHARACTERISTIC PERFORMANCE

BEST 2 (0.55 kW) SYNCHRONOUS SPEED : 3000 min⁻¹



Temperature of water: 20°C
 Impeller diameter = 112 mm
 Applicable standard of test: ISO 9906 – Annex A

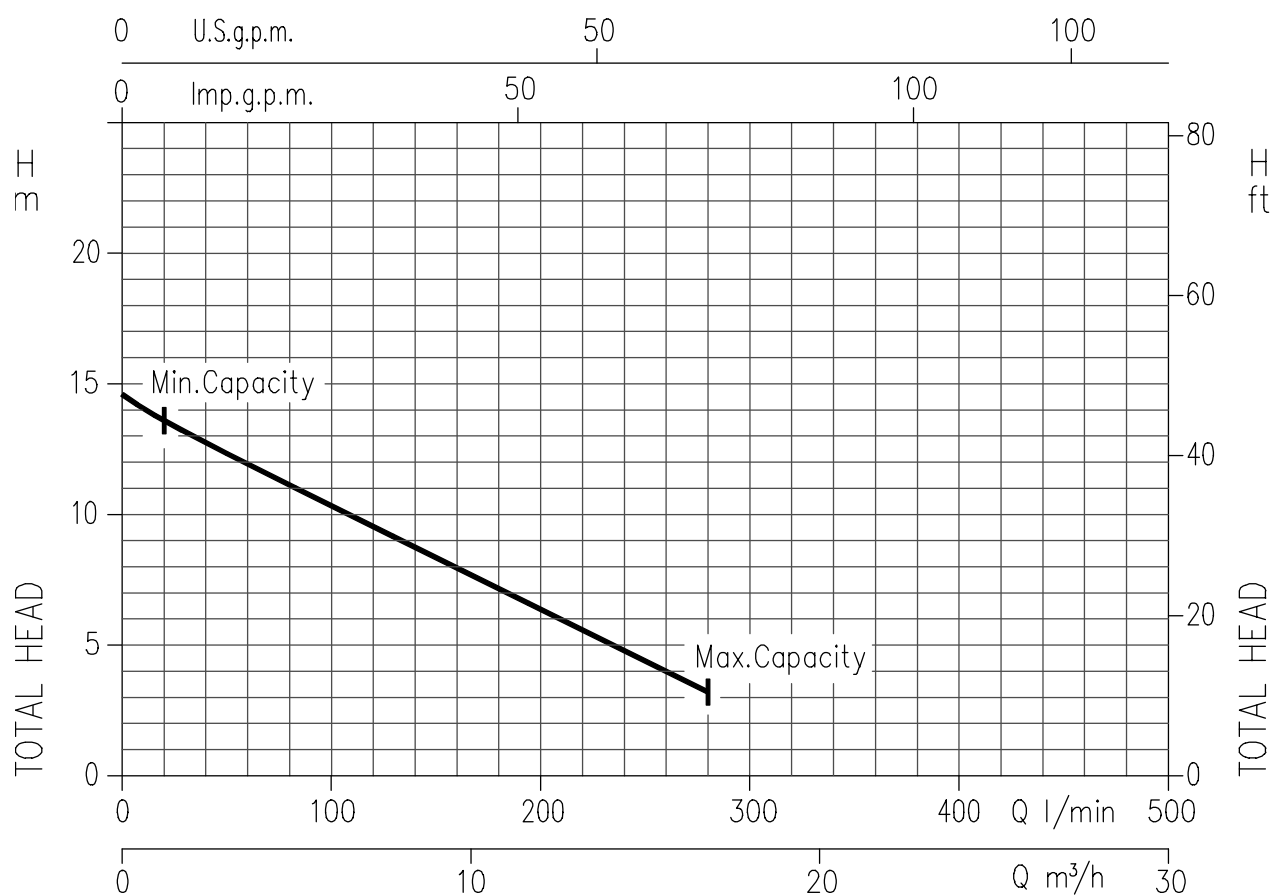
SUBMERSIBLE SUMP PUMPS

BEST 2-5

PERFORMANCE CURVE

50Hz

PUMP CHARACTERISTIC PERFORMANCE

BEST 3 (0.75 kW) SYNCHRONOUS SPEED : 3000 min⁻¹

Temperature of water: 20°C
 Impeller diameter = 120 mm
 Applicable standard of test: ISO 9906 – Annex A

