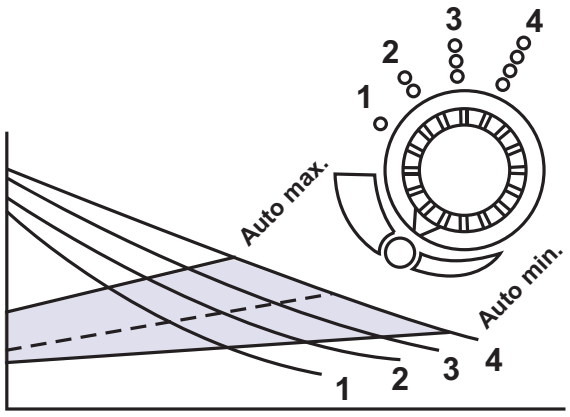
ARMSTRONG

AGEplus Series Circulators

FILE NO:	10.127UK
DATE:	May 18, 2011
SUPERSEDES:	New
DATE:	New

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

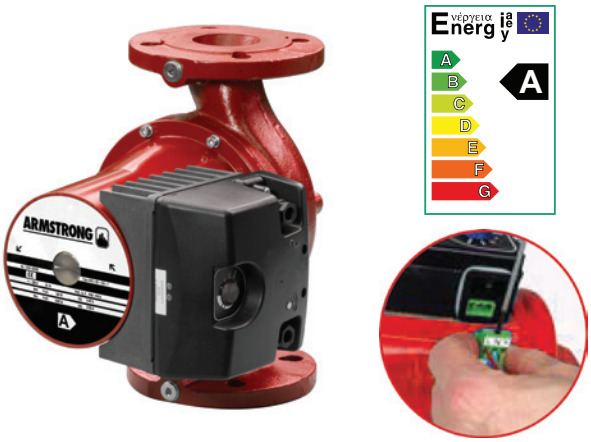
With flow rates to 14 L/s (190 USgpm) and heads to 80kPa (11.6 psi), all are designed to handle working pressures up to 10 bar (145.0 psi) and temperatures up to 70°C, 90°C or 110°C (158°F, 194°F or 230°F), depending on the size.

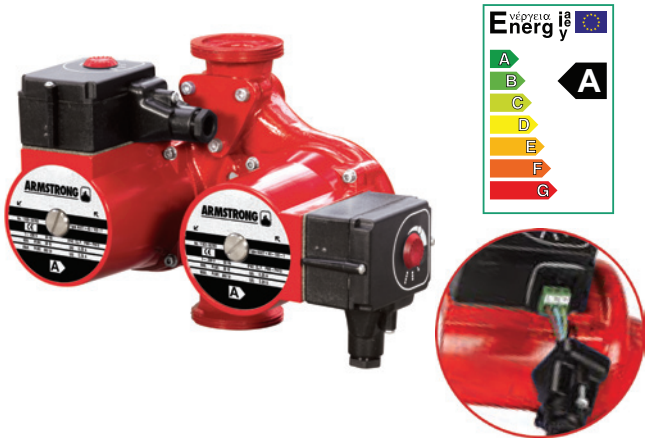
Low Cost, Low Noise & Long Life

Running costs can be reduced, pipe noise levels minimised and life time extended by the automatic speed control of AGEplus, 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 A rated

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





AGEplus Series Circulators

▶Features and Benefits

▶Risk Minimisation
Risk is reduced by specifying the AGETplus twin circulator. The AGETplus twin circulator combines two circulators in a common casting, 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 casting prevents back flow through the standby unit. AGETplus and AGE share the same flange to flange dimensions.

▶Pipeline Mounting Arrangements
- ▶ All types of AGEplus circulators must be mounted with the shaft in the horizontal position.
- ▶ Motor terminal box must be uppermost.
- ▶ AGETplus 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 AGEplus circulators. Flanges on all AGEplus 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 AGEplus 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 AGEplus circulators have low static head requirements, allowing for mounting in vented and unvented systems.

