

AGA - AGC

SELF-PRIMING ELECTRIC PUMPS

in cast iron



Cast iron self-priming electric pumps

APPLICATION

- 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)

PUMP 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
- G1 suction connection for AGA 0.60-0.75-1.00, G1 ½ for the rest of the range
- G1 discharge connection

MOTOR TECHNICAL DATA

- High efficiency motors IE2 starting from 0,75kW
- Self-ventilated 2 poles asynchronous motor
- Class of insulation F
- IP44 Protection degree
- 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

MATERIAL

- Cast iron pump casing
- Seal housing disc in AISI 304 for AGA 0.60-0.75-1.00, in cast iron integrated in motor bracket for the rest of the range
- Shaft in AISI 303 (part in contact with the liquid)
- Impeller in PPE+PS 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 PPE+PS reinforced with fibreglass

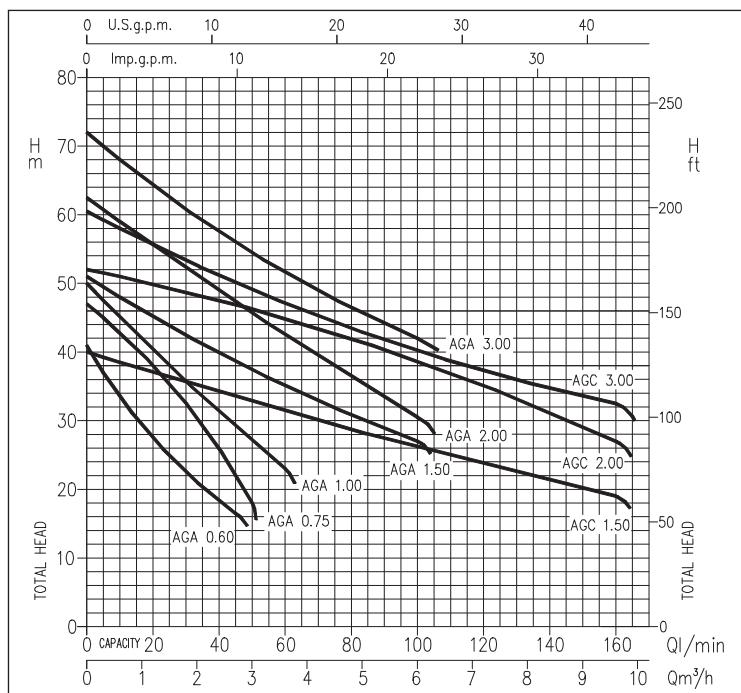
CONTROL PANELS

- 1EPBH

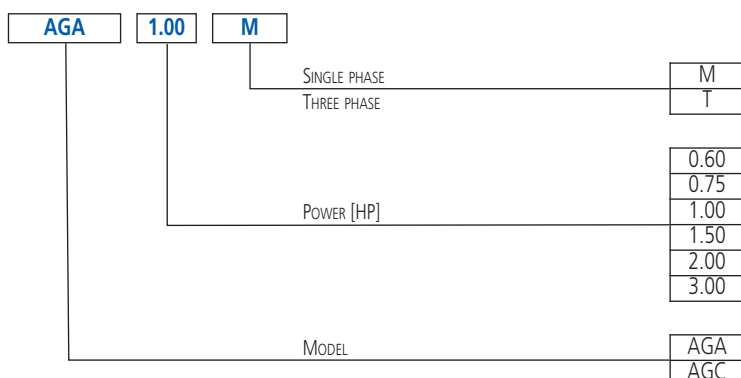
ACCESSORIES (on request)

- 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
- 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)
- E-drive - Frequency converter

PERFORMANCE CURVES (according to ISO 9906 Attachment A)



