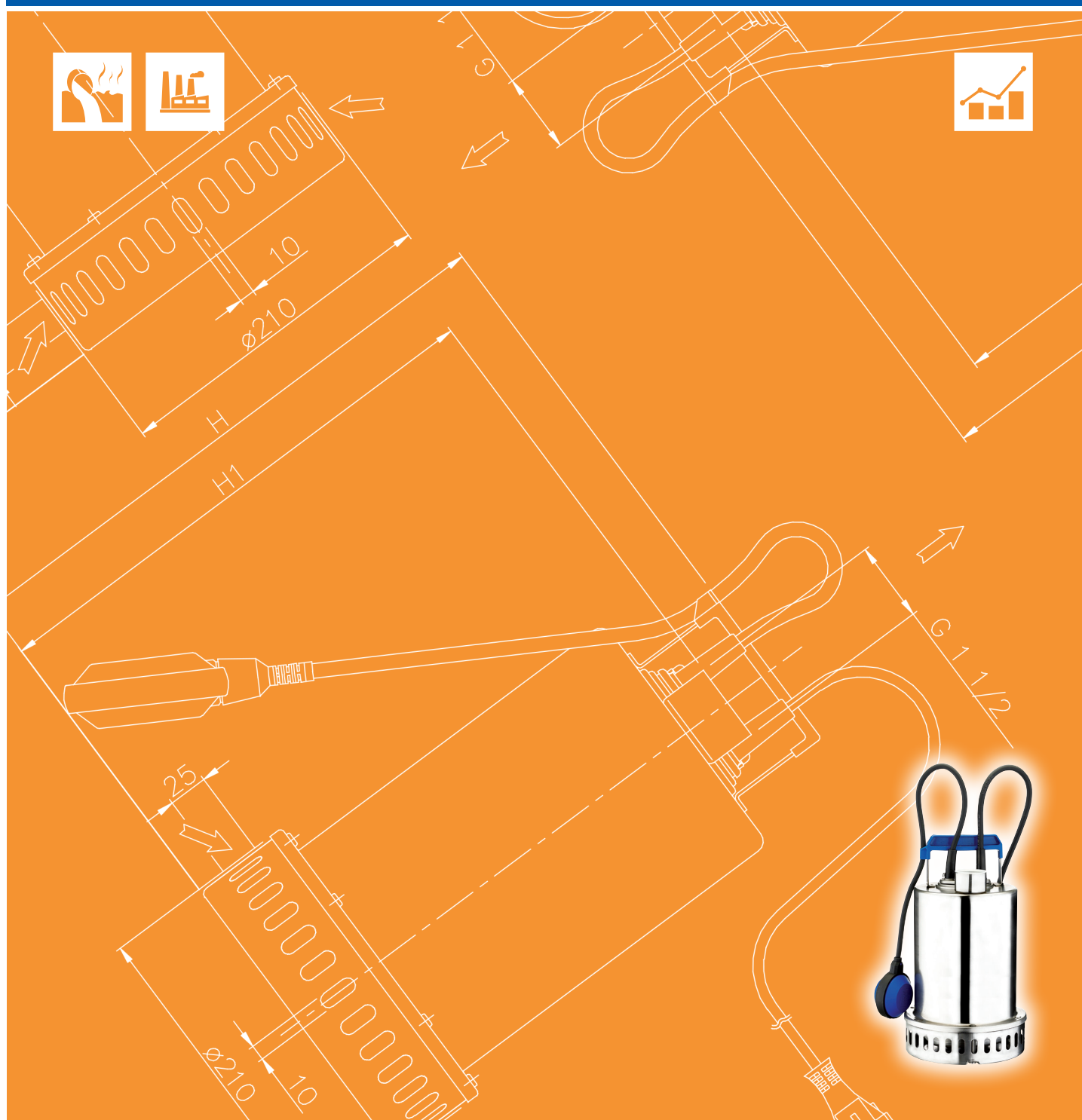


Looking ahead,
going beyond expectations
Ahead Beyond



BEST 2-5

Data Book 60Hz



	Page
- SPECIFICATIONS	200
PERFORMANCE RANGE and SELECTION CHART	201
TYPE KEY and CURVES SPECIFICATIONS	202
PERFORMANCE CURVES BEST 2	203
PERFORMANCE CURVES BEST 3	203
PERFORMANCE CURVES BEST 4	203
PERFORMANCE CURVES BEST 5	203
 - CONSTRUCTIONS	 300
SECTIONAL VIEW	300
BEARINGS	301
MECHANICAL SEAL	301
 - DIMENSIONS and WEIGHT	 400
PUMP	400
PACKING	402
 - TECHNICAL DATA	 500
MOTOR DATA	500
 - INSTALLATION	 600

