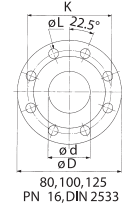
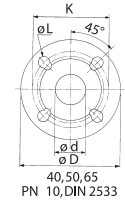
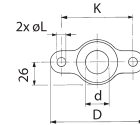
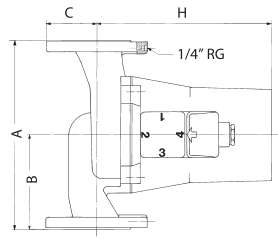
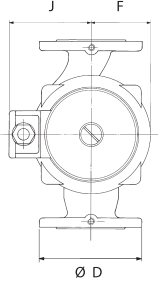
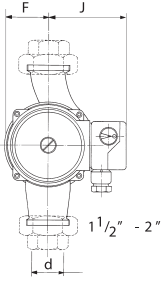
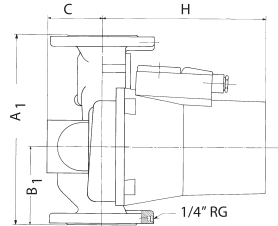
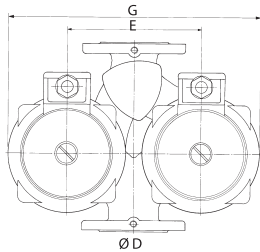
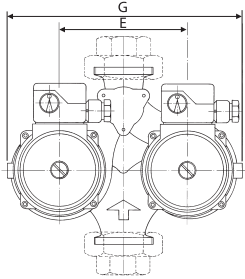


► Dimensions

Single pump AGE



Twin pump AGET



Type	A	A1	B	B1	C	C1	D	d	E	F	G	H	J	PN 6		PN 10		Weight	
														K	L	K	L	Single	Twin
AGE(T)32-07	180 (7.09)	180 (7.09)	90 (3.54)	75 (2.95)	30 (1.18)	40 (1.57)	-	1 1/4" BSF	130 (5.12)	50 (1.97)	260 (10.24)	103 (4.06)	91 (3.58)	-	-	-	-	3.1 (6.83)	7.8 (17.20)
AGE(T)32-10	180 (7.09)	180 (7.09)	90 (3.54)	75 (2.95)	35 (1.38)	40 (1.57)	-	1 1/4" BSF	160 (6.30)	75 (2.95)	350 (13.78)	230 (9.06)	150 (5.91)	-	-	-	-	8.6 (18.96)	15.2 (33.51)
AGE(T)42-10	250 (9.84)	250 (9.84)	125 (4.92)	90 (3.54)	75 (2.95)	75 (2.95)	150 (5.91)	40 (1.57)	200 (7.87)	95 (3.74)	400 (15.75)	235 (9.25)	160 (6.30)	100 (3.94)	14 (0.55)	110 (4.33)	19 (0.75)	16.5 (36.38)	27.0 (59.52)
AGE(T)52-11	280 (11.02)	280 (11.02)	120 (4.72)	120 (4.72)	83 (3.27)	83 (3.27)	165 (6.50)	50 (1.97)	200 (7.87)	95 (3.74)	450 (17.72)	220 (8.66)	165 (6.50)	110 (4.33)	14 (0.55)	125 (4.92)	19 (0.75)	24.5 (54.01)	42.0 (92.59)
AGE(T)62-09	340 (13.39)	340 (13.39)	170 (6.69)	140 (5.51)	93 (3.66)	93 (3.66)	185 (7.28)	65 (2.56)	240 (9.45)	105 (4.13)	500 (19.69)	235 (9.25)	180 (7.09)	130 (5.12)	14 (0.55)	145 (5.71)	19 (0.75)	36.5 (80.47)	54.0 (119.05)
AGE(T)82-12	360 (14.17)	360 (14.17)	170 (6.69)	160 (6.30)	100 (3.94)	102 (4.02)	200 (7.87)	80 (3.15)	270 (10.63)	105 (4.13)	550 (21.65)	240 (9.45)	170 (6.69)	-	-	160 (6.30)	19 (0.75)	41.5 (91.49)	70.0 (154.32)

Measurements in mm (inches), weights in kg (lbs).

EXPERIENCE BUILDING...