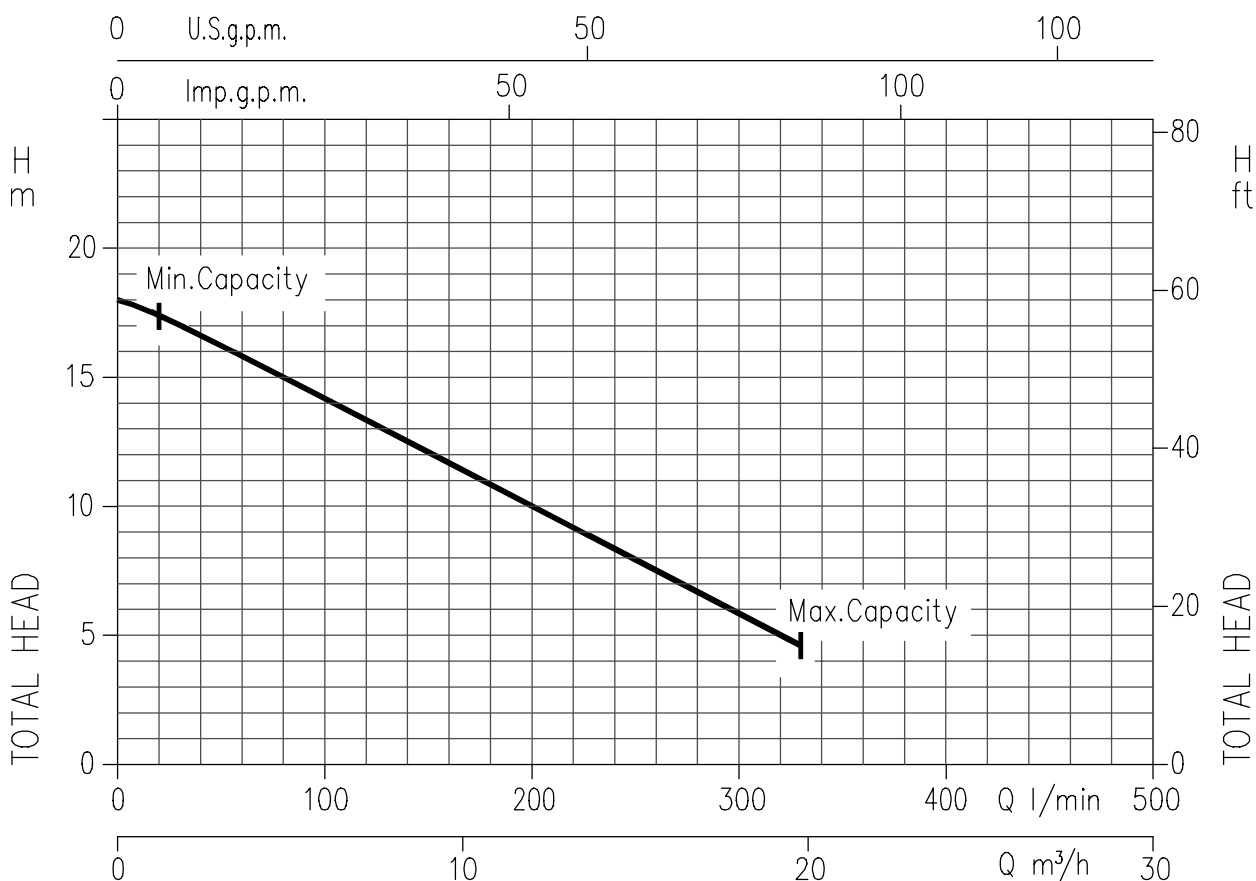
SUBMERSIBLE SUMP PUMPS

BEST 2-5

PERFORMANCE CURVE

50Hz

PUMP CHARACTERISTIC PERFORMANCE
BEST 4 (1.1 kW) SYNCHRONOUS SPEED : 3000 min⁻¹



Temperature of water: 20°C
 Impeller diameter = 125 mm
 Applicable standard of test: ISO 9906 – Annex A