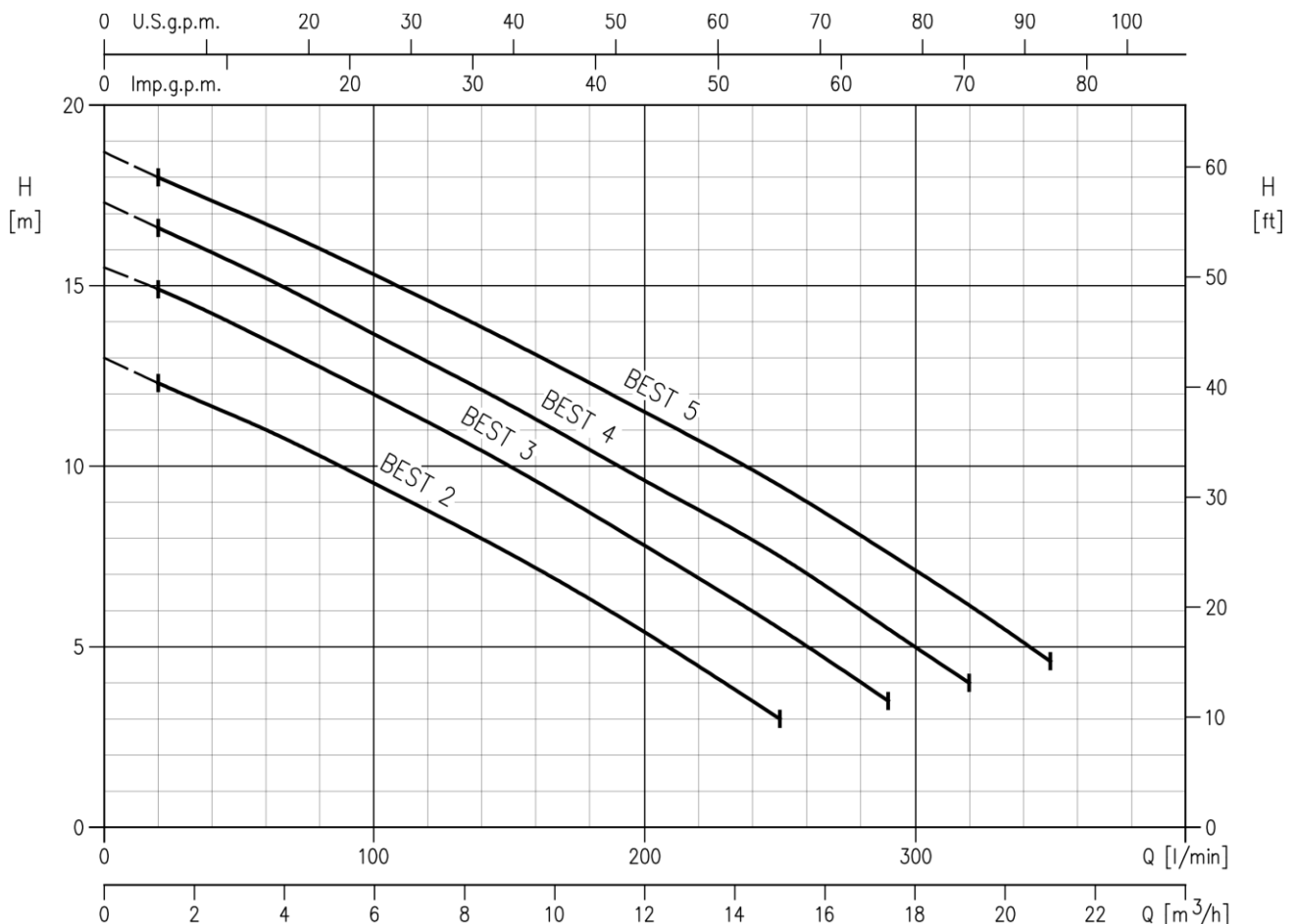
SPECIFICATIONS

60Hz

Rev. C

PUMP		
Liquid Handled	Type of liquid	Clean / Dirty water
	Max temperature [°C]	35
	Max solids size [mm]	10 (suspended particles)
Maximum immersion [m]		7
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 152 (180 cc)
Applicable standard of test		ISO 9006:2012 - Grade 3B

MOTOR			
Type		Submersible dry type	
		Single Phase	Three Phase
No. of Poles		2	
Rotation speed [min ⁻¹]		≈ 3400	
Insulation Class		F	
Protection degree		IP X8	
Power rating	[kW]	0.55 ÷ 1.1	0.55 ÷ 1.5
	[HP]	0.75 ÷ 1.5	0.75 ÷ 2
Frequency [Hz]		60	
Voltage [V]		110-115 ±6% 220-230 ±6%	220/380 -6% +10%
Capacitor		Built in	-
Over load protection		Built in	-
Float Switch		Optional	-
Float Switch Cable	material	H07RN-F	-
	size	3G1	-
Casing material		AISI 304	
Power cable	length [m]	10	
	material	H07RN-F	
	size	3G1 (Best 2) 3G1.5 (Best 3, 4)	4G1
Dimensions of cable entry		Cable Gland	

