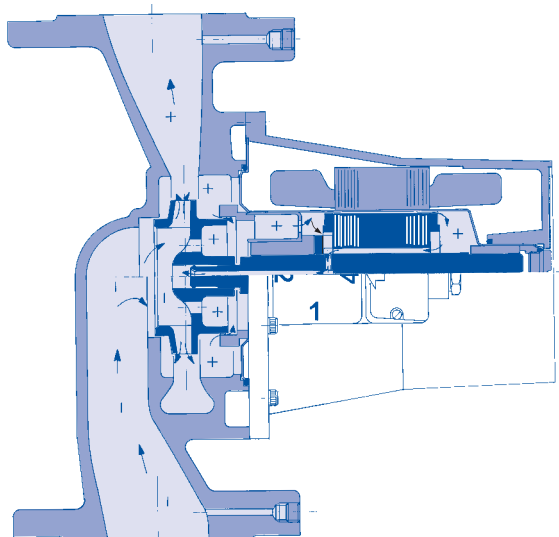


EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS



- Unique 1-2-3 modular pump construction
- Clearly visible multi-speed electrical regulator
- Most models have built-in thermal overload protection
- Single and three phase motors
- Wide range of optional controls available
- Same pump suitable for heating or chilled water
- H.W.S. iron pumps
- H.W.S. bronze pumps
- Boiler shunt pumps
- 1400 and 2800 r.p.m. pumps
- Flanges, up to 65 mm, double drilled as standard for maximum interchangeability
- Single-case twin pumps
- IsoBar™ - circulator range - with integral electronic regulation is also available

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS



Construction

EV circulators are designed with the unique 1-2-3 modular pump construction, i.e. the pump consists of three assemblies, the pump casing, the rotating element and the stator. This together with the high efficiency of the motor and the use of recycleable materials, means that great attention has been paid to the environment. An advanced lubrication system, which gives efficient cooling of the motor, together with a hardened stainless steel shaft, substantial carbon bearings and a one-piece can arrangement, all accurately machined, ensures very quiet operation and longer life.

Adjustment of capacity and energy savings

The motor and pump casing are designed for maximum efficiency. In addition EV circulator can be adjusted to give 3 or 4 positive pump curves, via the clearly visible multi-speed selector switch. This ensures total flexibility and is the only adjustment needed to secure maximum energy saving and minimum noise level. Commercial EV circulators are 4-speed and domestic EV circulators are 1- and 3-speed.



Field of application

Dark blue pumps for heating/chilled water. Yellow pumps for secondary hot water applications. Temperature range -15°C to +120°C. In secondary hot water applications it is recommended that water temperature does not exceed 65°C, to minimise lime deposit. Maximum content of Glycol 50%. Maximum working pressure 10 Bar.

“TUT” anti-lime system in HWS pumps

The life of a secondary hot water circulating pump can be extended if the limescale build-up in its rotor bearing area can be minimised. Normal raw water contains a certain amount of lime which will precipitate out as the temperature increases (max. recommended HWS water temp. 65°C). Smedegaard's patented answer to this problem is to fit a TUT pressure equalising seal, manufactured in brass and stainless steel, to all HWS "V" and "VZ" secondary glandless pumps. This seal reduces the number of water changes in the rotor chamber and hence the amount of lime deposited.

Pump medium

Clean, nonviscous, nonaggressive and nonexplosive fluids without any solids or fibres. Antifreeze without any mineral oil. If any liquid other than water is being pumped, we recommend that you contact **Smedegaard** or their representatives as the pump characteristics may change. Special models available upon request.

Materials of construction

Pump:	Cast iron or bronze
Impeller:	Cast iron/Polysulphone/bronze
Shaft:	Stainless steel
Can:	Stainless steel
Bearings:	Carbon
“O” Rings:	EPDM rubber

Model identification

EV	Glandless Range
5	Internal port dia. 50mm (2")
125	Nominal impeller dia. in mm
4	Motor 4-pole (1400 rpm.)
2	Motor 2-pole (2800 rpm.)
C	Dark blue heating/chilled pump
CD	Dark blue single-case twin pump
V	Yellow iron pump for H.W.S. with lime content
VZ	Yellow bronze pump for H.W.S. with lime content
Z	Yellow bronze pump for H.W.S.

See availability of models on the individual curves and in the tables.

Impeller

All impellers are balanced to ensure that bearings are not influenced by any imbalance from within the pump, resulting in quieter operation and longer life.

Motor

Motors of glandless construction, with class F insulation, designed and produced by Smedegaard, are used with these pumps to ensure quiet operation and long life. Standard voltages are 1x230V, 3x230V, 3x400V, +6%, -10%, 50HZ (IEC 38). IP 42 for 3-speed motors and IP 44 for 4-speed motors.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS

It is possible to select a pump with 1400 rpm and 2800 rpm for the same duty. The 2800 rpm pump is smaller, lighter and less expensive than a 4-pole pump. However in high flow, low head shunt applications, ultra sensitive noise areas or where static head is limited, a 1400 rpm. pump is often advantageous.

Static head

Minimum static head required to avoid cavitation problems

1400 rpm. pumps	2 m at 82°C	4 m at 95°C
2800 rpm. up to 5-88-2	2,5 m at 82°C	5 m at 95°C
2800 rpm. from 5-95-2	3 m at 82°C	6 m at 95°C

Airborne sound pressure levels

Model EV 2-40-2 to EV 5-88-2, max 43 dB(A)
Model EV 5-95-2 to EV 12-135-4, max 55 dB(A)

Self regulating IsoBar circulators and automatic controls for EV

For the EV circulators, starters, changeover panels, night setback controls and remote controls are available. As an alternative to EV, the IsoBar range which infinitely and automatically adjust the capacity of the pump to the requirements of the system, is also available. See back page and separate brochures.

Insulation of the pump casing and the flanges

To avoid loss of heat and energy we recommend that the pump casing is insulated. Smedegaard has designed a professional insulation cover in polyurethane with optimum insulating properties and a smooth, washable surface. The insulation covers fits around the pump casing and the connections. They are easy to fit/retrofit and are available for most of the EV and IsoBar single circulators. See separate brochure.



Twin Pumps

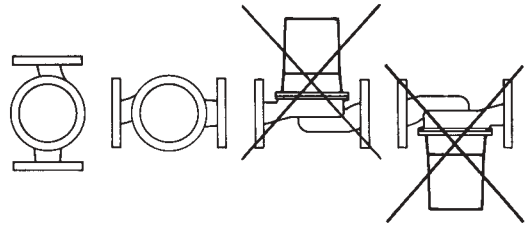
Most of the "EV" range can be supplied as single-case twins, model reference letters CD. Two motors and an additional non-return valve are built-in the same casting and in the majority of cases the overall dimensions and connections remain the same as a single pump.

"Y" Piece Manifolds

In addition to the single-case twin pumps, the SMEDEGAARD TAS TWIN "Y" PIECES with built-in isolating and non-return valves can be supplied for use with single pumps up to 125 mm (5"). These manifolds are suitable for temperatures up to 110°C with a maximum system pressure of 10 bar and a pump working pressure of 3 bar.

Installation

The pump should always be installed with the pump shaft horizontal and the motor terminal box must not be mounted in a downward position. The motor of the pump must not be insulated and it is very important that the drain holes (mainly for condensate) in the motor flange are unobstructed.



Direction of flow through the pump casing is indicated by an arrow. It is recommended that the pump is mounted in vertical pipework, pumping upwards. If flow, in a heating system, has to be downwards, an air vent must be fitted at the highest point before pump suction. HWS secondary pumps should never be fitted pumping downwards. If a single case twin pump is fitted in horizontal pipework an automatic air vent should be fitted in the plug provided on the side of pump casing. For further details see Smedegaard's installation guide for EV glandless range.