SUBMERSIBLE SUMP PUMPS

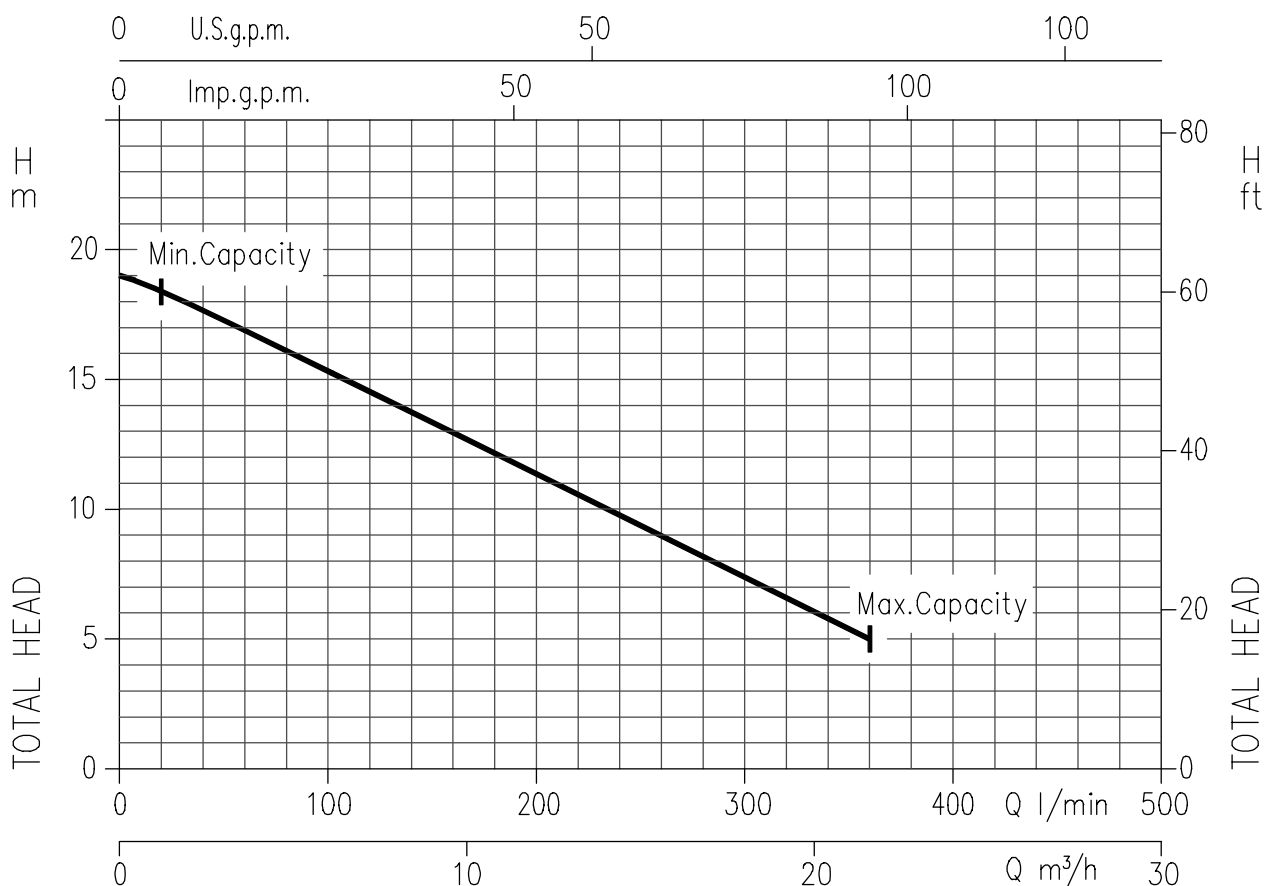
BEST 2-5

PERFORMANCE CURVE

50Hz

PUMP CHARACTERISTIC PERFORMANCE

BEST 5 (1.5 kW) SYNCHRONOUS SPEED : 3000 min⁻¹



Temperature of water: 20°C
 Impeller diameter = 125 mm
 Applicable standard of test: ISO 9906 – Annex A

