

AGA - AGC

SELF-PRIMING ELECTRIC PUMPS

in cast iron



Cast iron self-priming electric pumps.

APPLICATIONS

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

TECHNICAL DETAILS

- Available with brass impeller (AGA 0.60 M GO, AGA 0.75 M GO, AGA 1.00 M GO, AGA 1.00 T 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, G1½ for the rest of the range
- G1 discharge connection

MOTOR TECHNICAL DATA

- IE2 and IE3 high energy-efficiency motors starting from 0.75kW
- Self-ventilated 2 pole 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

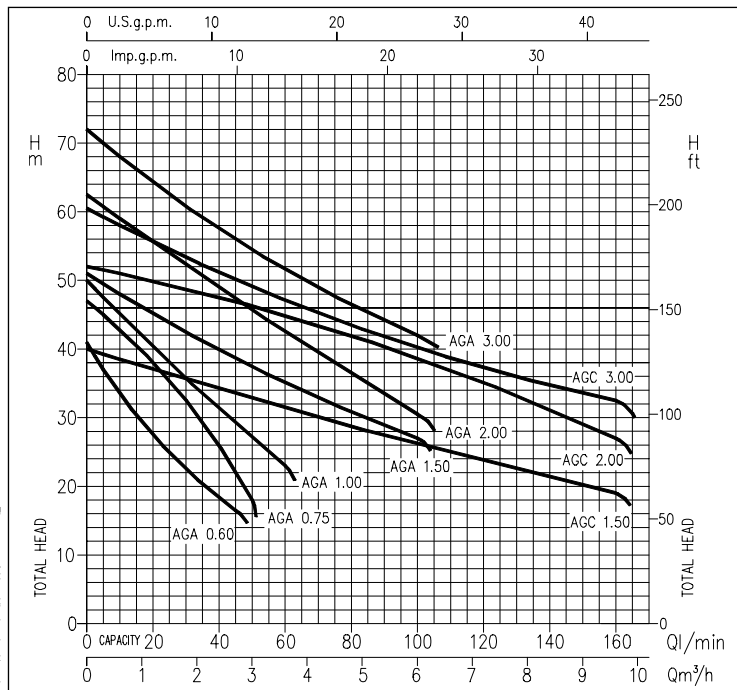
MATERIALS

- 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 Ceramic/Carbon/NBR
- Ejector and nozzle in PPE+PS reinforced with fibreglass

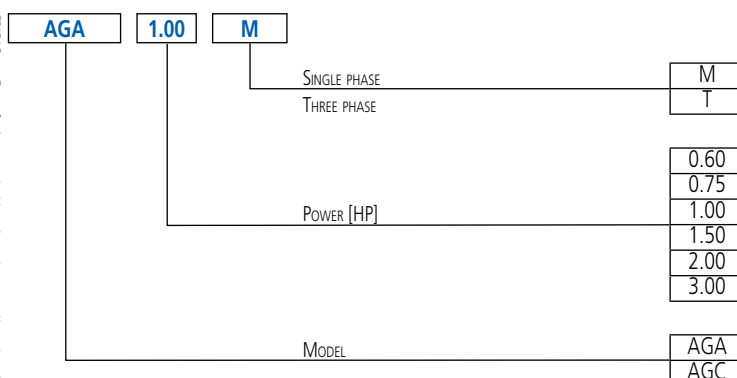
ACCESSORIES (On request)

- Electric panels
- Vessels
- Floats
- Pressure switches
- Presscomfort - Pressure regulator
- E-power - Variable speed control system
- E-drive - Frequency converter

PERFORMANCE CURVES (according to ISO 9906 Attachment A)



