Series

Basic Drive FC-101

Frequency converters



APPLICATION

This general-purpose variable frequency drive is designed for regulating the rotation speed of an AC electric motor with a maximum power output of 90 kW. This drive is suitable for both general ventilation and smoke extraction ventilation systems.

FIRE MODE

The fire mode prevents the drive from a self-protecting shut-down. While in this mode the drive continues to perform speed regulation duty for mission-critical fans irrespective of control signals, warnings and alarms which may otherwise force it shut down.

FILTER

A built-in throttle on the DC link ensures a low harmonic load on the power mains as per the EN 61000-3-12 standard requirements.

INPUTS AND OUTPUTS

- 4 programmable digital inputs (PNP or NPN), 0–24 V DC
- 2 analog inputs (0–10 V or 0/4–20 mA)
- 2 analog outputs (0/4–20 mA)
- 2 relay outputs
- Modbus RTU (RS 485)
- BACnet MS/TP
- FC Protocol
- N2 Metasys
- FLN Apogee

INSTALLATION

Thanks to an ultra-compact design the drive can be easily fitted into a larger unit or panel of an air ventilation system. The casings are rated IP20/Type 1/IP21 (optional) and IP54.

FREQUENCY CONVERTER TYPE AND SKU CODE

Power	Current	VLT® FC 101 HVAC Basic Drive 0.37–90 kW (3 × 380–480 V~, without braking transistor)			
0.37	1.2	-	131L9861	-	-
0.75	2.2		131L9862	131NO177	131NO178
1.5	3.7		131L9863	131NO179	131NO180
2.2	5.3		131L9864	131NO181	131NO182
3	7.2		131L9865	131NO183	131NO184
4	9.1		131L9866	131NO185	131NO186
5.5	12		131L9867	131NO187	131NO188
7.5	15.5		131L9868	131NO189	131NO190
11	23		131L9869	131NO191	131NO192
15	31		131L9870	131NO193	131NO194
18	37		131L9871	131NO195	131NO196
22	42.5		131L9872	131NO197	131NO198
30	61	131L9873	131L9875	131NO201	131NO202
37	73	131L9881	131L9883	131NO205	131NO206
45	90	131L9889	131L9891	131NO209	131NO210
55	106	131L9897	131L9899	131NO213	131NO214
75	147	131L9905	131L9907	131NO217	131NO218
90	177	131L9913	131L9915	131NO221	131NO222
Casing		(E20) IP20/Chassis	(E20) IP20/Chassis	IP54	IP54
EMC Filter		(H2) RFI Class A2 (for industrial areas)	(H3/H4) RFI Class A1/B (for residential areas)	(H2) RFI Class A2 (for industrial areas)	(H3) RFI Class A1/B (for residential areas)
Control panel		(X) no control panel	(X) no control panel	Built-in	Built-in

VLT® HVAC Basic frequency converters for models up to 22 kW feature circuit boards with a special Class 3C3 protective coating; for models beyond 22 kW, this coating is optional, with the standard coating being Class 3C2.

OPTIONS FOR VLT® FC 101 HVAC BASIC DRIVE FREQUENCY CONVERTERS

Order Code	Description
132B0200	Operator's digital panel
132B0201	Kit for remote mounting of the operator panel to an IP55 cabinet, including 3 m cable
132B0202	Decoupling plate for H1 and H2 standard sizes
132B0204	Decoupling plate for H3 standard size
132B0205	Decoupling plate for H4 and H5 standard sizes
132B0207	Decoupling plate for H6 standard size
132B0242	Decoupling plate for H6 standard size (extra large)
132B0208	Decoupling plate for H7 standard size
132B0243	Decoupling plate for H7 standard size (extra large)
132B0209	Decoupling plate for H8 standard size
132B0244	External EMC filter class A1/B1 for power output from 0.37 to 2.2 kW
132B0245	External EMC filter class A1/B1 for power output from 3 to 7.5 kW
132B0246	External EMC filter class A1/B1 for power output from 11 to 15 kW
132B0247	External EMC filter class A1/B1 for power output from 18.5 to 22 kW