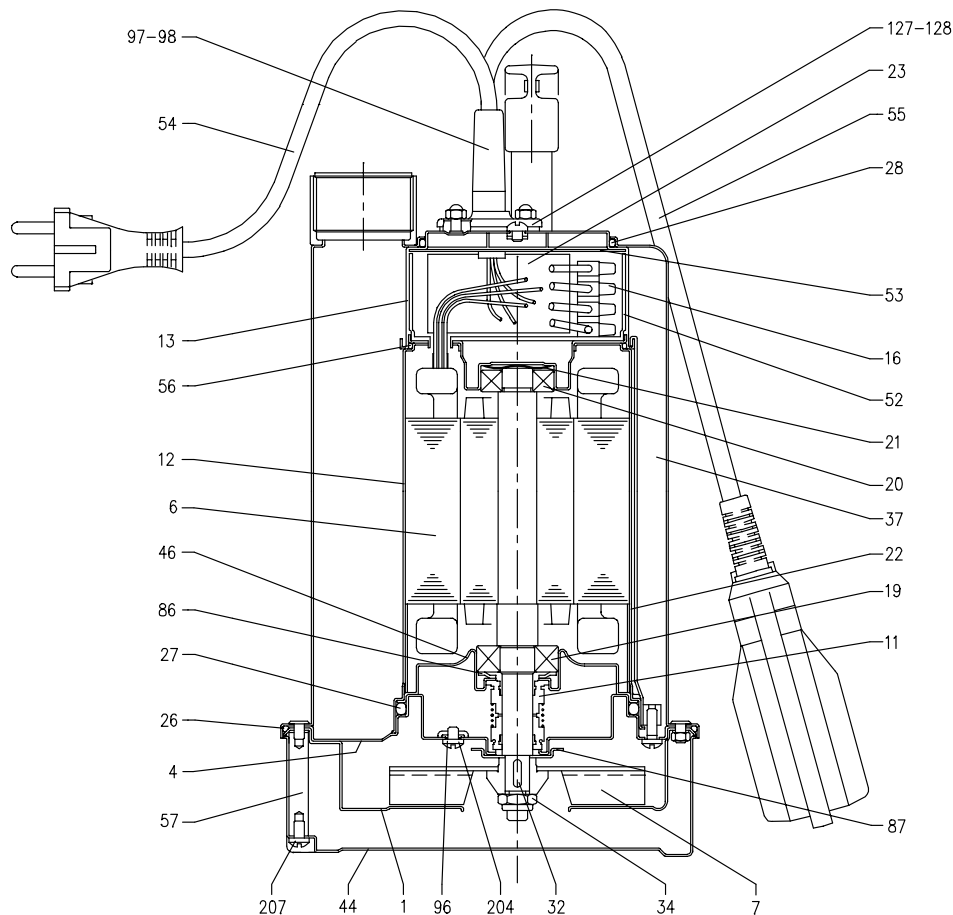
SUBMERSIBLE SUMP PUMPS

BEST 2-5

CONSTRUCTIONS

50Hz

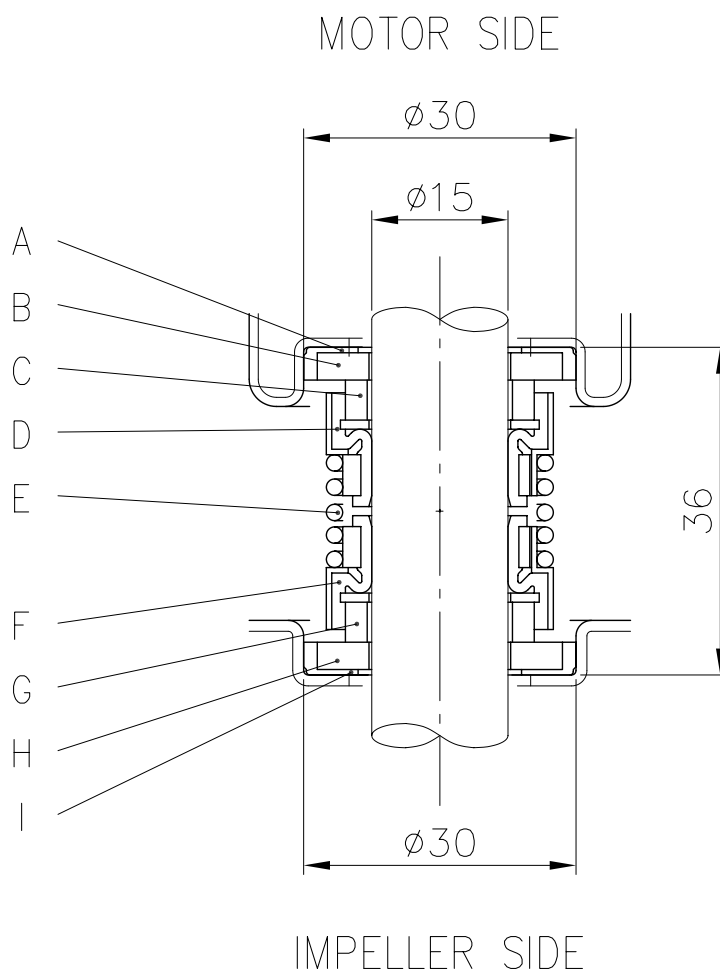
SECTIONAL VIEW



N°	PART NAME	MATERIAL	Q:TY	N°	PART NAME	MATERIAL	Q.TY
1	Volute	AISI 304	1	37	Pump casing	AISI 304	1
4	Motor bracket	AISI 304	1	44	Strainer	AISI 304	1
6	Shaft with rotor	AISI 303	1	46	Bearing housing	AISI 304	1
7	Impeller	AISI 304	1	52	Terminal insulating box	PA66 glass fibre reinforced	1
11	Mechanical seal	NBR	2	53	Terminal insulating cov	PA66	1
12	Motor frame with stator	-	1	54	Power cable	-	1
13	Motor cover	AISI 304	1	55	Float switch [1]	-	1
16	Terminal	-	1	56	"O" Ring	NBR	1
19	Pump side ball bearing	-	1	57	Bolt	AISI 303	3
20	Fan side ball bearing	-	1	86	Washer	AISI 304	1
21	Adjusting ring	Steel C70	1	87	Impeller ring	AISI 304	1
