

EBARA



	Page
- CONTENTS	
CONTENTS	100
- SPECIFICATIONS	
SPECIFICATIONS	200
SELECTION CHART	201
PERFORMANCE CHART MULTIGO 40	202
PERFORMANCE CHART MULTIGO 80	203
- CONSTRUCTIONS	
CONSTRUCTIONS	300
CONSTRUCTIONS	301
CONSTRUCTIONS	302
MECHANICAL SEAL	303
DIAGRAM AND ELECTRIC CONNECTIONS	304
DIAGRAM AND ELECTRIC CONNECTIONS	305
- DIMENSIONS	
DIMENSIONS	400
PACKING AND WEIGHT	401
- TECHNICAL DATA	
TECHNICAL DATA	500

SPECIFICATIONS

50 Hz

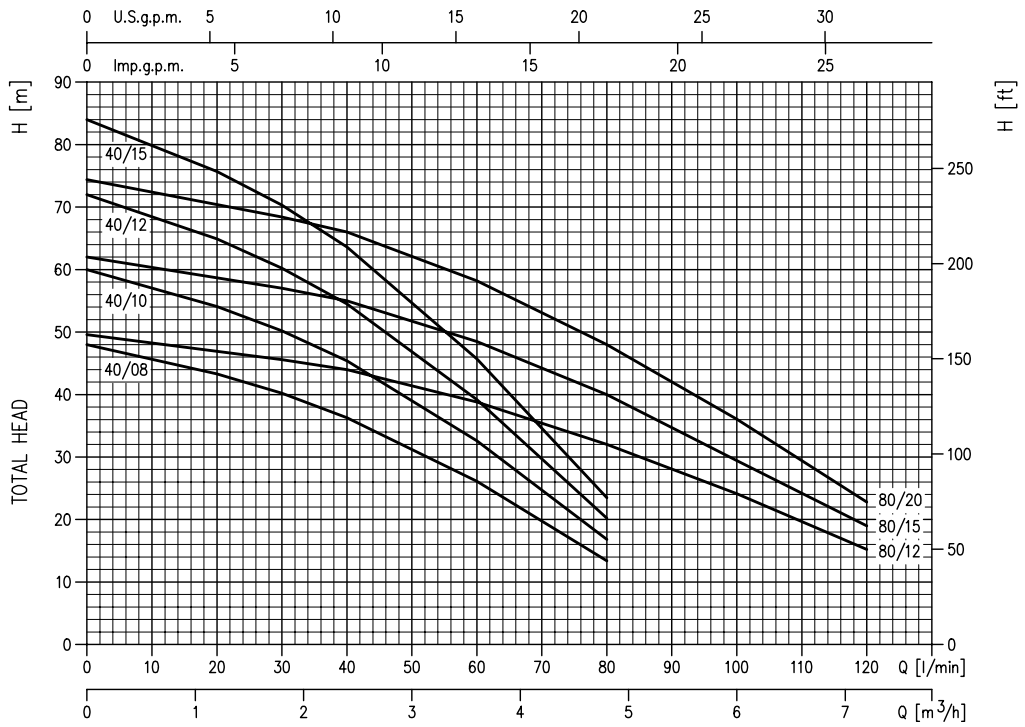
PUMP		
Liquid Handled	Type of liquid	Clean water
	Max temperature [°C]	40
Maximum working pressure	[MPa]	1
Maximum available negative suction head	[m]	-6
Construction	Impeller	Closed centrifugal type (multiple stages)
	Shaft seal type	Double mechanical seal
	Bearing	Sealed ball bearing
Pipe Connection	Suction	G 1¼ UNI ISO 228
	Discharge	G 1¼ UNI ISO 228
Material	Casing	AISI 304
	Casing cover	AISI 304
	Impeller	PPO mod. glass fibre reinforced
	Diffuser	PPO mod. glass fibre reinforced
	Shaft	AISI 416
	Shaft seal	Pump side: Carbon/Ceramic/NBR Motor side: Carbon/Ceramic/NBR
	Lubricating oil	White mineral oil: Esso Marcol 172 (90cc)
Applicable standard of test		ISO 9906 – Annex A

MOTOR		
Type	Submersible dry type	
	Single Phase	Three Phase
No. of Poles ()	2	
Synchronous speed	[min ⁻¹]	3000
Insulation Class	Class F	
Protection degree	IP 68	
kW/HP Rating	[kW]	0.6 ÷ 1.1
	[HP]	0.8 ÷ 1.5
Frequency	[Hz]	50
Voltage	[V]	230 ±10%
Capacitor	Built in	-
Over load protection	Built in	Provided by the user
Upper bearing bracket	Aluminium	
Lower bearing bracket	Brass	
Motor frame	AISI 304	
	material	H07RN-F
Power cable	size	3G1 (40/08, 40/10, 40/12, 40/15) 3G1.5 (80/12, 80/15)
	length	[m]
Type of cable entry	5 Cable Gland	