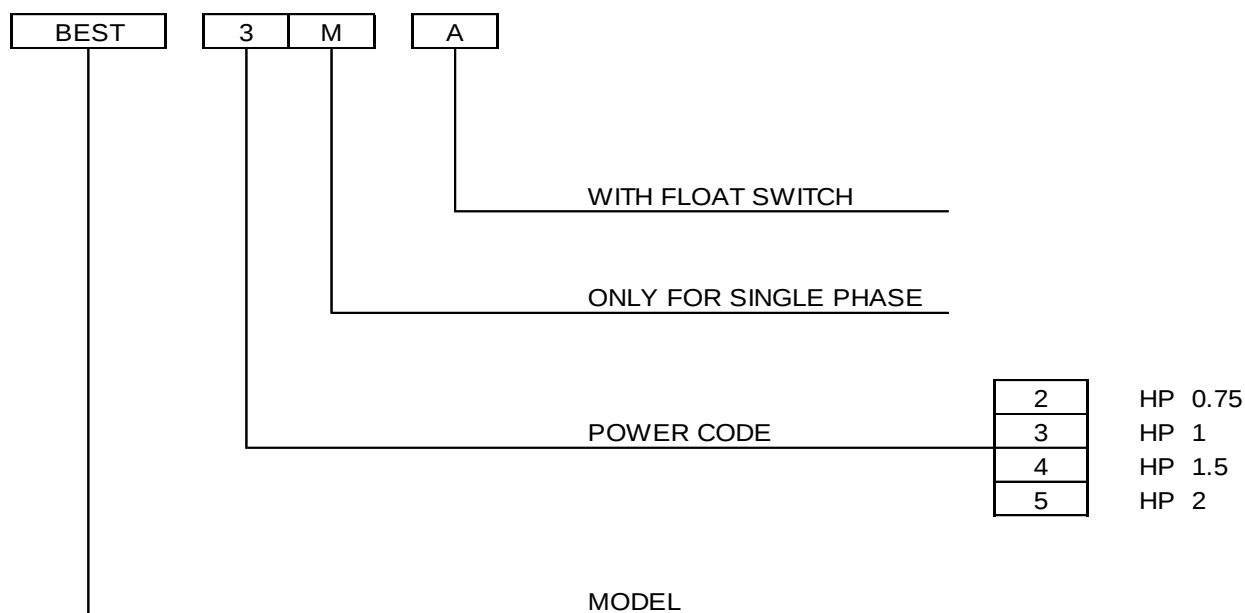
PERFORMANCE RANGE**SELECTION CHART**

Pump type		Power		Q =Capacity										
				l/min	0	20	50	100	150	200	250	290	320	350
Single phase	Three phase	[kW]	[HP]	m³/h	0	1,2	3	6	9	12	15	17,4	19,2	21
H=Total manometric head in meters														
BEST 2M	BEST 2	0.55	0.75	13	12,3	11,4	9,5	7,6	5,4	3	-	-	-	-
BEST 3M	BEST 3	0.75	1	15,5	14,9	13,8	12,0	10	7,8	5,5	3,5	-	-	-
BEST 4M	BEST 4	1.1	1.5	17,3	16,6	15,5	13,7	11,7	9,6	7,5	5,5	4	-	-
-	BEST 5	1.5	2	18,7	18	17	15,3	13,5	11,5	9,5	7,6	6,2	4,6	-

TYPE KEY and CURVES SPECIFICATIONS

60Hz

Rev. C

TYPE KEY**CURVES SPECIFICATIONS**

The specifications below qualify the curves shown on the following pages.

Tolerances according to ISO 9006:2012 - Grade 3B

The curves refer to effective speed of asynchronous motors at 60 Hz, 2 poles.

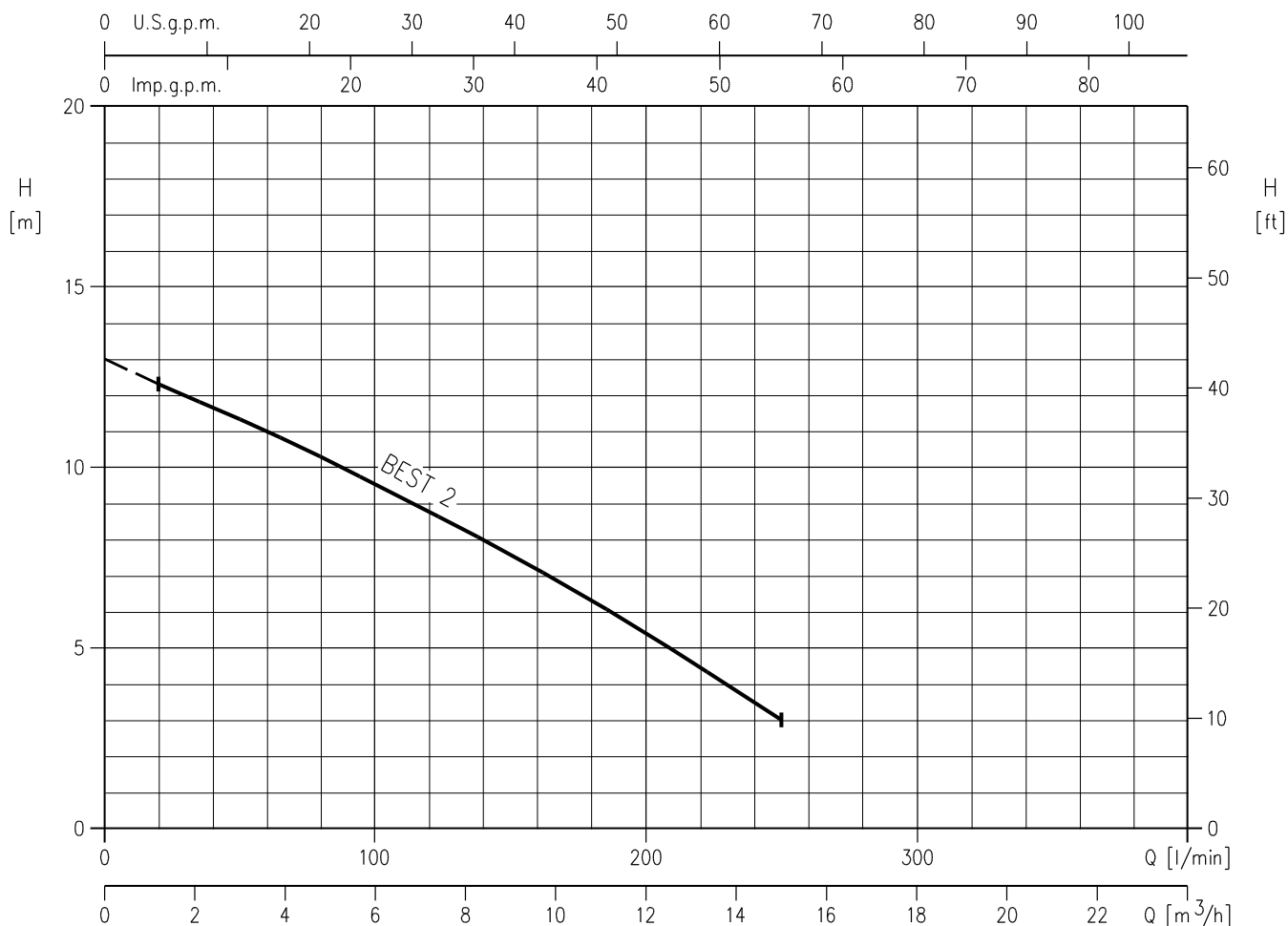
Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt)

The continuous curves indicate the recommended working range. The dotted curve is only a guide.

In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.

