

WEG CFW100 Generation 2 Series AC Drives



WEG CFW100 Series AC Drives				
Motor Rating	hp	0.25	0.50	1
	kW	0.18	0.37	0.75
115VAC Single-Phase Input 230VAC Three-Phase Output		✓	✓	
230VAC Single-Phase Input 230VAC Three-Phase Output		✓	✓	✓



WEG CFW100 Overview

The new generation of WEG CFW100 variable frequency drives – the smallest full featured VFDs on the market – offer impressive functions and features that provide energy cost savings and fast operating response while helping to prevent possible breakdowns or involuntary stoppages.

The CFW100 is a single-phase input, three phase output variable frequency drive (VFD) developed for simple applications ranging from 1/4 to 1hp (0.18 to 0.75 kW). It gives induction motors a selectable scalar (V/F) or voltage vector (VVW) control. Designed with HMI and plug-and-play in mind, the CFW100 opens the door for fast, easy installation and operation.

With its built-in PLC, the CFW100 enables the VFD, motor and application to work interactively. Users can easily implement customized logic for any application.

Purpose of AC Drives

AC drives are known by many different names: AC Drives, Adjustable Frequency Drives (AFDs), Variable Frequency Drives (VFDs), and Inverters. Drives are used primarily to vary the speed of three-phase AC induction motors. They also provide non-emergency start and stop control, acceleration and deceleration, and overload protection. By gradually accelerating the motor, drives can reduce inrush current during motor startup.

AC drives operate by rectifying incoming AC power to DC, which is then converted back into three-phase output power. The voltage and frequency of this converted output power is controlled by the drive in order to vary the speed of the three-phase AC induction motor.

A number of easily installed accessories for network communication and I/O expansion are available for the CFW100. These make it easy to adapt the CFW100 to a wide range of different applications.

Of special interest to machine manufacturers is the flash memory module which allows you to copy the settings from one CFW100 and download them to others in seconds, even with the inverters turned off.

WEG CFW100 Hardware and Firmware Enhancements

The new generation WEG CFW100 variable speed drives feature hardware and firmware enhancements over the first generation of this line. These include the following:

- A new plug-in module with potentiometer (exclusive for the G2)
- PID control function
- Fire mode function
- Modbus master function
- Energy saving function
- Compatibility with WPS software
- New color for the HMI membrane
- Maintains same dimensions and electrical connections as the first generation
- Compatible with all Generation 1 accessories

Features

- Output current 1.6 A, 2.6 A and 4.2 A (0.25; 0.5 and 1hp)
- Single-phase power supply (110/230 VAC)
- Operates in 50°C [122°F] ambient temperature without derating
- Withstands 150% overload for one minute every 10 minutes at an ambient temperature of 50°C [122°F].
- Vector (VVW) or Scalar (V/F) control
- Plug-and-play functionality
- Built-in operating interface (HMI)
- Digital inputs
- Surface mounting (with PLMP accessory) or DIN rail mounting
- Degree of protection IP20

- Removable external fan (for Frames B and C)
- Fault or alarm diagnosis
- Electronic protection against motor overload
- Free software (WPS)
- Standard coating classified as 3C2 according to IEC 60721-3-3 on all versions for greater protection of the internal circuitry in harsh environments.

Connectivity (WPS)

- Free application software to program, control and monitor the CFW100
- Monitoring of operation status in lists, which can be saved as a computer file
- On-line parameter operation
- Transfer of parameters from a PC to the CFW100
- Off-line edition of parameters stored on the PC

Accessories

- RS-485 serial communication module (Modbus RTU)
- USB communication module
- I/O expansion modules including 1AI/1AO and 1AI/1RO
- Input expansion module (4 isolated [configurable] NPN or PNP digital inputs)
- Infrared remote control module
- Potentiometer module
- Flash memory module
- HMI (remote)

Typical Applications

- Blenders / Mixers
- Granulators / Palletizers
- Rotary filters
- Roller tables
- Centrifugal pumps
- Process dosing pumps
- Fans / Exhaust systems
- Dryers
- Centrifuges
- Commercial Dryers
- Compressors
- Conveyors

WEG CFW100 AC Drives – Selection Specifications

CFW100 Drive Model Selection Tables



WEG CFW100 AC Drives Selection Specifications													
Drive Model #	Price	Applicable Motor 1, 2			Drive Output		Drive Input		Input Protection		Drive		
		Maximum Power		Nominal Phase / Voltage (VAC)	Rated Current 3 (A)	Nominal Phase / Voltage (VAC)	Nominal Phase / Voltage (VAC)	Rated Current (A)	Circuit Breaker (A)	Fuse 4 (A)	Power Loss (W)	Weight lb [kg]	Frame Size
		(hp)	(kW)										
CFW100A01P6S120G2	\$150.00	0.25	0.18	3 / 230	1.6	3 / 230	1 / 115	7.1	10	20	20	1.05 [0.48]	A
CFW100B02P6S120G2	\$164.00	0.50	0.37	3 / 230	2.6	3 / 230	1 / 115	11.5	16	20	30	1.25 [0.57]	B
CFW100A01P6S220G2	\$134.00	0.25	0.18	3 / 230	1.6	3 / 230	1 / 230	3.5	6.3	20	20	1.05 [0.48]	A
CFW100B02P6S220G2	\$145.00	0.50	0.37	3 / 230	2.6	3 / 230	1 / 230	5.7	10	20	30	1.25 [0.57]	B
CFW100C04P2S220G2	\$154.00	1	0.75	3 / 230	4.2	3 / 230	1 / 230	9.2	16	20	40	1.34 [0.61]	C

1) For use with three-phase motors only.
 2) The power values for the maximum applicable motor shown are reference values and are valid for WEG three-phase, four-pole induction motors with power supply of 230VAC. The proper sizing of the CFW100 drive must be determined as a function of the rated current of the motor being used.
 3) Motor FLA may vary with speed and manufacturer. ALWAYS compare motor FLA to Nominal AMPS of drive.
 4) For UL508C compliance, use UL fuse type J. Type J provides 30kA high fault SCCR rating.

WEG CFW100 AC Drives – General

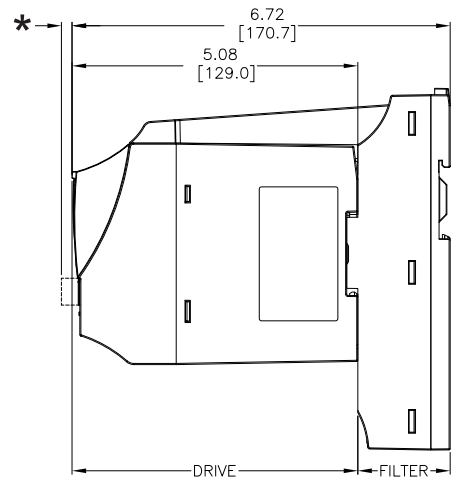
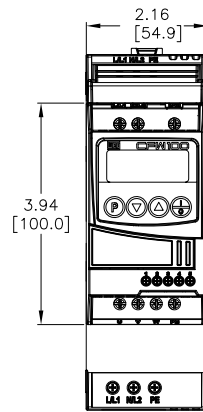
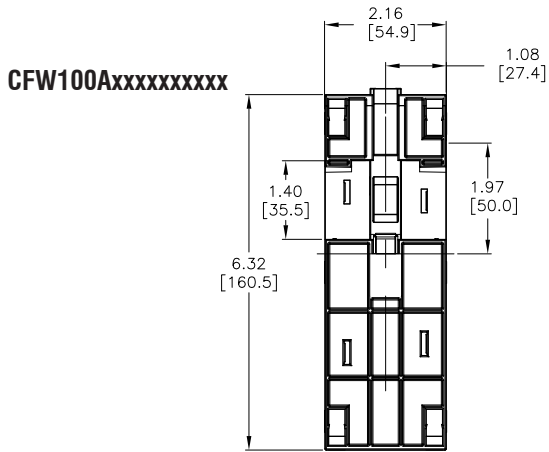
CFW100 General Specifications (Applicable to All Models)		
Control	Method	Scalar (V/F) or voltage vector (V/VW) control modes
	Output Frequency Range	0 to 400 Hz, control of 0.1 Hz
Performance	V/Hz Control	Speed regulation: 1% of the rated speed (with slip compensation) Speed variation range: 1:20
	V/VW Control	Speed control: 1% of the rated speed Speed variation range: 1:30
Inputs	Analog	Optional CFW100-IOAR (0-10 V or 0-20 mA or 4-20 mA. Maximum 30VDC)
	Digital	4 digital inputs included (NPN or PNP). Optional CFW-IOD module provides additional 4 isolated NPN or PNP digital inputs.
Outputs	Relay	Optional CFW100-IOAR, 1 relay with NO contact
	Power Supply	Maximum 240VAC Maximum current 0.5 A. Minimum current >1 uA
Safety	Protection	Overcurrent/phase-phase short circuit in the output Overcurrent/phase-ground short circuit in the output Under/overvoltage Heatsink overheating Motor overload Power module (IGBTs) overload External fault/alarm Configuration error
Keypad	Integral (HMI)	3 digit LCD display and 4 keys. Indication accuracy, current: 10% of rated current. Indication accuracy, speed resolution: 0.1 Hz.
Rated/Default Carrier Frequency		Standard 5kHz (selectable 2.5 to 15kHz)
Input Voltage Range		Applicable to 2 models (110-127 VAC): -15% to +10%. Applicable to 3 models (200VAC to 240VAC): -15% to +10%.
Input Frequency Range		50/60Hz (48 to 62 Hz)
Allowable Input Phase Imbalance		Phase imbalance: ≤ 3% of the rated phase-to-phase input voltage
Overload Capacity		150% overload for 1 minute every 10 minutes at an ambient temperature of 50°C [122°F]
Braking		N/A
Ambient Operating Temperature		0°C-50°C [32°F-122°F]; up to 60°C [140°F] with current derating (2% per 1°C above 50°C [122°F], limited to 60°C [140°F])
Altitude		0-3300ft (1000m); up to 13,200ft (4000m) with current derating (1% per 100m above 1000m); From 2000-4000m (6560ft-13123ft) above sea level, maximum voltage reduction of 1.1% for each 100m above 2000m
Humidity		5 to 95% non-condensing
Mounting		DIN rail or surface mounting with screws (PLMP adapter required for screw mounting)
Mounting Orientation		Vertical, to provide for proper cooling
Environmental Protection Rating		IP20
Agency Approvals *		UL 508C, UL 840, UL 50, EN61800-5-1, EN 50178, EN 60204-1, EN 60146 (IEC 146), EN 61800-2, EN 60529