22	Tie rod	AISI 304	3	96	"O" Ring	NBR	3
23	Capacitor [2]	-	1	97	Cable connector [1]	NBR	1
26	"O" Ring	NBR	1	98	Cable connector	NBR	1
27	"O" Ring	NBR	1	127	Cable connector [1]	AISI 304	1
28	"O" Ring	NBR	1	128	Cable connector	AISI 304	1
32	Key	AISI 304	1	204	Screw	Stainless steel A2 UNI 7323	3
34	Impeller nut	AISI 304	1	207	Screw	Stainless steel A2 UNI 7323	3

[1] Only for version single phase with float switch

[2] Only for version single phase

MECHANICAL SEAL

REF	PART NAME	MATERIAL
A	Rubber cup	NBR
B	Seat	Ceramic
C	Seal face	Carbon
D	Bellow	NBR
E	Spring	AISI 304
F	Bellow	NBR
G	Seal face	Silicon carbide
H	Seat	Silicon carbide
I	Rubber cup	NBR

DIAGRAM AND ELECTRIC CONNECTIONS

SINGLE PHASE MOTOR WITH FLOAT SWITCH

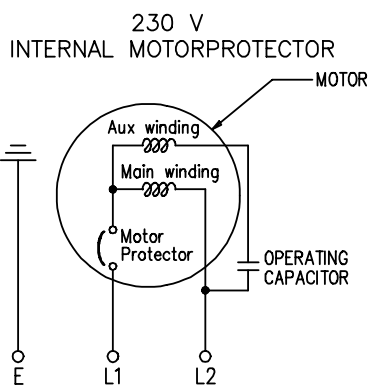
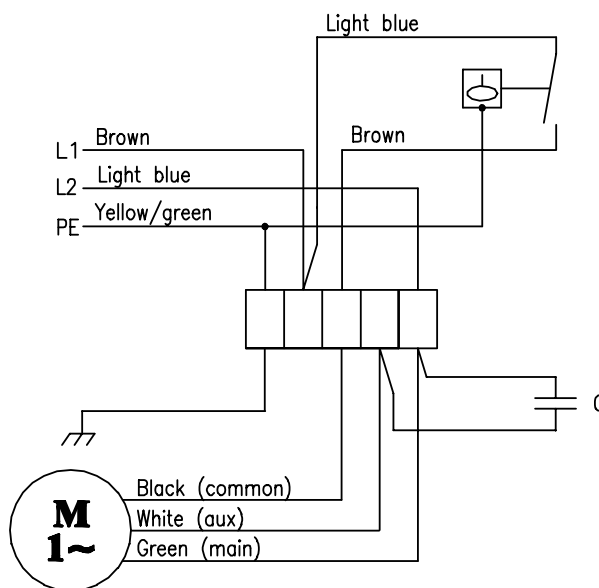