NOTE: IN-LINE VERSION ONLY SINGLE PHASE MOTORS

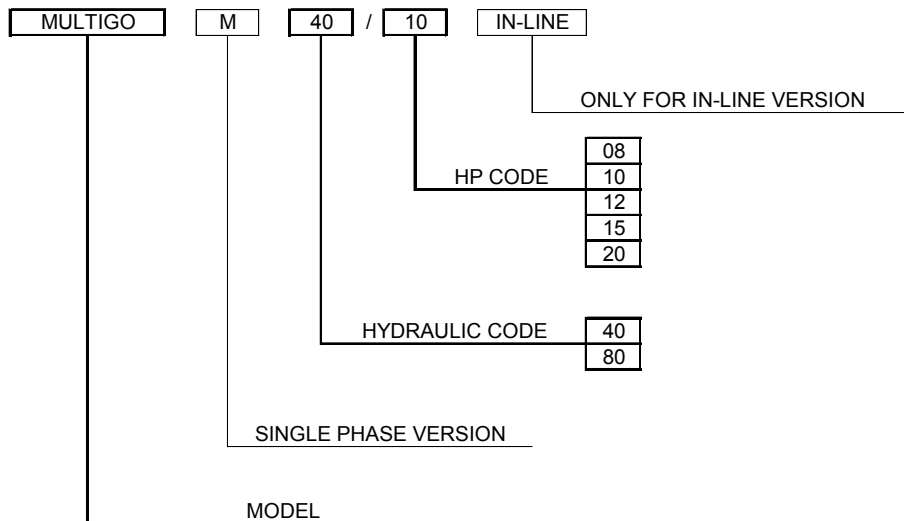
SELECTION CHART

50 Hz



Pump type MULTIGO	Pump type MULTIGO IN-LINE	kW	HP	Q=Capacity								
				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 manometric head in meters												
40/08	40/08	0.6	0.8	43.3	40.2	36.3	26.1	13.4	-	-	-	-
40/10	40/10	0.75	1	54.1	50.2	45.4	32.6	16.8	-	-	-	-
40/12	40/12	0.9	1.2	64.9	60.2	54.5	39.2	20.2	-	-	-	-
40/15	40/15	1.1	1.5	75.7	70.3	63.6	45.7	23.5	-	-	-	-
80/12	80/12	0.9	1.2	-	45.6	44	38.8	32	23.2	15.2	-	-
80/15	80/15	1.1	1.5	-	57	55	48.5	40	28	19	-	-
80/20	-	1.5	2	-	68.4	66	58.2	48	34.8	22.8	-	-

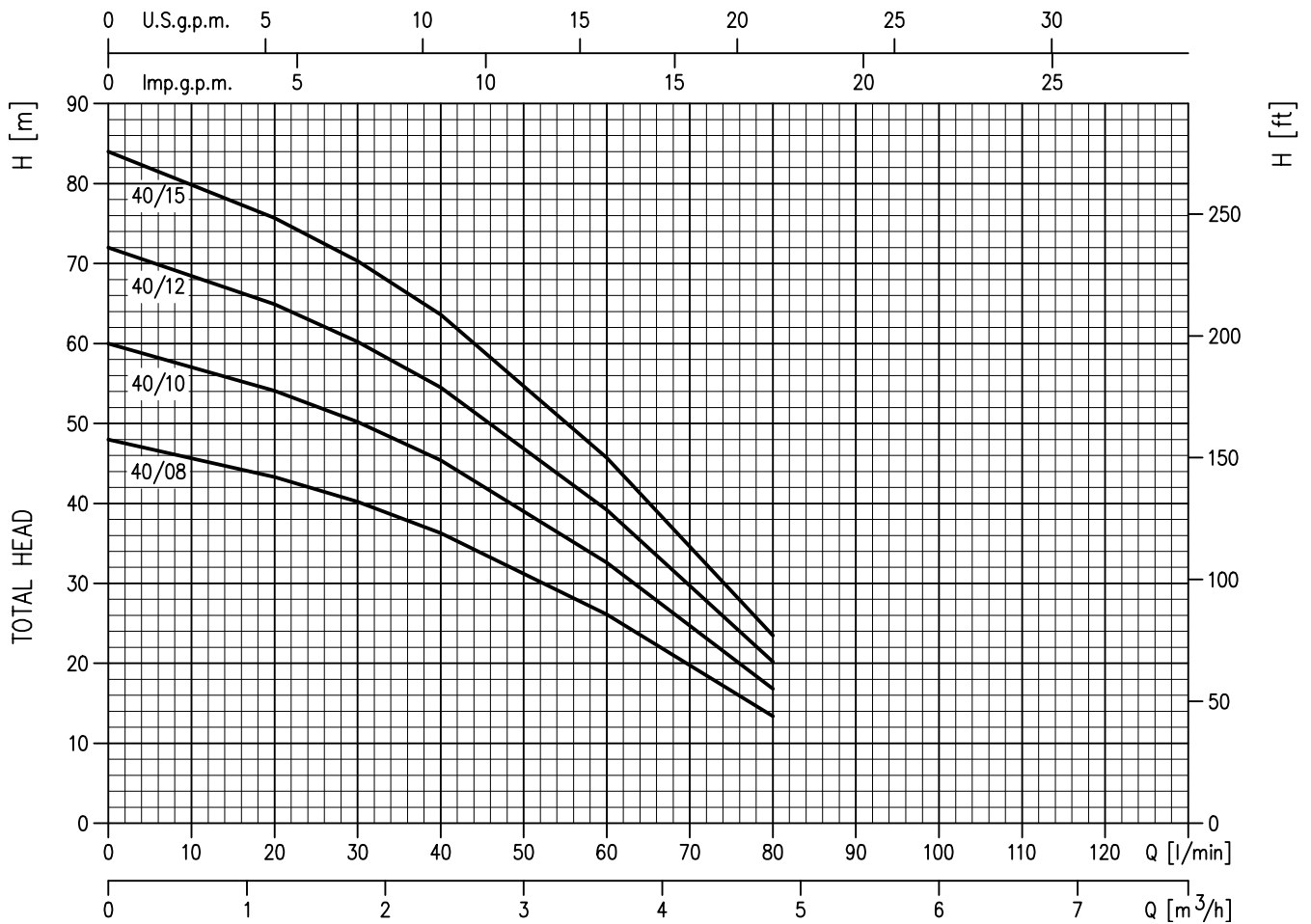
TYPE KEY:



PERFORMANCE CURVES

50 Hz

MULTIGO 40/08 (0.60 kW) (IN-LINE) - Impeller diameter = 104
 MULTIGO 40/10 (0.75 kW) (IN-LINE) - Impeller diameter = 104
 MULTIGO 40/12 (0.90 kW) (IN-LINE) - Impeller diameter = 104
 MULTIGO 40/15 (1.10 kW) (IN-LINE) - Impeller diameter = 104

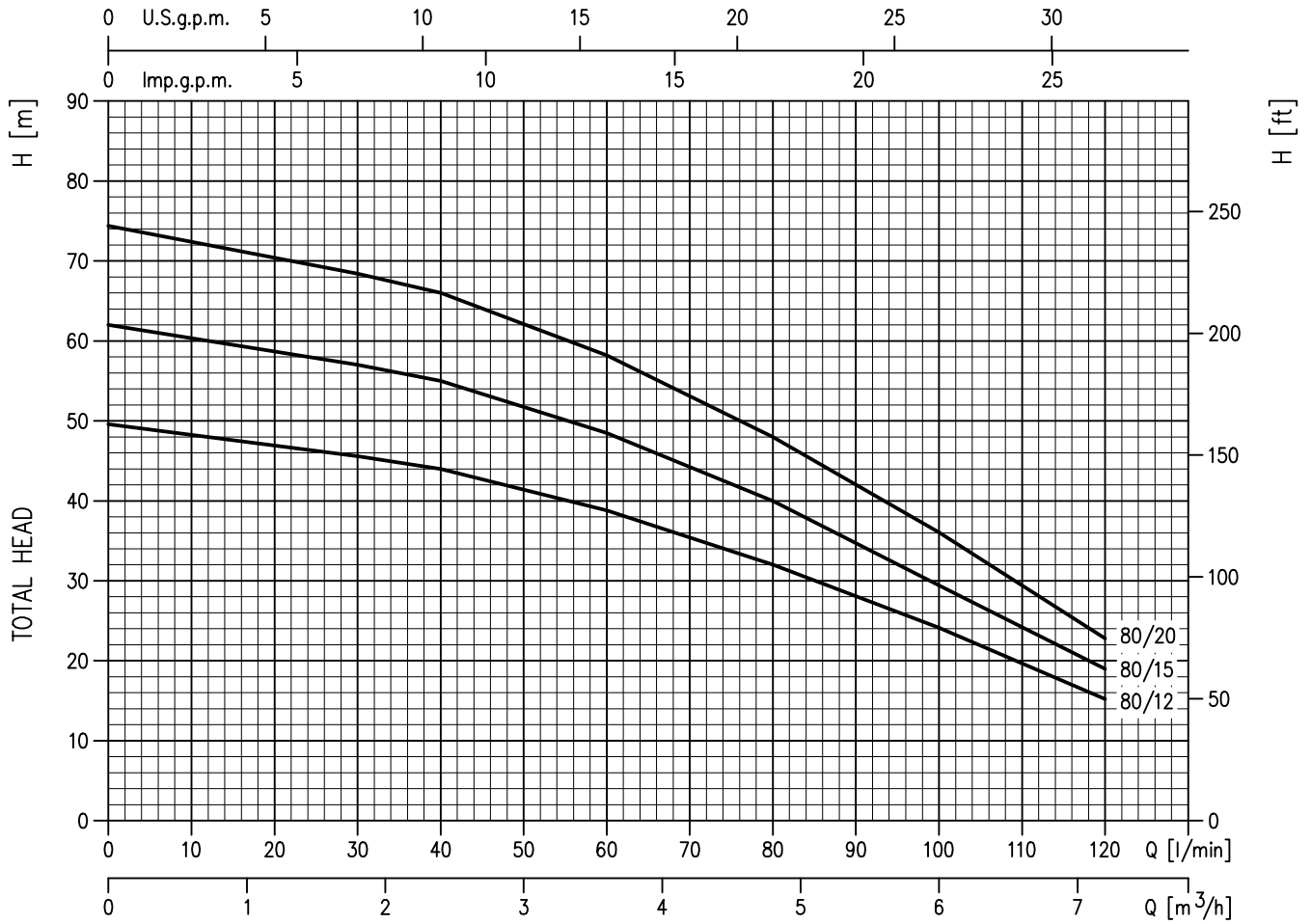