* To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

WEG CFW100 AC Drives – Dimensions

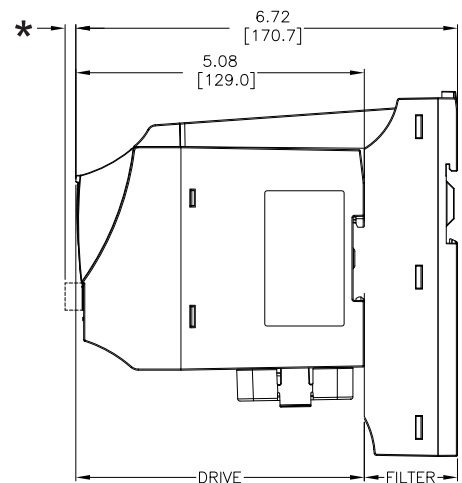
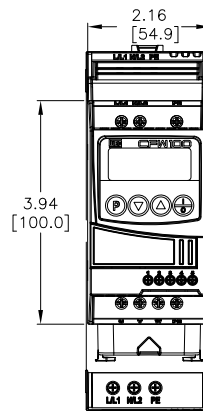
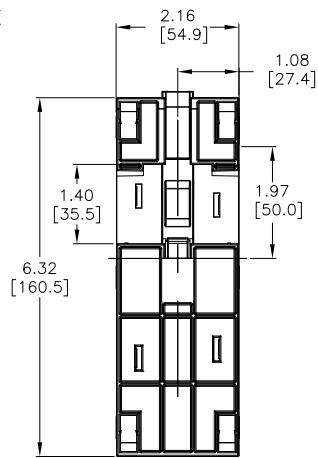
Dimensions With Filter

In [mm]



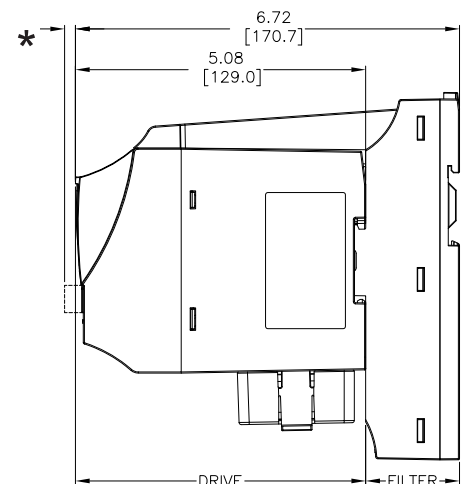
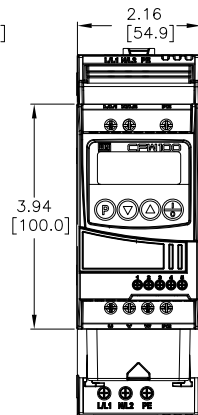
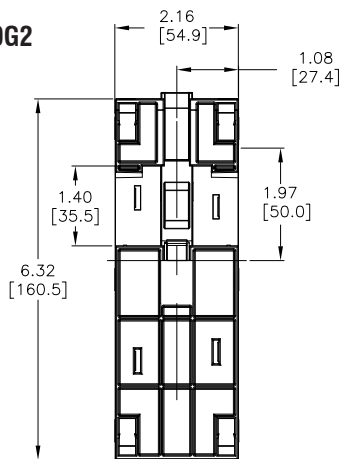
* **Optional modules add depth to dimension as follows:**
CFW100-IOP adds 17mm [0.67 in]
CFW100-CRS-485, -IOAR, -IOA, and -IOD add 14mm [0.55 in]
CFW100-CUSB and -IOADR add 13mm [0.51 in]

CFW100Bxxxxxxxxxx



* **Optional modules add depth to dimension as follows:**
CFW100-IOP adds 17mm [0.67 in]
CFW100-CRS-485, -IOAR, -IOA, and -IOD add 14mm [0.55 in]
CFW100-CUSB and -IOADR add 13mm [0.51 in]

CFW100C04P2S220G2

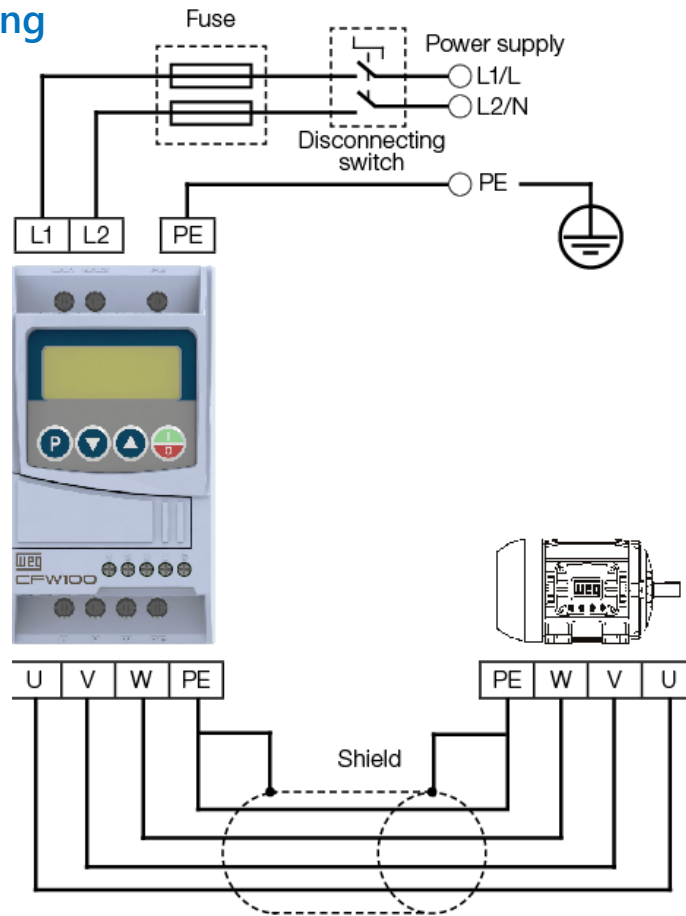


* **Optional modules add depth to dimension as follows:**
CFW100-IOP adds 17mm [0.67 in]
CFW100-CRS-485, -IOAR, -IOA, and -IOD add 14mm [0.55 in]
CFW100-CUSB and -IOADR add 13mm [0.51 in]

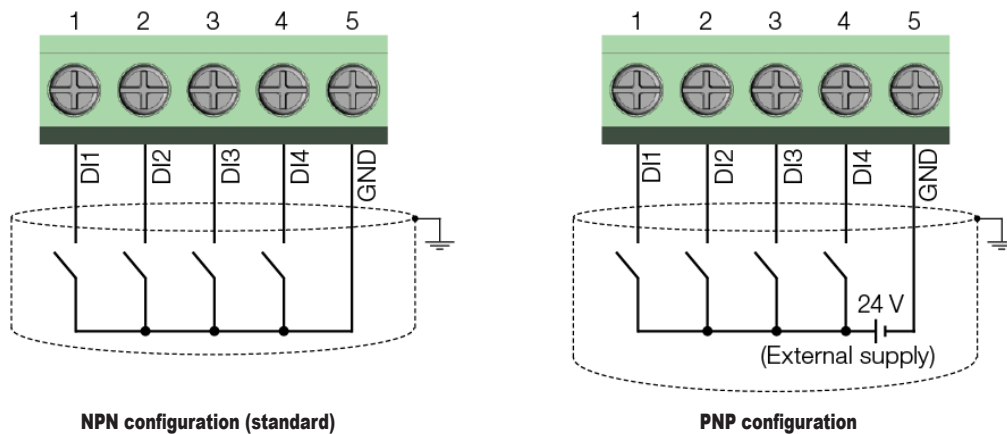
See our website (www.AutomationDirect.com) for complete engineering drawings.