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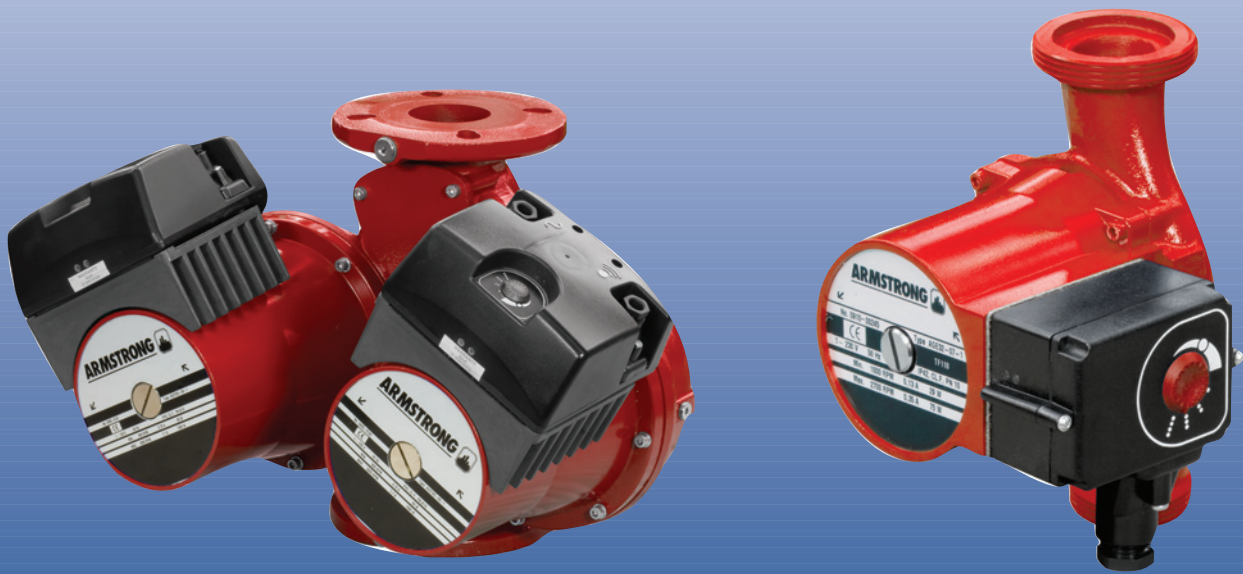
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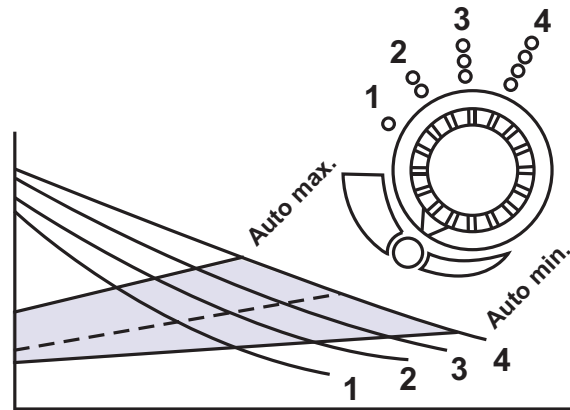
AGE Series Circulators

FILE NO:	10.127IN
DATE:	Apr. 12, 2010
SUPERSEDES:	New
DATE:	New

New AGE Circulator Series



- ▶ Automatic self-regulating speed control to match heating load
- ▶ Energy saving
- ▶ Low capital cost
- ▶ Reduced life-cycle cost
- ▶ High longevity
- ▶ Reliability
- ▶ Easy installation
- ▶ Compact
- ▶ Best practise operation
- ▶ Risk management reduction
- ▶ Flexible operation



Armstrong AGE electronic self regulating circulators are specified to provide quiet running throughout a long life using computer aided design and advanced production technology. Armstrong AGE circulators provide flow solutions to engineers requiring compactness, reliable operation and minimal life-cycle costs.

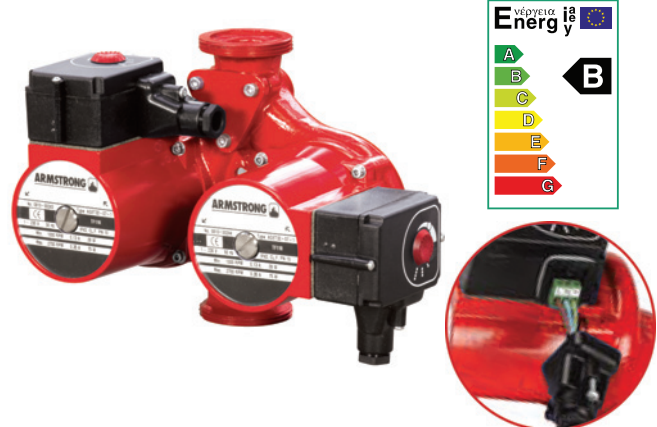
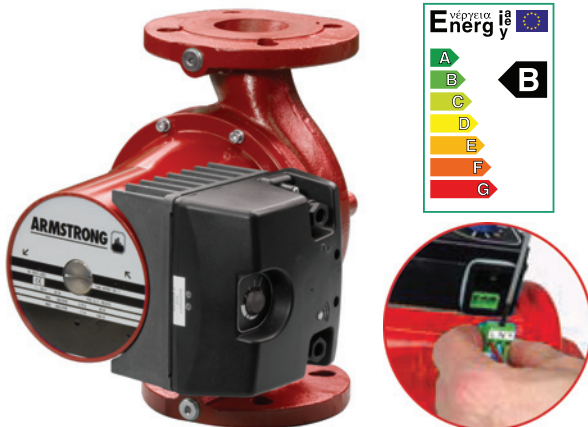
With flow rates to 12 L/s (190 USgpm) and heads to 80kPa (11.6 psi), all are designed to handle working pressures up to 10 bar (145.0 psi) and temperatures up to 70°C, 90°C or 110°C (158°F, 194°F or 230°F), depending on the size.

