

# AGA - AGC

## SELF-PRIMING ELECTRIC PUMPS

in cast iron



Cast iron self-priming electric pumps.

### APPLICATIONS

- Domestic pressure boosting
- Small-scale garden irrigation
- Washing vehicles
- Moving clean water in general

### TECHNICAL DETAILS

- AGA 0.60 - 0.75 also available in "G" versions i.e. GARDEN (with handle, standard socket and 1.5 m cable) and "GI" (with handle, standard socket and 1.5 m cable and switch)
- Available with brass impeller (AGA 0.60 M GO, AGA 0.75 M GO, AGA 1.00 M GO)

### TECHNICAL DATA

- Maximum working pressure:
  - 6 bar for AGA 0.60-0.75-1.00
  - 10 bar for the rest of the range
- Maximum temperature of the liquid: 45°C
- Maximum suction depth: 8 m
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP44 Protection rating
- 230V ±10%, 50Hz single phase voltage, 230/400V ±10%, 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version
- G1 suction connection for AGA 0.60-0.75-1.00, G1½ for the rest of the range
- G1 discharge connection

### MATERIALS

- Cast iron pump body
- Seal housing disc in AISI 304 for AGA 0.60-0.75-1.00, in brass for the rest of the range
- Shaft in AISI 416 for AGA 0.60-0.75-1.00, in AISI 303 for the rest of the range
- Impeller in PPO reinforced with fibreglass for AGA 0.60-0.75-1.00, in brass for the rest of the range
- Mechanical seal in Carbon/Ceramic/NBR
- Ejector and nozzle in PPO reinforced with fibreglass

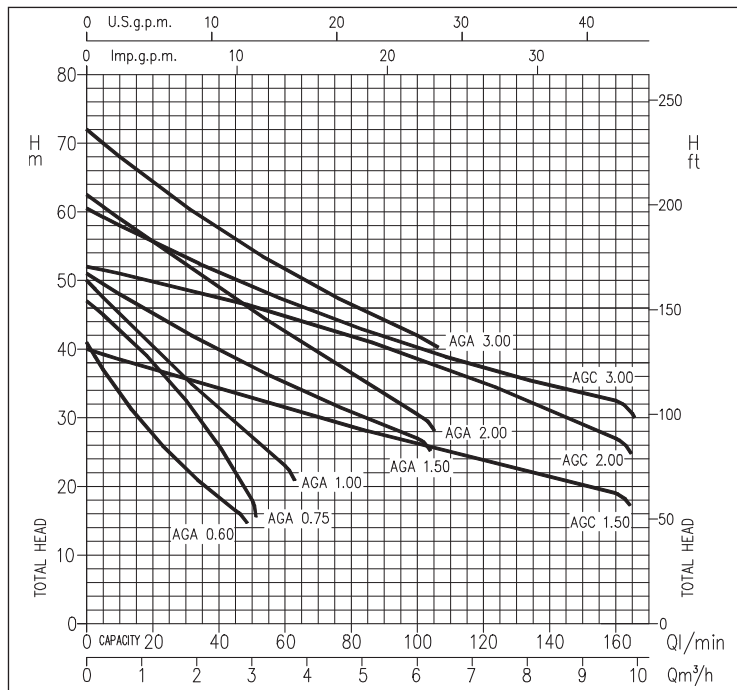
### CONTROL PANELS

- 1EPBH (see page 68)

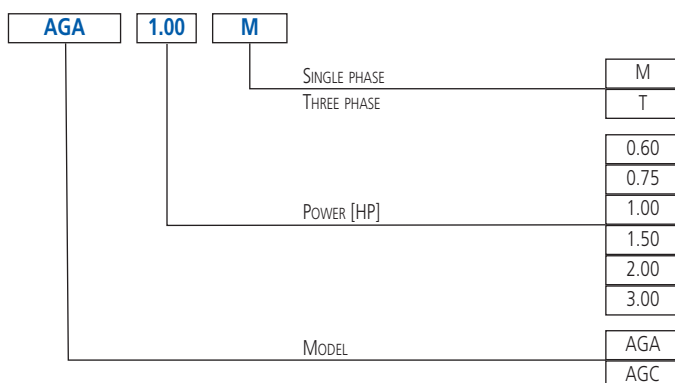
### ACCESSORIES (on request)