WEG CFW100 AC Drives

Power and Grounding Connections



Installation and Connection



NPN configuration (standard)

PNP configuration

Connector	Description	
1	D11	Digital Input 1
2	D12	Digital Input 2
3	D13	Digital Input 3
4	D14	Digital Input 4
5	GND	Reference 0V

For further information, please reference additional diagrams available in the CFW100 User Manual.

WEG CFW100 AC Drives – Accessories

Hardware resources that can be added to the CFW100

WEG CFW100 AC Drives Accessories			
Model #	Price	Description	Use With Drive #CFW...
<u>CFW100-CRS485</u>	\$40.00	RS485 communication module, with Modbus Master function	CFW-100
<u>CFW100-CUSB</u>	\$42.50	USB communication module with 2m (6.56 ft) cable	CFW-100
<u>CFW100-IOP</u>	\$44.50	Potentiometer plug-in module	CFW-100
<u>CFW100-IOA</u>	\$48.50	I/O expansion module with 1 analog input and 1 analog output	CFW-100
<u>CFW100-IOADR</u>	\$101.00	I/O expansion and infrared remote control module ¹	CFW-100
<u>CFW100-IOAR</u>	\$39.50	I/O expansion module with 1 analog input and 1 relay output	CFW-100
<u>CFW100-IOD</u>	\$40.00	I/O expansion module with 4 isolated (configurable) NPN or PNP digital inputs	CFW-100
<u>CFW100-KHMIR</u>	\$125.00	CFW100 remote interface kit (CFW100-CRS485 with 1m (3.28 ft) cable included)	CFW-100
<u>CFW100-KFABC-S1</u>	\$62.00	Footprint ² radio frequency kit, category C2, for frames A, B or C (120V)	CFW-100 (120G2 models only)
<u>CFW100-KFABC-S2</u>	\$44.50	Footprint ² radio frequency kit, category C2, for frames A, B or C (220V)	CFW-100 (220G2 models only)
<u>PLMP</u>	\$1.00	Adapter kit for surface mounting, fastening with screws, set with two units	CFW-100

NOTES:
 1) I/O expansion and infrared remote control module contains 1 NTC sensor with a 1m (3.28 ft) cable, 1 infrared (IR) remote control, 1 infrared receiver cable with a 1.5 m (4.92 ft) cable, 1 NTC sensor input, 1 analog current input (0-10 mA or 2-20 mA), 1 analog voltage input (0-10 VDC), and 3 NO digital outputs (240 VAC).
 2) The footprint radio frequency filter is an external accessory on whose surface the VFD is mounted. The electrical connection between the filter and the CFW100 is made through the coupling guide that accompanies the filter. After being mounted on the filter surface, the set can be fastened to a DIN rail or mounted to a panel with screws. For mounting with screws, the PLMP Adapter Kit accessory is required. For further information refer to Chapter 7 of the user's manual; access the manual and accessories through www.automationdirect.com.



CFW100-CRS485



CFW100-CUSB



CFW100-IOP



CFW100-IOA



CFW100-IOAR



CFW100-IOD



CFW100-KFABC-S2



CFW100-KFABC-S1



PLMP



CFW100-IOADR



CFW100-KHMIR



WEG AC Drives



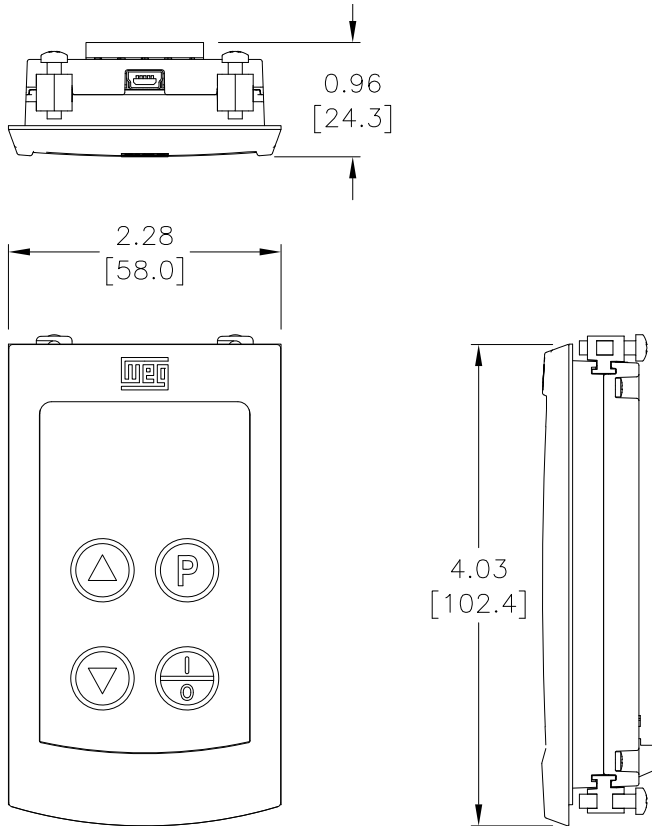
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WEG CFW100 AC Drives Accessories – Dimensions

Dimensions

mm [in]

CFW100-KHMIR



General Accessories Recommended for WEG CFW100 AC Drives

General Accessories Recommended for WEG CFW100 AC Drives						
AC Drive Part #	Power		Input Ø/V	Line Reactor*	Load Reactor*	Output Filter**
	hp	kW		1-Phase	3-Phase	3-Phase
CFW100A01P6S120G2	0.25	0.18	1Ø 115VAC	LR2-10P2-1PH	LR2-20P5	VTF-46-DE
CFW100B02P6S120G2	0.50	0.37		LR2-10P5-1PH	LR2-21P0	VTF-246-CFG
CFW100A01P6S220G2	0.25	0.18	1Ø 230VAC	LR2-20P2-1PH	LR2-20P5	VTF-46-DE
CFW100B02P6S220G2	0.50	0.37		LR2-20P2-1PH	LR2-20P7	VTF-246-CFG
CFW100C04P2S220G2	1	0.75		LR2-21P0-1PH	LR2-21P0	VTF-24-FH

* For Line Reactor technical information, please refer to "LR(2) Series Line Reactors" on page tDGA-1.
 ** For Drive Output Filter technical information, please refer to "Drive Output Filters – VTF Series – for Multiple AC Drives" on page tDGA-18.

WEG CFW300 Series AC Drives – Introduction



Purpose of AC Drives

AC drives are known by many different names: AC Drives, Adjustable Frequency Drives (AFDs), Variable Frequency Drives (VFDs), and Inverters. Drives are used primarily to vary the speed of three phase AC induction motors. They also provide non-emergency start and stop control, acceleration and deceleration, and overload protection. By gradually accelerating the motor, drives can reduce inrush current during motor startup.

AC drives operate by rectifying incoming AC power to DC, which is then inverted back into three-phase output power. The voltage and frequency of this inverted output power is controlled by the drive, in order to vary the speed of the three phase AC induction motor.

WEG CFW300 Overview

WEG CFW300 variable frequency drives are high-performance VFDs for three-phase induction motors. They are ideal for applications on machines or equipment that require precise variable-speed control with easy setup and operation.

The CFW300 series features compact size with contactor-style electrical connections (top in / bottom out). The CFW300's performance can be scaled to match the application by selecting WEG vector control (VVW) or scalar control (V/F).

CFW300s include built-in operator

WEG CFW300 Series AC Drives								
Motor Rating	hp	0.25	0.5	1	1.5	2	3	5
	kW	0.2	0.4	0.75	1.3	1.5	2.2	3.7
115V Single-Phase Input / 230V Three-Phase Output		✓	✓	✓	✓			
230V Single-Phase Input / 230V Three-Phase Output		✓	✓	✓	✓	✓	✓	
230V Three-Phase Input / 230V Three-Phase Output		✓	✓	✓	✓	✓	✓	✓

interface (HMI) and SoftPLC with free WPS programming software for custom-tailored control schemes. A variety of plug-in option modules for additional I/O and communications protocols may be added to provide extended capabilities, making the CFW300 a flexible and cost effective solution for your variable-speed requirements.

