

# IDROGO

## CENTRIFUGAL ELECTRIC BOREHOLE PUMPS, 5"

in AISI 304 stainless steel



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

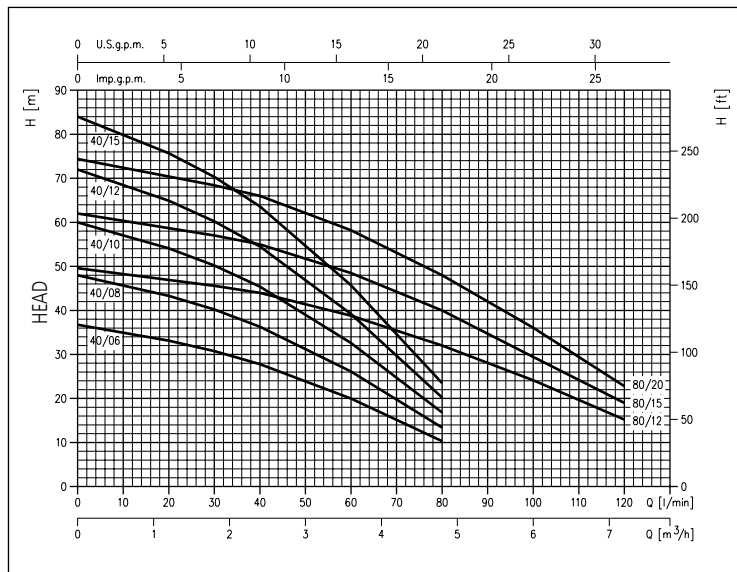
### APPLICATIONS

- 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

### PERFORMANCE CURVES (per ISO 9906 Annex A)



### 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 G1 ¼

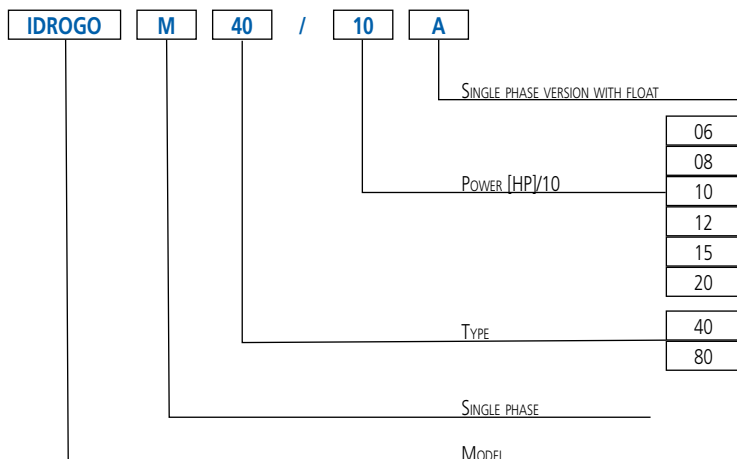
### MOTOR TECHNICAL DATA

- 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

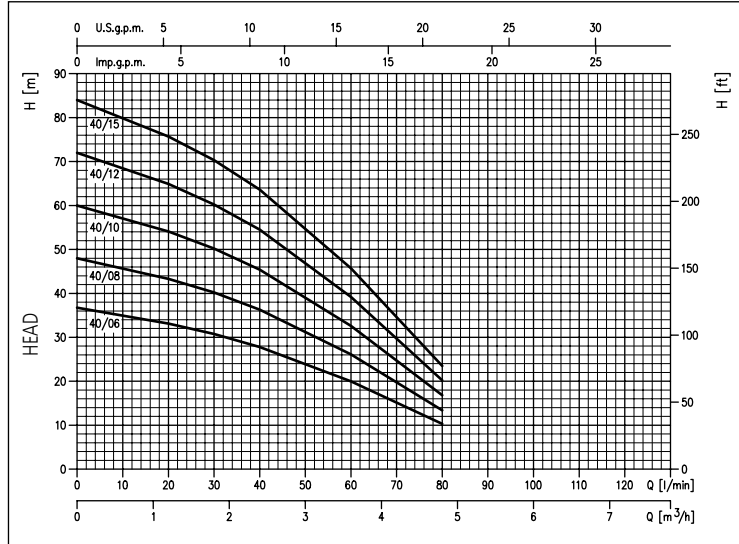
### IDENTIFICATION CODE



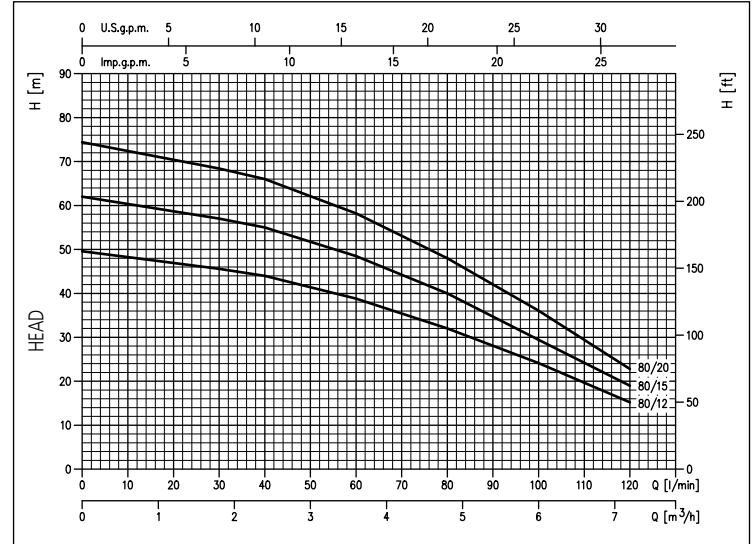