- 5 litre 10 bar ¾ EPDM vessel
- 24 litre 8 bar 1" EPDM vessel
- PVC 5m key float with counter-weight
- PVC 10m key float with counter-weight
- SQUARE-D FSG-2 1.4÷4.6 bar G¼ F pressure switch
- FYG-22 2.8÷7 bar G¼ F pressure switch
- Presscomfort - Pressure regulator (see page 70)
- Press•o•Matic - Variable speed control system (230V±10% single phase - power supply three phase 220V output – maximum motor power 2.2 kW - 3 HP - see page 71)

### PERFORMANCE CURVES (according to ISO 9906 Attachment A)



### IDENTIFICATION CODE



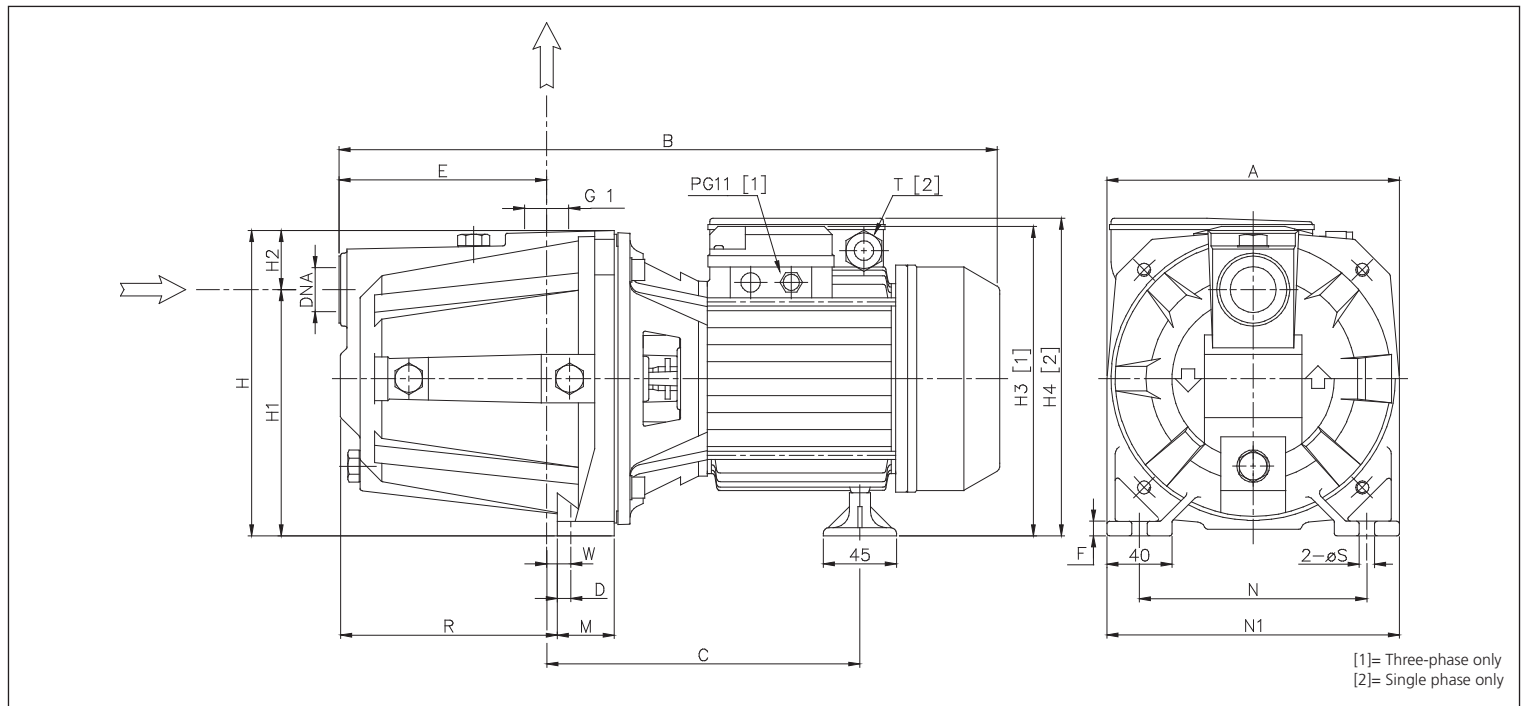
## SELF-PRIMING ELECTRIC PUMPS

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### PERFORMANCE TABLE

Model		P <sub>2</sub>		Q=Flow rate											
230V single phase	230/400V three-phase	[HP]	[kW]	l/min	5	10	20	30	45	50	60	80	100	130	160
				m <sup>3</sup> /h	0,3	0,6	1,2	1,8	2,7	3	3,6	4,8	6	7,8	9,6
				H=Head [m]											
AGA 0.60 M	AGA 0.60 T	0,6	0,44	37	33,4	27,1	22	16,5	-	-	-	-	-	-	-
AGA 0.75 M	AGA 0.75 T	0,75	0,55	45	42,8	37,9	32	21,9	18	-	-	-	-	-	-
AGA 1.00 M	AGA 1.00 T	1	0,75	47,5	45	40,3	35,7	29,1	27	23	-	-	-	-	-
AGA 1.50 M	AGA 1.50 T	1,5	1,1	-	48	45,1	42,4	38,6	37,4	35,1	30,8	27	-	-	-
AGA 2.00 M	AGA 2.00 T	2	1,5	-	59	55,6	52,2	47,3	45,7	42,5	36,4	30,5	-	-	-
-	AGA 3.00 T	3	2,2	-	68	64,3	60,8	55,9	54,4	51,6	46,4	42	-	-	-
AGC 1.50 M	AGC 1.50 T	1,5	1,1	-	38,5	37	35,6	33,5	32,7	31,4	28,7	26,1	22,4	19	-
AGC 2.00 M	AGC 2.00 T	2	1,5	-	51	49,9	48,8	46,9	46,3	44,9	42	38,7	33,2	27	-
-	AGC 3.00 T	3	2,2	-	58	55,6	53,3	50,1	49,1	47,1	43,4	40,2	35,9	32,5	-