IDENTIFICATION CODE



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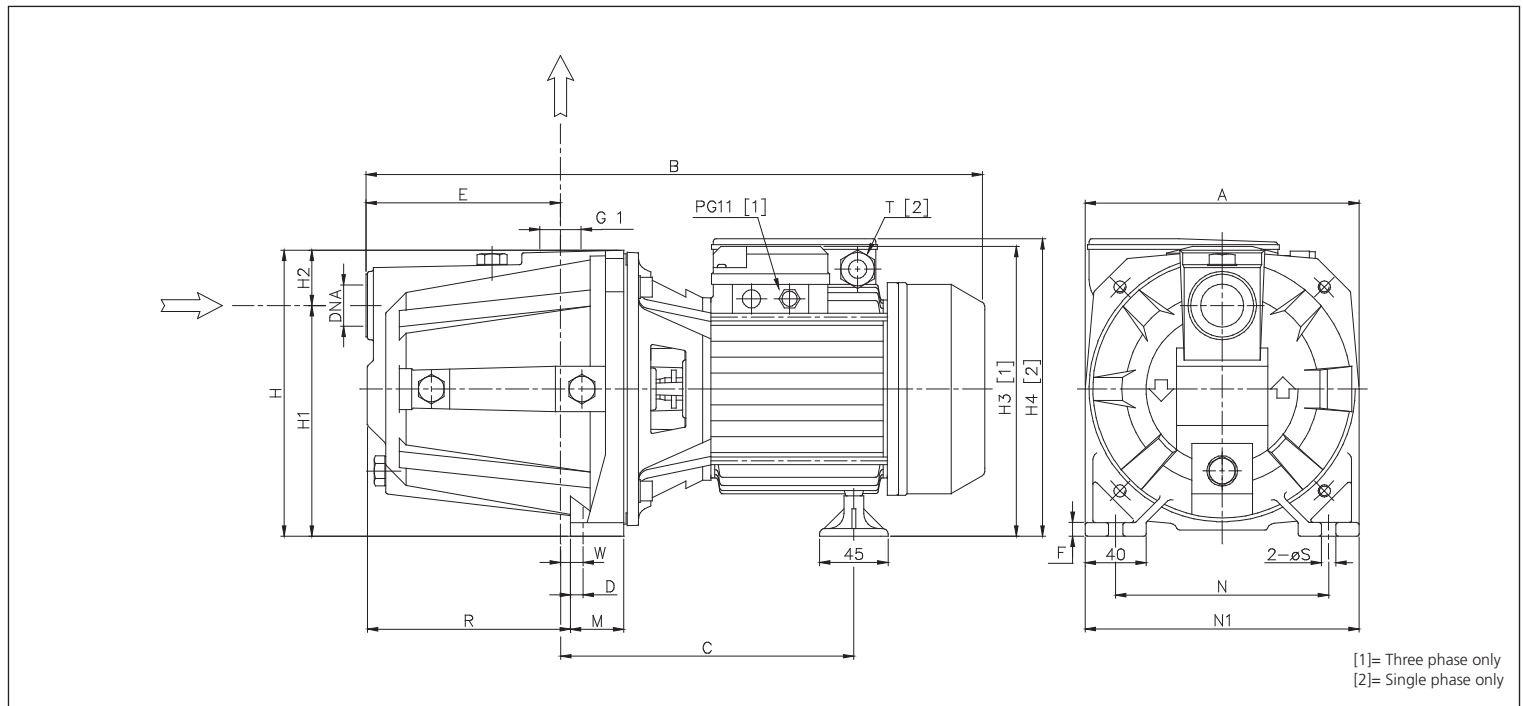
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PERFORMANCE TABLE