▶ Low Cost, Low Noise & Long Life

Running costs can be reduced, pipe noise levels minimised and life time extended by the automatic speed control of AGE, which runs at the slowest speed available to meet your heating needs. Alternatively, the control pot can be set to run at a choice of four fixed speeds.

▶ Energy Reduction B rated

Changing from single speed circulators to AGE circulators results in a significant reduction in energy costs. AGE circulators are rated B.



AGE Series Circulators

► Features and Benefits

► Risk Minimisation

Risk is reduced by specifying the AGET twin circulator. The AGET twin circulator combines two circulators in a common casing, and thus share one inlet and one outlet connection. This enables duty/standby operation on a single pipeline with one pair of isolating valves. An automatic flap valve in the casing prevents back flow through the standby unit. AGET and AGE share the same flange to flange dimensions.

► Pipeline Mounting Arrangements

- All types of AGE circulators must be mounted with the shaft in the horizontal position.
- Motor terminal box must be uppermost.
- AGET twin circulators may be mounted in horizontal pipes so long as an automatic air vent is fitted to the high point of the uppermost head.

► Long Life

Long life is assured using rugged close grained cast iron casings. The stainless steel shaft, lubricated by the pumped medium, ensures smooth operation and long life.

► Quiet, Smooth Operation

The impeller in larger models is dynamically balanced and constructed from close grained cast iron. This results in a quiet smooth operation. Impellers on smaller models are constructed from a composite material.

► Reliability

Reliable operation is guaranteed with a one-piece stainless steel can. This allows more effective and reliable isolation between the rotor and the stator.

► Reduced Installation Cost

There is no need to stock special counter flanges when fitting AGE circulators. Flanges on all AGE sizes up to and including 65 mm (2.5") nominal bore are double drilled to PN6 and PN10 allowing use of either type of counter flange.

► Easy Commissioning

All sizes of flanged AGE circulators are fitted with tapped drillings on the inlet and outlet, allowing for easy fitment of pressure measurement instrumentation in order to measure the generated head.

► Best Practise Operation and Flexible Application

Armstrong AGE circulators have low static head requirements, allowing for mounting in vented and unvented systems.

► Product Nomenclature Explanation

- The numbers in the following table are at 82°C (180°F).
- Sizes up to 42-10 require 2.5m (98.43") static head.
- Sizes 52-11 and larger require 3m (118.11") static head.

AG	Armstrong Glandless
E	Electronic self regulating speed control
T	Twin pump with duty/standby
First digit	Nominal Bore size: 2 = 25 mm (1") 3 = 32 mm (1¼") 4 = 40 mm (1½") 5 = 50 mm (2") 6 = 65 mm (2½") 8 = 80 mm (3")
Second digit	Number of Poles in Motor: 2 = 2 pole 4 = 4 pole
Third and fourth digits	Maximum Head Generated E.g. 05 = 50 kPa
Last digit	Power supply 1=230/1/50

► AG Sound Pressure Level

- 43 dBa at 1 m (40") distance - sizes up to AG and AGET52-07
- 55 dBa at 1 m (40") distance - sizes AG, AGET52-11 and larger.

► CE Approval

All products are CE marked and approved in line with EN60-335-2-51.