Features

- Single-phase and three-phase voltage supply
- DIN rail (35mm) or surface mounting with screws
- Side-by-side mounting; no heat dissipation space required beside/between the drives
- Voltage range:
 - 1-phase models: 110–127 VAC & 200–240 VAC
 - 3-phase models: 200–240 VAC
- Current/Power range: up to 15.2A/3.7kW (5hp)
- Control mode: Scalar (V/Hz) or Voltage Vector (VVW)
- Switching frequency: 2.5, 5, 10, or 15kHz
- Output frequency range: 0–400 Hz; 0.1Hz resolution
- Overload capacity: 150% for 60sec every 10min; 200% for 3 sec every 10min
- Degree of protection: IP20
- Operating temperature: 14 to 122°F (50°C); up to 140°F (60°C) with current derating (2% per 1°C above 50°C)
- Altitude: 0 to 3300ft (1000m); up to 13,200 ft (4000m) with current derating (1% per 100m above 1000m)

- Humidity: 5 to 95% non-condensing
- Integrated brake chopper for frame size B (not available for size A)
- Local keypad supplied as standard
- cULus, CE

Accessories

- Remote keypad with mounting kit and cable
- RS-232 serial communication module (Modbus RTU)
- RS-485 serial communication module (Modbus RTU)
- USB communication module and cable
- IODR expansion module – Insulated inputs (NPN or PNP)
- IOAR expansion module (1AI, 1AO, and 3RO)
- IOADR expansion module (1 PTC, 3RO, and 1 infrared input)
- Incremental encoder module (A/A - B/B)
- Flash memory module and cable
- RFI Filter

Typical Applications

- Blenders / Mixers
- Centrifugal pumps
- Centrifuges
- Commercial Dryers
- Compressors
- Conveyors
- Fans / Blowers
- Granulators
- Roller Tables
- Rotary Filters

WEG CFW300 AC Drives – Selection Specifications

CFW300 Drive Model Selection Tables

CFW300A (Frame Size A)

CFW300B (Frame Size B)

Modular design with easy-to-install accessories



Zero-Stack Mounting
(no side-to-side heat dissipation space required)



WEG CFW300 AC Drives Selection Specifications

Drive Model #	Price	Applicable Motor 1) 2)		Drive Output		Drive Input		Input Protection		Drive			
		Maximum Power		Nominal Phase / Voltage	Rated Current 3)	Nominal Phase / Voltage	Nominal Phase / Voltage	Rated Current (A)	Circuit Breaker (A)	Fuse 4) (A)	Power Loss (W)	Weight	Frame Size
		(hp)	(kW)										
CFW300A01P6S1NB20	\$184.00	0.25	0.18	3Ø / 230VAC	1.6	1Ø / 115VAC	7.1	10	20	30	0.90 kg [1.98 lb]	A	
CFW300A02P6S1NB20	\$201.00	0.50	0.37				2.6	11.5	16	20			45
CFW300A04P2S1NB20	\$214.00	1.00	0.75				4.2	17.7	20	35			60
CFW300A06POS1NB20	\$258.00	1.50	1.32				6.0	26.5	32	40			75
CFW300A01P6S2NB20	\$164.00	0.25	0.18			1.6	3.5	6.3	20	30			
CFW300A02P6S2NB20	\$178.00	0.50	0.37			2.6	5.7	10	20	35			
CFW300A04P2S2NB20	\$189.00	1.00	0.75			4.2	9.2	16	20	50			
CFW300A06POS2NB20	\$235.00	1.50	1.32			6.0	13.2	16	20	75			
CFW300A07P3S2NB20	\$277.00	2.00	1.50			7.3	16.1	20	25	90			
CFW300B10POB2DB20 5)	\$331.00	3.00	2.20			10.0	22.0	25	35	100	1.34 kg [2.95 lb]	B	
CFW300A01P6T2NB20	\$175.00	0.25	0.18			1.6	2.0	2.5	20	30	0.90 kg [1.98 lb]	A	
CFW300A02P6T2NB20	\$192.00	0.50	0.37			2.6	3.1	6.3	20	35			
CFW300A04P2T2NB20	\$204.00	1.00	0.75			4.2	5.0	10	20	50			
CFW300A06POT2NB20	\$247.00	1.50	1.32			6.0	7.2	10	20	75			
CFW300A07P3T2NB20	\$291.00	2.00	1.50			7.3	8.8	16	20	90			
CFW300B10POB2DB20 5)	\$331.00	3.00	2.20			10.0	12.0	25	35	100			1.34 kg [2.95 lb]
CFW300B15P2T2DB20	\$404.00	5.00	3.70	15.2	18.2	25	35	160					

1) For Use With Three-Phase Motors Only.
 2) The power values for the maximum applicable motor shown are reference values and are valid for WEG three-phase, four-pole induction motors with power supply of 230VAC. The proper sizing of the CFW300 drive must be determined as a function of the rated current of the motor being used.
 3) Motor FLA may vary with speed and manufacturer. ALWAYS compare motor FLA to Nominal AMPS of drive.
 4) For UL508C compliance, use UL fuse type J.
 5) Model CFW300B10POB2DB20 is capable of Single-Phase input without derating.

WEG CFW300 AC Drives – General Specifications

CFW300 General Specifications (Applicable to All Models)		
Control	Method	scalar (V/Hz) or voltage vector (VVW)
	Output Frequency Range	0–400 Hz; 0.1Hz resolution
Performance	V/Hz Control	Speed regulation: 1% of the rated speed (with slip compensation) Speed variation range: 1:20
	VVW Control	Speed regulation: 1% of the rated speed Speed variation range: 1:30
Inputs	Analog	1 insulated input; Levels: 0–10V or 0–20mA or 4–20mA Linearity error $\leq 0.25\%$ Impedance: 100k Ω for voltage input; 500 Ω for current input Programmable functions Maximum voltage permitted in the input: 30VDC
	Digital	4 isolated inputs Programmable functions • active high (PNP): maximum low level of 10VDC minimum high level of 20VDC • active low (NPN): maximum low level of 5VDC minimum high level of 10VDC Maximum input voltage of 30VDC Input current: 11mA Maximum input current: 20mA
Outputs	Relay	1 relay with NO/NC contact Maximum voltage: 250VAC Maximum current: 0.5A Programmable functions
	Power Supply	10VDC power supply; maximum capacity: 50mA
Safety	Protection	Overcurrent/Phase-Phase short circuit in the output Under/Overvoltage Motor overload Overtemperature in the power module (IGBTs) Fault / External alarm Programming error
Keypad	Integral (HMI)	4 keys: Start/Stop, Up arrow, Down arrow, and Programming LCD Display View/Edit all parameters Indication accuracy: • current: 5% of the rated current • speed resolution: 0.1Hz
Rated/Default Carrier Frequency		5kHz (selectable 2.5, 5, 10, or 15 kHz)
Input Voltage Range		1-phase 115V models: 110–127 VAC (-15%, +10%) 1-phase & 3-phase 230V models: 200–240 VAC (-15%, +10%)
Input Frequency Range		50/60Hz (48 to 62 Hz)
Allowable Input Phase Imbalance		$\leq 3\%$ of rated phase-to-phase input voltage
Overload Capacity		150% for 60sec every 10min; 200% for 3 sec every 10min
Braking		Frame size A models: Not available Frame size B models: Integrated brake chopper
Ambient Operating Temperature		14 to 122 °F (-10 to 50°C); up to 140°F (60°C) with current derating (2% per 1°C above 50°C)
Altitude		0 to 3300ft (1000m); up to 13,200 ft (4000m) with current derating (1% per 100m above 1000m)
Humidity		5 to 95% non-condensing
Mounting		DIN rail or surface mounting with screws
Mounting Orientation		Vertical and upright; can be mounted side-to-side (zero stack)
Environmental Protection Rating		IP20
Agency Approvals *		cUL _{us} [NMMS.E184430,NMMS7.E184430] (except CFW300-IOADR temperature combo module, CFW300-KFx-xx EMI Filters) CE (except CFW300-IOADR)

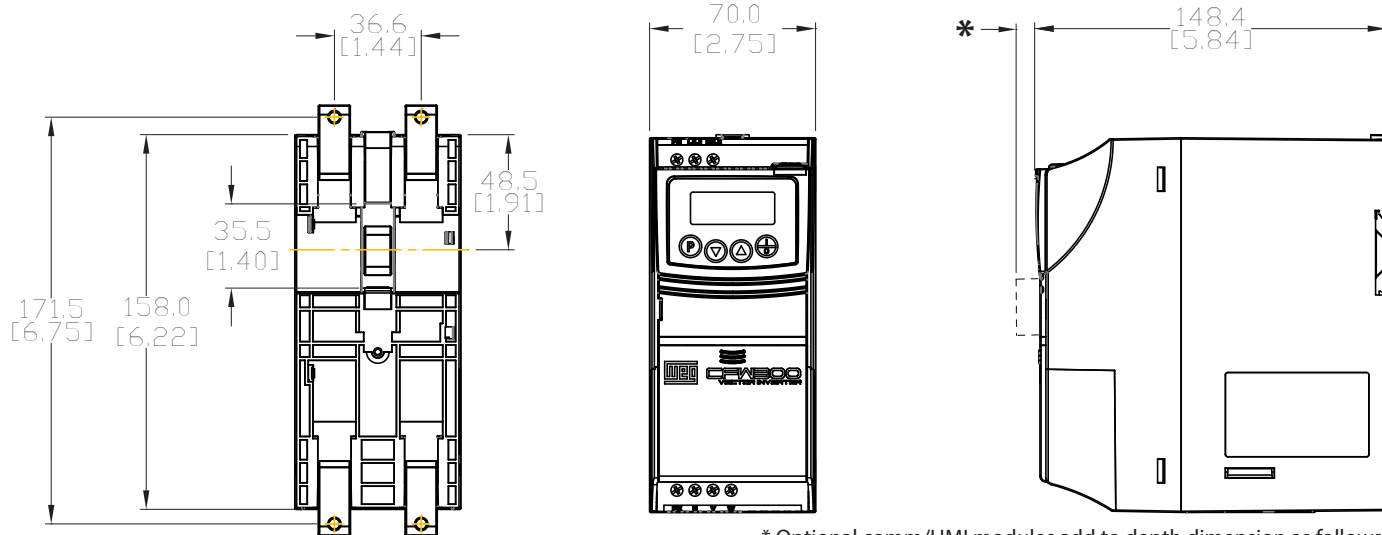
* To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