Rotation speed: $\approx 2800 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVES

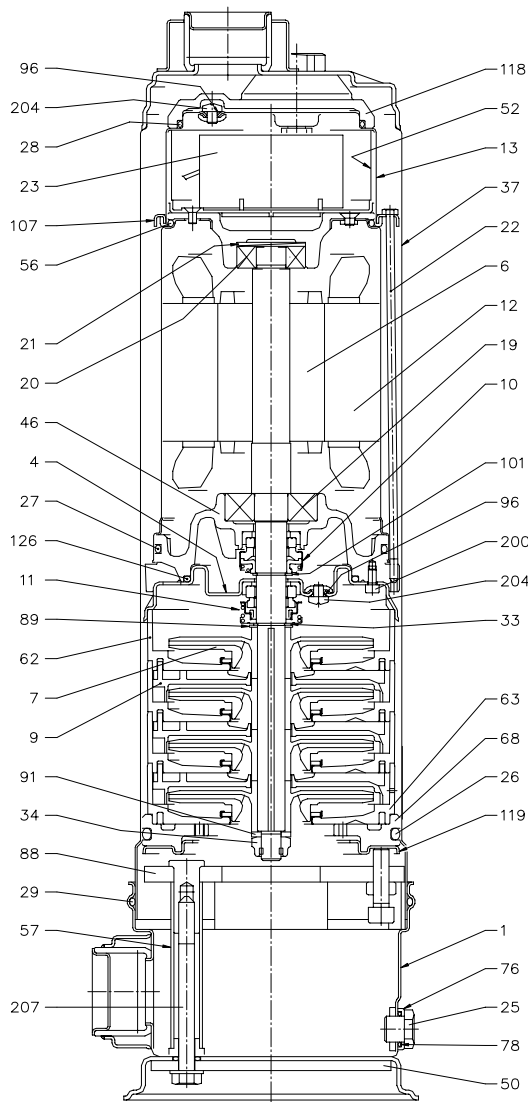
50 Hz

MULTIGO 80/12 (0.9 kW) (IN-LINE) - Impeller diameter = 102
 MULTIGO 80/15 (1.1 kW) (IN-LINE) - Impeller diameter = 102
 MULTIGO 80/20 (1.5 kW) (IN-LINE) - Impeller diameter = 102

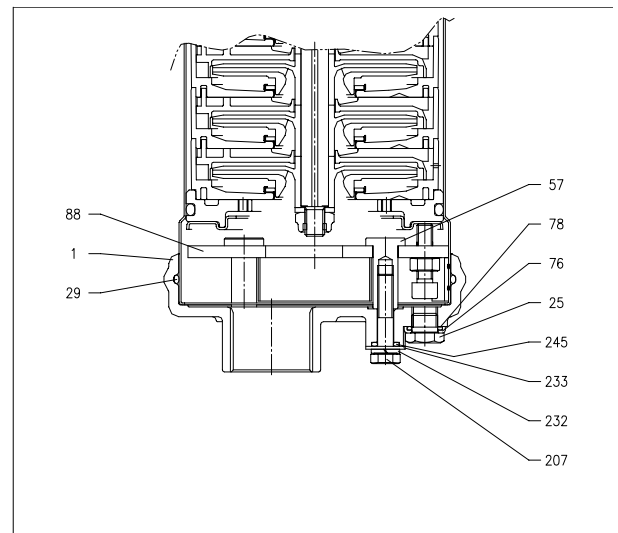
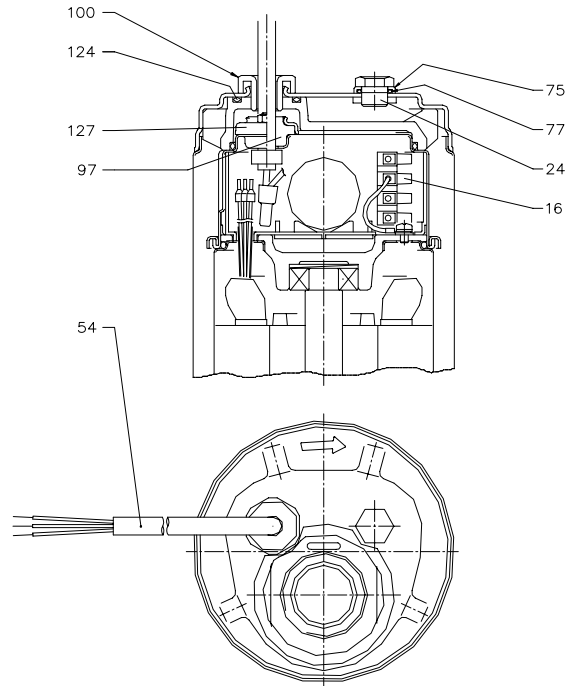