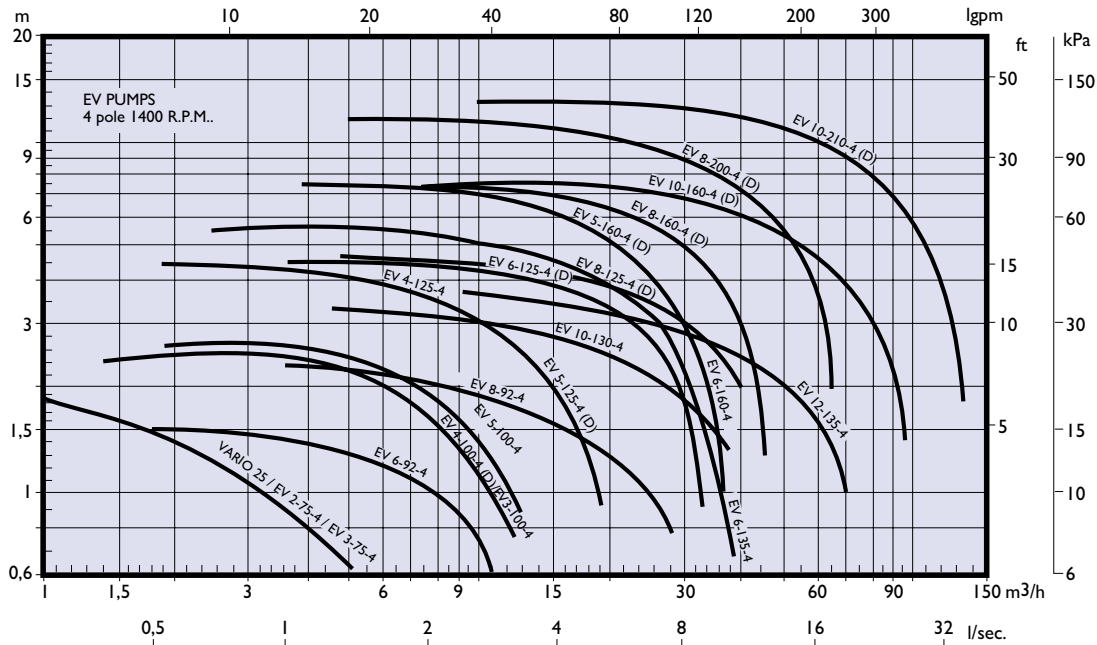
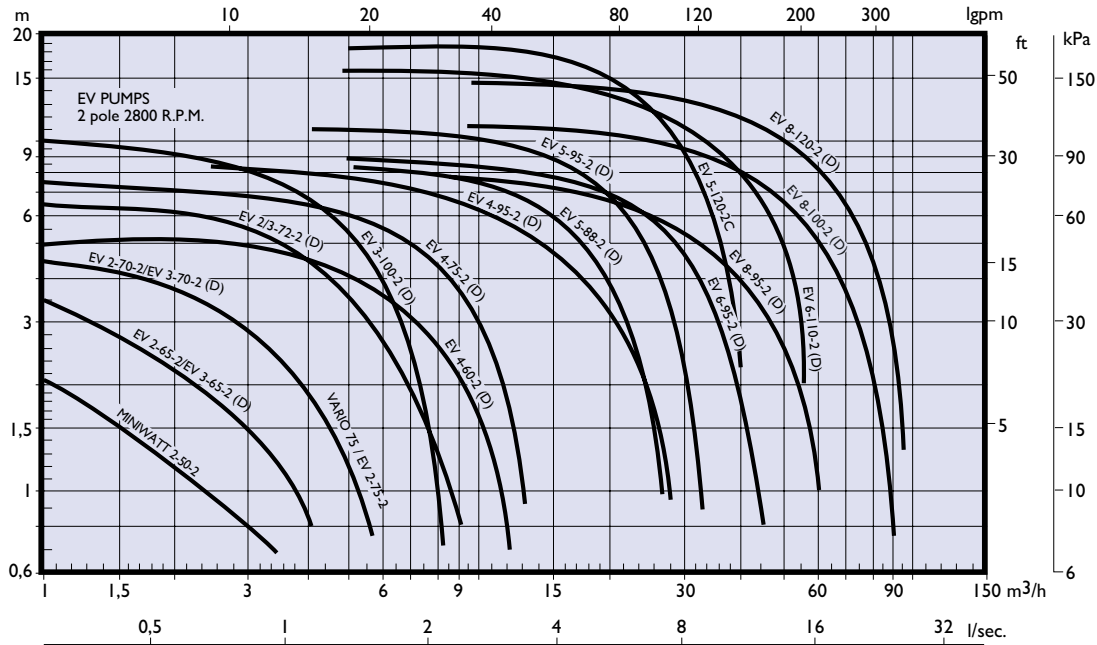
Electrical connection and motor protection

Pumps should be wired in accordance with existing regulations. Motor protection may not be required on EV2/3-40/65-70-2 pumps. The larger pumps need overload protection. When wired through a Smedegaard 132 starter, overload protection is automatically achieved immaterial of speed selected, using terminals "a" and "b" in the terminal box. For availability, see individual curves. If a standard motor starter is used, amp ratings/speed settings are shown on the individual pump curves and on the pump nameplates.

Approvals and standards

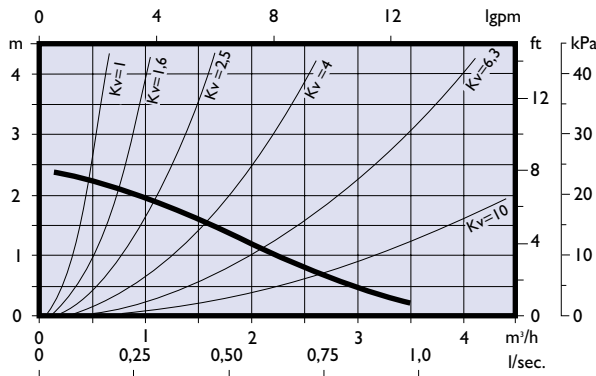
The EV pumps range is CE marked and approved according to EN 60-335-2-51. The hydraulic performance curves are published according to EN 1151/EN 29906 grade 2.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS

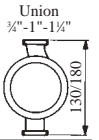


The models in this catalogue represent Smedegaard's complete glandless range, except IsoBar.
Details for larger duties using glanded pumps, see leaflets T, HIL, N and NM.
(D) = Available as twin pump.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS

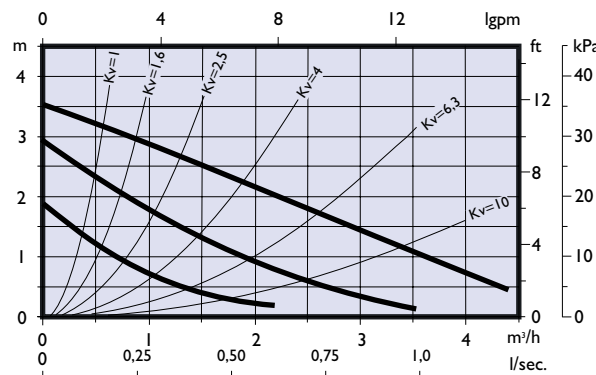


MINIWATT 2-50-2 / 3-50-2 C Heating/chilled
 MINIWATT 2-50-2 / 3-50-2 VZ HWS bronze
 MINIWATT 2-50-2 / 3-50-2 V HWS iron

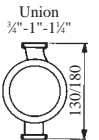


External motor protection is not needed with these pumps.

Speed No.	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
1	2350	25-35	0,16		
See wiring diagram			I.K	-	-

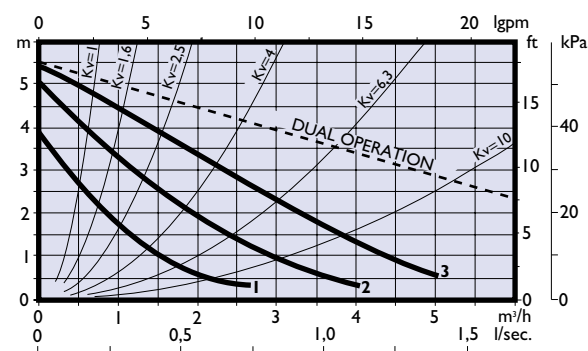


EV 2-65-2 C / EV 3-65-2 C Heating/chilled
 EV 3-65-2 CD Twin pump (1 1/2" RG.)
 EV 2-65-2 VZ / EV 3-65-2 VZ HWS bronze
 EV 2-65-2 V / EV 3-65-2 V HWS iron

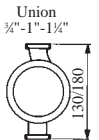


External motor protection is not needed with these pumps.

Speed No.	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
3	2350	50-65	0,30	0,34	0,20
2	1850	40-50	0,23	-	-
1	1200	30-35	0,16	-	-
See wiring diagram			I.K	H	G

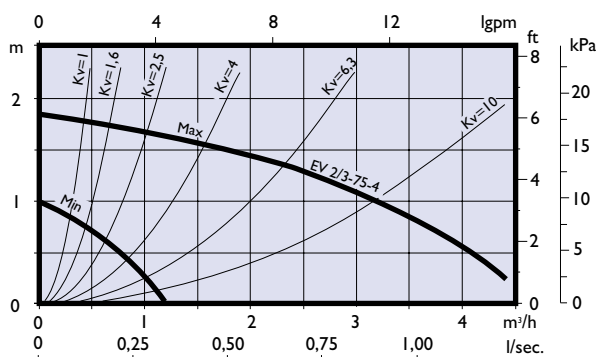


EV 2-70-2 C / EV 3-70-2 C Heating/chilled
 EV 3-70-2 CD Twin pump (1 1/2" RG.)
 EV 2-70-2 VZ / EV 3-70-2 VZ HWS bronze
 EV 2-70-2 V / EV 3-70-2 V HWS iron

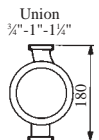


External motor protection is not needed with these pumps.