### DIMENSIONS



### DIMENSIONS TABLE

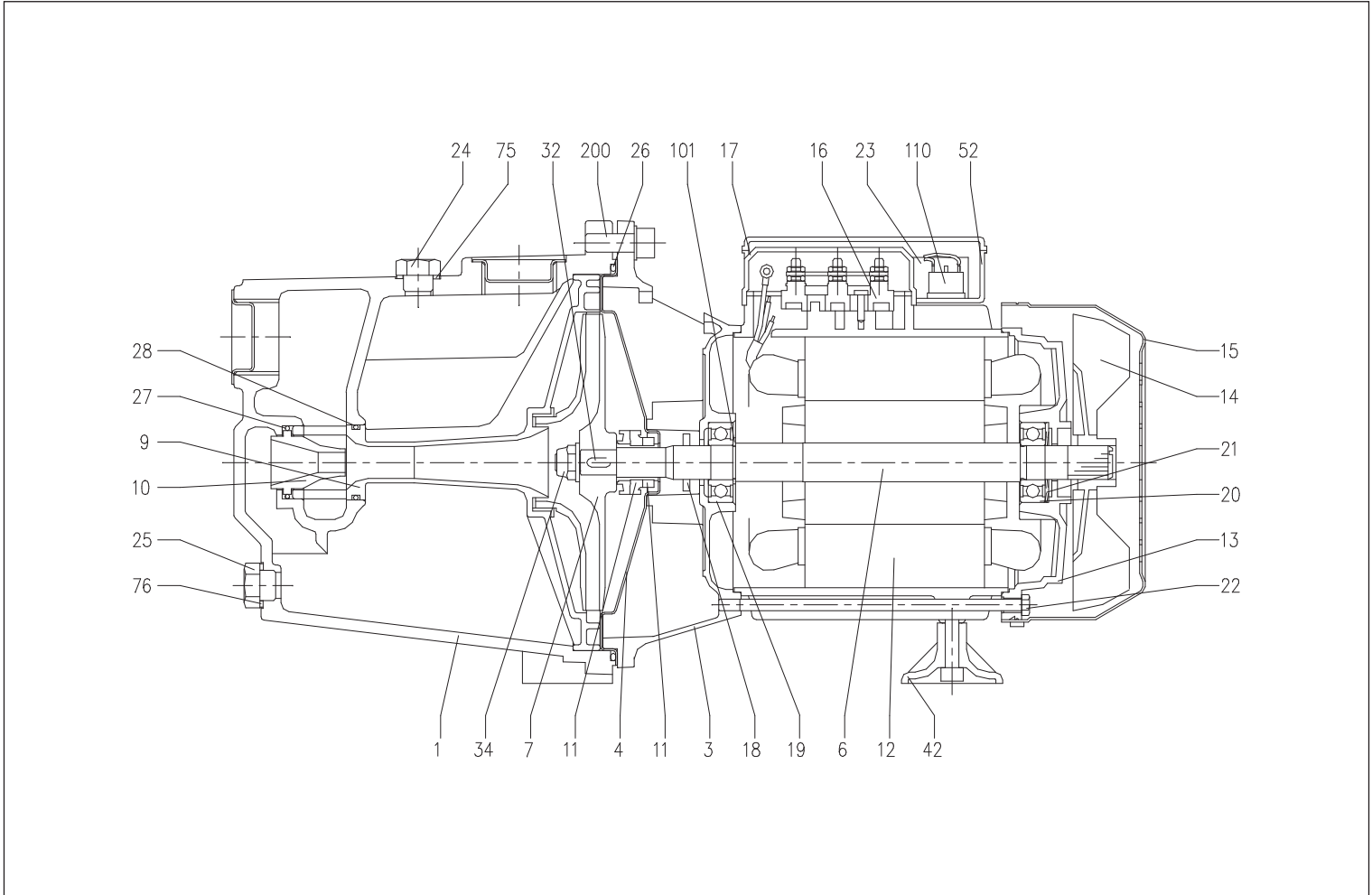
Model	Dimensions [mm]																			Weight [kg]
	A	B	C	D	E	F	H	H1	H2	[1] H3	[2] H4	M	N	N1	R	[2] T	W	S	DNA	
AGA 0.60 M	180	405	195	10,3	127	9	185	152	33	-	199	40	140	180	128,5	PG11	11,8	9,5	G 1	12,5
AGA 0.60 T	180	405	195	10,3	127	9	185	152	33	197,5	-	40	140	180	128,5	-	11,8	9,5	G 1	12,5
AGA 0.75 M	180	405	195	10,3	127	9	185	152	33	-	199	40	140	180	128,5	PG11	11,8	9,5	G 1	13,0
AGA 0.75 T	180	405	195	10,3	127	9	185	152	33	197,5	-	40	140	180	128,5	-	11,8	9,5	G 1	13,0
AGA 1.00 M	180	405	195	10,3	127	9	185	152	33	-	199	40	140	180	128,5	PG11	11,8	9,5	G 1	14,0
AGA 1.00 T	180	405	195	10,3	127	9	185	152	33	197,5	-	40	140	180	128,5	-	11,8	9,5	G 1	14,0
AGA 1.50 M	220	495	244	10	157	10	223	170	53	-	247	48	180	220	167,5	PG13,5	15,5	9	G 1 ½	26,0
AGA 1.50 T	220	495	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G 1 ½	26,0
AGA 2.00 M	220	508	244	10	157	10	223	170	53	-	247	48	180	220	167,5	PG13,5	15,5	9	G 1 ½	27,0
AGA 2.00 T	220	495	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G 1 ½	27,0
AGA 3.00 T	220	508	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G 1 ½	27,0
AGC 1.50 M	220	495	244	10	157	10	223	170	53	-	247	48	180	220	167,5	PG13,5	15,5	9	G 1 ½	26,0
AGC 1.50 T	220	495	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G 1 ½	26,0
AGC 2.00 M	220	508	244	10	157	10	223	170	53	-	247	48	180	220	167,5	PG13,5	15,5	9	G 1 ½	27,0
AGC 2.00 T	220	495	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G 1 ½	27,0
AGC 3.00 T	220	508	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G 1 ½	27,0

