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)

© FANTECH 2023

TECHNICAL DATA

Model	Input / Output	Motor kW	Amps @ 50°C*	Protection Class	Frame Size	Dimensions, mm	Weight, kg.
FC102-131U2227		1.1	3				
FC102-131U2228		1.5	4.1				
FC102-131U2235		2.2	5.6		A4	200W x 391H x 177D	9.4
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				
FC102-131B3319		15	32	IP55	B1	242W x 480H x 260D	23
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				
FC102-131B6663		45	90		C1	308W x 680H x 310D	45
FC102-131B6664		55	106				
FC102-131B8508		75	147		C2	370W x 770H x 335D	65
FC102-131B8507	3 phase / 3 phase	90	177				
FC102-131U9319		1.1	3				
FC102-131U9320		1.5	4.1				
FC102-131U9321		2.2	5.6		A4	200W x 391H x 177D	9.4
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				
FC102-131B8173		15	32	IP66	B1	242W x 480H x 260D	23
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				
FC102-131F1272		45	90		C1	308W x 680H x 310D	45
FC102-131F5337		55	106				
FC102-131F4041		75	147		C2	370W x 770H x 335D	65
FC102-131F7721		90	177				

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

M

© FANTECH 2023