▶Product Nomenclature Explanation

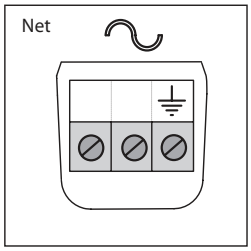
AG	Armstrong Glandless
Eplus	Electronic self regulating speed control
T	Twin pump with duty/standby
First digit Second digit	Nominal Bore size: 30 = 30 mm (1¼") 40 = 40 mm (1½") 50 = 50 mm (2") 65 = 65 mm (1½") 80 = 80 mm (3")
Third digit Fourth digit Fifith digit	Maximum Head Generated E.g. 120 = 120 kPa

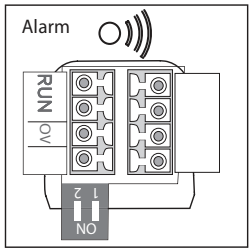
▶AG Sound Pressure Level
- ▶ 35 dBa at 1 m (40") distance - sizes up to AGEplus and AGETplus 40-140
- ▶ 50 dBa at 1 m (40") distance - sizes AGEplus, AGETplus 50-140 and larger.

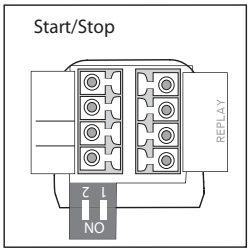
▶CE Approval
All products are CE marked and approved in line with EN60-335-2-51.

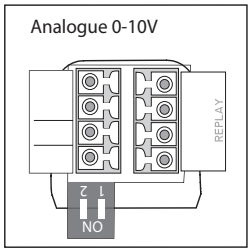
▶Design Limits
Temperature: Maximum 110°C (230°F) on heating applications
Minimum 15°C (59°F)
Pressure: Maximum 10 bar (145 psi)
Glycol %: Maximum 50% aqueous solution

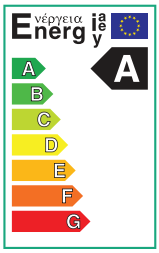
▶Electrical connection and Signals









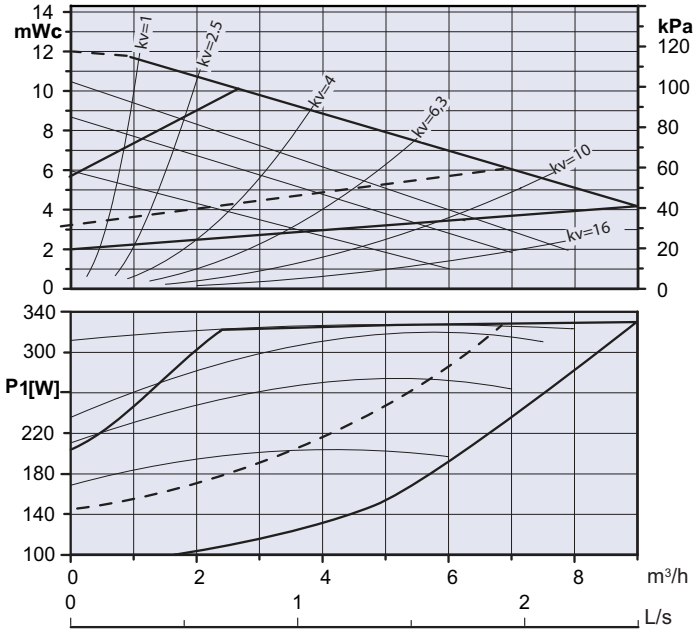


▶Performance Curves

AGEplus 30-120

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	30	0,25
Auto max.	340	2,10
Speed 1- 4	180-340	1,2-2,10

