

VARIFLO SV&DV

WALL-MOUNTED VARIABLE SPEED DRIVE



ENERGY SAVER

VARIFLO SINGLE AND TWIN PUMP VARIABLE SPEED CONTROLLER FOR WALL OR FRAME MOUNTING

Variflo high performance drives for new and retro installations - variable speed control of single and twin circulating pumps in heating and air conditioning systems.

CONSTRUCTION

- Variflo controls suitable for wall, frame or local mounting, arranged as a Drive module or optionally housed within an enclosure - convenient installation with optimum factory set control parameters to suit the specified application.
- Variable speed, energy efficient, soft-start control, with optimized motor protection, allows the circulator performance to be matched to the system flow requirements.
- Pre-wired control and power terminals include remote-start/stop, economy mode and fault contacts.
- Energy Saver Variflo Drive results in substantial savings in running costs - the system design head is maintained whilst the pump speed automatically modulates to suit variations in the system flow requirements.
- Control display panel to monitor performance and data.

DESIGN CONSIDERATIONS

Operating limits

| SINGLE VARIFLO TYPE CODE | SV |
|---|--|
| TWIN VARIFLO TYPE CODE | DV |
| Size - kW | 0.55 to 30 |
| Ambient temperature range - °C | -10 (no frost) to 40 |
| Relative humidity | 0 to 95%, non-condensing, non-corrosive, no dripping water |
| Enclosure class | IP21, IP44 or IP54 |
| EMC | EN61800-3 |
| Electric supply - Code E1 (up to 2.2kW) | 230 volt, 1 phase, 50 Hz (230 volt, 3 phase motor) |
| Electric supply - Code E3 | 400 volt, 3 phase, 50 Hz |

OPERATING MODES

| | |
|---------------|---|
| Δp -c | Constant differential pressure regulation |
| Economy | Fixed economy speed |

OPERATION

Variflo energy saving performance optimization by automatic speed regulation in heating, cooling and process circulation systems. The pump speed is continuously managed, by a differential pressure transducer, to match the pump flow to the system requirements - the design set-point head and other operating parameters are factory set for simple on-site commissioning. Programmable flexible control options allows the use of other sensor control modes, such as 'system temperature', or proportional differential pressure regulation by relocating the transducer about the system index circuit.



FLUID *a*

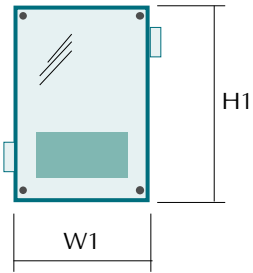
for better fluid handling

VARIFLO SV&DV

VARIABLE SPEED DRIVE

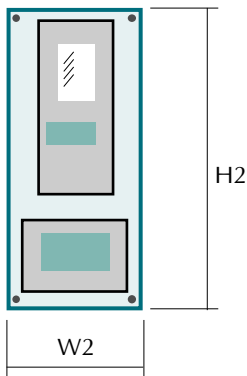
DIMENSIONS & DATA

1

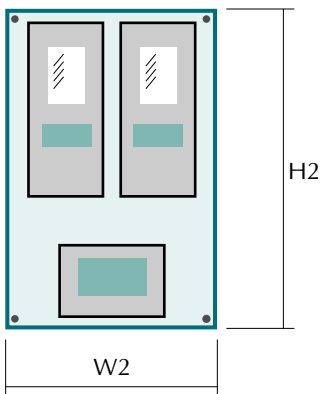


ENCLOSURE SV & DV FRAMES M1 & M2
RATING - IP44

2

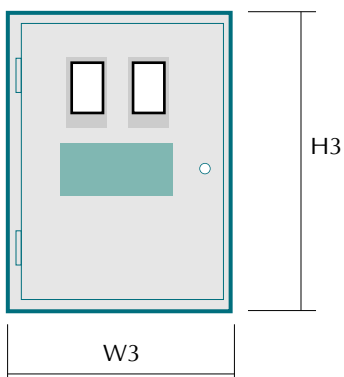


MODULE SV FRAMES M4 to M6
RATING - IP21/IP54



MODULE DV FRAMES M4 to M6
RATING - IP21/IP54

3



ENCLOSURE SV & DV FRAMES M4 to M6
RATING - IP44

| SIZE kW | FRAME | DIAGRAM REFERENCE | | | DIMENSIONS in mm's | | | | | | WEIGHT kg | |
|---------------|-------|-------------------|---|---|--------------------|-----|-----|-----|-----|-----|-----------|----|
| | | 1 | 2 | 3 | 1 | | 2 | | 3 | | | |
| | | | | | W1 | H1 | W2 | H2 | W3 | H3 | | |
| SV0.55 - 0.75 | M1 | ● | | | 180 | 255 | | | | | | 6 |
| SV1.1 - 2.2 | M2 | ● | | | 180 | 255 | | | | | | 6 |
| SV1.1 - 5.5 | M4 | | ● | ○ | | | 220 | 500 | 300 | 500 | | 11 |
| SV7.5 - 15 | M5 | | ● | ○ | | | 240 | 650 | 400 | 600 | | 15 |
| SV18.5 - 30 | M6 | | ● | ○ | | | 270 | 800 | 400 | 800 | | 28 |
| DV0.55 - 0.75 | M1 | ● | | | 255 | 360 | | | | | | 8 |
| DV1.1 - 2.2 | M2 | ● | | | 255 | 360 | | | | | | 9 |
| DV1.1 - 5.5 | M4 | | ● | ○ | | | 350 | 530 | 500 | 600 | | 18 |
| DV7.5 - 15 | M5 | | ● | ○ | | | 380 | 650 | 500 | 600 | | 25 |
| DV18.5 - 30 | M6 | | ● | ○ | | | 450 | 800 | 600 | 800 | | 51 |

- Standard version
- Optional version

Variflo coding example

| TYPE CODE | kW | ARRANGEMENT | | | IP RATING | ELECTRIC SUPPLY |
|-----------|-----|-------------|---|---|-----------|-----------------|
| DV | 1.5 | 1 | 2 | 3 | 54 | E3 |

TYPICAL ENERGY SAVINGS

Variflo variable speed control of single and twin circulating pumps results in significant energy savings, as demonstrated below by the hatched area between a typical fixed speed pump curve and variable speed constant differential pressure regulation at a programmable set-point head.