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## CENTRIFUGAL ELECTRIC BOREHOLE PUMPS, 5" in AISI 304 stainless steel

**PERFORMANCE CURVES series IDROGO 40**  
(per ISO 9906 Annex A) - Impeller dia.: 104 mm



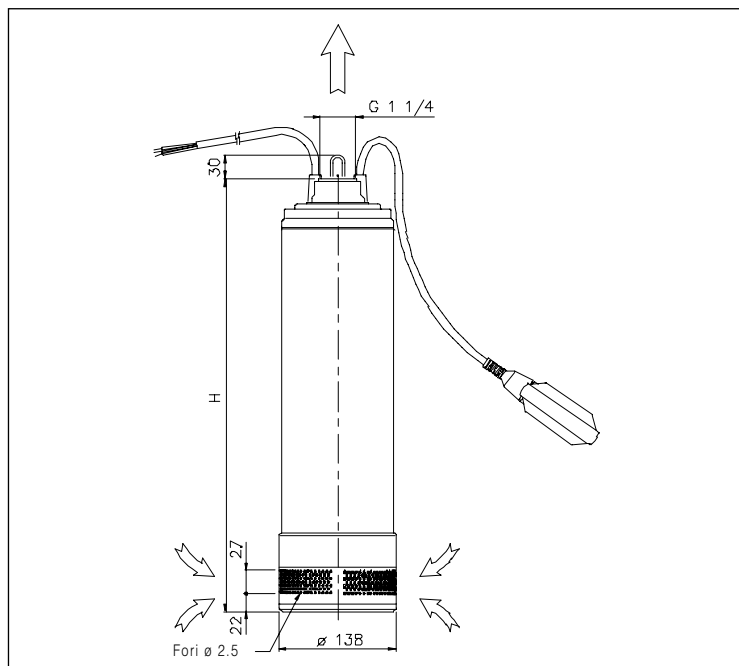
**PERFORMANCE CURVES series IDROGO 80**  
(per ISO 9906 Annex A) - Impeller dia.: 102 mm



### PERFORMANCE TABLE

single phase 230V	Model	three phase 230V - 400V	P <sub>2</sub>		Q=Flow rate								
			[HP]	[kW]	l/min m <sup>3</sup> /h	20 1.2	30 1.8	40 2.4	Q=Flow rate		H=Head [m]		
							60 3.6	80 4.8	100 6	120 7.2			
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