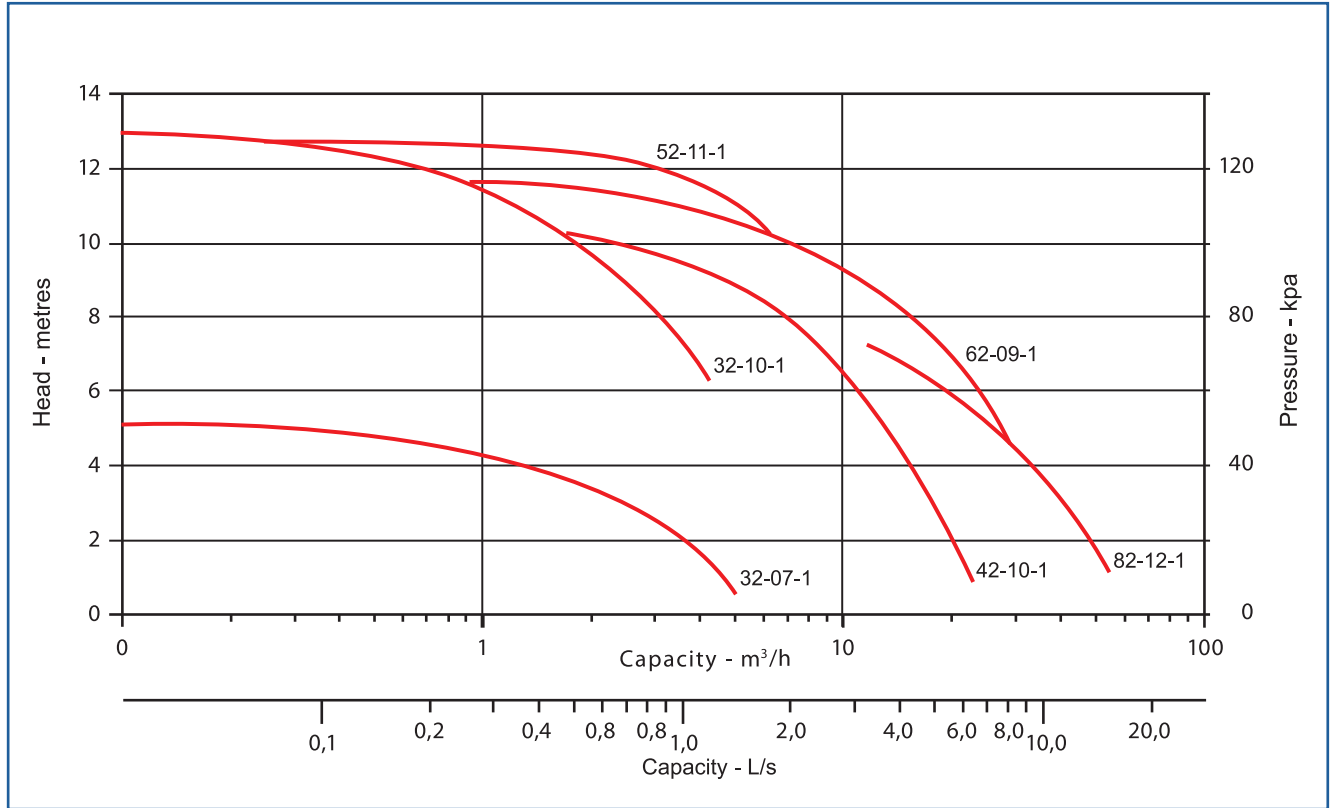
► Design Limits

Temperature: Maximum 110°C (230°F) on heating applications
Minimum 15°C (59°F)

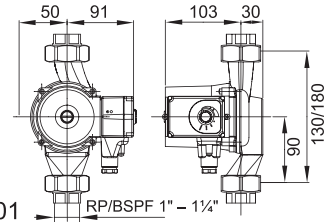
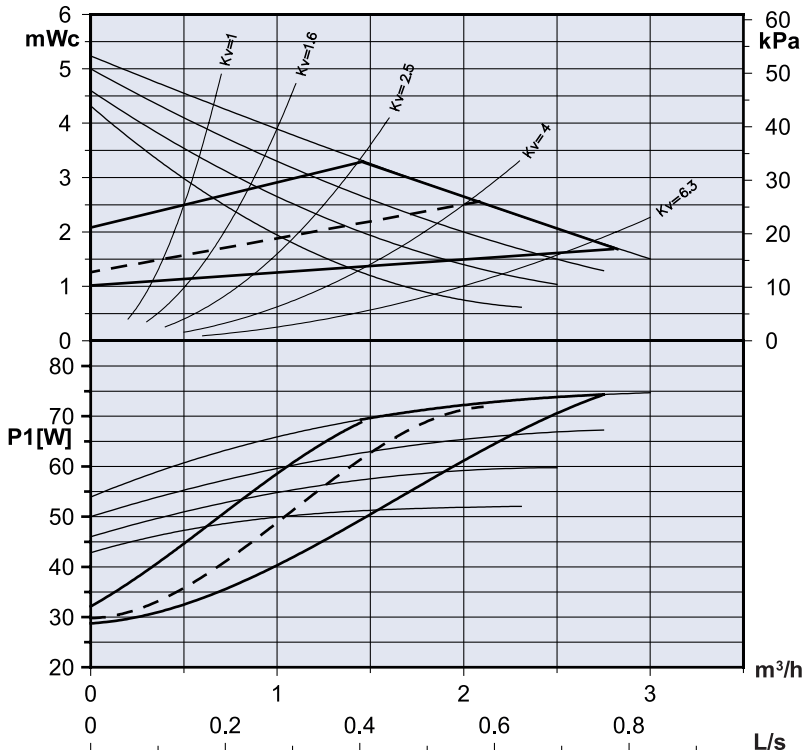
Pressure: Maximum 10 bar (145 psi)