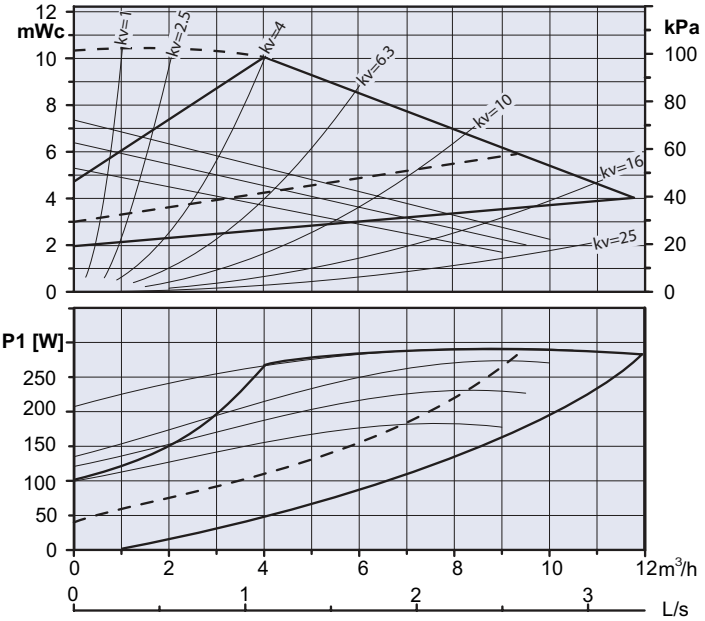
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	8,60	



AGEplus 40-100

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	30	0,25
Auto max.	350	2,20
Speed 1- 4	190-350	1,2-2,20

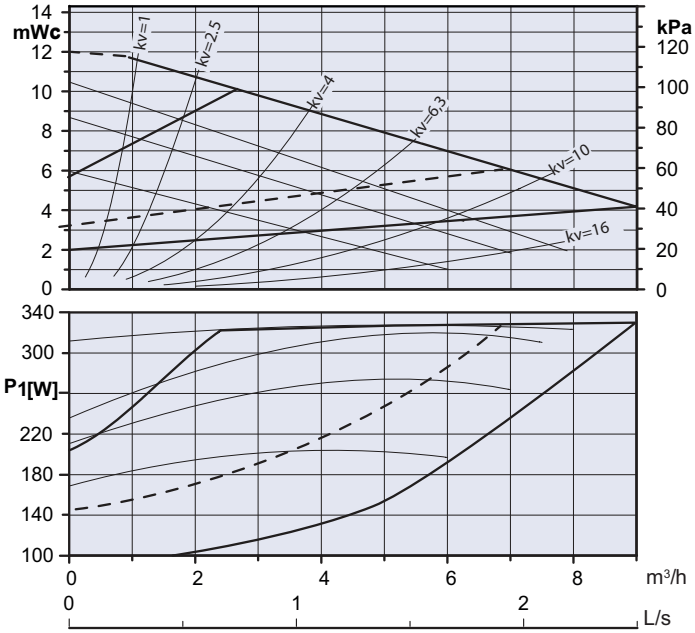
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	12,80	



AGETplus 30-120

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	30	0,25
Auto max.	340	2,10
Speed 1- 4	180-340	1,2-2,10

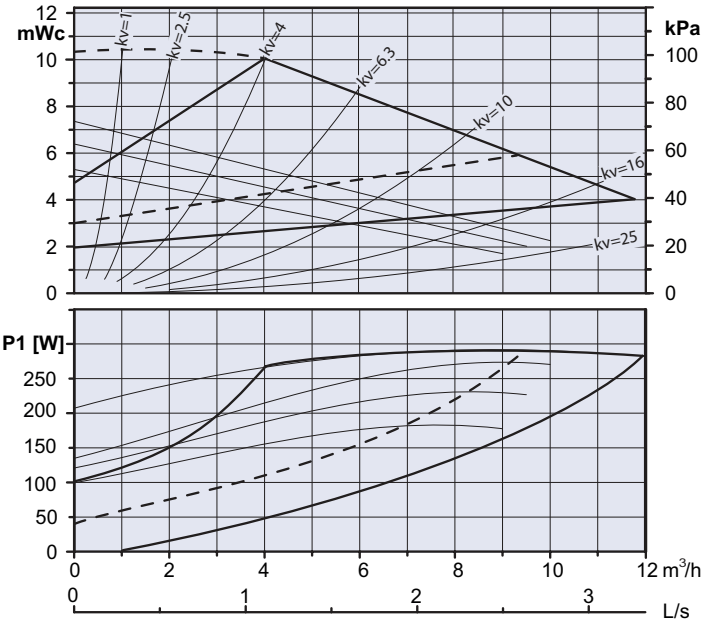
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	15,20	