[1]= Three-phase only  
[2]= Single phase only

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### SECTIONAL VIEW



### MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	Cast iron	21	Adjusting ring	Steel C70
3	Motor support	[9]	22	Tie-rod	Galvanised Fe 42
4	Seal housing disc	AISI 304 [8]	23	Capacitor [1]	-
6	Rotor shaft	[6]	24	Filler cap	Brass
7	Impeller	[4]	25	Drain plug	Brass
9	Nozzle + Venturi pipe	PPO reinforced with fibreglass	26	O-Ring	NBR
10	Venturi Nozzle	PPO reinforced with fibreglass	27	O-Ring	NBR
11	Mechanical seal	Carbon/Ceramic/NBR	28	O-Ring	NBR
12	Motor casing with stator	-	32	Key	AISI 304
13	Motor cover	Aluminium	34	Impeller nut [3]	AISI 304
14	Fan	PA6	42	Foot	PVC
15	Fan cover	Galvanised Fe P04	52	Box for terminal box [1]	ABS
16	Terminal box	-	75	Washer	Aluminium
17	Terminal box cover [2]	Aluminium	76	Washer	Aluminium
18	Spray protector ring	NBR	101	Seeger ring	AISI 420
19	Bearing (pump side)	-	110	Motorprotector [5]	-
20	Bearing (motor side)	-	200	Screw (pump body)	A2 UNI7323 stainless steel

[1]= For single phase only

[2]= For three-phase only

[3]= For the version with brass impeller only

[4]= Technopolymer for AGA 0.60 - 0.75 - 1.00, brass for AGA - AGC 1.50 - 2.00 - 3.00