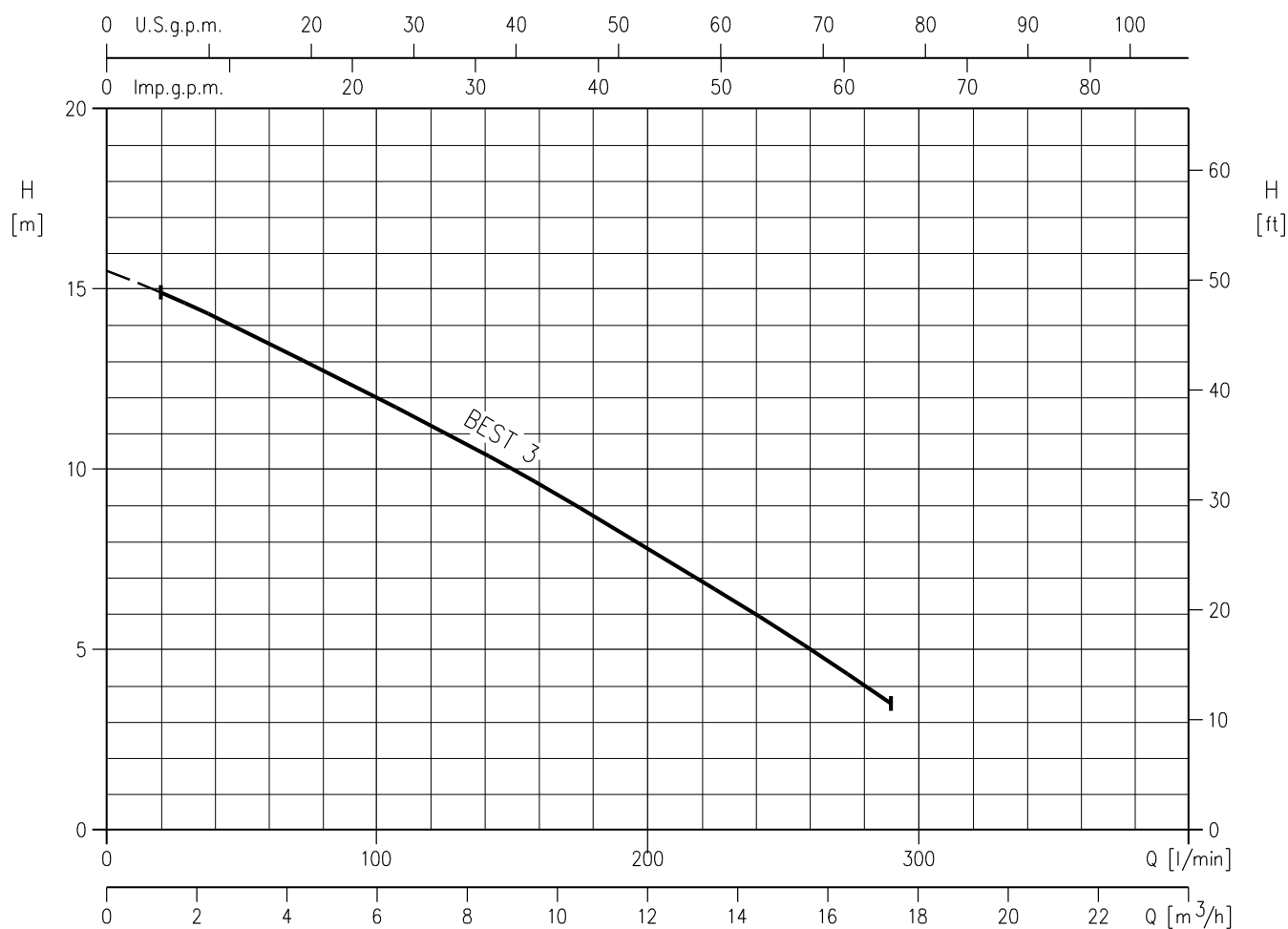
Symbols explanation:

Q = volume flow rate
H = total head

BEST 2 (0.55 kW) – impeller diameter = 97 mm

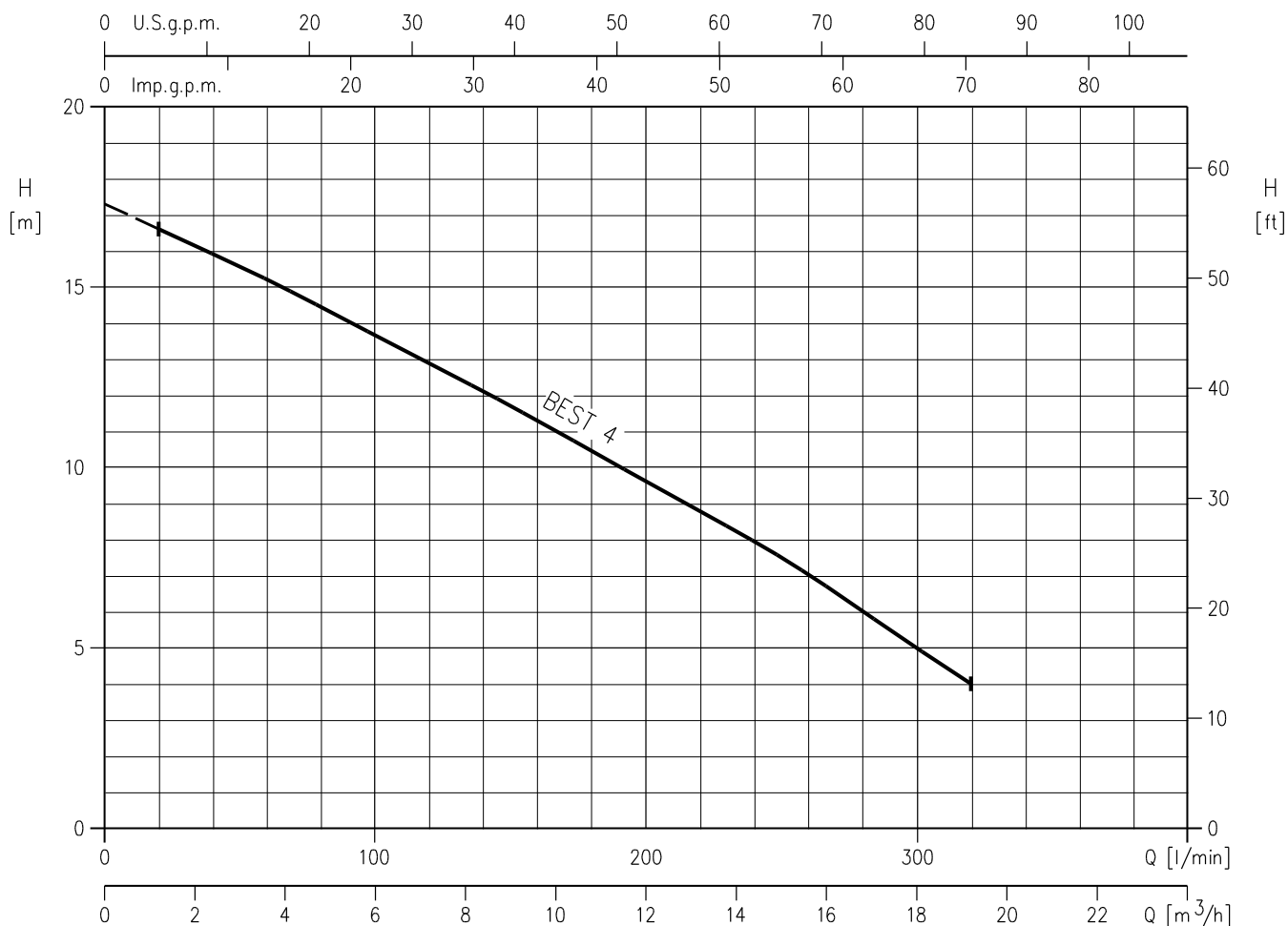
Rotation speed: $\approx 3400 \text{ min}^{-1}$
Test standard: ISO 9006:2012 - Grade 3B