Trin	O/min.	Optagen Effekt	Fuldlaststrøm Amp.		
			1 x 230	3 x 230	3 x 400
3	2350	90-115	0,55	0,43	0,25
2	1850	65-85	0,40		
1	1200	45-55	0,25		
See wiring diagram			I.K	H	G



EV2-75-4C / EV3-75-4C Heating/chilled
 EV2-75-4VZ / EV3-75-4VZ HWS bronze
 EV2-75-4V / EV3-75-4VZ HWS iron

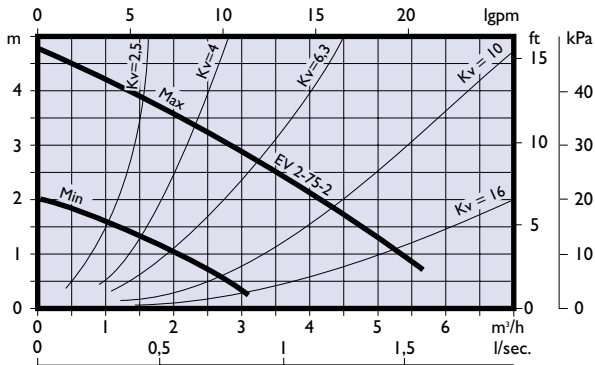


External motor protection is not needed with these pumps.

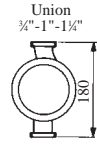
Speed No.	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
1	1400	70-80	0,43	0,35	0,22
See wiring diagram			D	G	H

Capacity curves according to EN 1151/29906 grade 2. The capacities of the twin pumps are 10% less than the single pump curves shown.

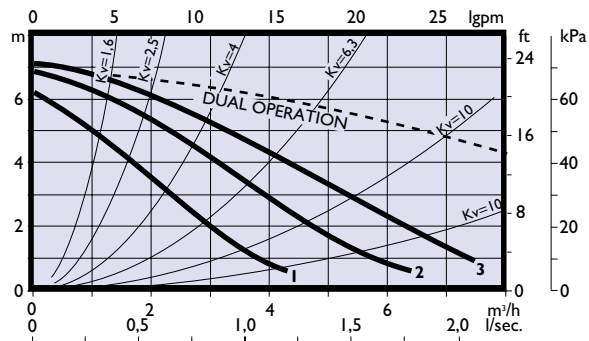
EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS



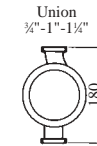
EV 2-75-2C / EV3-75-4C Heating/chilled
 EV 2-75-2VZ / EV3-75-4VZ HWS bronze
 EV 2-75-2V / EV3-75-4V HWS iron



Speed No.	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
1	2800	110-150	0,80	0,70	0,40
See wiring diagram					

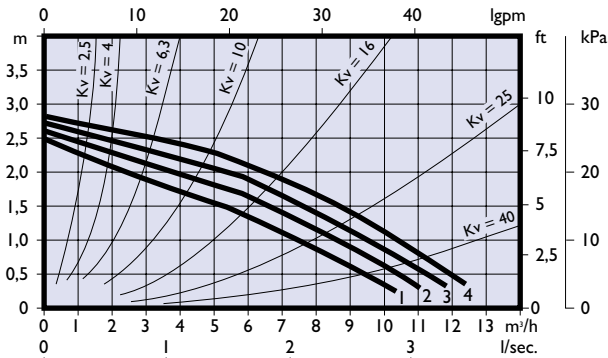


EV 2-72-2C / EV 3-72-2 C Heating/chilled
 EV 2-72-2CD / 3-72-2 CD Twin pump
 EV 2-72-2VZ / 3-72-2 VZ HWS bronze
 EV 2-72-2V / 3-72-2 V HWS iron

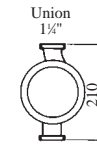


Speed No.	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2750	130-210	-	0,75	0,42
3	2700	130-200	0,95	0,60	0,33
2	2640	100-170	0,85	0,47	0,25
1	2340	85-115	0,60	0,38	0,20
See wiring diagram			I.K	3.E	3.E

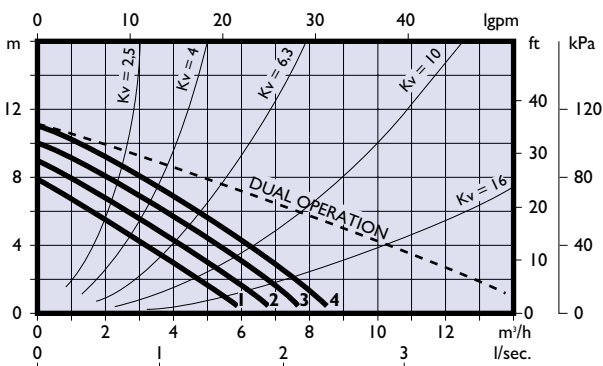
EV2-72-2 / EV3-72-2, 3x400V = 4 speed



EV 3-100-4 C Heating/chilled



Speed No.	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1200	180-230	0,90		0,60
3	1080	130-180	0,80		0,40
2	960	95-140	0,70		0,30
1	850	75-115	0,60		0,25
See wiring diagram					



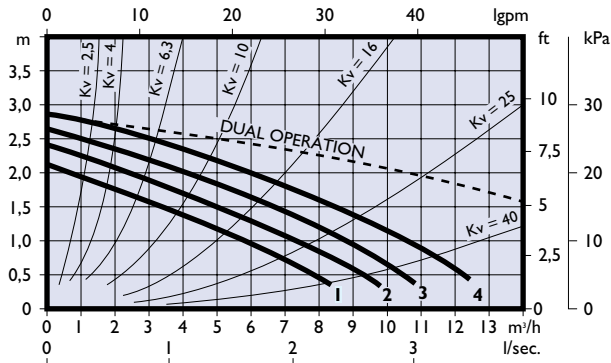
EV 3-100-2 C Heating/chilled
 EV 3-100-2 CD Twin pump
 EV 3-100-2 VZ HWS bronze
 EV 3-100-2 V HWS iron



Speed No.	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2750	200-290	1,40	1,25	0,55
3	2640	180-250	1,30	1,00	0,45
2	2480	150-210	1,20	0,80	0,37
1	2340	130-170	1,10	0,40	0,28
See wiring diagram			2.B	3.F	3.F

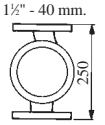
Capacity curves according to EN 1151/29906 grade 2. The capacities of the twin pumps are 10% less than the single pump curves shown.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS

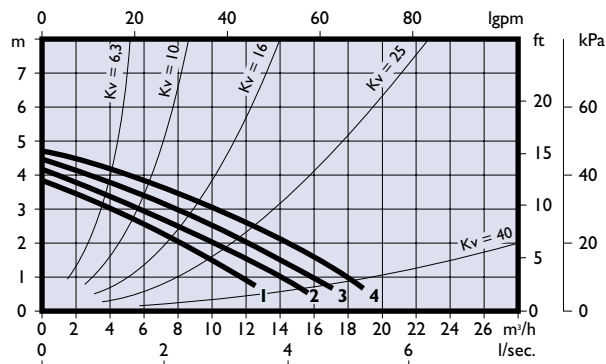


EV 4-100-4 C
EV 4-100-4 CD
EV 4-100-4 VZ
EV 4-100-4 V

Heating/chilled
Twin pump
HWS bronze
HWS iron

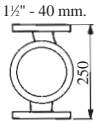


Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1200	140-190	0,85	0,70	0,48
3	1080	115-160	0,73	0,52	0,34
2	960	85-130	0,65	0,40	0,25
1	850	70-105	0,57	0,32	0,20
See wiring diagram			2.B	3.F	3.F

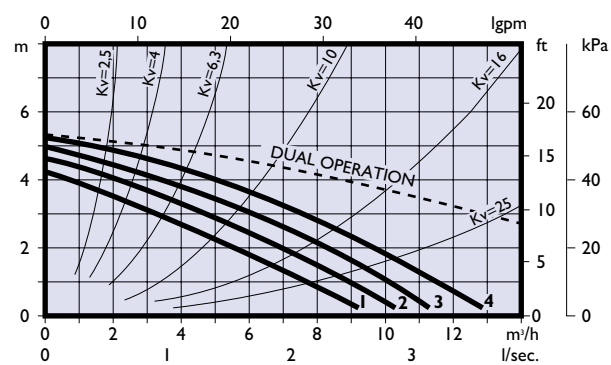


EV 4-125-4 C

Heating/chilled

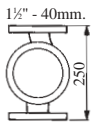


Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1340	190-325	1,75	1,55	0,85
3	1250	160-300	1,40	1,15	0,65
2	1100	135-250	1,30	0,90	0,53
1	980	115-215	1,15	0,75	0,43
See wiring diagram			3.C	3.F	3.F