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

DIMENSIONS



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

DIMENSIONS TABLE

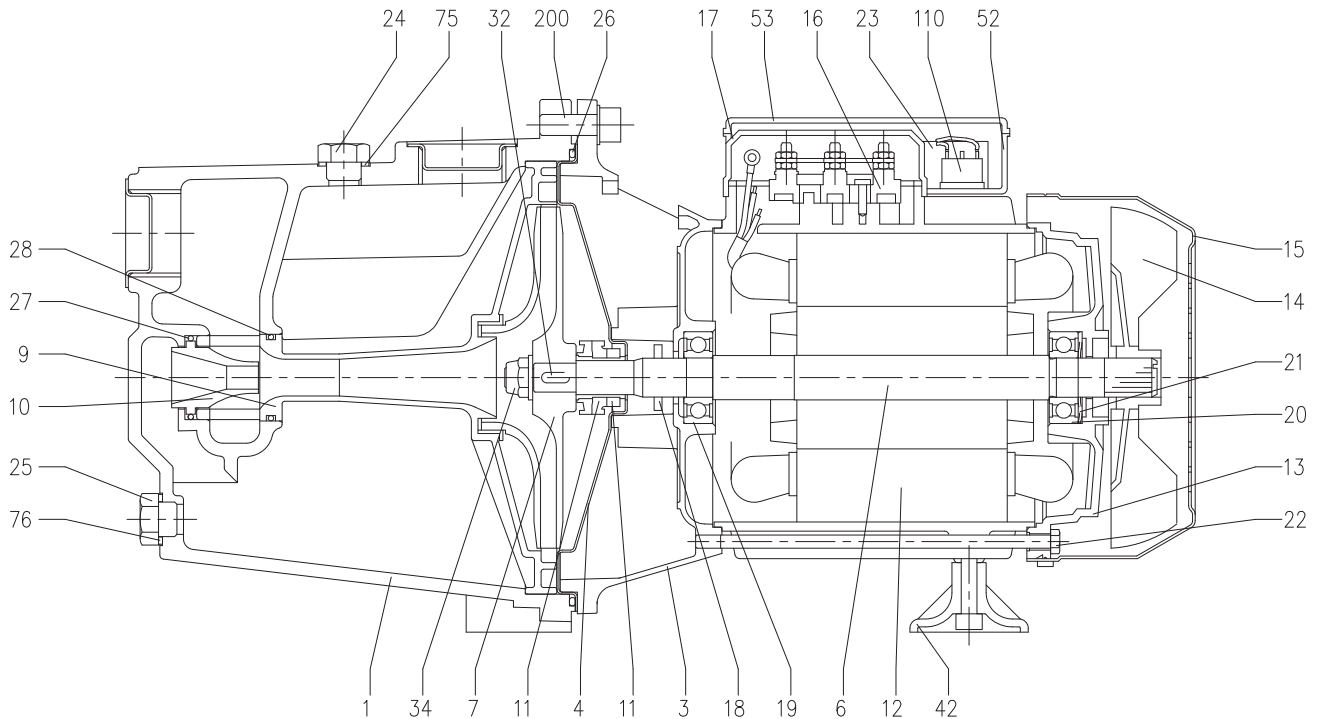
Model	Dimensions [mm]																			Weight [kg]
	A	B	C	D	E	F	H	H1	H2	H3 [1]	H4 [2]	M	N	N1	R	T [2]	W	S	DNA	
AGA 0.60 M	180	405	195	10,3	127	9	185	152	33	-	199	40	140	180	128,5	PG11	11,8	9,5	G1	12,0
AGA 0.60 T	180	405	195	10,3	127	9	185	152	33	197,5	-	40	140	180	128,5	-	11,8	9,5	G1	12,0
AGA 0.75 M	180	405	195	10,3	127	9	185	152	33	197,5	-	40	140	180	128,5	PG11	11,8	9,5	G1	12,5
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	G1	12,3
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	G1	13,8
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	G1	14,8
AGA 1.50 M	220	508	244	10	157	10	223	170	53	-	247	48	180	220	167,5	PG13,5	15,5	9	G1½	25,5
AGA 1.50 T	220	495	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G1½	25,6
AGA 2.00 M	220	508	244	10	157	10	223	170	53	-	247	48	180	220	167,5	PG13,5	15,5	9	G1½	26,6
AGA 2.00 T	220	495	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G1½	26,8
AGA 3.00 T	220	508	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G1½	28,1
AGC 1.50 M	220	508	244	10	157	10	223	170	53	-	247	48	180	220	167,5	PG13,5	15,5	9	G1½	25,5
AGC 1.50 T	220	495	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G1½	27,4
AGC 2.00 M	220	508	244	10	157	10	223	170	53	-	247	48	180	220	167,5	PG13,5	15,5	9	G1½	26,6
AGC 2.00 T	220	508	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G1½	27,7
AGC 3.00 T	220	508	244	10	157	10	223	170	53	229	-	48	180	220	167,5	-	15,5	9	G1½	28,1

[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	[7]	22	Tie-rod	Galvanised Fe 42
4	Seal housing disc	[6]	23	Capacitor [1]	-
6	Rotor shaft	AISI 303 (part in contact with the liquid)	24	Filler cap	Brass
7	Impeller	[4]	25	Drain plug	Brass
9	Nozzle + Venturi pipe	PPE+PS reinforced with fibreglass	26	O-Ring	NBR
10	Venturi Nozzle	PPE+PS 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 316
13	Motor cover	Aluminium	34	Impeller nut [3]	AISI 304
14	Fan	PA6	42	Foot	PP
15	Fan cover	Galvanised Fe P04	52	Box for terminal box [1]	ABS
16	Terminal box	-	53	Terminal box cover [8]	ABS
17	Terminal box cover [2]	Aluminium	75	Washer	Aluminium
18	Spray protector ring	NBR	76	Washer	Aluminium
19	Bearing (pump side)	-	110	Motorprotector [5]	-
20	Bearing (motor side)	-	200	Screw (Pump body)	Zn stainless steel Cl. 8.8 ISO 89 8-1

[1]= For single phase only

[2]= For three phase only

[3]= For the version with brass impeller only

[4]= PPE+PS reinforced with fibreglass for AGA 0.60 - 0.75 - 1.00, brass for the rest of the range