Glycol %: Maximum 50% aqueous solution

► Performance Curves



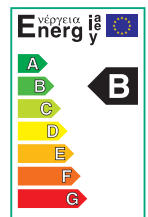
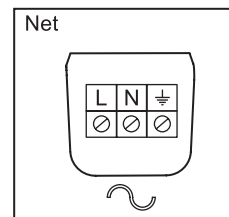
For higher capacities and developed head beyond the chart above, use the Armstrong glanded IVS Sensorless ranges of 4380 single head and 4392 twin in line pumps. These IVS Sensorless pumps are also available in easy maintenance split coupled format, 4300 single head split coupled and 4312 twin head split coupled. All offer automatic speed adjustment, giving energy and cost savings, needing neither transducers nor a BMS control signal.



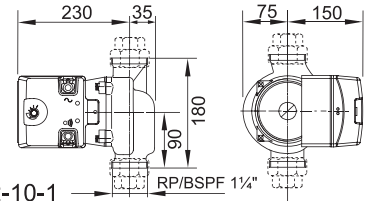
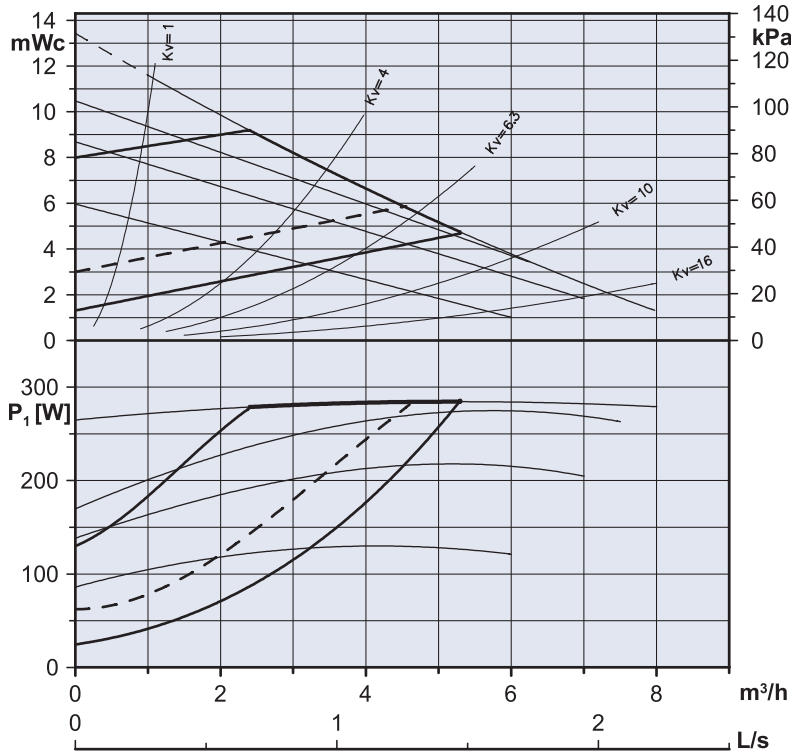
AGE(T)32-07-01

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	29	0,13
Auto max.	75	0,35
Speed 1-4	50-75	0,25-0,35
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	3,1 (SINGLE)	7,8 (TWIN)