Rotation speed: $\approx 2800 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

SECTIONAL VIEW



STANDARD VERSION



IN-LINE VERSIONE

N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	N. FOR 1 UNIT
1	Casing	EN 1.4301 (AISI 304)			1
4	Casing ring	EN 1.4301 (AISI 304)			1
6	Shaft with rotor	EN 1.4057 (AISI 431)			1
7	Impeller	PPO mod. glass fibre reinforced			[3]
9	Diffuser	PPO mod. glass fibre reinforced			[3]
10	Motor side mechanical seal [2]	Carbon/Ceramic/NBR	See table p.302		1
11	Pump side mechanical seal [2]	Carbon/Ceramic/NBR	See table p.302		1
12	Motor frame with stator	-			1
13	Motor cover	EN 1.4301 (AISI 304)			1
16	Terminal	-			1
19	Lower side ball bearing	-	6303 ZZ		1
20	Upper side ball bearing	-	6302 ZZ		1
21	Adjusting ring	Steel C70			1
22	Tie rod	EN 1.4305 (AISI 303)	M4		3
23	Capacitor [1]	-			1
24	Header plug	EN 1.4305 (AISI 303)	G 1/4"		1
25	Drain plug	EN 1.4305 (AISI 303)	G 1/4"		1
26	O ring	NBR	Ø 120.7X5.34	OR 201	1
27	O ring	NBR	Ø 110.7X3.53	OR 4437	1
28	O ring	NBR	Ø 88.5X3.53	OR 4350	1
29	O ring	NBR	Ø 138X3.5		1
33	Seeger ring	EN 1.4301 (AISI 304)	Ø 14	JIS B2804-1978	1
34	Impeller nut	EN 1.4301 (AISI 304)	M10x1.25	U7474	1
37	External pump casing	EN 1.4301 (AISI 304)			1
46	Bearing housing	Brass			1
50	Casing support	EN 1.4301 (AISI 304)			1
52	Terminal insulating box	PA66 glass fibre reinforced			1
54	Power cable	-			1
56	O ring	NBR	Ø 98.02x3.53	OR 4387	1
57	Bolt	EN 1.4305 (AISI 303)			2
62	Stage housing	PPO mod. glass fibre reinforced			[3]
63	Stage housing with hall	PPO mod. glass fibre reinforced			1
68	Lower spacer	PPO mod. glass fibre reinforced			1
75	Washer	EN 1.4301 (AISI 304)	G 1/4"		1
76	Washer	EN 1.4301 (AISI 304)	G 1/4"		1
77	O ring	NBR	Ø 13.1x2.62	OR 117	1
78	O ring	NBR	Ø 13.1x2.62	OR 117	1
88	Retainer ring	EN 1.4301 (AISI 304)			1
89	Washer	EN 1.4301 (AISI 304)	Ø 14.1x22x1		1
91	Washer	EN 1.4301 (AISI 304)	Ø 10.2x20x2.5		1
96	O ring	NBR	Ø 4.48x1.78	OR 2018	3
97	Cable entry	NBR	Ø 16.5x20		1
100	Lock screw	EN 1.4305 (AISI 303)			1
101	Seeger ring	EN 1.4021 (AISI 420)	Ø 15	U7435	1
107	Retainer ring	EN 1.4301 (AISI 304)	Ø119X1.2		1
118	Upper spacer	Brass			1
119	Flange	EN 1.4301 (AISI 304)			1
124	O ring	NBR	Ø25.8X3.53	OR 134	1
126	O ring	NBR	Ø82.14X3.53	OR 4325	1
127	Cable connector	EN 1.4301 (AISI 304)			1
200	Screw	Stainless steel A2 UNI 7323	M4x8	UNI 5931	3
204	Screw	Stainless steel A2 UNI 7323	M5x6	UNI 7687	3
207	Screw	Stainless steel A2 UNI 7323	M8X80	UNI 5737	4
232	Washer	Stainless steel A2 UNI 7323			4
233	Washer	Stainless steel A2 UNI 7323	Ø8.5x20x2		4
245	O ring	NBR	Ø8x3		4