DIAGRAM AND ELECTRIC CONNECTIONS

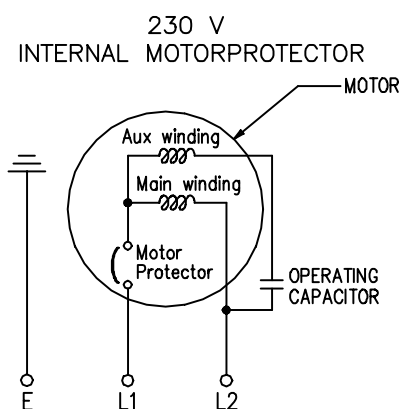
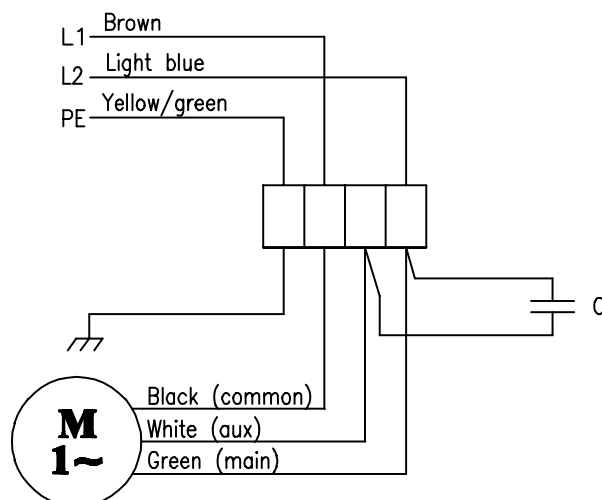
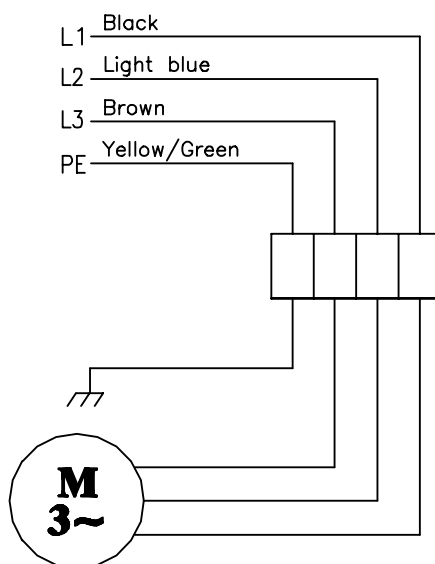
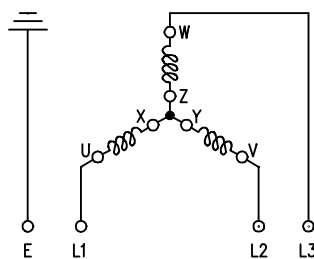
SINGLE PHASE MOTOR
WITHOUT FLOAT SWITCH