IDENTIFICATION CODE



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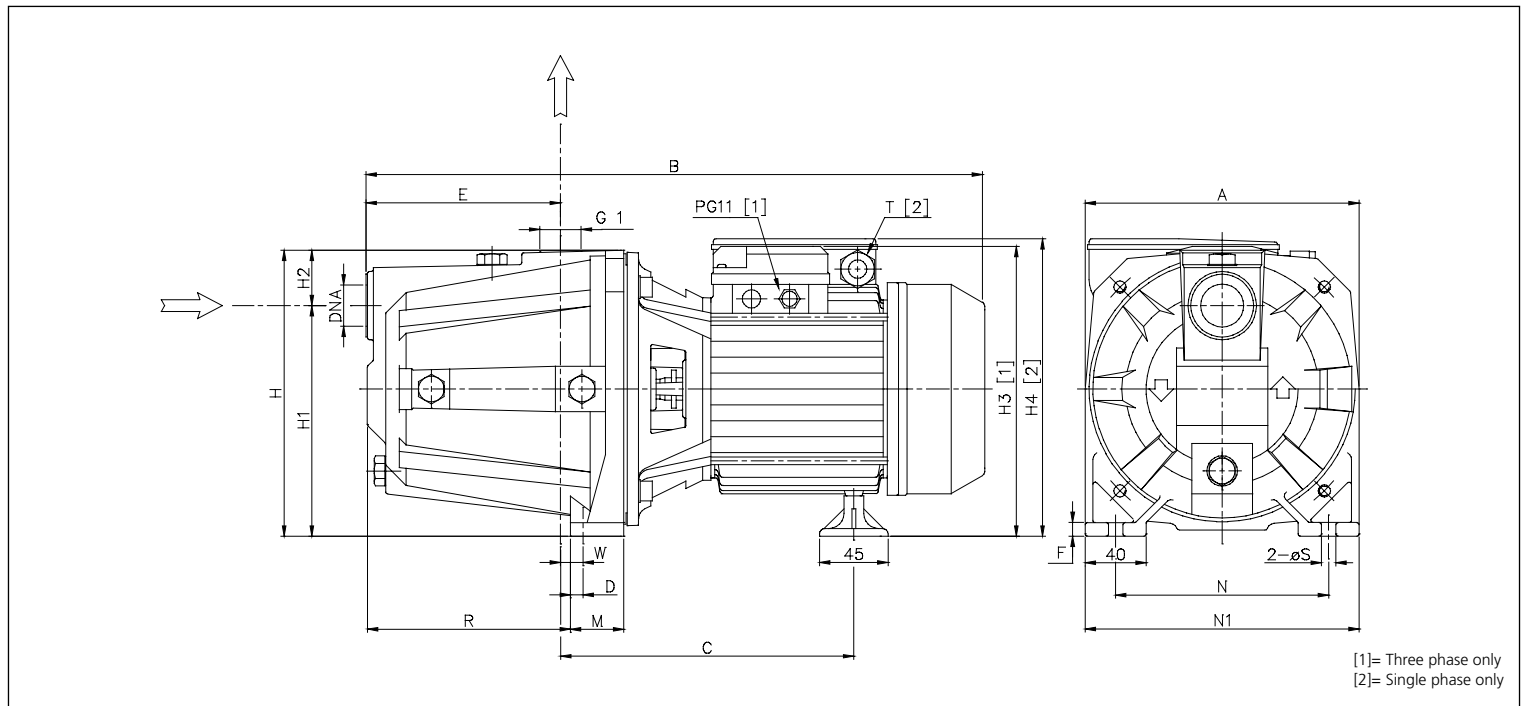
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PERFORMANCE CHART

Model		P ₂		Q = Flow Rate											
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min m ³ /h	5 0.3	10 0.6	20 1.2	30 1.8	45 2.7	50 3	60 3.6	80 4.8	100 6	130 7.8	160 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]	V [1]	W	S	DNA	*			
AGA 0.60 M	180	405	-	195	103	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	103	127	9	185	152	33	1.975	-	40	140	180	128.5	-	PG11	11.8	9.5	G1	12.0	-	
AGA 0.75 M	180	405	-	195	103	127	9	185	152	33	-	199	40	140	180	128.5	PG11	-	-	11.8	9.5	G1	12.5	-
AGA 0.75 T	180	405	-	195	103	127	9	185	152	33	1.975	-	40	140	180	128.5	-	PG11	11.8	9.5	G1	12.3	-	
AGA 1.00 M	180	405	-	195	103	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	405	195	103	127	9	185	152	33	1.975	-	40	140	180	128.5	-	M16x1.5	PG11	11.8	9.5	G1	14.8	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	520	244	10	157	10	223	170	53	229	-	48	180	220	167.5	-	M20x1.5	PG11	15.5	9	G1½	25.6	26.5
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	520	244	10	157	10	223	170	53	229	-	48	180	220	167.5	-	M20x1.5	PG11	15.5	9	G1½	27.7	28.6
AGA 3.00 T	220	508	521	244	10	157	10	223	170	53	229	-	48	180	220	167.5	-	M20x1.5	PG11	15.5	9	G1½	29.0	29.9
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	520	244	10	157	10	223	170	53	229	-	48	180	220	167.5	-	M20x1.5	PG11	15.5	9	G1½	27.4	28.3
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	521	244	10	157	10	223	170	53	229	-	48	180	220	167.5	-	M20x1.5	PG11	15.5	9	G1½	28.6	29.5
AGC 3.00 T	220	508	521	244	10	157	10	223	170	53	229	-	48	180	220	167.5	-	M20x1.5	PG11	15.5	9	G1½	29.0	29.9