Electrical connection



AGE Series Circulators

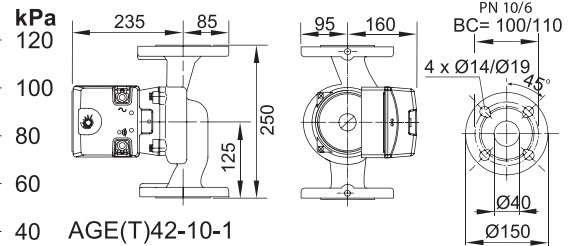
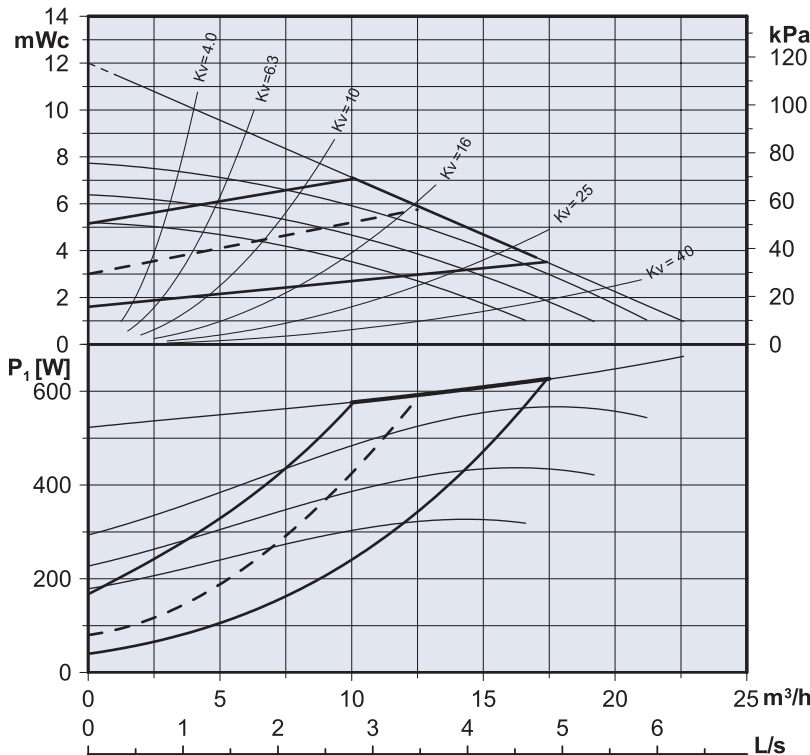
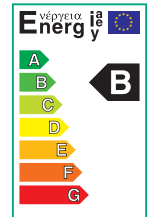
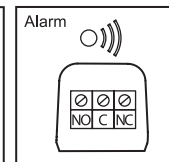
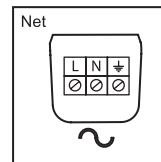


AGE(T)32-10-1

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	35	0,30
Auto max.	290	1,75
Speed 1-4	125-290	0,85-1,75

TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Temperature Range		
Cold water model	-5°C	90°C
Water temp. max. [°C]	110	90
Ambient temp. max. [°C]	30	40
NPSH (bar)	80°C - 0,5	95°C - 1,5
Kg (netto)	8,6 (SINGLE)	15,2 (TWIN)

Electrical connection

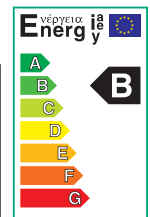
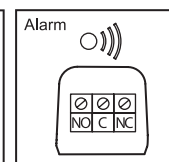
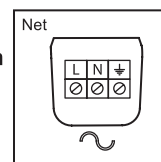


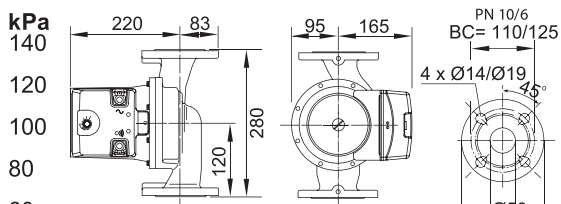
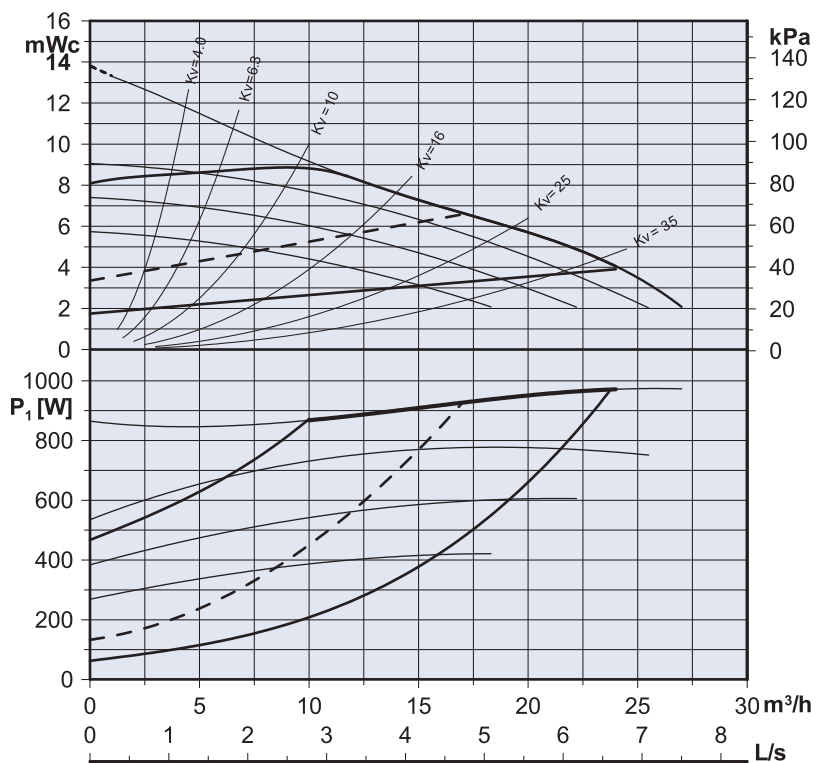
AGE(T)42-10-1