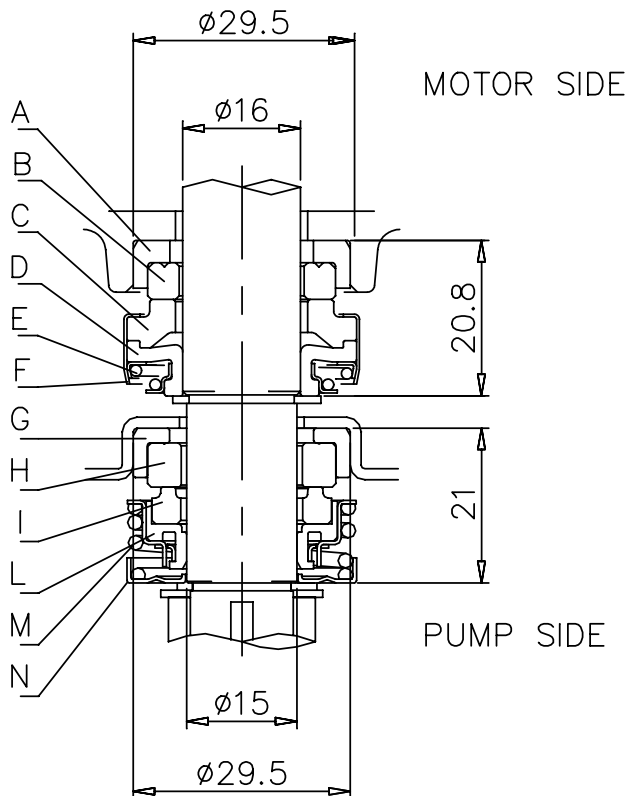
[1] Only for single phase

[2] See constructions mechanical seal page 303

[3] See table page 302

[3] QUANTITY FOR MODEL				
Type pumps	Type pumps	N°7 Impeller	N°9 Diffuser	N°62 Stage housing
MULTIGO 40/08	MULTIGO 40/08 IN-LINE	4	3	4
MULTIGO 40/10	MULTIGO 40/10 IN-LINE	5	4	5
MULTIGO 40/12	MULTIGO 40/12 IN-LINE	6	5	6
MULTIGO 40/15	MULTIGO 40/15 IN-LINE	7	6	7
MULTIGO 80/12	MULTIGO 80/12 IN-LINE	4	3	4
MULTIGO 80/15	MULTIGO 80/15 IN-LINE	5	4	5
MULTIGO 80/20	-	6	5	6

MECHANICAL SEAL



REF	PART NAME	MATERIAL product standard MULTIGO
A	Rubber seat	NBR
B	Stationary ring	Ceramic
C	Rotary ring	Carbon
D	Rotary seal	NBR
E	Coil spring	AISI 304
F	Seal cover	AISI 304
G	Rubber seat	NBR
H	Stationary ring	Ceramic
I	Rotary ring	Carbon
L	Rotary seal	NBR
M	Coil spring	AISI 304
N	Seal cover	AISI 304

DIAGRAM AND ELECTRIC CONNECTIONS

SINGLE PHASE MOTOR

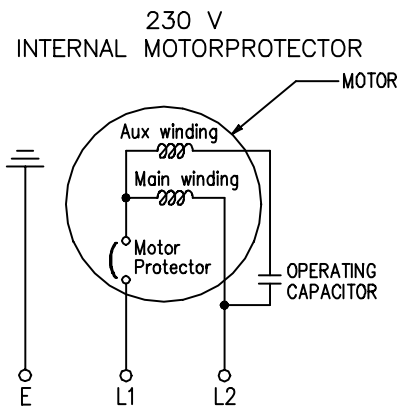
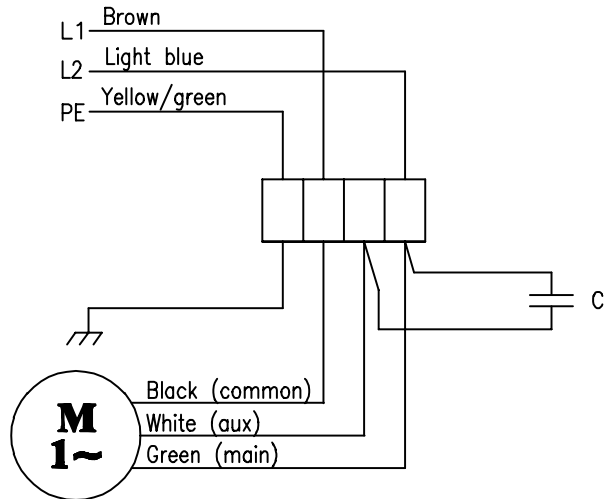
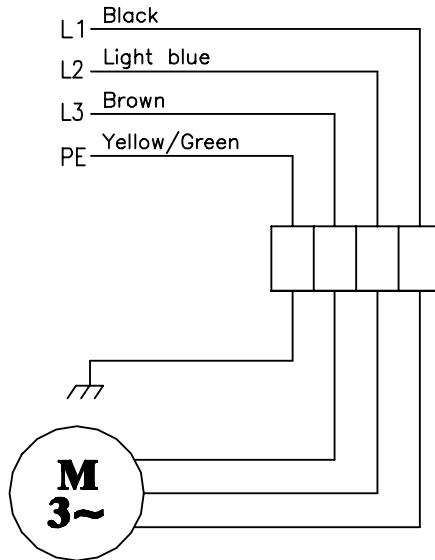
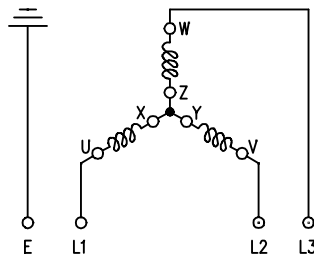