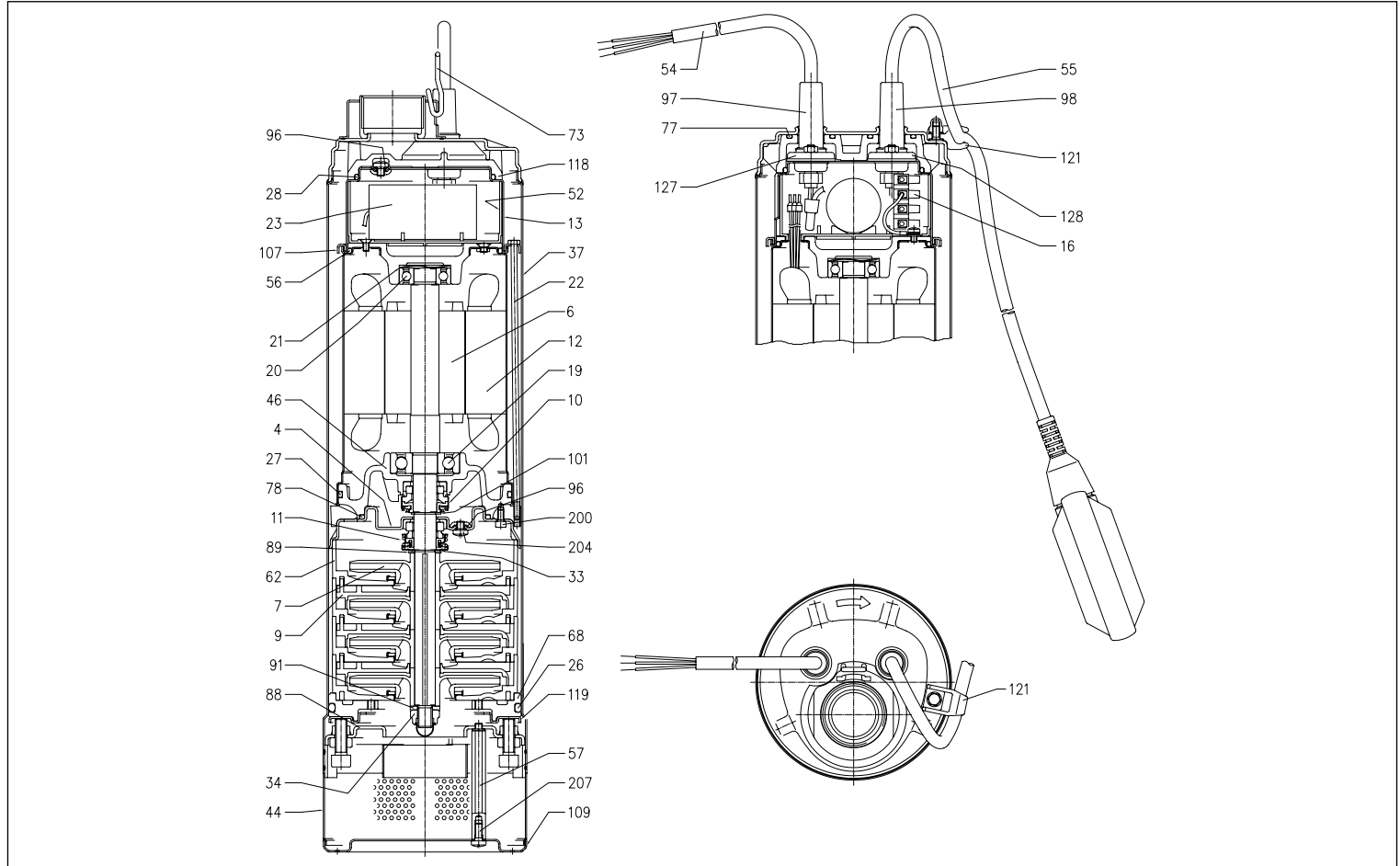


### DIMENSIONAL TABLE

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

## 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

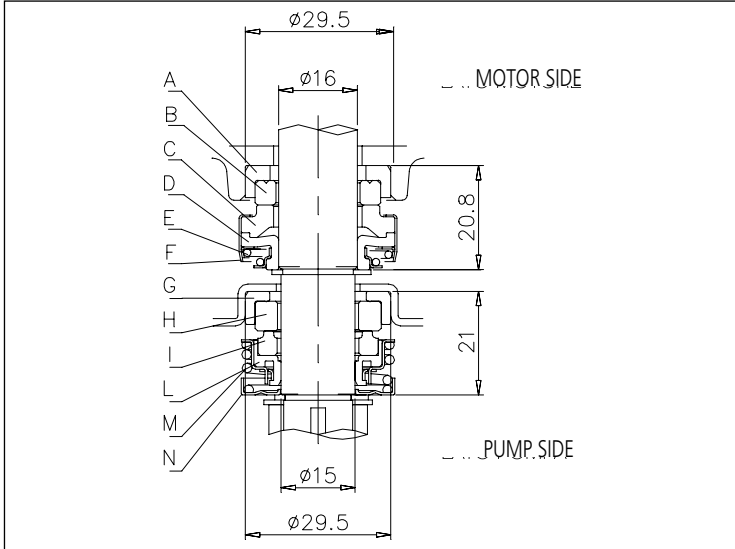
[1]= Single phase only  
[2]= Single phase with float only

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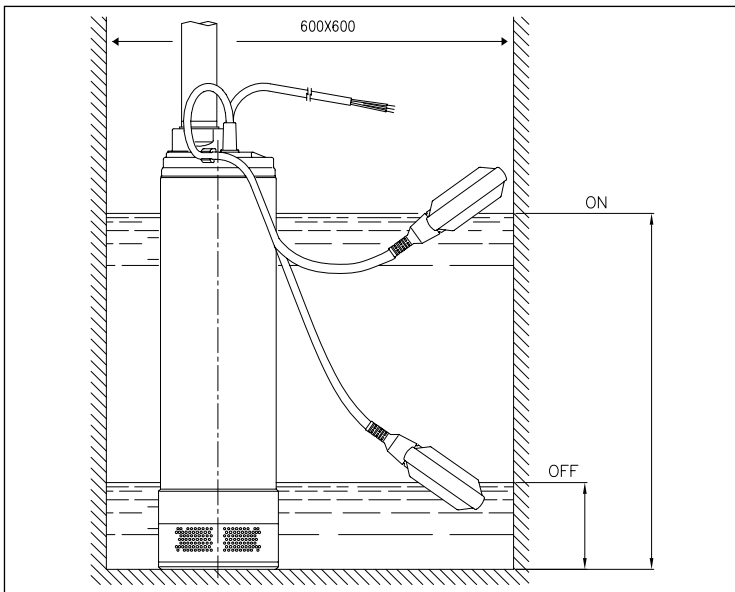
### MECHANICAL SEAL



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