AGETplus 40-100

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	30	0,25
Auto max.	350	2,20
Speed 1- 4	190-350	1,2-2,20

TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	21,98	

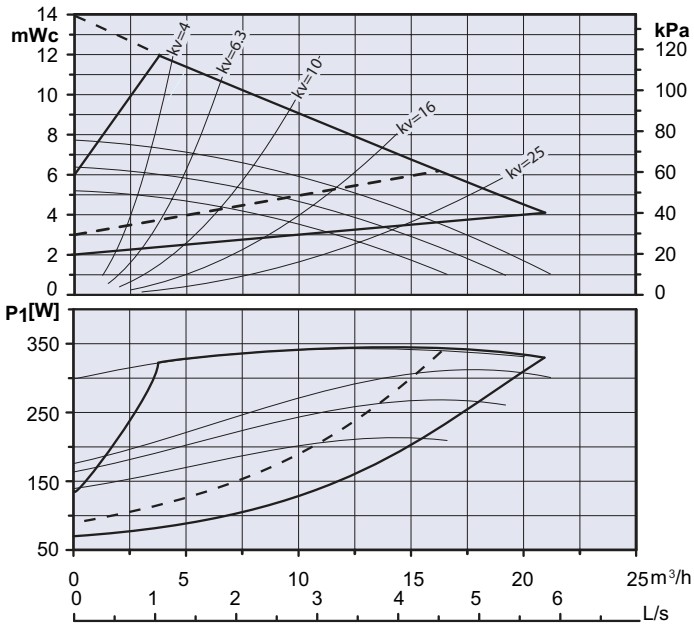


AGEplus Series Circulators

AGEplus 40-140

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	60	0,90
Auto max.	700	4,00
Speed 1- 4	300-700	2,00-4,00

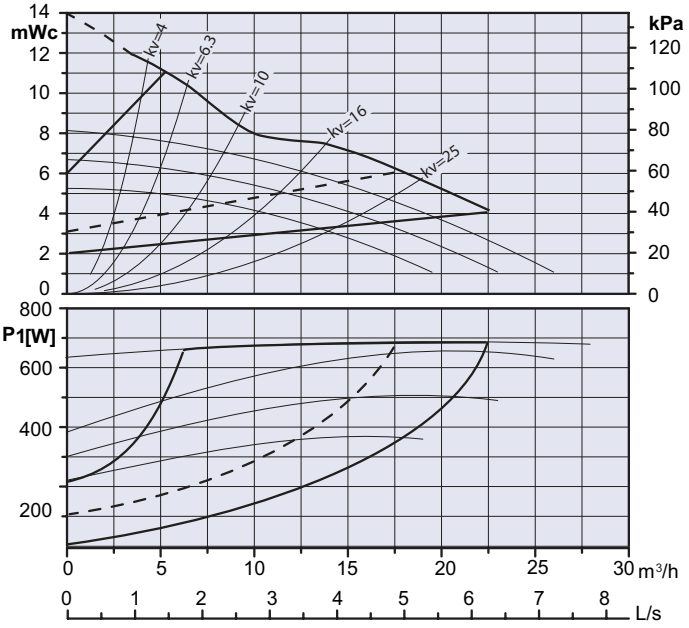
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	16,50	



AGEplus 50-140

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	60	0,40
Auto max.	700	4,60
Speed 1- 4	300-700	2,00-4,60

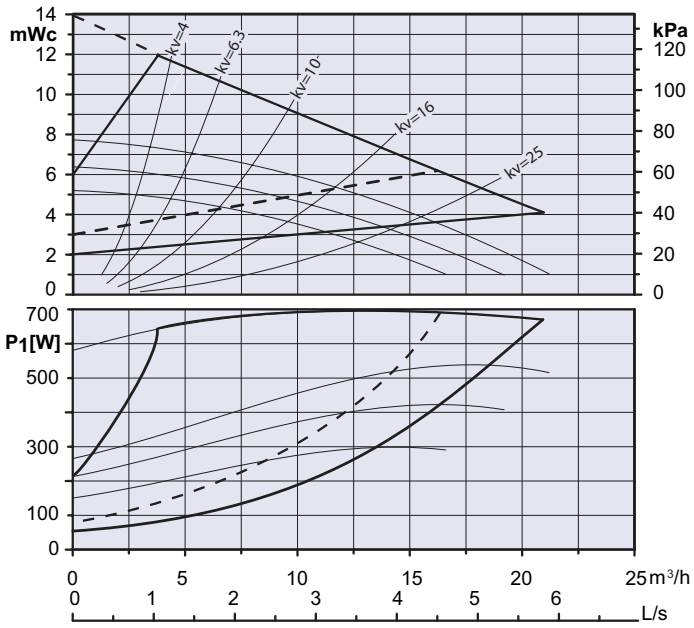
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	19,60	