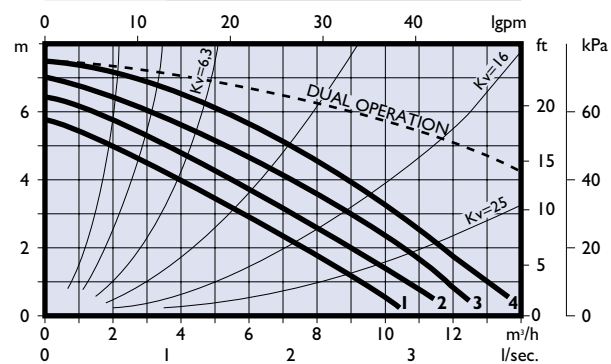
EV 4-60-2 C
EV 4-60-2 CD
EV 4-60-2 VZ
EV 4-60-2 V

Heating/chilled
Twin pump
HWS bronze
HWS iron



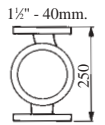
Note: Also available as single pump with pump casing port to port dimension 220 mm, model EV 4-67-2C.
1 x 230 V = 3 speed

Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2750	130-225	-	0,69	0,50
3	2640	95-188	1,00	0,55	0,36
2	2480	73-156	1,00	0,42	0,28
1	2340	64-128	0,88	0,34	0,23
See wiring diagram			1.K	3.E	3.E



EV 4-75-2 C
EV 4-75-2 CD
EV 4-75-2 VZ
EV 4-75-2 V

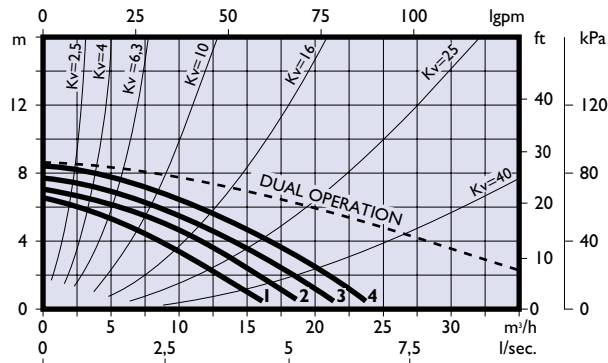
Heating/chilled
Twin pump
HWS bronze
HWS iron



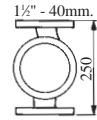
Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2750	130-300	1,35	1,25	0,55
3	2640	120-260	1,25	0,95	0,45
2	2480	100-220	1,15	0,80	0,37
1	2340	90-175	1,00	0,65	0,30
See wiring diagram			2.B	3.F	3.F

Capacity curves according to EN 1151/29906 grade 2. The capacities of the twin pumps are 10% less than the single pump curves shown.

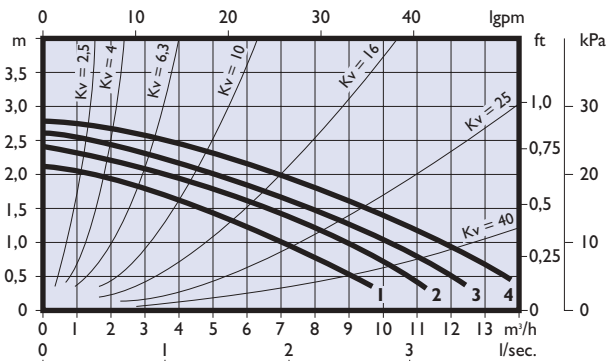
EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS



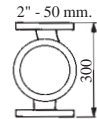
EV 4-95-2 C Heating/chilled
 EV 4-95-2 CD Twin pump
 EV 4-95-2 VZ HWS bronze
 EV 4-95-2 V HWS iron
 Note: Speed 3 is max duty of single phase pump.



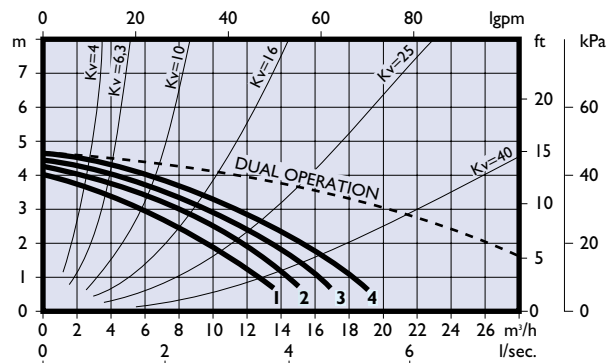
Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2650	330-580	2,50	1,90	1,10
3	2450	300-550	2,50	1,70	0,90
2	2270	280-500	2,40	1,50	0,80
1	1930	250-425	2,1	1,30	0,70
See wiring diagram			3.C	3.F	3.F



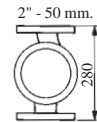
EV 5-100-4 C Heating/chilled
 EV 5-100-4 V HWS iron



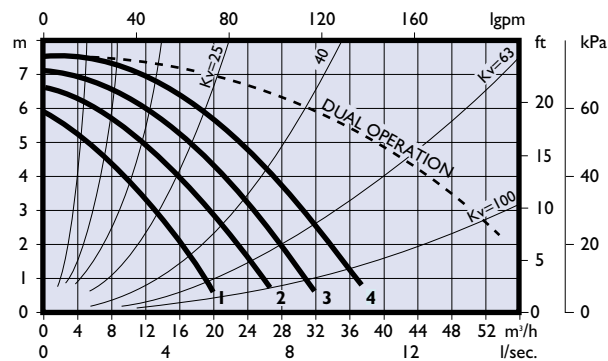
Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1200	140-200	0,85	0,75	0,48
3	1080	115-170	0,75	0,55	0,34
2	960	85-135	0,65	0,40	0,26
1	850	70-110	0,58	0,35	0,21
See wiring diagram			2.B	3.F	3.F



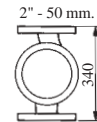
EV 5-125-4 C Heating/chilled
 EV 5-125-4 CD Twin pump
 EV 5-125-4 VZ HWS bronze
 EV 5-125-4 V HWS iron



Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1340	190-330	1,80	1,55	0,88
3	1250	160-300	1,40	1,15	0,67
2	1100	130-260	1,30	0,95	0,55
1	980	120-220	1,20	0,80	0,45
See wiring diagram			3.C	3.F	3.F



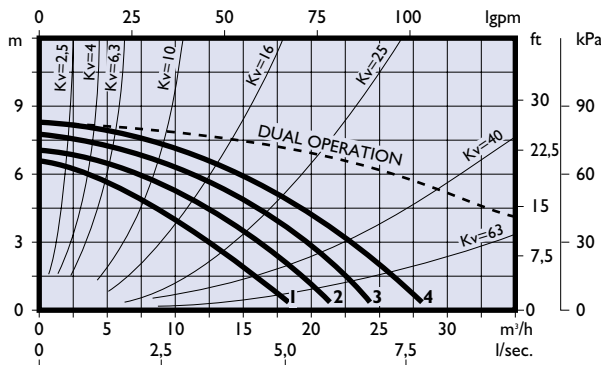
EV 5-160-4 C Heating/chilled
 EV 5-160-4 CD Twin pump



Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1360	428-900	5,20	3,55	2,00
3	1290	396-820	4,00	3,00	1,71
2	1210	344-680	3,00	2,48	1,45
1	1110	311-530	2,58	1,99	1,19
See wiring diagram			3.C	3.F	3.F

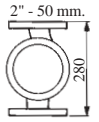
Capacity curves according to EN 1151/29906 grade 2. The capacities of the twin pumps are 10% less than the single pump curves shown.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS

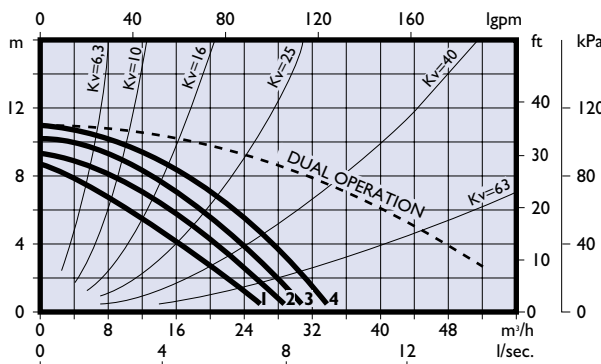


EV 5-88-2 C Heating/chilled
 EV 5-88-2 CD Twin pump
 EV 5-88-2 VZ HWS bronze
 EV 5-88-2 V HWS iron

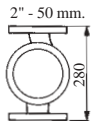
Note: Speed 3 is max duty of single phase pump.