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	40	0,35
Auto max.	650	3,70
Speed 1-4	340-650	2,50-3,70

TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Temperature Range		
Water temp. max. [°C]	110	90
Ambient temp. max. [°C]	30	40
NPSH (bar)	80°C - 0,4	95°C - 1,2
Kg (netto)	16,5 (SINGLE)	27 (TWIN)

Electrical connection



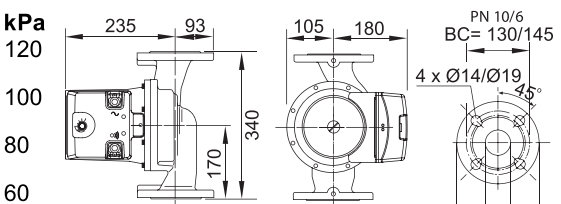
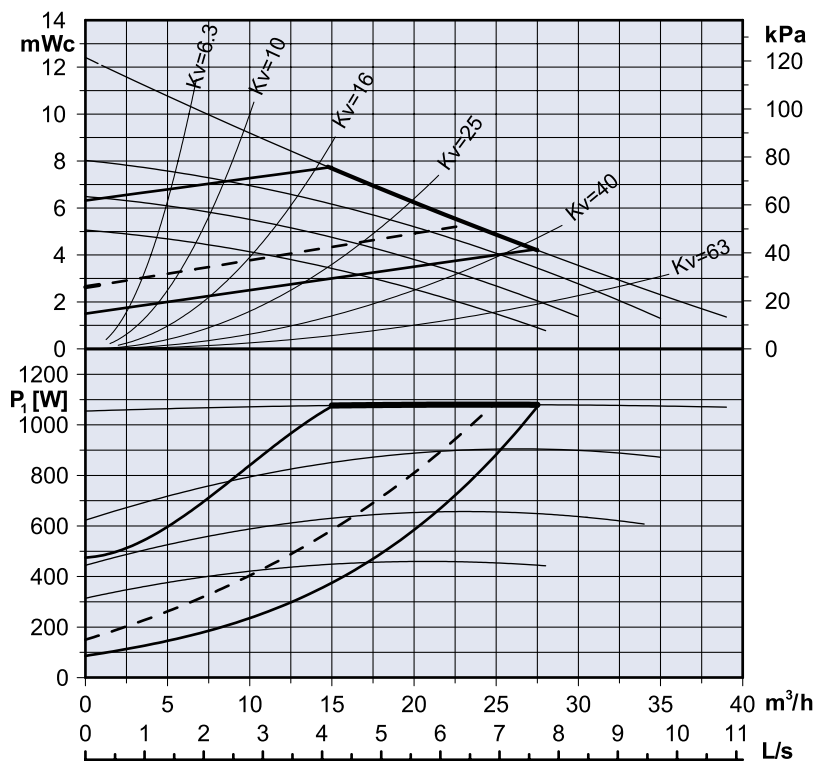
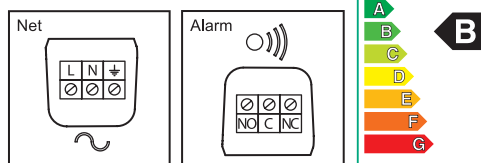


AGE(T)52-11-1

1x230 V, 50Hz, IEC38	P ₁ [W]	I[A]
Auto min.	65	0,60
Auto max.	980	7,00
Speed 1-4	425-980	3,0-7,0

TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Temperature Range		
Water temp. max. [°C]	110	90
Ambient temp. max. [°C]	30	40
NPSH (bar)	80°C - 0,4	95°C - 1,2
Kg (netto)	24,5 (SINGLE)	42 (TWIN)