[1]= Three phase only
[2]= Single phase only
* Models with IE3 motor only

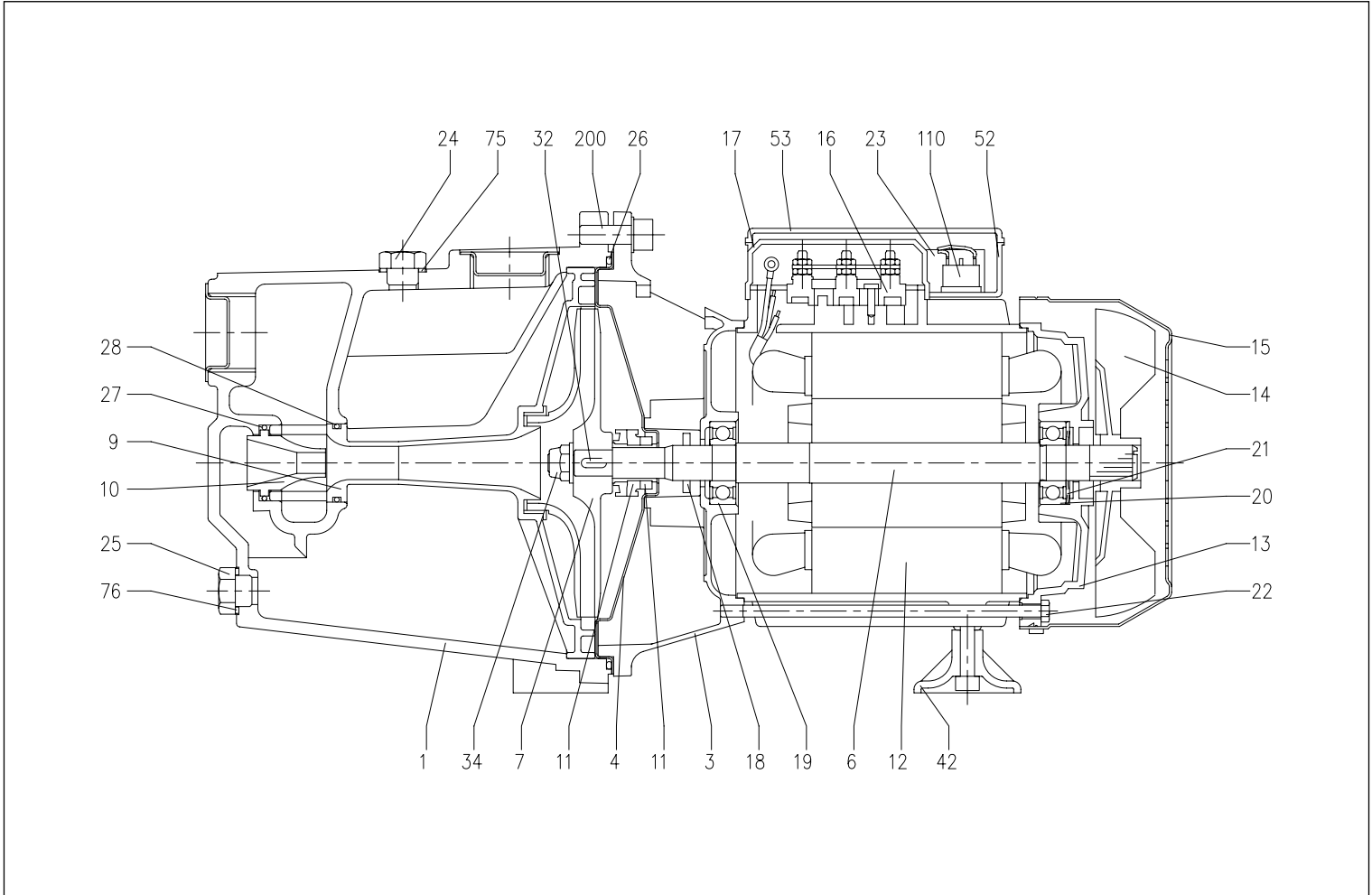
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SECTIONAL VIEW



MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	Cast iron	21	Adjustment 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	Ceramic/Carbon/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	Motor protector [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 per AGA 0.60 - 0.75 - 1.00, in cast iron integrated on motor support for the rest of the range

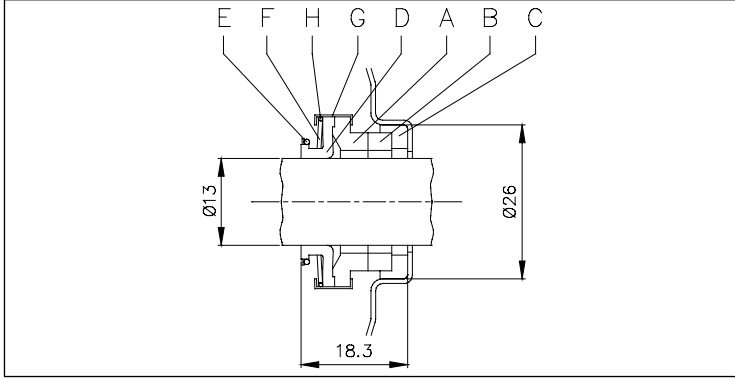
[7]= Cast iron for AGA - AGC 1.50 - 2.00 - 3.00, aluminium for AGA 0.60 - 0.75 - 1.00

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

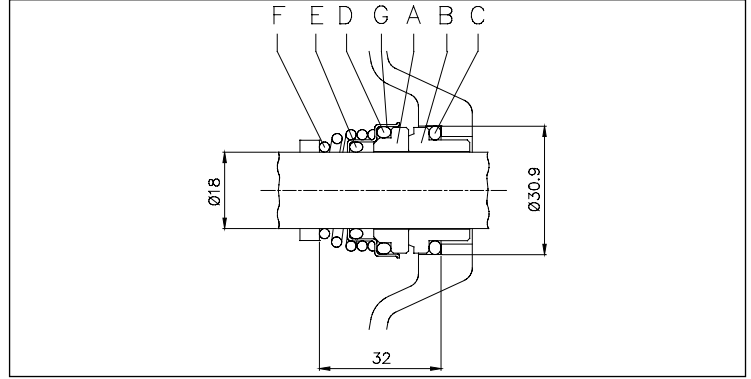
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MECHANICAL SEAL for AGA 0.60 - 0.75 - 1.00



MECHANICAL SEAL for AGA - AGC 1.50 - 2.00 - 3.00



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

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 Single phase 230V	Model Three phase 230/400V	P ₂		Efficiency		Capacitor		Efficiency (%)			P ₁		Absorbed Current [A]		
		[HP]	[kW]	Single phase	Three phase	Single phase µF	V _c	50%	75% η %	100%	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	-	-	-	0.70	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
-	-	1	0.75	-	IE3	-	-	80.9	82.3	82.1	-	0.91	-	3.0	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
-	-	1.5	1.1	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
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
-	-	2	1.5	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
-	AGA 3.00 T	3	2.2	-	IE2	-	-	83.0	84.4	83.8	-	2.63	-	8.1	4.7
-	-	3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	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
-	-	1.5	1.1	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
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
-	-	2	1.5	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1
-	AGA 3.00 T	3	2.2	-	IE2	-	-	83.0	84.4	83.8	-	2.63	-	8.1	4.7
-	-	3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7

NOISE DATA TABLE

Model Single phase 230V	Model Three phase 230/400V	P ₂		L _{pa} - dB(A)*
		[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

* Average noise level measured at 1 m from the motor pump.
Tolerance ± 2.5 dB.