BEST 3 (0.75 kW) – impeller diameter = 108 mm



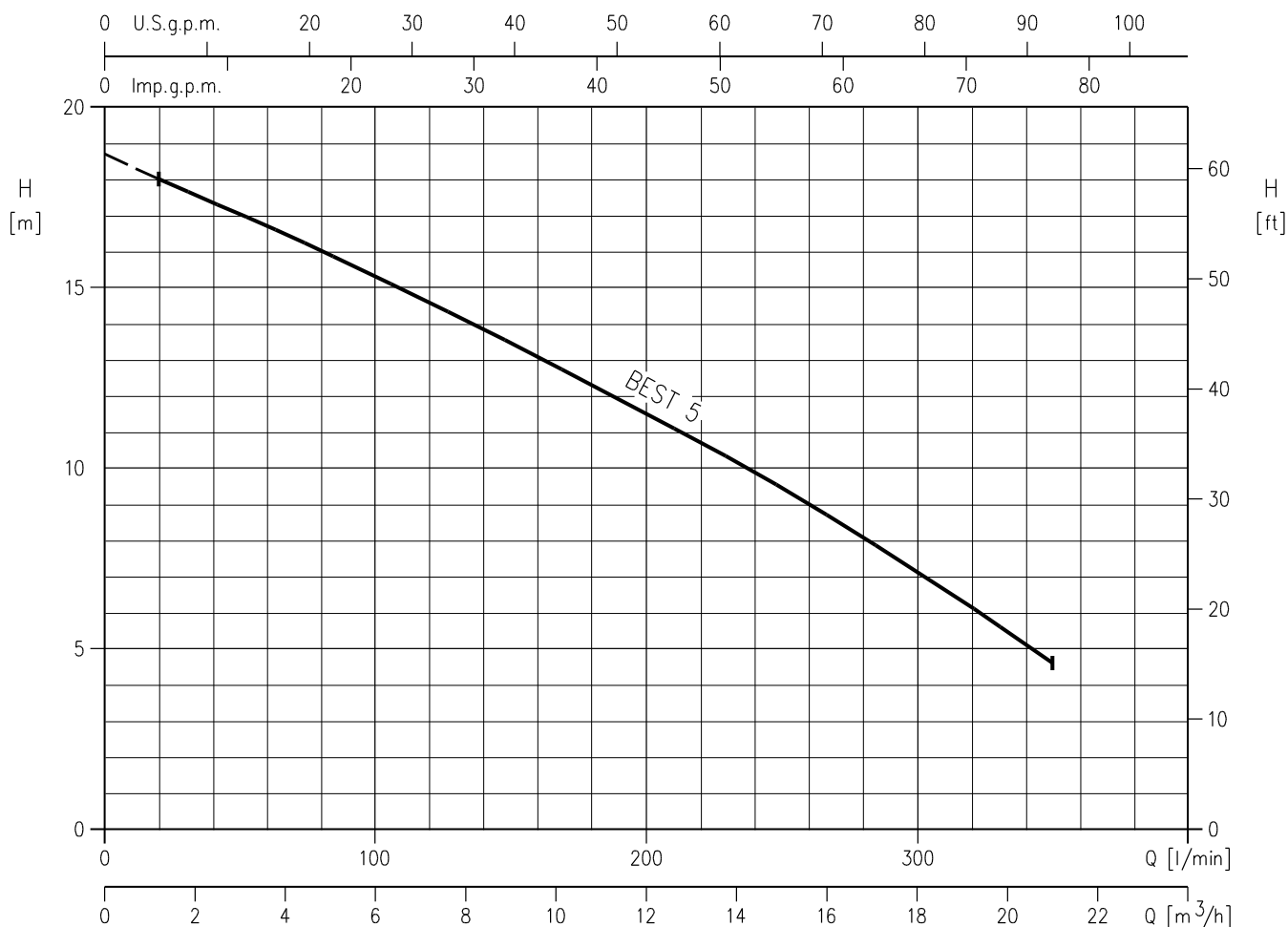
Rotation speed: $\approx 3400 \text{ min}^{-1}$
Test standard: ISO 9006:2012 - Grade 3B