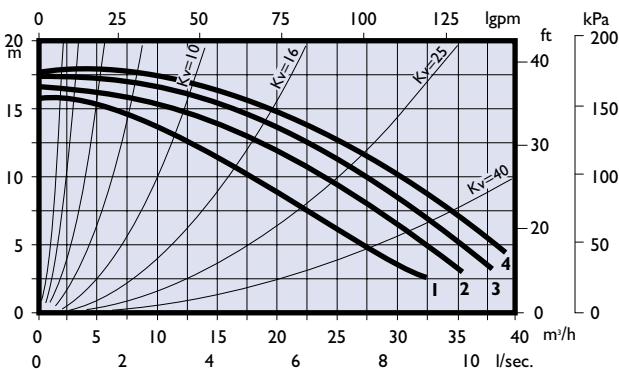
Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2650	350-650	2,70	2,10	1,20
3	2450	300-600	2,70	1,80	1,00
2	2270	280-500	2,50	1,60	0,90
1	1930	250-450	2,20	1,30	0,75
See wiring diagram			3.C	3.F	3.F



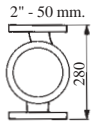
EV 5-95-2 C Heating/chilled
 EV 5-95-2 CD Twin pump
 EV 5-95-2 VZ HWS bronze
 EV 5-95-2 V HWS iron



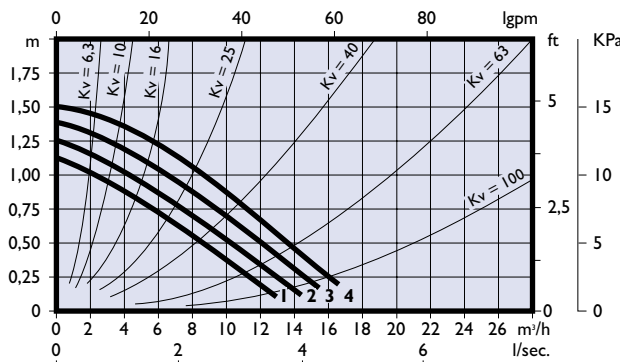
Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2650	600-980	4,70	3,60	2,00
3	2450	460-820	4,10	2,50	1,45
2	2270	400-710	3,85	2,10	1,20
1	1930	350-600	3,30	1,75	1,00
See wiring diagram			3.C	3.F	3.F



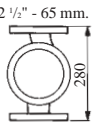
EV 5-120-2 C Heating/chilled



Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2800	1300-2050	9,20	5,80	3,50
3	2660	1200-1850	8,40	5,20	3,20
2	2490	100-1700	7,60	4,70	2,90
1	2280	900-1500	6,70	4,00	2,60
See wiring diagram			3.C	3.F	3.F



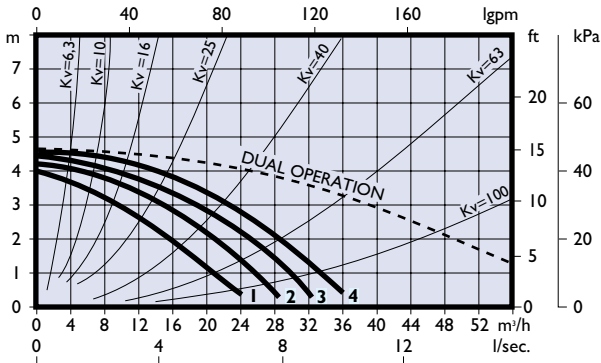
EV 6-92-4 C Heating/chilled



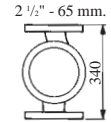
Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1200	158-173	0,97	1,08	0,62
3	1080	126-142	0,94	0,75	0,42
2	960	96-109	0,88	0,55	0,30
1	850	75-85	0,81	0,41	0,23
See wiring diagram			2.B	3.F	3.F

Capacity curves according to PrEN 1151/29906 grade 2. The capacities of the twin pumps are 10% less than the single pump curves shown.

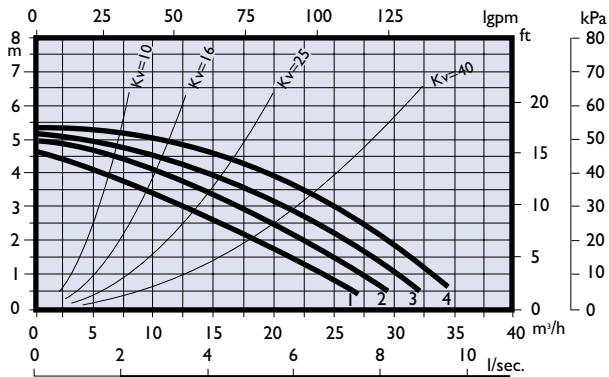
EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS



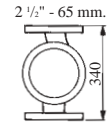
EV 6-125-4 C Heating/chilled
EV 6-125-4 CD Twin pump
EV 6-125-4 VZ HWS bronze
EV 6-125-4 V HWS iron



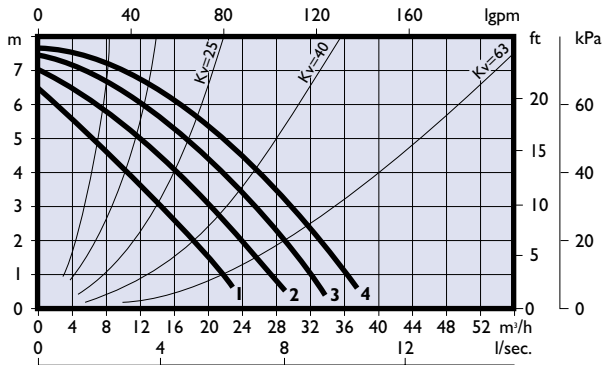
Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1380	250-490	2,50	2,20	1,15
3	1330	210-450	2,20	1,70	0,95
2	1260	180-390	2,00	1,40	0,80
1	1180	160-340	1,80	1,20	0,65
See wiring diagram			3.C	3.F	3.F



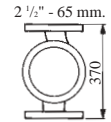
EV 6-135-4 C Heating/chilled



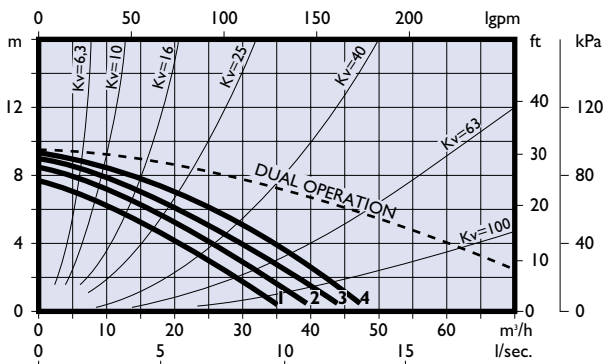
Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1380	250-540	2,70	-	1,20
3	1330	220-500	2,40	-	1,10
2	1260	180-420	2,10	-	0,90
1	1180	170-350	1,90	-	0,70
See wiring diagram					3.F



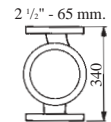
EV 6-160-4 C Heating/chilled
EV 6-160-4 V HWS iron



Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1360	380-770	5,10	3,00	1,70
3	1290	350-730	3,90	2,55	1,40
2	1210	310-630	2,90	2,15	1,20
1	1110	270-530	2,40	1,85	1,00
See wiring diagram			3.C	3.F	3.F



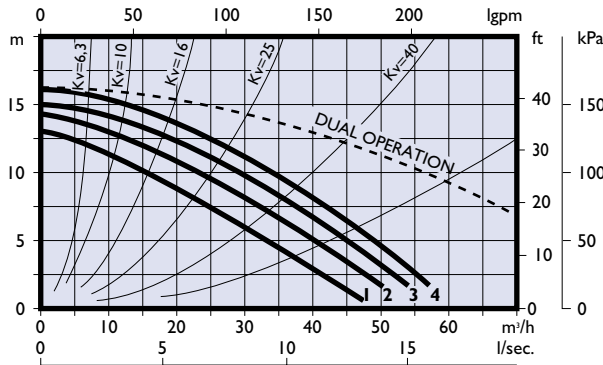
EV 6-95-2 C Heating/chilled
EV 6-95-2 CD Twin pump
EV 6-95-2 VZ HWS bronze
EV 6-95-2 V HWS iron



Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2800	680-1070	4,50	3,90	2,10
3	2680	560-920	2,45	2,85	1,58
2	2560	500-790	2,00	2,40	1,35
1	2380	425-660	1,65	2,00	1,15
See wiring diagram			3.C	3.F	3.F

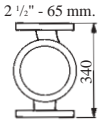
Capacity curves according to EN 1151/29906 grade 2. The capacities of the twin pumps are 10% less than the single pump curves shown.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS

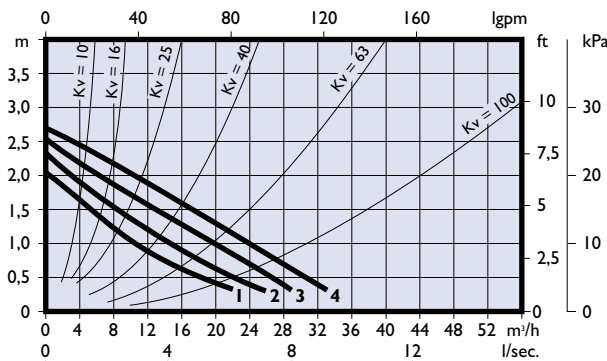


EV 6-110-2 C
EV 6-110-2 CD

Heating/chilled
Twin pump

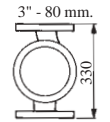


Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2800	1200-2180	9,20	6,00	3,80
3	2660	1100-2050	8,40	5,50	3,50
2	2490	1000-1850	7,80	4,80	3,10
1	2280	0900-1550	6,80	4,20	2,70
See wiring diagram			D	3.F	3.F

