

CFW501

Compact Variable Speed Drive for HVAC-R Systems

The CFW501 line was developed with resources dedicated to HVAC-R applications. It has compact sizes and special functions for such market, making this VSD the ideal solution to drive pumps and fans, allowing it to be used in shopping malls, hospitals, hotels, airports and similar facilities.

Characteristics

- Power supply: 200-480 V
- Rated currents: 1.0 to 31 A (0.25 to 20 HP)
- Control types: scalar (V/f) and Voltage Vector WEG (VFW)
- Low input harmonic distortion
- Special functions:
 - Energy saving - lower motor electric power consumption and higher efficiency
 - Dry pump - protects the pump in case of lack of water and signals the fault
 - The protection against short circuits increases the useful life of compressors
 - Bypass - the motor can be directly driven through the power line
 - Fire mode - when activated, the protections are disabled and the inverter continues to operate even under adverse conditions. Ideal for applications in fume extraction
 - Broken belt - indication of malfunction of the fan belt



- SoftPLC - the functionalities of a PLC added to the CFW501 HVAC-R
- Sleep mode - the motor is prevented from operating at low speeds for long periods, increasing the system lifetime
- Advanced PID
- RFI filter
- Operating interface (HMI) with specific units for HVAC-R applications
- BACnet, Metasys N2 and Modbus-RTU communication protocols
- Free WLP and SuperDrive G2 programming softwares

Certifications



Note: designed for exclusive industrial or professional use.

Specification

Version with RS485 Plug-In Module Included

CFW501 HVAC-R variable speed drive						Maximum applicable motor ¹⁾					
Reference	Power supply (V)		Frame size	Braking IGBT	Rated output current (A)	IEC				UL	
						Power supply (V) 50 Hz	kW	Power supply (V) 60 Hz	HP	Power supply (V) 60 Hz	HP
CFW501A01P6T2NB20C3	Three-phase	200-240	A	Not available	1.6	230	0.25	220	0.33	230	0.33
CFW501A02P6T2NB20C3					2.6		0.55		0.75		0.5
CFW501A04P3T2NB20C3					4.3		1.1		1.5		1.0
CFW501A07P0T2NB20C3					7.0		1.5		2.0		2.0
CFW501A09P6T2NB20C3					9.6		2.2		3.0		3.0
CFW501A12P2T2NB20C3					12.2		3.0		3.0		3.0
CFW501B16P0T2DB20C3			B	Built-in	16		4.0		5.0		5.0
CFW501B17P0T2DB20C3					17		4.0		5.0		5.0
CFW501B19P4T2DB20C3					19.4		5.5		5.0		5.0
CFW501C24P0T2DB20C3			C		24		5.5		7.5		7.5
CFW501A01P0T4NB20C3	Three-phase	380-480	A	Not available	1.0	415	0.25	460	0.33	460	0.33
CFW501A01P6T4NB20C3					1.6		0.55		1.0		0.75
CFW501A02P6T4NB20C3					2.6		1.1		1.5		1.0
CFW501A04P3T4NB20C3					4.3		1.5		3.0		2.0
CFW501A06P1T4NB20C3					6.1		3.0		3.0		3.0
CFW501B02P6T4DB20C3			B	Built-in	2.6		1.1		1.5		1.0
CFW501B04P3T4DB20C3					4.3		1.5		3.0		2.0
CFW501B06P5T4DB20C3					6.5		3.0		3.0		3.0
CFW501B10P0T4DB20C3					10		4.0		7.5		5.0
CFW501C14P0T4DB20C2			C		14		7.5		10		10
CFW501C16P0T4DB20C2					16		7.5		10		10
CFW501D24P0T4DB20C3			D		24		11		20		15
CFW501D31P0T4DB20C3					31		11		25		20

Notes: 1) The power values for maximum applicable motor shown in the table above are reference values and valid for WEG motors. IEC motor powers are based on motor WEG four-pole W22 High Efficiency IE2 three-phase induction motors. NEMA motor power are based on WEG four pole W22 Premium. Motor rated currents may vary with speed and manufacturer, use the motor power ratings below only as a guidance. The proper sizing of the CFW501 to be used must be determined as a function of the rated current of the motor used.

Dimensions

Frames	H	W	D	Weight kg (lb)
	mm (in)	mm (in)	mm (in)	
A	189 (7.44)	75 (2.95)	150 (5.91)	0.8 (1.76)
B	199 (7.83)	100 (3.94)	160 (6.30)	1.2 (2.65)
C	210 (8.27)	135 (5.31)	165 (6.50)	2 (4.4)
D	306.6 (12.1)	180 (7.08)	166.5 (6.55)	4.3 (9.47)





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