BEST 4 (1.1 kW) – impeller diameter = 108 mm



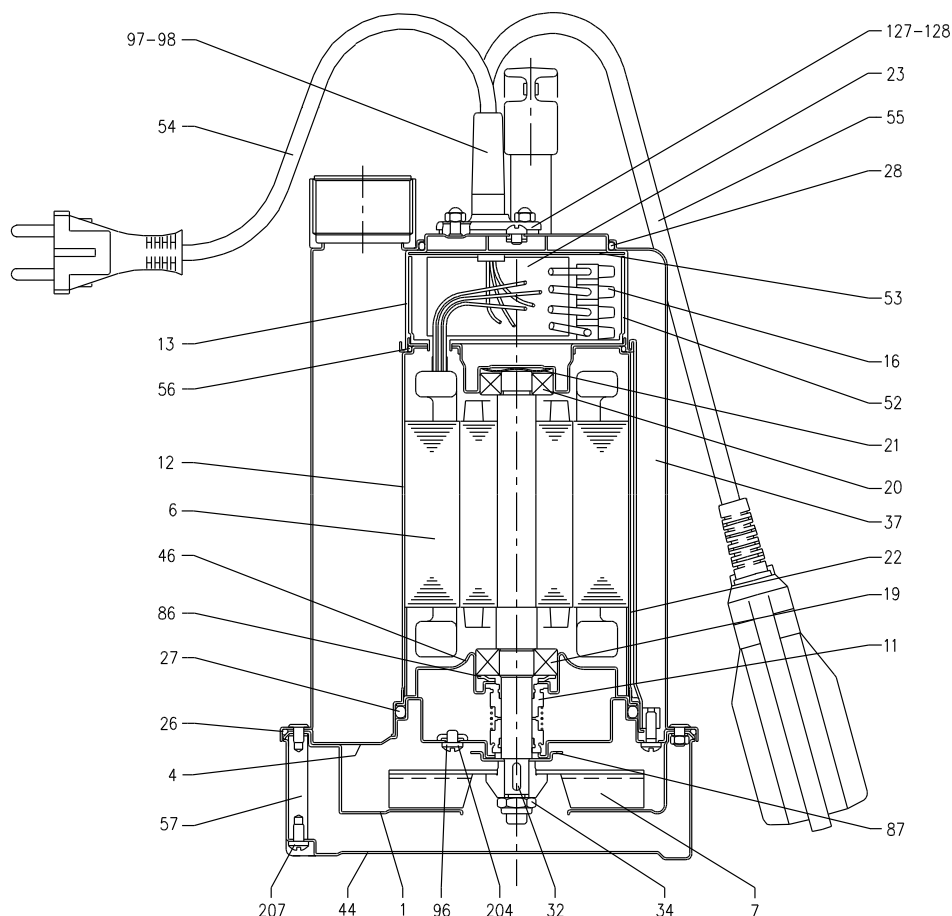
Rotation speed: $\approx 3400 \text{ min}^{-1}$
Test standard: ISO 9006:2012 - Grade 3B

BEST 5 (1.5 kW) – impeller diameter = 108 mm



Rotation speed: $\approx 3400 \text{ min}^{-1}$
Test standard: ISO 9006:2012 - Grade 3B

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 class V-0	1
11	Mechanical seal	NBR	2	53	Terminal insulating cover	PA66 class V-0	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]	1
26	"O" Ring	NBR	1	98	Cable connector	NBR	1
27	"O" Ring	NBR	1	127	Cable connector	[1]	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

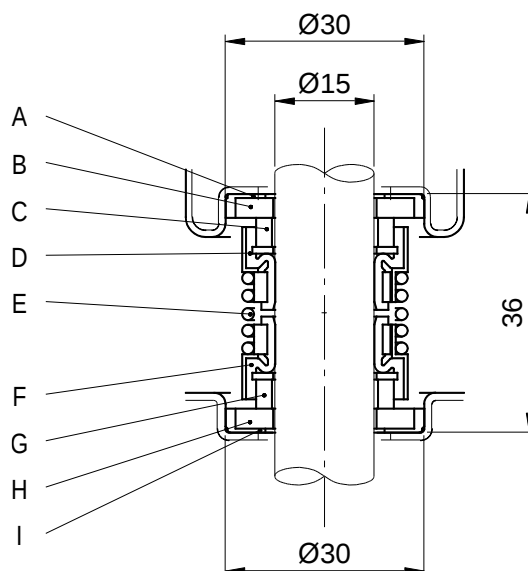
[2] Only for Single phase

BEARINGS

Type pumps		Ball Bearing	
Single Phase	Three Phase	Pump side	Fan side
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