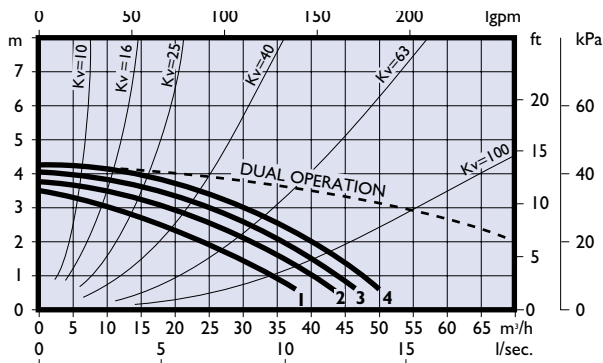


EV 8-92-4 C

Heating/chilled

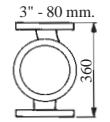


Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1340	256-346	1,86	1,74	1,03
3	1250	211-290	1,70	1,59	0,92
2	1100	185-246	1,54	1,44	0,83
1	980	156-200	1,41	1,32	0,76
See wiring diagram			3.C	3.F	3.F

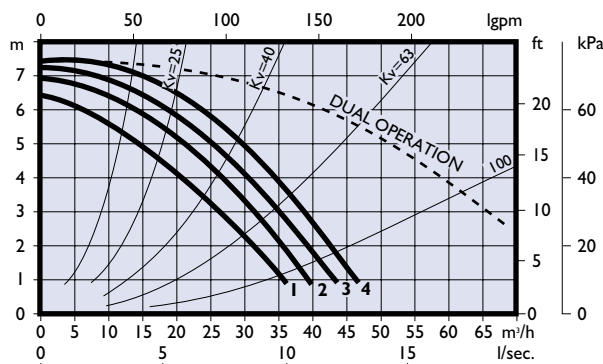


EV 8-125-4 C
EV 8-125-4 CD
EV 8-125-4 V

Heating/chilled
Twin pump
HWS iron

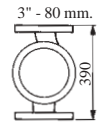


Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1360	375-574	3,00	2,68	1,59
3	1290	342-531	2,75	2,16	1,23
2	1210	302-473	2,65	1,83	1,03
1	1110	270-416	2,53	1,58	0,90
See wiring diagram			3.C	3.F	3.F



EV 8-160-4 C
EV 8-160-4 CD
EV 8-160-4 V

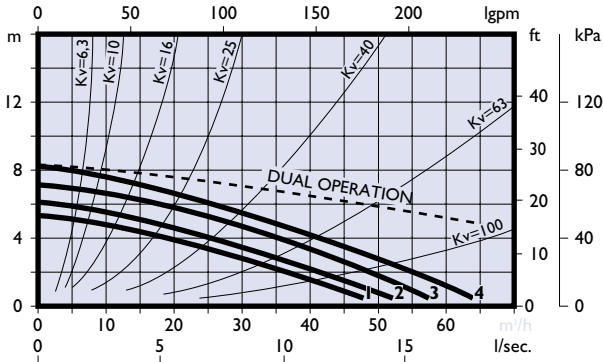
Heating/chilled
Twin pump (360 mm.)
HWS iron



Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1370	5,50-1000	-	3,90	2,40
3	1280	500-950	-	3,30	2,00
2	1190	450-820	-	2,85	1,75
1	1080	410-700	-	2,50	1,50
See wiring diagram				3.F	3.F

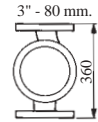
Capacity curves according to EN 1151/29906 grade 2. The capacities of the twin pumps are 10% less than the single pump curves shown.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS

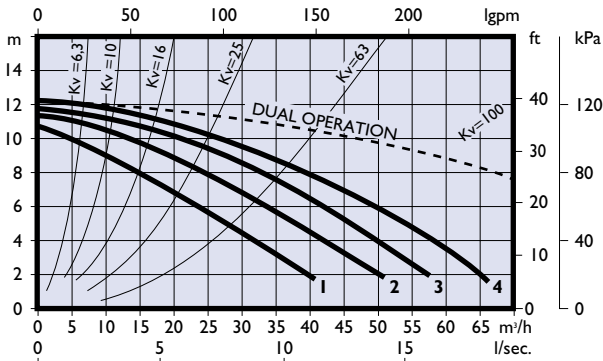


EV 8-95-2 C
EV 8-95-2 CD
EV 8-95-2 V

Heating/chilled
Twin pump
HWS iron

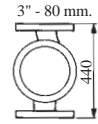


Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2800	1060-1187	6,20	4,10	2,20
3	2680	963-1087	5,80	3,50	2,00
2	2560	875-992	4,60	3,20	1,72
1	2380	750-827	3,80	2,85	1,50
See wiring diagram			3.C	3.F	3.F

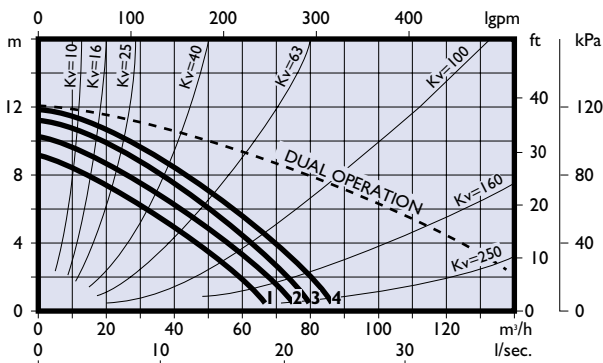


EV 8-200-4 C
EV 8-200-4 CD

Heating/chilled
Twin pump

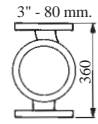


Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1390	900-1900	-	7,10	4,10
3	1310	840-1800	-	6,20	3,60
2	1240	770-1600	-	5,50	3,20
1	1100	700-1300	-	4,90	2,85
See wiring diagram				3.F	3.F

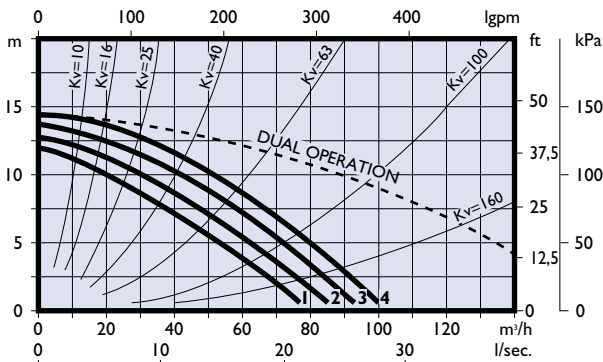


EV 8-100-2 C
EV 8-100-2 CD

Heating/chilled
Twin pump

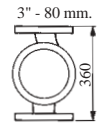


Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2800	1500-2100	10,00	6,00	3,70
3	2660	1400-1900	9,50	5,30	3,30
2	2490	1250-1700	8,70	4,70	3,00
1	2280	1150-1500	7,60	4,00	2,60
See wiring diagram			3.D	3.F	3.F



EV 8-120-2 C
EV 8-120-2 CD

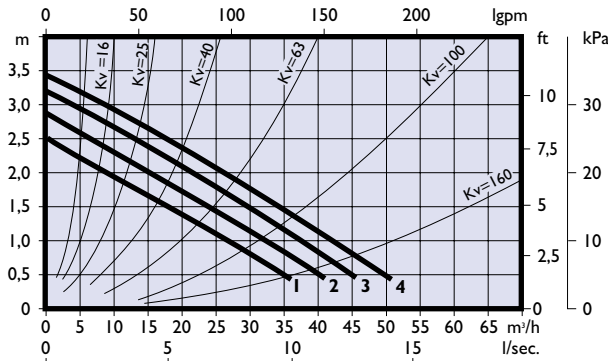
Heating/chilled
Twin pump



Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	2800	1850-2800	-	8,30	4,80
3	2660	1700-2550	-	7,60	4,40
2	2490	1550-2250	-	6,75	3,90
1	2280	1400-1850	-	5,70	3,30
See wiring diagram				3.F	3.F

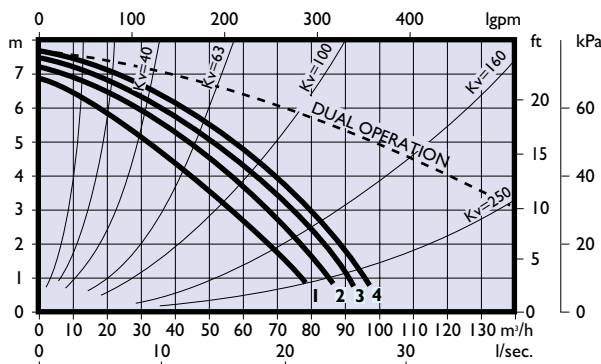
Capacity curves according to EN 1151/29906 grade 2. The capacities of the twin pumps are 10% less than the single pump curves shown.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS



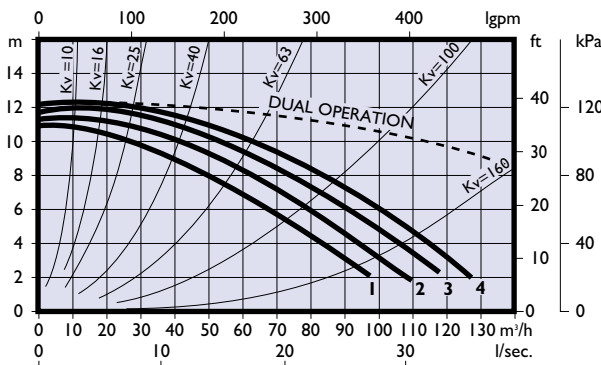
EV 10-130-4 C Heating/chilled

Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1380	442-500	2,60	2,25	1,40
3	1330	416-470	2,37	1,78	1,29
2	1260	371-418	2,16	1,48	1,16
1	1180	323-357	1,93	1,28	1,06
See wiring diagram			3.C	3.F	3.F



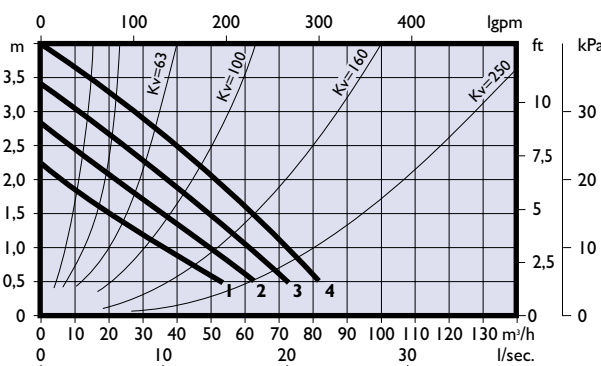
EV 10-160-4 C Heating/chilled
EV 10-160-4 CD Twin pump (485 mm.)

Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1390	1016-1549	-	6,60	3,69
3	1310	955-1481	-	5,77	3,23
2	1240	876-1385	-	5,20	2,88
1	1100	819-1245	-	4,80	2,66
See wiring diagram				3.F	3.F



EV 10-210-4 C Heating/chilled
EV 10-210-4 CD Twin pump

Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1420	1750-3500	-	12,80	7,40
3	1330	1650-3400	-	11,60	6,70
2	1220	1500-3000	-	10,60	6,15
1	1000	1400-2600	-	9,60	5,55
See wiring diagram				3.F	3.F



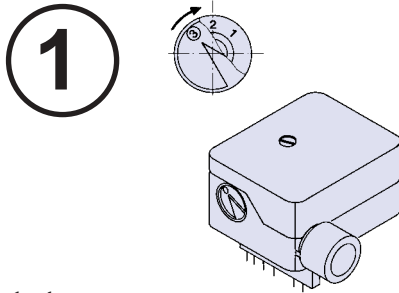
EV 12-135-4 C Heating/chilled

Speed No	R.P.M.	Absorbed Power	F.L.C. Amps		
			1 x 230	3 x 230	3 x 400
4	1360	734-897	5,20	3,55	2,00
3	1290	678-826	4,00	3,00	1,71
2	1210	590-695	3,00	2,48	1,45
1	1110	492-553	2,58	1,99	1,19
See wiring diagram			3.C	3.F	3.F

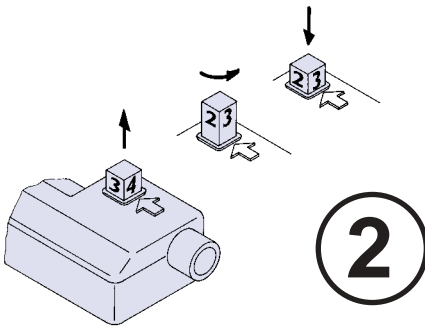
Capacity curves according to EN 1151/29906 grade 2. The capacities of the twin pumps are 10% less than the single pump curves shown.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS

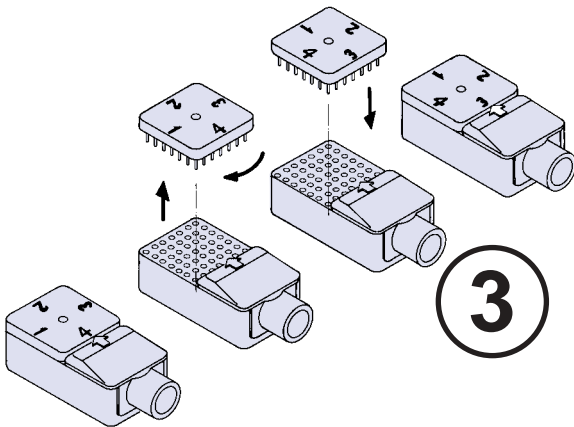
Speed adjustments for EV Range .



Domestic 3-speed single-phase.



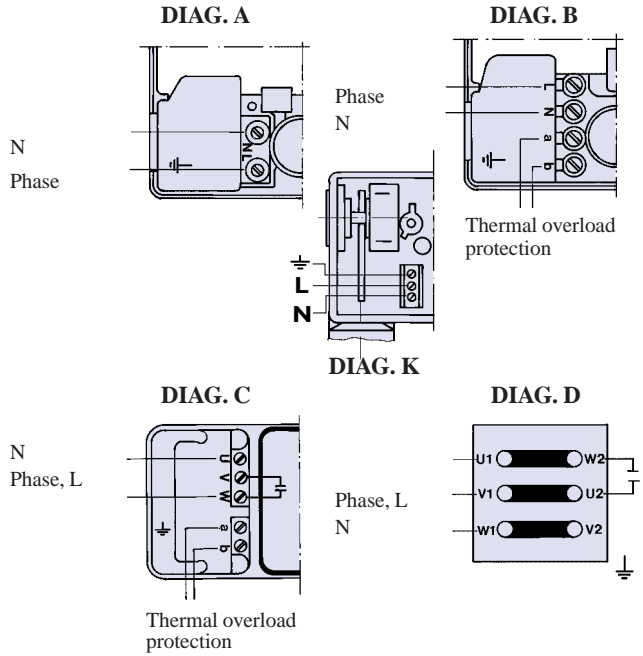
Light commercial 4-speed single-phase



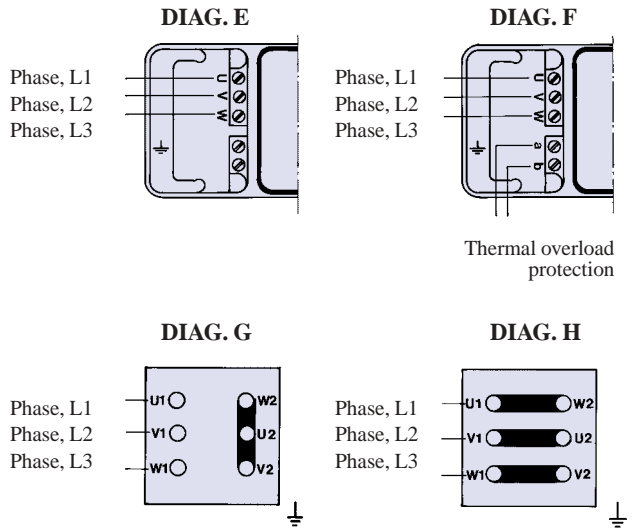
Commercial 4-speed 3-phase.