AGETplus 40-140

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	60	0,90
Auto max.	700	4,00
Speed 1- 4	300-700	2,00-4,00

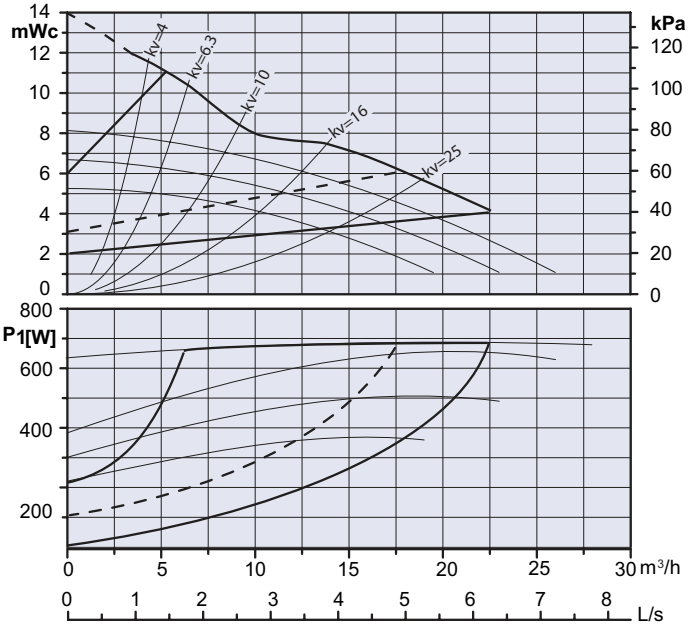
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	28,92	



AGETplus 50-140

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	60	0,40
Auto max.	700	4,60
Speed 1- 4	300-700	2,00-4,60

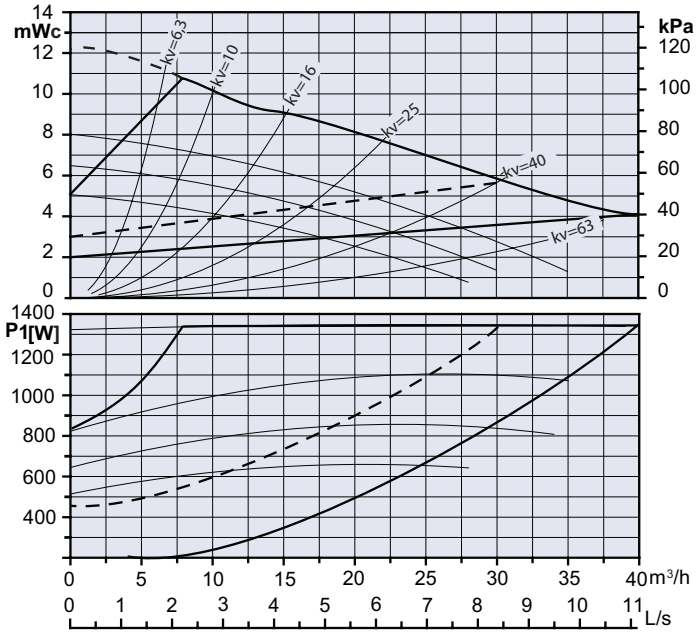
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	34,14	



AGEplus 65-120

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	100	0,90
Auto max.	1400	9,50
Speed 1- 4	580-1400	4,00-9,50