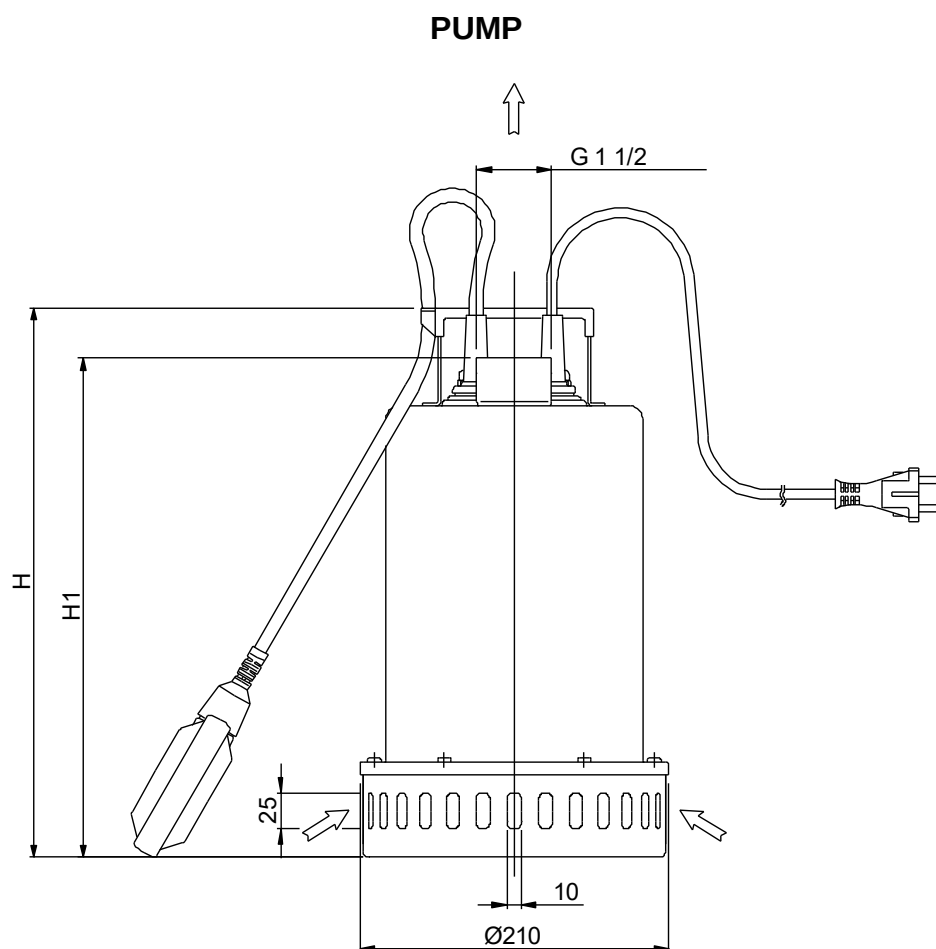
MECHANICAL SEAL

MOTOR SIDE

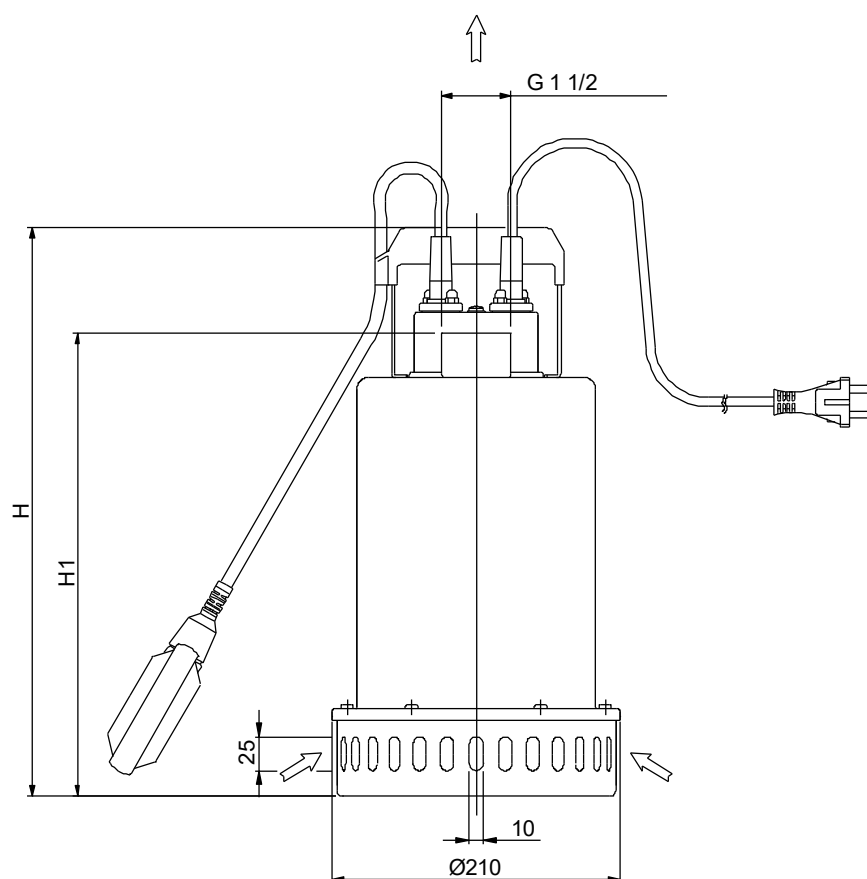


IMPELLER SIDE

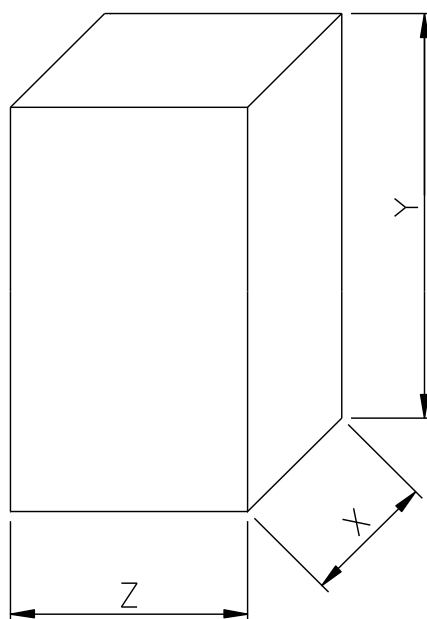
REF	PART NAME	MATERIAL
A	Rubber cup	NBR
B	Seat	Ceramic
C	Seal face	Carbon
D	Bellow	NBR
E	Spring	AISI 304
F	Bellow	NBR
G	Seal face	Silicon carbide
H	Seat	Silicon carbide
I	Rubber cup	NBR



Pump type	Dimensions [mm]		Weight [kgf]		
			[1~]		[3~]
	H	H1	Automatic (with float switch)	Manual	
BEST 2	352	315	12	11,5	11,5
BEST 3			12,7	12,2	12,2
BEST 4	377	340	13,8	13,3	13,3
BEST 5			-	-	13,3

**PUMP
110-115 V**

Pump type	Dimensions [mm]		Weight [kgf] [1~]	
	H	H1	Automatic (with float switch)	Manual
BEST 2	417	340	12	11,5
BEST 3			12,7	12,2

PACKING

Pump type	Packing [mm]						Weight [kgf]		
	X		Y		Z		1~		3~
		110V		110V		110V	Automatic (With float switch)	Manual	
BEST 2	227	308	397	452	250	244	12,9	12,4	12,4
BEST 3	227	308	397	452	250	244	13,6	13,1	13,1
BEST 4	227	-	397	-	250	-	14,7	14,2	14,2
BEST 5	227	-	397	-	250	-	-	-	14,2

