

## DANFOSS VLT HVAC DRIVE FC 102



### DESCRIPTION

The VLT HVAC Drive is designed to bring optimised process control to all heating, ventilation and air conditioning applications. This drive is supplied with built-in smarts that reduce installation costs and features a trouble-free set up to ensure fast and efficient commission. It uses a wide range of functions specifically developed for HVAC fans, pumps, and compressors to save energy and meet environmental regulations.

### Typical Applications

Speed control of commercial and industrial fan applications in shopping centres, office buildings and car parks, through to industrial processes and equipment ventilation applications.

### Features

- User friendly interface with Smart Start wizard for quick and easy configuration.
- Integrated fan, pump and compressor functions to optimise energy savings.
- Onboard Smart Logic Controller removes need for an external PLC.
- Fire Mode with 8 speeds for continuous vital fan operation regardless of control signals, warnings or alarms.
- Built-in RFI filters to remove electromagnetic interference and lower harmonic levels.
- DC choke to mitigate harmonics and balance voltage drops and spikes.
- Thermistor input to prevent motors from overheating.
- Range of Option Cards available.
- IP55/UL Type 12 or IP66/UL Type 4X class protection enclosures.
- Up to 50°C ambient temperature without derating. (24hr average maximum 45°C)

### Electrical Supply

380–480V, three-phase, 50/60Hz

### Testing

Harmonics Standard EN 61000-3-12

EMC Standard EN/IEC 61800-3

(C1 & C2 & C3 – cable length restrictions apply)

### Wiring Diagram

Please refer all enquires to Fantech sales engineers.

### Standard I/O

- 6 x Digital Inputs (2x can be used as digital outputs)
- 2 x Analogue Inputs 0-10V or 0/4-20mA
- 1 x Analogue Output 0/4-20mA
- 2 x Relay Outputs

### Fieldbus communication

- BACnet MSTP
- Modbus RTU
- FC Protocol
- N2 Metasys
- FLN Apogee
- LonWorks (option card required)
- BACnet/IP (option card required)
- DeviceNet (option card required)
- PROFIBUS DP (option card required)

## TECHNICAL DATA

Model	Input / Output	Motor kW	Amps @ 50°C*	Protection Class	Frame Size	Dimensions, mm	Weight, kg.
FC102-131U2227	3 phase / 3 phase	1.1	3	IP55	A4	200W x 391H x 177D	9.4
FC102-131U2228		1.5	4.1				
FC102-131U2235		2.2	5.6				
FC102-131U2236		3	7.2				
FC102-131U2237		4	10				
FC102-131B5662		5.5	13		A5	242W x 420H x 200D	14.2
FC102-131B5663		7.5	16				
FC102-131B4061		11	24		B1	242W x 480H x 260D	23
FC102-131B3319		15	32				
FC102-131B4249		18.5	37.5				
FC102-131B5665		22	44		B2	242W x 650H x 260D	27
FC102-131B5664		30	61				
FC102-131B6662		37	73		C1	308W x 680H x 310D	45
FC102-131B6663		45	90				
FC102-131B6664		55	106		C2	370W x 770H x 335D	65
FC102-131B8508		75	147				
FC102-131B8507		90	177				
FC102-131U9319		1.1	3	IP66	A4	200W x 391H x 177D	9.4
FC102-131U9320		1.5	4.1				
FC102-131U9321		2.2	5.6				
FC102-131U9322		3	7.2				
FC102-131U9323		4	10				
FC102-131B7636		5.5	13		A5	242W x 420H x 200D	14.2
FC102-131B7613		7.5	16				
FC102-131B8102		11	24		B1	242W x 480H x 260D	23
FC102-131B8173		15	32				
FC102-131B6981		18.5	37.5				
FC102-131B8231		22	44		B2	242W x 650H x 260D	27
FC102-131B8015		30	61				
FC102-131F4795		37	73		C1	308W x 680H x 310D	45
FC102-131F1272		45	90				
FC102-131F5337		55	106		C2	370W x 770H x 335D	65
FC102-131F4041		75	147				
FC102-131F7721		90	177				

\* Maximum 50°C ambient temperature provided that the 24hr average is a maximum of 45°C.