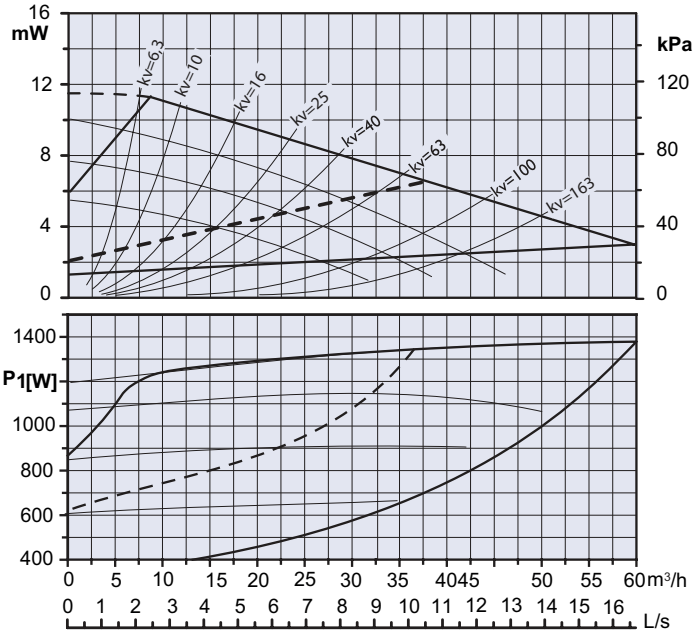
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	36,50	



AGEplus 80-120

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	150	1,30
Auto max.	1400	9,00
Speed 1- 4	800-1400	5,70-9,00

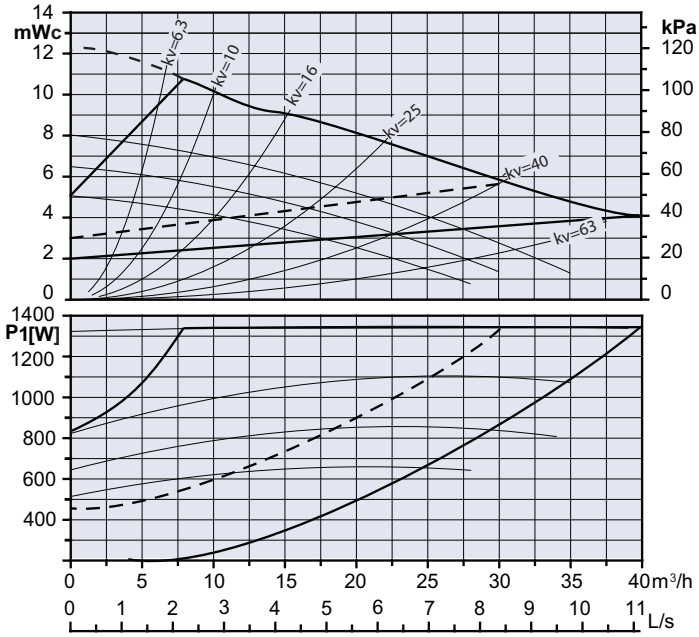
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	41,50	



AGETplus 65-120

1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	100	0,90
Auto max.	1400	9,50
Speed 1- 4	580-1400	4,00-9,50

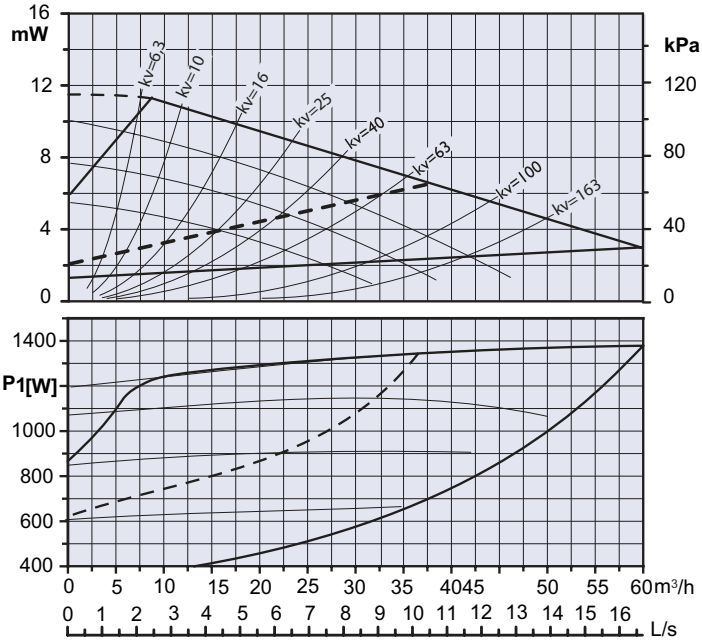
TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	53,00	