WEG CFW300 AC Drives – Dimensions

(mm [in])

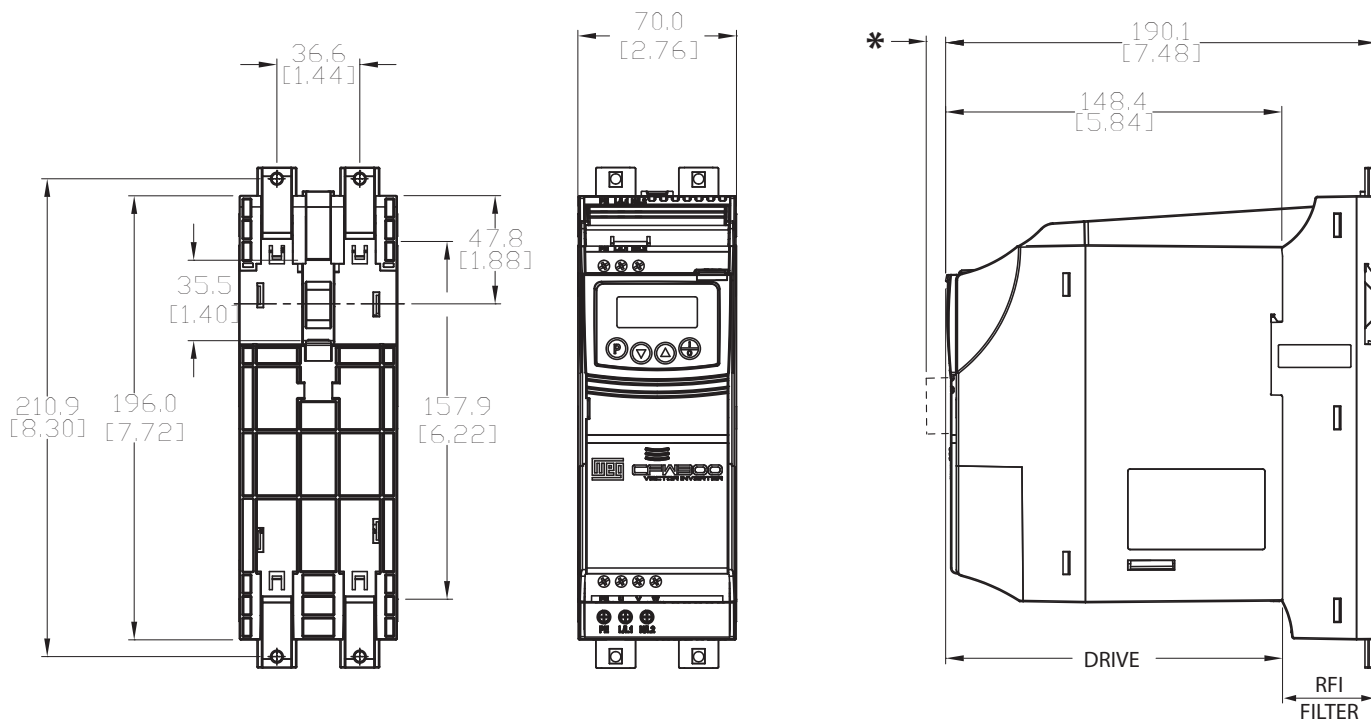
See our website (www.AutomationDirect.com) for complete engineering drawings.

CFW300 Drive Frame Size A (without RFI Filter)



* Optional comm/HMI modules add to depth dimension as follows:
 CFW300-KHMIR, -RS232, or -RS485 adds: 21.2 [0.84]
 CFW300-CUSB adds: 14.6 [0.58]

CFW300 Drive Frame Size A (with RFI Filter CFW300-KFA-S1-S2)



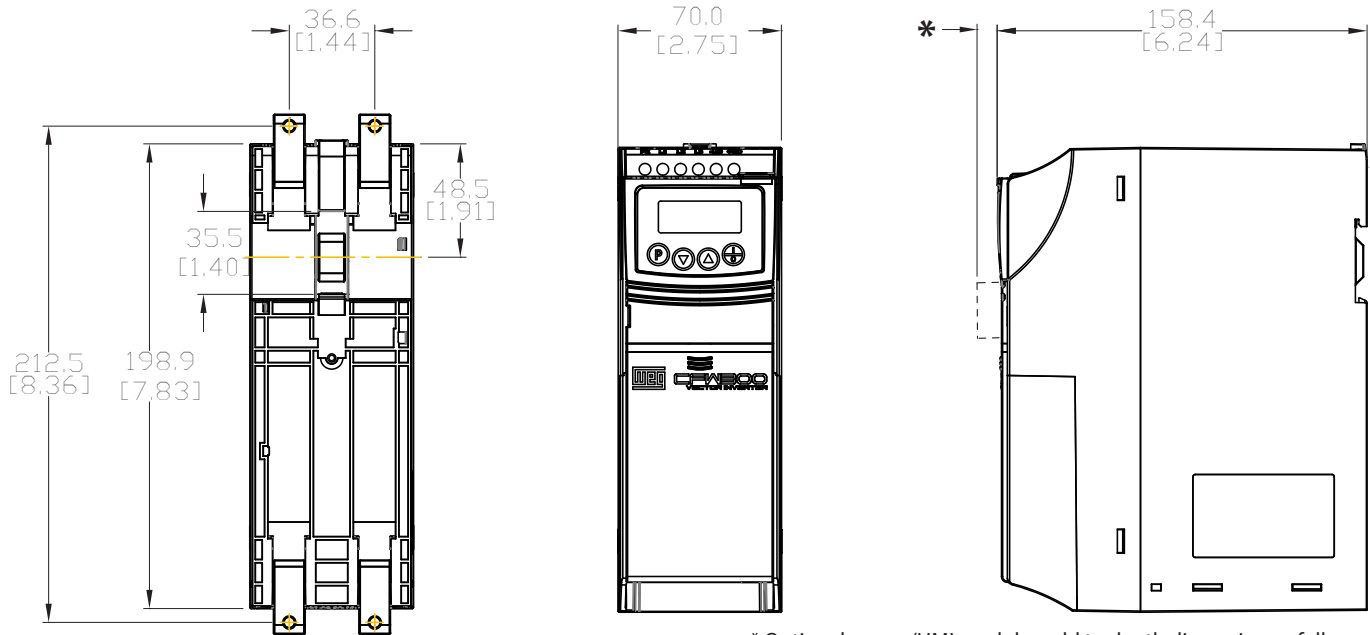
* Optional comm/HMI modules add to depth dimension as follows:
 CFW300-KHMIR, -RS232, or -RS485 adds: 21.2 [0.84]
 CFW300-CUSB adds: 14.6 [0.58]

WEG CFW300 AC Drives – Dimensions

(mm [in])

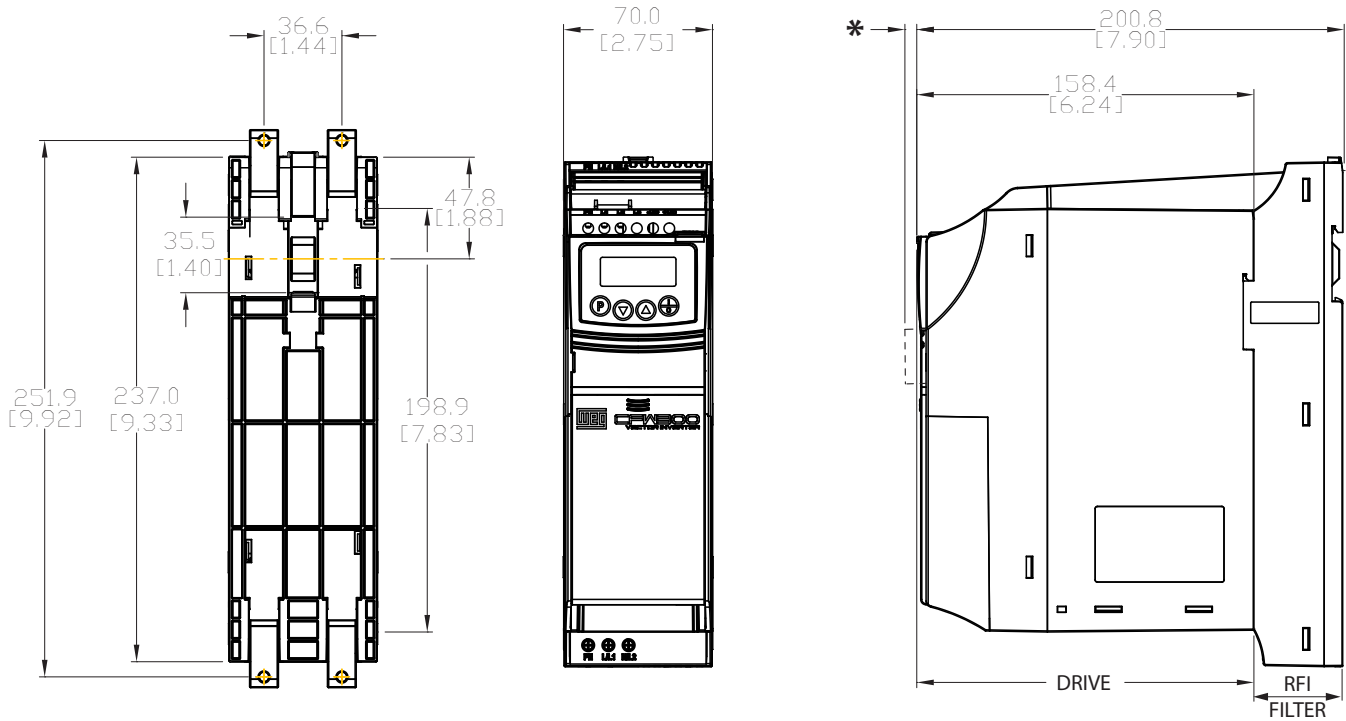
See our website (www.AutomationDirect.com) for complete engineering drawings.