DIAGRAM AND ELECTRIC CONNECTIONS

THREE PHASE MOTOR



400 V
STAR CONNECTION

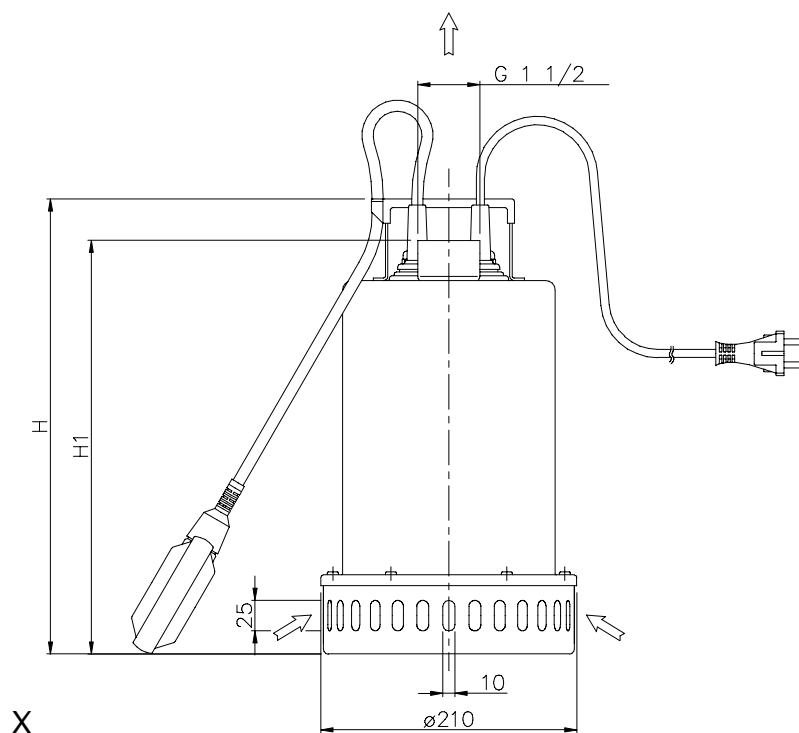


SUBMERSIBLE SUMP PUMPS

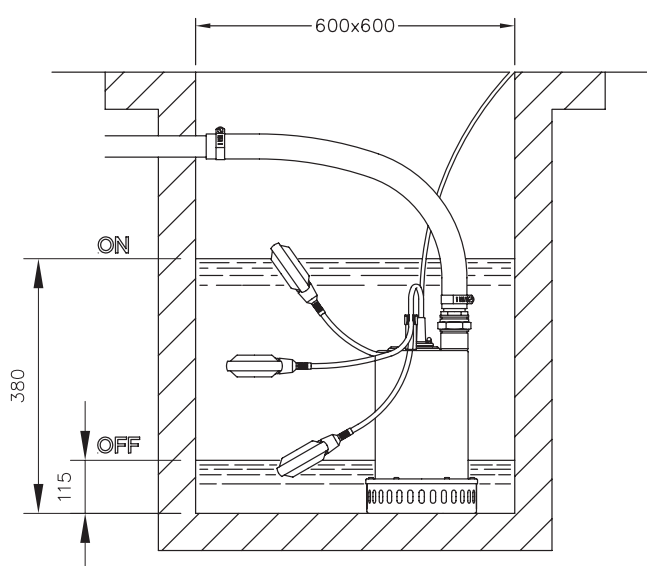
BEST 2-5

DIMENSIONS

50Hz



Pump type	Dimensions mm	
	H	H1
BEST 2	352	315
BEST 3	352	315
BEST 4	377	340
BEST 5	377	340

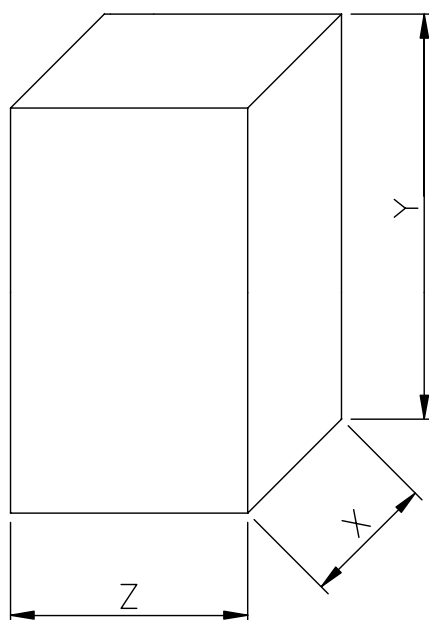


SUBMERSIBLE SUMP PUMPS

BEST 2-5

PACKING AND WEIGHT

50Hz



Type pumps		Packing [mm]			Weight [kg]
Single Phase	Three Phase	X	Y	Z	
BEST 2M	BEST 2	240	375	250	12
BEST 3M	BEST 3	240	375	250	12.7
BEST 4M	BEST 4	240	400	250	13.8
-	BEST 5	240	400	250	13.5

SUBMERSIBLE SUMP PUMPS

BEST 2-5

TECHNICAL DATA

50 Hz

Type pumps		kW	HP	Capacitor		Input		Full load current		Locked rotor current	
Single Phase	Three Phase			Single Phase	VI	[kW]		[A]		Single Phase	Three Phase
230 V 50 Hz	400 V 50 Hz					μF	Single Phase	Three Phase	Single Phase	Three Phase	230 V 50 Hz
BEST 2M	BEST 2	0,55	0,75	16	450	0,9	1,0	4,4	2,0	16	10
BEST 3M	BEST 3	0,75	1	20	450	1,3	1,2	5,6	2,4	20	12,5
BEST 4M	BEST 4	1,1	1,5	30	450	1,7	1,6	7,3	3,0	25	16,5
-	BEST 5	1,5	2	-	-	-	1,7	-	3,3	-	16,5

Type pumps		Ball Bearing	
Single Phase	Three Phase	Pump side	Fan side
230 V 50 Hz	400 V 50 Hz		
BEST 2M	BEST 2	6203 ZZ	6202 ZZ
BEST 3M	BEST 3	6203 ZZ	6202 ZZ
BEST 4M	BEST 4	6203 ZZ	6202 ZZ
-	BEST 5	6203 ZZ	6202 ZZ