AGETplus 80-120

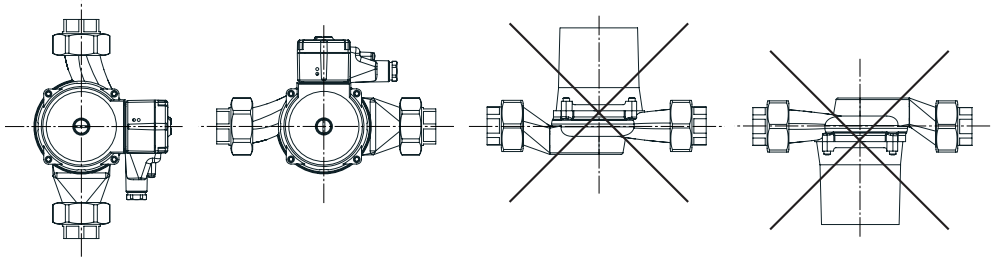
1x230 V, 50Hz, IEC38	P1[W]	I[A]
Auto min.	150	1,30
Auto max.	1400	9,00
Speed 1- 4	800-1400	5,70-9,00

TF 110 - CEN 335 - 2 - 51	+15°C	+110°C
Kg (netto)	67,50	

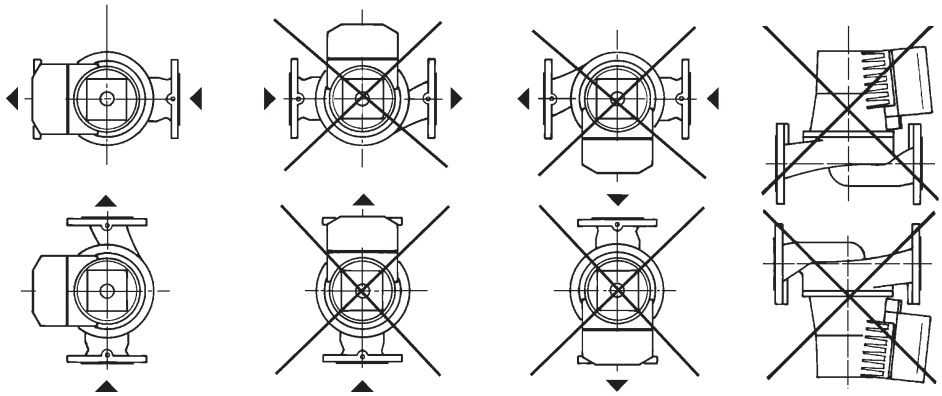


▶Installation Orientations

▶AGEplus 30-120



▶AGEplus 40-100, AGEplus 40-140, AGEplus 50-140, AGEplus 65-120, AGEplus 80-120



▶Dimensions

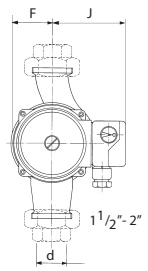
Type	A	B	C	D	d	F	H	J	PN 6		PN 10		Weight
									K	L	K	L	Single
AGEplus 30-120-1	180 (7.09)	90 (3.54)	35 (1.38)	150 (5.91)	1¼" BSPF	75 (2.95)	230 (9.06)	150 (5.91)	-	-	-	-	8.6 (6.83)
AGEplus 40-100-1	250 (9.84)	125 (4.92)	75 (2.95)	150 (5.91)		75 (2.95)	215 (8.46)	150 (5.91)	100 (3.94)	14 (0.55)	110 (4.33)	19 (0.75)	12.8 (28.22)
AGEplus 40-140-1	250 (9.84)	125 (4.92)	85 (3.35)	125 (4.92)		95 (3.74)	235 (9.25)	160 (6.30)	100 (3.94)	14 (0.55)	110 (4.33)	19 (0.75)	16.5 (36.38)
AGEplus 50-140-1	280 (11.02)	140 (5.51)	85 (3.35)	165 (6.50)		95 (3.74)	235 (9.25)	160 (6.30)	110 (4.33)	14 (0.55)	125 (4.92)	19 (0.75)	19.6 (43.21)
AGEplus 65-120-1	340 (13.39)	170 (6.69)	93 (3.66)	185 (7.28)		105 (4.13)	235 (9.25)	180 (7.09)	130 (5.12)	14 (0.55)	145 (5.71)	19 (0.75)	36.5 (80.47)
AGEplus 80-120-1	360 (14.17)	170 (6.69)	100 (3.94)	200 (7.87)		105 (4.13)	240 (9.45)	170 (6.69)	-	-	160 (6.30)	19 (0.75)	41.5 (91.49)

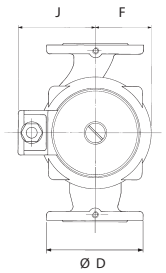