CFW300 Drive Frame Size B (without RFI Filter)



* Optional comm/HMI modules add to depth dimension as follows:
 CFW300-KHMIR, -RS232, or -RS485 adds: 21.2 [0.84]
 CFW300-CUSB adds: 14.6 [0.58]

CFW300 Drive Frame Size B (with RFI Filter CFW300-KFB-S2)



* Optional comm/HMI modules add to depth dimension as follows:
 CFW300-KHMIR, -RS232, or -RS485 adds: 21.2 [0.84]
 CFW300-CUSB adds: 14.6 [0.58]

WEG CFW300 AC Drives – Accessories

CFW300-CRS232



CFW300-CRS485



CFW300-CUSB



CFW300-IOADR



CFW300-IOAENC



CFW300-IOAR



CFW300-IODR



CFW-WPS



CFW300-KFA-S1-S2



CFW300-KFB-S2



CFW300-KHMIR



CFW100-CFW300-MMF



CFW300-FAN-B



CFW300-FAN-A



WEG CFW300 AC Drives Accessories			
Model #	Price	Description	Use With Drive #CFW...
CFW300-CRS232 ¹⁾	\$41.50	RS-232 serial communication module (Modbus-RTU)	
CFW300-CRS485 ¹⁾	\$41.50	RS-485 serial communication module (Modbus-RTU)	
CFW300-CUSB ¹⁾	\$44.00	USB communication module + 2m cable	
CFW300-IOADR ²⁾	\$105.00	WEG Electric CFW300 series temperature combo module with infrared remote control, thermistor, 1-channel input, 3-point output, 250 VAC, (3) Form A (SPST) relays. For use with WEG CFW300 series AC drives.	...all
CFW300-IOAENC ²⁾	\$73.00	WEG Electric CFW300 series encoder analog combo module, 400 kHz maximum switching frequency, 1-channel quadrature encoder input, Analog Input: 1-channel, Analog Output: 2-channel. For use with WEG CFW300 series AC drives.	
CFW300-IOAR ²⁾	\$72.00	WEG Electric CFW300 series relay analog combo module, Analog Input: 1-channel, current/voltage, Analog Output: 1-channel, current/voltage, Discrete Output: 3-point, relay, (3) Form A (SPST) relays. For use with WEG CFW300 series AC drives.	
CFW300-IODR ²⁾	\$55.00	WEG Electric CFW300 series discrete combo module, Input: 4-point, 24 VDC, sinking/sourcing, Output: 3-point, 250 VAC, relay, (3) Form A (SPST) relays, 5A/point. For use with WEG CFW300 series AC drives.	
CFW300-KFA-S1-S2	\$46.00	WEG Electric EMI input filter, 1-phase, 7.3A, 35mm DIN rail mount, EMI/RFI filtering. For use with WEG CFW300Axxx 1-phase AC drives.	...300A...
CFW300-KFB-S2	\$53.00	WEG Electric EMI input filter, 1-phase, 10A, 35mm DIN rail mount, EMI/RFI filtering. For use with WEG CFW300Bxxx 1-phase AC drives.	...300B...
CFW300-KHMIR ¹⁾	\$130.00	WEG Electric CFW300 series remote serial HMI, for use with WEG CFW300 series AC drives. (1) CFW300-CRS485 communication module, (1) 9.8ft/3m USB A to miniB-USB cable and installation hardware for optional panel mounting included.	
CFW100-CFW300-MMF	\$107.00	WEG Electric CFW300 series flash memory module, for use with WEG CFW300 series AC drives. (Requires three AAA batteries; not included.)	...all
CFW-WPS	\$10.50	WEG Electric Windows configuration software, USB card or free download. For use with WEG CFW300 series AC drives. Requires PC USB port or USB-485M serial adapter. (Available for free download @ https://support.automationdirect.com/downloads.html)	
CFW300-FAN-A	\$35.50	Spare/Replacement main cooling fan for CFW300 frame size A drives	...300A...
CFW300-FAN-B	\$35.50	Spare/Replacement main cooling fan for CFW300 frame size B drives	...300B...

1) Only one communication or HMI module per drive; mounted in upper slot

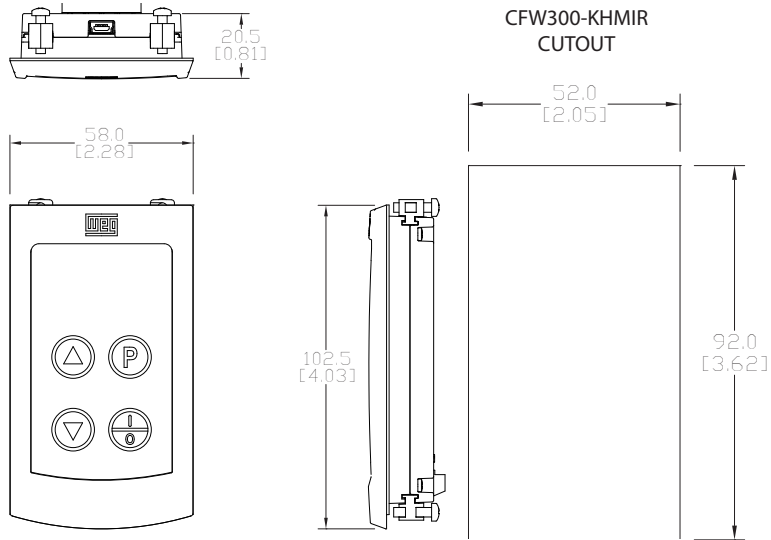
2) Only one I/O expansion module per drive; mounted in lower slot

WEG CFW300 AC Drives Accessories – Dimensions

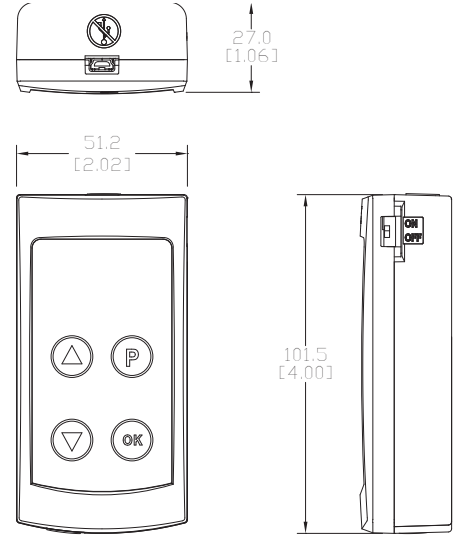
(mm [in])

See our website (www.AutomationDirect.com) for complete engineering drawings.