DIAGRAM AND ELECTRIC CONNECTIONS

THREE PHASE MOTOR

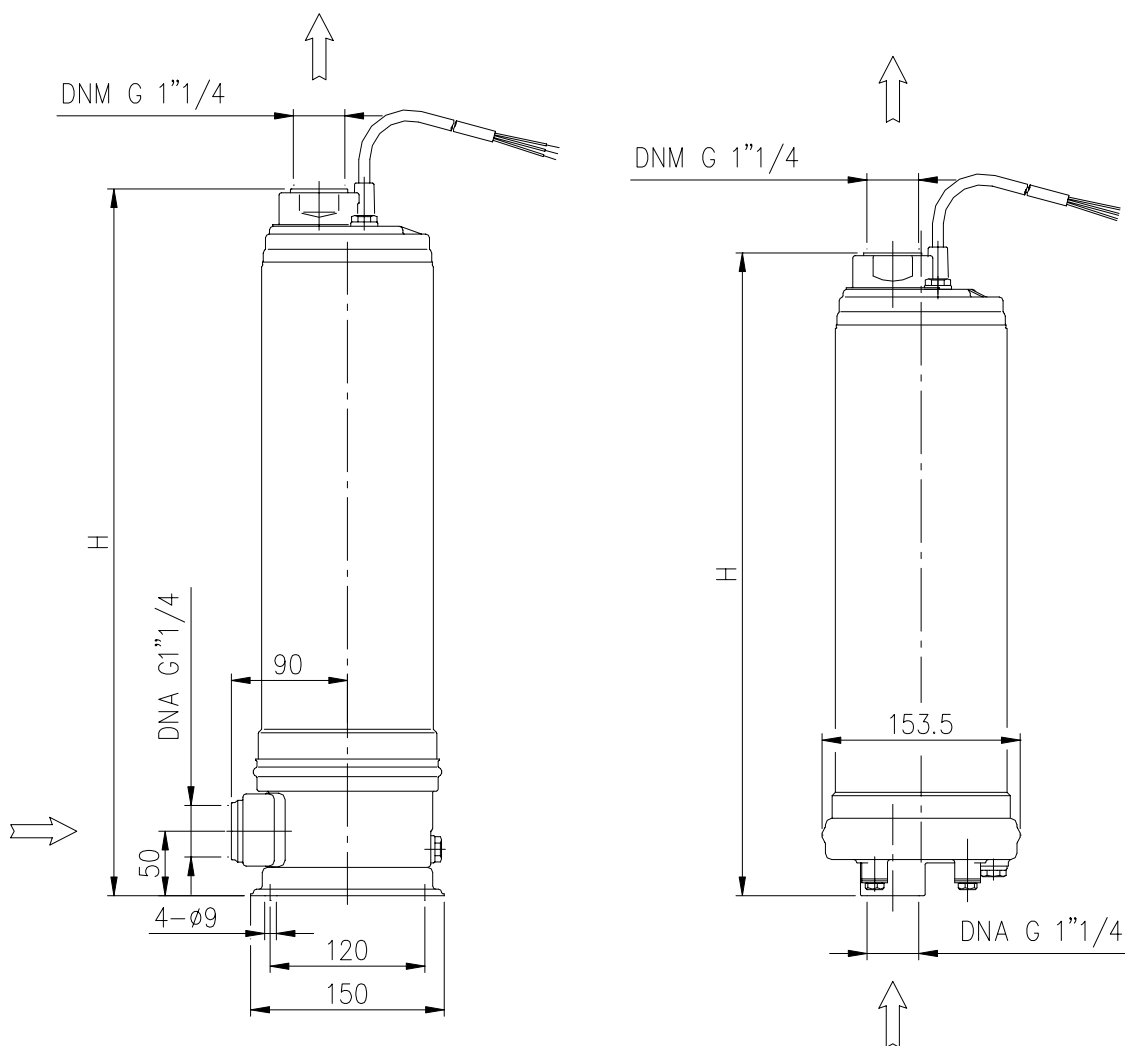


400 V
STAR CONNECTION

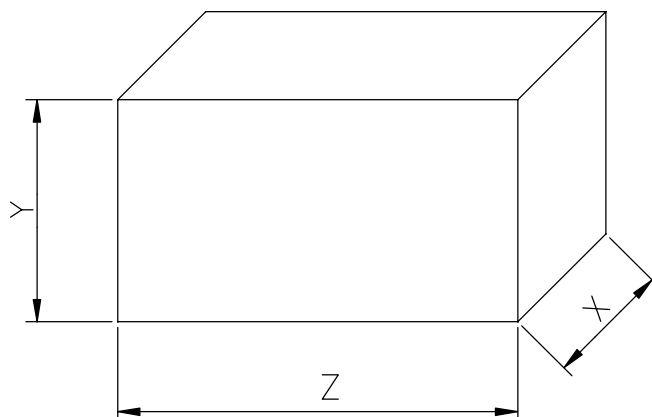


DIMENSIONS

50 Hz



Pump type MULTIGO	H [mm] STANDARD VERSION	H [mm] IN-LINE VERSION
40/08	547	501
40/10	573	527
40/12	624	578
40/15	650	604
80/12	573	527
80/15	598	552
80/20	624	-



Single Phase	Type pumps		PACKING [mm]			WEIGHT [kg]	
	Single Phase IN-LINE	Three Phase	Z	X	Y	Single Phase	Three Phase
MULTIGO M 40/08	MULTIGO M 40/08	MULTIGO 40/08	610	195	175	13.4	13
MULTIGO M 40/10	MULTIGO M 40/10	MULTIGO 40/10	610	195	175	14.4	14
MULTIGO M 40/12	MULTIGO M 40/12	MULTIGO 40/12	690	195	175	14.8	14.4
MULTIGO M 40/15	MULTIGO M 40/15	MULTIGO 40/15	690	195	175	16.4	16
MULTIGO M 80/12	MULTIGO M 80/12	MULTIGO 80/12	610	195	175	14.8	14.4
MULTIGO M 80/15	MULTIGO M 80/15	MULTIGO 80/15	690	195	175	16.1	15.7
-	-	MULTIGO 80/20	690	195	175	-	17.2

TECHNICAL DATA

50 Hz

Type pumps		Power		Capacitor		Input [kW]		Full load current [A]		Locked rotor current	