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

[6]= AISI 304 for AGA 0.60 - 0.75 - 1.00, in cast iron integrated on motor support for the rest of the range

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

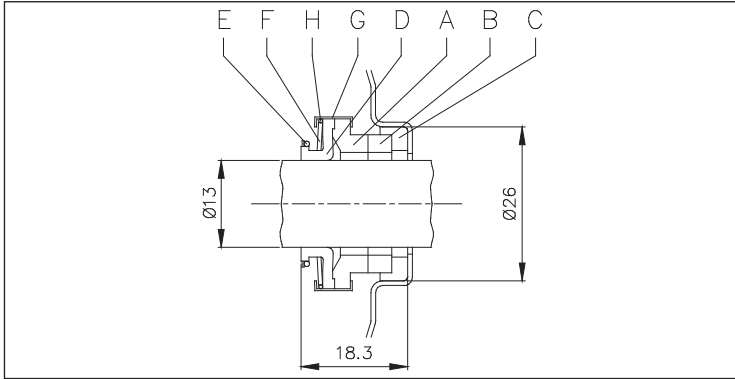
[8]= With gasket in NBR for AGA 0.60 - 0.75 - 1.00 single phase models

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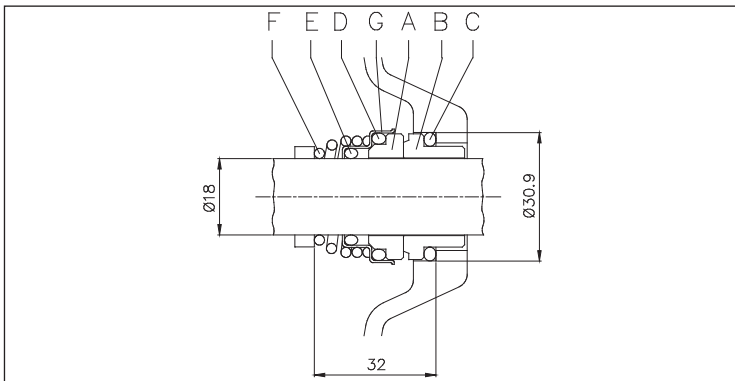
MECHANICAL SEAL for AGA 0.60 - 0.75 - 1.00



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 ₂		Efficiency		Capacitor		Efficiency (%)			P ₁		Absorbed Current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase	Three phase	Single phase	V _c	Three phase			Single phase	Three phase	Single phase	Three phase	
								50%	75%	100%	[kW]	[kW]	230V	230V	400V
AGA 0.60 M	AGA 0.60 T	0,6	0,45	-	-	12,5	450	-	-	-	0,70	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	-	IE2	20	450	77,2	80,9	81,3	1,15	0,92	5,5	2,9	1,7
AGA 1.50 M	AGA 1.50 T	1,5	1,1	-	IE2	40	450	79,7	82,5	83,0	1,65	1,80	8,1	5,5	3,2
AGA 2.00 M	AGA 2.00 T	2	1,5	-	IE2	40	450	79,7	82,5	83,0	2,10	2,05	9,8	6,0	3,5
-	AGA 3.00 T	3	2,2	-	IE2	-	-	83,0	84,4	83,8	-	2,63	-	8,1	4,7
AGC 1.50 M	AGC 1.50 T	1,5	1,1	-	IE2	40	450	79,7	82,5	83,0	1,80	1,80	8,6	5,5	3,2
AGC 2.00 M	AGC 2.00 T	2	1,5	-	IE2	40	450	80,3	83,4	83,8	2,30	2,23	10,5	7,4	4,3
-	AGC 3.00 T	3	2,2	-	IE2	-	-	83,0	84,4	83,8	-	2,63	-	8,1	4,7

NOISE DATA TABLE

Model		P ₂		L _{pA} - dB(A)*
Single phase 230V	Three phase 230/400V	[HP]	[kW]	
AGA 0.60 M	AGA 0.60 T	0,6	0,45	71
AGA 0.75 M	AGA 0.75 T	0,75	0,55	71
AGA 1.00 M	AGA 1.00 T	1	0,75	71
AGA 1.50 M	AGA 1.50 T	1,5	1,1	76
AGA 2.00 M	AGA 2.00 T	2	1,5	76
-	AGA 3.00 T	3	2,2	76
AGC 1.50 M	AGC 1.50 T	1,5	1,1	76
AGC 2.00 M	AGC 2.00 T	2	1,5	76
-	AGC 3.00 T	3	2,2	76

* Mean value of several measures at 1m distance around the pump.
Tolerance ± 2,5 dB.

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