Electrical connection

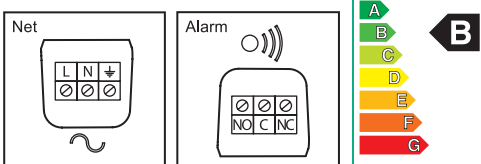


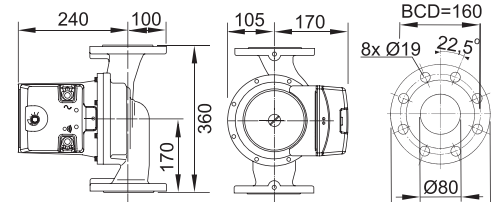
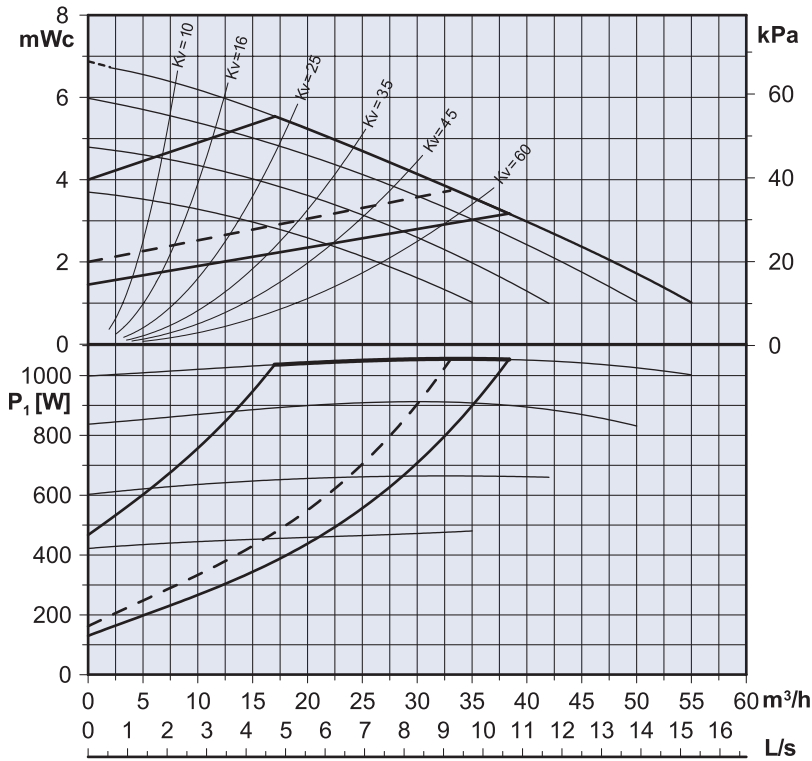
AGE(T)62-09-1

1x230 V, 50Hz, IEC38	P ₁ [W]	I[A]
Auto min.	90	0,70
Auto max.	1090	7,70
Speed 1-4	460-1090	3,35-7,70

TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Temperature Range		
Water temp. max. [°C]	110	90
Ambient temp. max. [°C]	30	40
NPSH (bar)	80°C - 0,8	95°C - 1,5
Kg (netto)	36,5 (SINGLE)	54 (TWIN)

Electrical connection





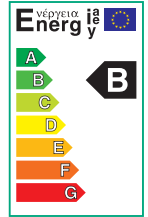
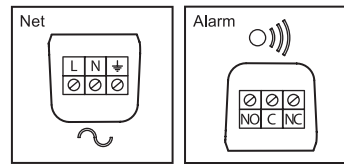
AGE(T)82-12-1

PN 10 option PN 6

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	120	1,20
Auto max.	1080	8,00
Speed 1-4	460-1080	3,60-8,00

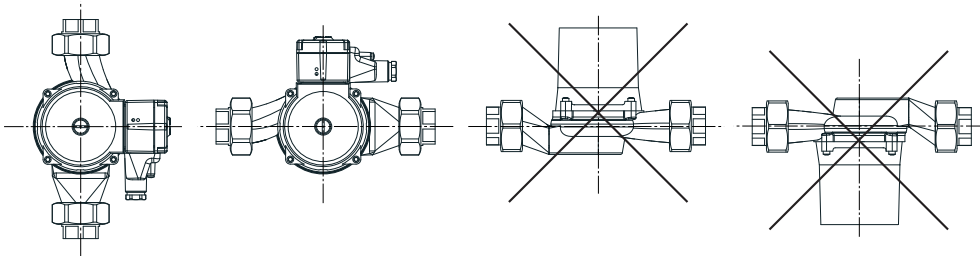
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Temperature Range		
Water temp. max. [°C]	110	90
Ambient temp. max. [°C]	30	40
NPSH (bar)	80°C - 0,8	95°C - 1,5
Kg (netto)	41,5 (SINGLE)	70 (TWIN)

Electrical connection



► Installation Orientations

► AGE 32-07-01



► AGE 32-10-1, AGE 42-10-1, AGE 52-11-1, AGE 62-09-1, AGE 82-12-1