Wiring details for EV range

Single phase



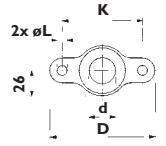
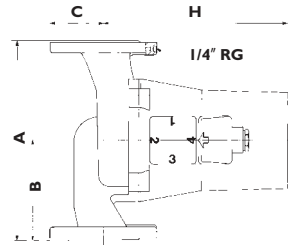
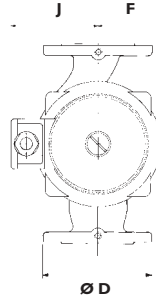
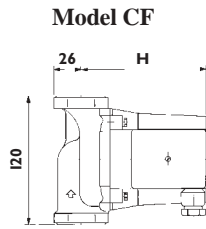
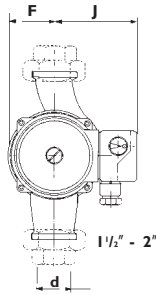
Three phase



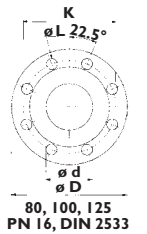
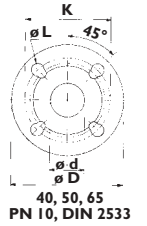
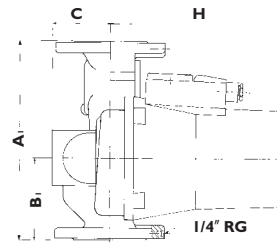
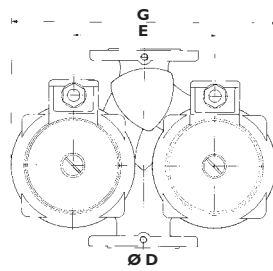
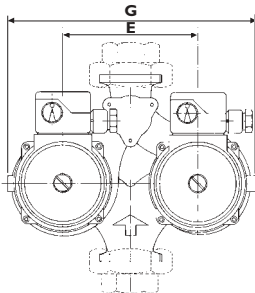
Note: Above wiring diagrams are cross referenced on the individual pump curves.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS

Dimensions: Single pump



Twin pump



Dimensions in mm

Type	A	A1	B	B1	C	C1	D	d	E	F	G	H	J	PN 6		PN 10		Weight (kg)	
														K	L	K	L	simple	double
MiniWatt 2/3-50-2	130/180*	-	90	-	40	-	-	1"-1 1/4"	-	50	-	110	85	80	M 10	-	-	3,0	-
EV 2/3-65-2 (D)	130/180*	180	90	75	40	40	-	1"-1 1/4"	130	50	245	110	85	80	M 10	-	-	3,0	6,4
EV 2/3-70-2 (D)	130/180*	180	90	75	40	40	-	1"-1 1/4"	130	50	245	110	85	80	M 10	-	-	3,2	6,8
EV 2/3-72-2 (D)	180	180	90	75	40	40	-	1"-1 1/4"	130	50	245	145	85	-	-	-	-	4,5	8,5
EV 2/3-75-2	180	-	90	-	55	-	-	3/4"-1"	-	60	-	150	85	-	-	-	-	4,5	-
EV 2/3-75-4	180	-	90	-	55	-	-	1"-1 1/4"	-	60	-	150	85	-	-	-	-	5,7	-
EV 3-100-2 (D)	180	180	90	75	32	50	-	1 1/2"	160	65	305	180	95	-	-	-	-	6,3	13,3
EV 3-100-4	210	-	105	-	43	-	-	1 1/2"	-	81	-	170	95	110	14	125	19	6,3	-
EV 4-100-4 (D)	250	250	125	90	75	75	150	40	200	65	350	160	95	100	14	110	19	11,7	20,2
EV 4-125-4	250	-	125	-	75	-	150	40	-	95	-	205	100	100	14	110	19	11,7	-
EV 4-60-2 (D)	250	250	125	90	75	75	150	40	200	75	350	160	90	100	14	110	19	10,0	18,2
EV 4-75-2 (D)	250	250	125	90	75	75	150	40	200	75	350	165	95	100	14	110	19	11,3	19,0
EV 4-95-2 (D)	250	250	125	90	75	75	150	40	200	75	350	200	105	100	14	110	19	14,2	25
EV 5-100-4	300	-	150	-	83	-	165	50	-	75	-	155	90	110	14	125	19	14,4	-
EV 5-120-2	280	-	140	-	83	-	165	50	-	105	-	280	125	110	14	125	19	14,4	-
EV 5-125-4 (D)	280	280	140	120	83	83	165	50	200	85	390	200	105	110	14	125	19	17,6	33
EV 5-160-4 (D)	340	340	170	145	85	85	165	50	250	105	480	250	125	110	14	125	19	38	73,5
EV 5-88-2 (D)	280	280	140	120	83	83	165	50	200	85	390	200	105	110	14	125	19	17,5	29,5
EV 5-95-2 (D)	280	280	140	120	83	83	165	50	200	95	390	230	125	110	14	125	19	28,6	52
EV 6-92-4	280	-	140	-	93	-	185	65	-	80	-	170	90	130	14	145	19	15,5	-
EV 6-125-4 (D)	340	340	170	140	93	93	185	65	240	105	455	235	125	130	14	145	19	34,5	58,5
EV 6-135-4	300	-	145	-	93	-	185	65	-	105	-	225	105	130	14	145	19	35,0	-
EV 6-95-2 (D)	340	340	170	140	93	93	185	65	240	105	455	235	125	130	14	145	19	35	60,5
EV 6-110-2 (D)	340	340	170	140	93	93	185	65	240	105	455	280	125	130	14	145	19	41,5	72
EV 6-160-4	370	-	190	-	93	-	185	65	-	105	-	235	125	130	14	145	19	40	-
EV 8-92-4	330	-	170	-	100	-	200	80	-	100	-	230	100	-	-	160	19	26	-
EV 8-125-4 (D)	360	360	185	160	100	102	200	80	270	105	510	240	130	-	-	160	19	42	72,5
EV 8-160-4 (D)	390	360	200	160	100	100	200	80	270	110	520	290	135	-	-	160	19	46,5	79,8
EV 8-200-4 (D)	440	440	220	180	105	100	200	80	270	105	510	290	130	-	-	160	19	72,5	123
EV 8-95-2 (D)	360	360	185	160	100	102	200	80	270	105	505	240	125	-	-	160	19	42	72,5
EV 8-100-2 (D)	360	360	185	160	100	100	200	80	270	105	510	290	125	-	-	160	19	49,5	85,5
EV 8-120-2 (D)	360	360	185	160	100	100	200	80	270	105	510	290	125	-	-	160	19	50	84,5
EV 10-130-4	380	-	200	-	110	-	220	100	-	125	-	270	125	-	-	180	19	41	-
EV 10-160-4 (D)	470	485	260	210	130	150	220	100	378	135	740	292	200	-	-	180	19	79	152
EV 10-210-4 (D)	485	485	250	210	150	150	220	100	378	135	740	355	200	-	-	180	19	90,5	170,5
EV 12-135-4	450	-	225	-	150	-	250	125	-	160	-	300	160	-	-	210	19	60	-

When both PN6 and PN10 are shown, the pump is supplied with flanges double drilled to facilitate interchangeability when used for replacement.

Note: 80, 100 and 125 mm pump casings can be supplied drilled PN6 to special order.

(D) = Available as twin pump.

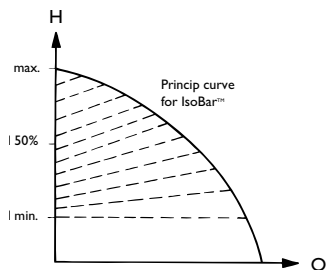
Note: Model EV 2-50/65/70-2C is available with 120 mm port to port, model CF.

EV RANGE MULTI-SPEED GLANDLESS CIRCULATORS

IsoBar™ and Automatic Controls

IsoBar™ - circulators with integral regulation

IsoBar is a complete range of glandless circulators with integral electronic performance regulation, infinitely adjusting the capacity of the pump to the requirements of the system, without any external sensors.



EV 160 Speed Control

This control can be used with all 3 phase EV 4-speed pumps, with terminal box/wiring diagram 2E and 2F.

The EV 160 speed control can be programmed to change the pump speed between speed 4 and off, speed 4 and 1 or speed 1 and off. The 7-day clock can be adjusted to change speed when required. The EV 160 can also be controlled by an external signal from a thermostat or pressure switch. The EV 160 connects to the pump via a 1.5 m multipin plug cable and no other electrical wiring is necessary. Dimensions in mm: H 170, W 90, D 120.

Enclosure : Spec. IP 40.

Material: High grade plastic.



EV 132 Starter

This starter can be used with all EV 4-speed pumps incorporating "a" and "b" motor overload protection with terminal box/wiring diagram 1B, 2C and 2F. The EV 132 starter uses the thermal overload built-in to the motor windings and will switch off the pump in the event of overheating. Overload protection is automatically achieved, immaterial of speed selected on the pump. If thermal overload cuts out the pump, it will not restart until manually reset, using the red on/off switch. After mains failure, the starter will reset automatically.

Dimensions in mm: H 170, W 90, D 120.

Enclosure: Spec. IP 40.

Material: High grade plastic.



EV 2140-3 Change-over Panel for twin pumps

This control for duty/standby arrangements can be used with all EV 4-speed twin pump arrangements incorporating "a" and "b" motor overload protection with terminal box/wiring diagram 1B, 2C and 2F. The EV 2140-3 Change-over Panel is designed to give protection to both pumps at all speed settings, without adjustment, via the thermal overloads built-in to the winding. A 7-day clock is supplied as standard in this panel, which can be programmed to give a night setback facility. The panel is suitable for either automatic or manual operation of pump 1, pump 2 or both pumps in parallel. In case of pump failure, the standby pump will start up automatically.

Dimensions in mm: H 220, W 260, D 140.

Enclosure: Spec. IP 54.

Material: High grade plastic.



Whilst every care has been taken to ensure that data is correct, no responsibility can be accepted for inaccuracies or misprints.

It is SMEDEGAARD's policy to continually improve and develop the product range. We reserve the right to change specifications without prior notice.

SMEDEGAARD

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