TECHNICAL DATA

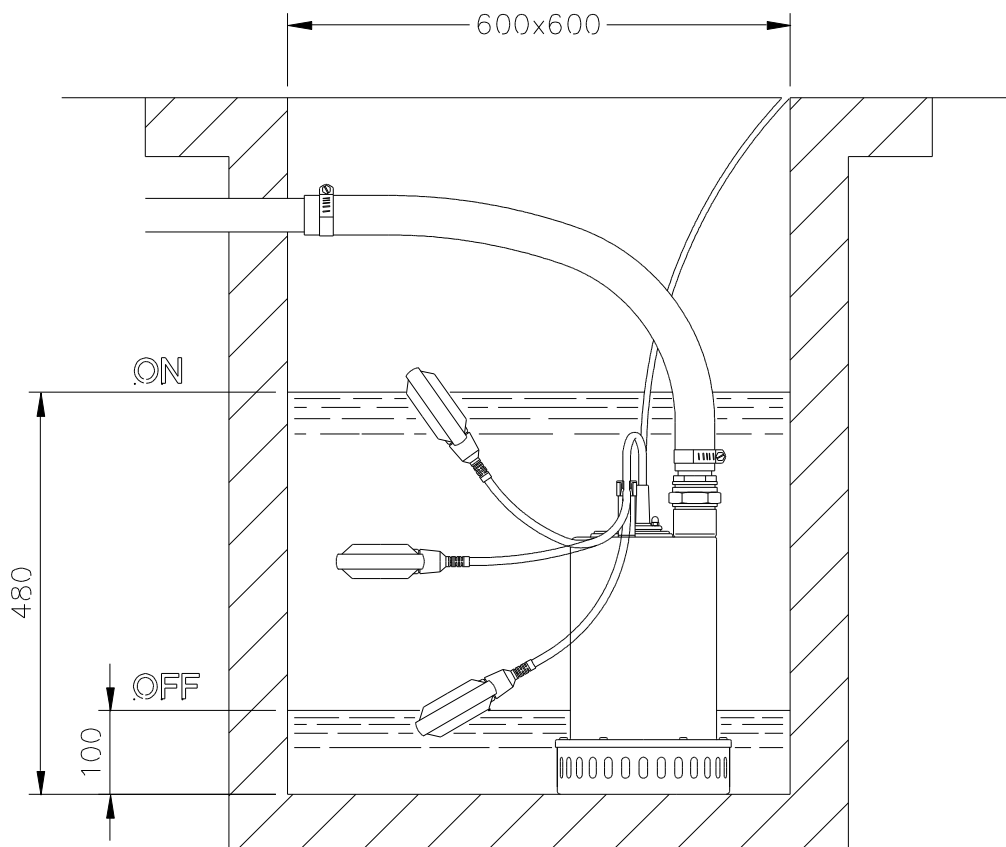
60Hz

Rev. C

MOTOR DATA

Pump type		Power		Capacitor				Input [kW]		Full load current [A]				Locked rotor current [A]			
Single Phase	Three Phase	[kW]	[HP]	110-115 V		220-230 V		Single Phase	Three Phase	Single Phase		Three Phase		Single Phase		Three Phase	
				[μF]	[V]	[μF]	[V]	Phase	Phase	110-115 V	220-230 V	220 V	380 V	110-115 V	220-230 V	220 V	380 V
BEST 2M	BEST 2	0,6	0,8	57	250	16	450	0,99	0,83	10	4,8	3	1,7	-	-	19,3	10,1
BEST 3M	BEST 3	0,8	1,0	32	250	16	450	1,3	1,2	12,1	6	3,8	2,2	48	24	19,3	10,1
BEST 4M	BEST 4	1,1	1,5	-	-	25	450	1,48	1,4	-	7,2	4,8	2,8	-	33,7	30,5	17,6
-	BEST 5	1,5	2,0	-	-	-	-	-	1,68	-	-	-	3,2	-	-	30,5	17,6

INSTALLATION





EBARA Pumps Europe S.p.A. reserves the right to make any modifications considered necessary without prior notice.
The contents of this publication must not be considered binding.



EBARA Pumps Europe S.p.A.
Via Torri di Confine 2/1 int. C
36053 Gambellara (Vicenza), Italy
Phone +39 0444 706811
ebarapumps.epe@ebaracom
www.ebaraeurope.com

EBARA Pumps Europe S.p.A. GERMANY
Elisabeth-Selbert-Straße 2
63110 Rodgau, Germany
Phone +49 (0) 6106-660 99-0
info.epde@ebaracom

EBARA Pumps South Africa (PTY) LTD
26 Kyalami Boulevard,
Kyalami Business Park, 1684, Midrand,
Gauteng, South Africa
Phone +27 11 466 1844
ebaraeurope@ebaracom

EBARA Pumps Europe S.p.A. UK
Unit A, Park 34
Collett Way - Didcot
Oxfordshire - OX11 7WB, United Kingdom
Phone +44 1895 439027
marketing.epuk@ebaracom

EBARA Pumps Europe S.p.A. FRANCE
122, Rue Pasteur
69780 Toussieu, France
Phone: +33 04 72 76 94 82
mktg.eur@ebaracom

EBARA Pumps East Africa
Sunflag Industrial Park, Unit 5, Mombasa Road,
P.O. BOX 18851-00100, Nairobi, Kenya
Tel. +254709491900
info.epea@ebaracom
www.ebaraeurope.co.ke

EBARA POMPY POLSKA Sp. z o.o.
ul. Działkowa 115 A
02-234 Warszawa, Poland
Phone +48 22 3909920
marketing.epl@ebaracom

EBARA Pumps Europe Nordic
Gustav III Boulevard 34,
169 73 Solna, Sweden
info.epeu@ebaracom

EBARA West Africa Limited
ewasales.epe@ebaracom