Single Phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz	kW	HP	Single Phase μF	Three Phase V _c	Single Phase	Three Phase	Single Phase	Three Phase	Single Phase 230 V 50 Hz	Single Phase 400 V 50 Hz
MULTIGO 40/08 M	MULTIGO 40/08	0,6	0,8	16	450	1	0,95	4,3	1,9	16	10
MULTIGO 40/10 M	MULTIGO 40/10	0,75	1	20	450	1,25	1,18	5,7	2,2	20	12
MULTIGO 40/12 M	MULTIGO 40/12	0,9	1,2	20	450	1,42	1,33	6,8	2,4	23	14
MULTIGO 40/15 M	MULTIGO 40/15	1,1	1,5	31,5	450	1,6	1,55	7,3	3	25	16,5
MULTIGO 80/12 M	MULTIGO 80/12	0,9	1,2	20	450	1,33	1,22	6,4	2,3	23	14
MULTIGO 80/15 M	MULTIGO 80/15	1,1	1,5	31,5	450	1,62	1,52	7,5	3,1	25	16,5
-	MULTIGO 80/20	1,5	2	-	-	-	1,9	-	3,5	-	16,5

Type pumps		Ball Bearing	
Single Phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz	Pump side	Fan side
MULTIGO 40/08 M	MULTIGO 40/08	6303 ZZ	6202 ZZ
MULTIGO 40/10 M	MULTIGO 40/10	6303 ZZ	6202 ZZ
MULTIGO 40/12 M	MULTIGO 40/12	6303 ZZ	6202 ZZ
MULTIGO 40/15 M	MULTIGO 40/15	6303 ZZ	6202 ZZ
MULTIGO 80/12 M	MULTIGO 80/12	6303 ZZ	6202 ZZ
MULTIGO 80/15 M	MULTIGO 80/15	6303 ZZ	6202 ZZ
-	MULTIGO 80/20	6303 ZZ	6202 ZZ

NOTE: IN-LINE VERSION ONLY SINGLE PHASE MODELS