Measurements in mm (inches), weights in kg (lbs).

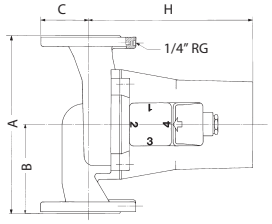
Type	A1	B1	C1	D	d	E	G	H	PN 6		PN 10		Weight
									K	L	K	L	Twin
AGETplus 30-120-1	180 (7.09)	75 (2.95)	50 (1.97)		2" BSPF	160 (6.30)	432 (17.01)	224(8.82)	-	-	-	-	15.2 (33.51)
AGETplus 40-100-1	250 (9.84)	105(4.13)	75 (2.95)	150 (5.91)		200 (7.87)	436 (17.17)	215(8.46)	100 (3.94)	14 (0.55)	110 (4.33)	19 (0.75)	22.0 (48.50)
AGETplus 40-140-1	250 (9.84)	105(4.13)	75 (2.95)	150 (5.91)		200 (7.87)	520 (20.47)	230 (9.06)	100 (3.94)	14 (0.55)	110 (4.33)	19 (0.75)	28.9 (63.71)
AGETplus 50-140-1	280 (11.02)	120 (4.72)	82.5 (3.25)	165 (6.50)		200 (7.87)	490 (19.29)	197.5(7.78)	110 (4.33)	14 (0.55)	125 (4.92)	19 (0.75)	34.1 (75.18)
AGETplus 65-120-1	340 (13.39)	140 (5.51)	92.5(3.64)	185 (7.28)		240 (9.45)	505 (19.88)	240 (9.45)	130 (5.12)	14 (0.55)	145 (5.71)	19 (0.75)	53.0 (116.84)
AGETplus 80-120-1	360 (14.17)	160 (6.30)	80 (3.15)	200 (7.87)		275 (10.83)	513 (20.20)	260(10.24)	-	-	160 (6.30)	19 (0.75)	67.5 (148.81)

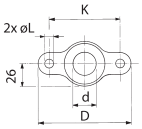
Measurements in mm (inches), weights in kg (lbs).

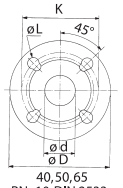
Single pump AGEplus



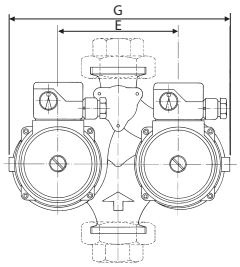


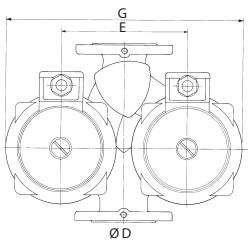


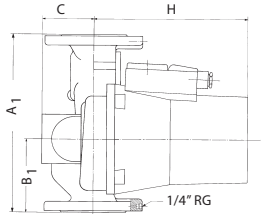


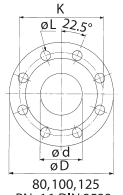


Twin pump AGETplus









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