[5]= For single phase AGA - AGC 1.50 - 2.00 versions only

[6]= AISI 420 for AGA 0.60 - 0.75 - 1.00, AISI 303 (part in contact with the liquid) for AGA - AGC 1.50 - 2.00 - 3.00

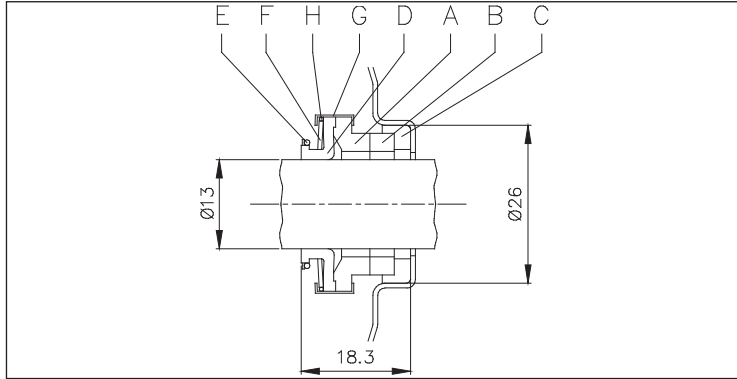
[8]= For AGA 0.60 - 0.75 - 1.00 only

[9]= Cast iron for AGA - AGC 1.50 - 2.00 - 3.00, aluminium for AGA 0.60 - 0.75 - 1.00

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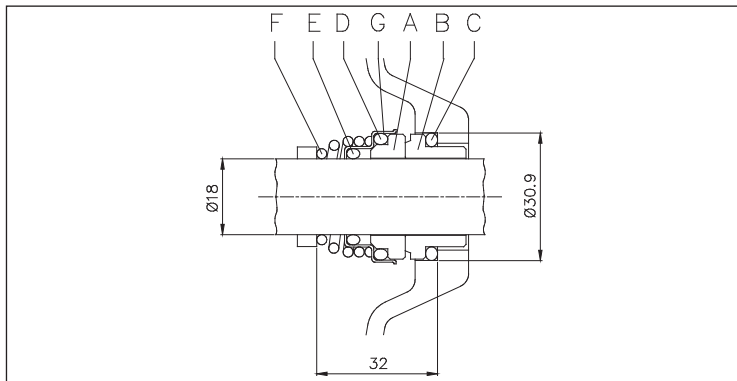
### MECHANICAL SEAL for AGA 0.60 - 0.75 - 1.00



### MATERIALS TABLE for AGA 0.60 - 0.75 - 1.00

Ref.	Name	Material
A	Rotating part	Carbon
B	Fixed part	Ceramic
C	Gasket	NBR
D	Diaphragm	NBR
E	Ring	AISI 304
F	Spring	AISI 304
G	Structure/frame	AISI 304
H	Retainer ring	AISI 304

### MECHANICAL SEAL for AGA - AGC 1.50 - 2.00 - 3.00



### MATERIALS TABLE for AGA - AGC 1.50 - 2.00 - 3.00

Ref.	Name	Material
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316
G	Structure/frame	AISI 304

### ELECTRIC DATA TABLE

Model		P <sub>2</sub>		Single phase Capacitor		P <sub>1</sub>		Absorbed Current [A]		
230V single phase	230/400V three-phase	[HP]	[kW]	μF	V <sub>c</sub>	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V 400V	
AGA 0.60 M	AGA 0.60 T	0,6	0,45	12,5	450	0,7	0,65	3,1	2,1	1,2
AGA 0.75 M	AGA 0.75 T	0,75	0,55	14	450	0,92	0,84	4,0	2,8	1,6
AGA 1.00 M	AGA 1.00 T	1	0,75	20	450	1,15	1,02	5,5	3,6	2,1
AGA 1.50 M	AGA 1.50 T	1,5	1,1	35	450	1,65	1,60	8,1	5,3	3,0
AGA 2.00 M	AGA 2.00 T	2	1,5	40	450	2,1	2,05	9,8	6,3	3,6
-	AGA 3.00 T	3	2,2	-	-	-	2,5	-	7,9	4,7
AGC 1.50 M	AGC 1.50 T	1,5	1,1	35	450	1,8	1,75	8,6	5,8	3,3
AGC 2.00 M	AGC 2.00 T	2	1,5	40	450	2,30	2,25	10,5	6,8	3,9
-	AGC 3.00 T	3	2,2	-	-	-	2,60	-	7,9	4,6