CFW300-KHMIR Remote Keypad



CFW100-CFW300-MMF Flash Memory Module



WEG CFW300 AC Drives – Accessories

Additional Accessories Recommended for WEG CFW300 AC Drives											
Drive Part # CFW300...	Input Ø/V	C/B Amp	Motor Protector ^{1) 4)}		Fuse ^{1) 4)}				Filter		
			WEG ^{1) 5)}	Fuji ⁴⁾	Amp	Class J ¹⁾	Class J Holder	Class T ⁴⁾	Class T Holder	WEG EMI/RFI	Roxburgh EMI
...A01P6S1NB20	1Ø 115VAC	10	MPW40-3-U010	BM3RHB-013 BM3VHB-013	20	JHL20 (JHL20-1)	JM60030-1CR	TJN20 (TJN20-1)	T30030-2SR	CFW300-KFA-S1-S2	n/a
...A02P6S1NB20		16	MPW40-3-U016	BM3RHB-020 BM3VHB-020	20	JHL20 (JHL20-1)	JM60030-1CR	TJN20 (TJN20-1)	T30030-2SR		
...A04P2S1NB20		20	MPW40-3-U020 ²⁾	BM3RHB-025 BM3VHB-025	35	JHL35 (JHL35-1)	JM60060-1CR	TJN35 (TJN35-1)	T30060-2CR		
...A06POS1NB20		32	MPW40-3-U032 ³⁾	BM3VHB-040	35	JHL35 (JHL35-1)	JM60060-1CR	TJN35 (TJN35-1)	T30060-2CR		
...A01P6S2NB20	1Ø 230VAC	6.3	MPW40-3-D063	BM3RHB-010 BM3VHB-010	20	JHL20 (JHL20-1)	JM60030-2CR	TJN20 (TJN20-1)	T30030-2SR	CFW300-KFB-S2	n/a
...A02P6S2NB20		10	MPW40-3-U010	BM3RHB-013 BM3VHB-013	20	JHL20 (JHL20-1)	JM60030-2CR	TJN20 (TJN20-1)	T30030-2SR		
...A04P2S2NB20		16	MPW40-3-U016	BM3RHB-020 BM3VHB-020	20	JHL20 (JHL20-1)	JM60030-2CR	TJN20 (TJN20-1)	T30030-2SR		
...A06POS2NB20		16	MPW40-3-U016	BM3RHB-020 BM3VHB-020	20	JHL20 (JHL20-1)	JM60030-2CR	TJN20 (TJN20-1)	T30030-2SR		
...A07P3S2NB20		20	MPW40-3-U020 ²⁾	BM3RHB-025 BM3VHB-025	25	JHL25 (JHL25-1)	JM60030-2CR	TJN25 (TJN25-1)	T30030-2SR		
...B10POB2DB20		25	MPW40-3-U025 ²⁾	BM3RHB-032 BM3VHB-032	35	JHL35 (JHL35-1)	JM60060-2CR	TJN35 (TJN35-1)	T30060-2CR		
...A01P6T2NB20	3Ø 230VAC	2.5	MPW40-3-D025	BM3RHB-004	20	JHL20 (JHL20-1)	JM60030-3CR	TJN20 (TJN20-1)	T30030-3SR	n/a	KMF306A MIF310
...A02P6T2NB20		6.3	MPW40-3-D063	BM3RHB-010 BM3VHB-010	20	JHL20 (JHL20-1)	JM60030-3CR	TJN20 (TJN20-1)	T30030-3SR		KMF310A MIF310
...A04P2T2NB20		10	MPW40-3-U010	BM3RHB-013 BM3VHB-013	20	JHL20 (JHL20-1)	JM60030-3CR	TJN20 (TJN20-1)	T30030-3SR		KMF318A MIF316
...A06POT2NB20		10	MPW40-3-U010	BM3RHB-013 BM3VHB-013	20	JHL20 (JHL20-1)	JM60030-3CR	TJN20 (TJN20-1)	T30030-3SR		KMF318A MIF316
...A07P3T2NB20		16	MPW40-3-U016	BM3RHB-020 BM3VHB-020	20	JHL20 (JHL20-1)	JM60030-3CR	TJN20 (TJN20-1)	T30030-3SR		KMF318A MIF316
...B10POB2DB20		25	MPW40-3-U025 ²⁾	BM3RHB-032 BM3VHB-032	35	JHL35 (JHL35-1)	JM60060-3CR	TJN35 (TJN35-1)	T30060-3CR		KMF336A MIF330B
...B15P2T2DB20		25	MPW40-3-U025 ²⁾	BM3RHB-032 BM3VHB-032	35	JHL35 (JHL35-1)	JM60060-3CR	TJN35 (TJN35-1)	T30060-3CR		KMF336A MIF330B
Drive Part # (same as above) CFW300...	Input Ø/V	Input Line Reactor	Output Load Reactor	3-Phase Output dV/dT Filter	Braking Resistors ⁶⁾						
					Resistor (ADC)	Drive Rated A	Peak Braking Current I _{pk} (A)	Min Resistor (Ω)	Max Braking Current I _{rms} (A)	Max Braking Torque* (%)	
...A01P6S1NB20	1Ø 115VAC	LR2-10P2-1PH	LR2-20P5	VTF-46-DE	n/a	n/a	n/a	n/a	n/a	n/a	
...A02P6S1NB20		LR2-10P5-1PH	LR2-20P5	VTF-246-CFG							
...A04P2S1NB20		LR2-22P0-1PH	LR2-20P5	VTF-24-FH							
...A06POS1NB20		LR2-11P5-1PH	LR2-21P0	VTF-24-FH							
...A01P6S2NB20	1Ø 230VAC	LR2-20P2-1PH	LR2-20P5	VTF-46-DE	n/a	n/a	n/a	n/a	n/a	n/a	
...A02P6S2NB20		LR2-20P5-1PH	LR2-20P5	VTF-246-CFG							
...A04P2S2NB20		LR2-21P0-1PH	LR2-20P5	VTF-24-FH							
...A06POS2NB20		LR2-21P5-1PH	LR2-21P0	VTF-24-FH							
...A07P3S2NB20		LR2-22P0-1PH	LR2-22P0	VTF-246-GJJ							
...B10POB2DB20		LR-27P5 (1PH) / LR-23P0	LR-23P0	VTF-246-HKL							GS-25P0-BR
...A01P6T2NB20	3Ø 230VAC	LR2-20P2-1PH	LR2-20P5	VTF-46-DE	n/a	n/a	n/a	n/a	n/a	n/a	
...A02P6T2NB20		LR2-20P5	LR2-20P5	VTF-246-CFG							
...A04P2T2NB20		LR2-20P7	LR2-20P7	VTF-24-FH							
...A06POT2NB20		LR2-20P7	LR2-20P7	VTF-24-FH							
...A07P3T2NB20		LR2-10P2-1PH	LR2-22P0	VTF-246-GJJ							
...B15P2T2DB20		LR-25P0	LR-25P0	VTF-24-JL							GS-25P0-BR

1) WEG published "High Fault" SCCR ratings (65kA) require the use of either the MPW40 motor protector or Class J fuses.
 2) For these MPW40 models, the CLT32 accessory is required for 65kA SCCR (without CLT32 current limiter, the SCCR maximum is 50kA).
 3) For this MPW40 model, the CLT32 accessory is required for 65kA SCCR (without CLT32 current limiter, the SCCR maximum is 42kA).
 4) The use of Fuji BM3RHB motor protectors or Class T fuses will lower the SCCR to the "Standard Fault" rating of 5kA.
 5) WEG MPW motor protectors and TCI KDR reactors are not currently sold by AutomationDirect.
 6) Max braking torque @ 10% duty cycle with maximum ON (braking) time of 10 seconds.

WEG CFW500 AC Drives – Introduction



Overview

The CFW500 is a high-performance VFD for applications that require speed and torque control of three-phase induction motors. The drive supports many methods of control including scalar V/Hz, sensorless vector control, as well as closed-loop vector control which provides the ability to produce 100% torque at zero speed. It also has SoftPLC, which adds PLC (programmable logic controller) functions, safety functions (STO and SS1) making it easier to comply with machine and application safety requirements, and selectable plug-in modules that provide a flexible and optimized solution for any application.

CFW500 drives include built-in operator interface (HMI) with free WPS programming software for custom-tailored control schemes. A variety of plug-in option modules for additional I/O and communications protocols may be added to provide extended capabilities, making the CFW500 a flexible and cost effective solution for your variable-speed requirements.

Features

- Single-phase and three-phase voltage supply
- DIN rail (35mm), A, B, and C frame, or surface mounting with screws
- Frame F/G flange mount capable and built-in dual DC bus chokes for harmonics reductions.
- Voltage range:
 - 1-phase/3-phase models: 200–240 VAC
 - 3-phase models: 200–240 VAC, 380–480 VAC
- Current/power range: up to 211A/112kW
- Control mode: Sensorless or closed loop

- vector control, VVW or Scalar V/F and permanent magnet motor control: VVW PM
- Switching frequency: 2.5, 5, 10, or 15kHz
- Output frequency range: 0–500 Hz; 0.1Hz resolution
- Overload Capacity (HD): 150% for 60sec every 10min; 200% for 3 sec every 10min

Environmental

- Degree of protection: IP20 or IP66 (NEMA4X)
- Operating temperature:
 - CFW500-IP20, Frame A to E:** 14°F (-10°C) to 122°F (50°C) w/o derating. Up to 140°F (60°C) with derating.
 - CFW500-IP20, Frame F:** 14°F (-10°C) to 104°F (40°C) w/o derating. Up to 140°F (60°C) with derating.
 - CFW500-IP20, Frame G:** 14°F (-10°C) to 113°F (45°C) w/o derating. Up to 140°F (60°C) with derating.
 - CFW500-IP66:** 14°F (-10°C) to 104 °F(40°C) w/o derating. Up to 122°F (50°C) with derating.
- Altitude: 0 to 3300ft (1000m); up to 13,200 ft (4000m) with current derating (1% per 100m above 1000m)
- Humidity: 5 to 95% non-condensing

Safety

- Integrated brake chopper (part numbers including "DB")
- Optional STO (Safe Torque Off) and SS1 (Safe Stop 1) fulfils requirements for safety performance SIL 3 / PL e, according to IEC 61800-5-2, EN ISO 13849-1, EN 6206, IEC 61508, and IEC 60204-1

Convenience

- Local keypad supplied as standard
- Conformal Coating (Tropicalization) as standard, class 3C2 according to IEC 60721-3-3 and 3C3 as an option, to protect against corrosive gases in harsh environments
- cULus, TUV, CE

Accessories

Keypads

- Remote keypad with mounting hardware
- Advanced text remote keypad with mounting hardware

Communication Modules

- RS-232 serial communication module (Modbus RTU)
- RS-485 serial communication module (Modbus RTU)
- USB communication module and cable
- Modbus TCP communication module
- EtherNet/IP communication module

Expansion Modules

- IOD expansion module - (8 DI, 1 AI, 1 AO, 1 DOR, 4 DOT, 1 RS485, 10VDC, 24VDC)
- IOAD expansion module (6 DI, 3 AI, 2 AO, 1 DOR, 3 DOT, 1 RS485, 10VDC, 24VDC)
- IOR-B expansion module (5 DI, 1 AI, 1 AO, 4 DOR, 1 DOT, 1 RS485, 10VDC, 24VDC)
- Incremental encoder module (A/A - B/B)
- Flash memory module

Typical Applications

- Blenders / Mixers
- Centrifugal pumps
- Centrifuges
- Commercial dryers
- Compressors
- Conveyors
- Fans / Blowers
- Granulators
- Roller tables
- Rotary filters

WEG CFW500 Series AC Drives																						
Motor Rating	hp	0.25	0.33	0.5	0.75	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	150
	kW	0.2	0.4	0.4	0.56	0.75	1.3	1.5	2.2	3.7	5.5	7.5	11.0	15.0	18.7	22.0	29.8	37.3	44.8			
230V 1-Phase Input / 230V 3-Phase Output	★		★		★	★	★	★														
230V 3-Phase Input / 230V 3-Phase Output	★		★		★	★	★	★	★	★	★	★	✓	✓	✓	✓	✓					
460V 3-Phase Input / 460V 3-Phase Output		★	✗	✓	✓			★	★	★	★	★	★	★	✓	✓	✓	✓	✓	✓	✓	✓

✓ = IP20 model available

✗ = IP66 models available

★ = IP20 and IP66 models available

WEG CFW500 AC Drives – Selection

Selecting the Proper Drive Rating

Selecting the Proper Drive Rating													
Determine Motor Voltage and Full-Load Amperage (FLA)													
Motor voltage and FLA are specified on the nameplate of the motor. NOTE: FLA of motors that have been rewind may be higher than stated.													
Determine Motor Overload Requirements													
Many applications experience temporary overload conditions due to starting requirements or impact loading. Most AC drives are designed to operate at 150% overload for 60 seconds. If the application requires an overload greater than 150% or longer than 60 seconds, the AC drive must be oversized. NOTE: Applications that require replacement of existing motor starters with AC drives may require up to 600% overload.													
Determine Application Type: Constant Torque or Variable Torque													
This torque requirement has a direct effect on which drive to select. Variable Torque applications are generally easier to start (typically fans and pumps). Most other applications outside fans and pumps fall into the Constant Torque category (machine control, conveyors, etc.). If you are unsure of the application, assume Constant Torque. The specification, derating, and selection tables are generally segregated by Constant Torque and Variable Torque.													
Installation Altitude													
AC drives rely on air flow for cooling. As the altitude increases, the air becomes less dense, and this drop in air density decreases the cooling properties of the air. Therefore, the AC drive must be oversized to compensate for the decrease in cooling. WEG CFW500 drives are designed to operate at 100% capacity at altitudes up to 1000 meters [3281ft]. NOTE: For use above 1000m [3281ft], the AC drive must be derated as described below.													
Derate Output Current Based on Altitude Above 1000 Meters [3281 feet]													
<ul style="list-style-type: none"> • If the AC drive is installed at an altitude of 0–1000m [3281ft], follow normal operation restrictions. • If installed at an altitude of 1000–4000m [3281–13123 ft], decrease 1% of the rated voltage (240V for 200–240V models, 480V for 380–480V models, and 600V for 500–600V models) for every 100m [328ft] increase in altitude. • Maximum altitude is 4000m [13123ft]. If installation at an altitude higher than 4000m [13123ft] is required, please contact AutomationDirect. 													
Derating for Altitude													
<table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Data for Derating for Altitude Graph</caption> <thead> <tr> <th>Altitude (m)</th> <th>Output Current Rating (%)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>100</td> </tr> <tr> <td>1000</td> <td>100</td> </tr> <tr> <td>2000</td> <td>90</td> </tr> <tr> <td>3000</td> <td>80</td> </tr> <tr> <td>4000</td> <td>70</td> </tr> </tbody> </table>		Altitude (m)	Output Current Rating (%)	0	100	1000	100	2000	90	3000	80	4000	70
Altitude (m)	Output Current Rating (%)												
0	100												
1000	100												
2000	90												
3000	80												
4000	70												

WEG CFW500 AC Drives – Selection

Selecting the Proper Drive Rating, continued

Determine Maximum Enclosure Internal Temperature

AC drives generate a significant amount of heat and can cause the internal temperature of an enclosure to exceed the rating of the WEG CFW500 drive, even when the ambient temperature is less than 104°F [40°C]. Enclosure ventilation and/or cooling may be required to reduce maximum internal temperature to 104°F [40°C] or less. Ambient temperature measurements/calculations should be made for the maximum expected temperature.

NOTE: For use above 104°F [40°C], the AC drive must be derated as described below.

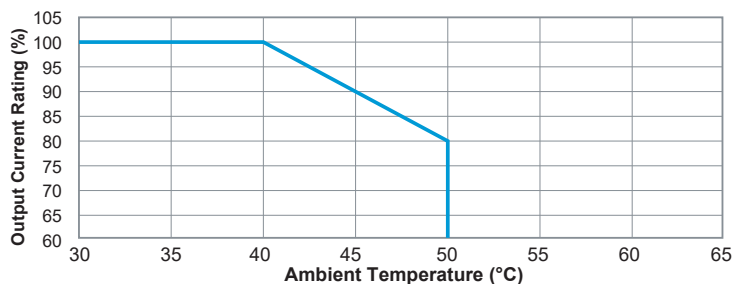
For IP20, Frame A to Frame E (side-by-side mounting), NEMA1 Kit, or IP66 Drives, Derate Output Current Based on Temperature Above 104°F [40°C]

Drive Derating by Temperature

Derating

When the WEG CFW500 drive is operating at rated current, the ambient temperature has to be between -10°C and +40°C [14°F and 104°F]. When ambient temperature exceeds 40°C [104°F], decrease the rated current by 2% for every 1°C [1.8°F] temperature increase. Maximum allowable temperature is 50°C [122°F].

Ambient Temperature Derating for Frame A–E



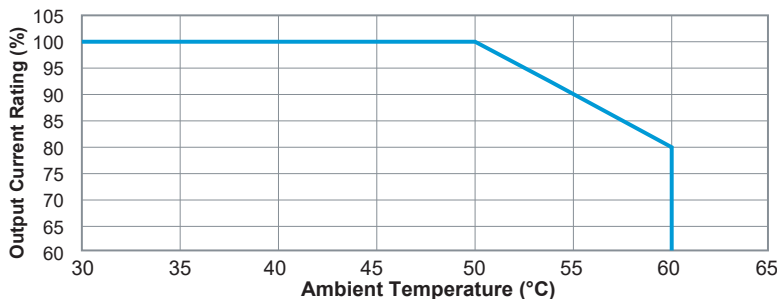
For IP20, Frame A to Frame E (with minimum clearance), Derate Output Current Based on Temperature Above 122°F [50°C]

Drive Derating by Temperature

Derating

When the WEG CFW500 IP20 frame size A-E (with proper clearance) drive is operating at rated current, the ambient temperature has to be between -10°C and +50°C [14°F and 122°F]. When ambient temperature exceeds 50°C [122°F], decrease the rated current by 2% for every 1°C [1.8°F] temperature increase up to 60°C [140°F].

Ambient Temperature Derating for Frame A–E (with clearance)



WEG CFW500 AC Drives – Selection

Selecting the Proper Drive Rating, continued

Determine Maximum Enclosure Internal Temperature																									
AC drives generate a significant amount of heat and can cause the internal temperature of an enclosure to exceed the rating of the WEG CFW500 drive, even when the ambient temperature is less than 104°F [40°C]. Enclosure ventilation and/or cooling may be required to reduce maximum internal temperature to 104°F [40°C] or less. Ambient temperature measurements/calculations should be made for the maximum expected temperature. NOTE: For use above 104°F [40°C], the AC drive must be derated as described below.																									
For Frame F, Derate Output Current Based on Temperature Above 104°F [40°C] or 122°F [50°C] For Frame G, Derate Output Current Based on Temperature Above 113°F [45°C] or 122°F [50°C]																									
Drive Derating by Temperature																									
Derating																									
When WEG CFW500 frame size F drives are operating at rated current, the ambient temperature has to be between -10°C and +40°C [14°F and 104°F]. When ambient temperature exceeds 40°C [104°F], decrease the rated current by 1% for every 1°C [1.8°F] temperature increase up to 50°C [122°F].																									
When WEG CFW500 frame size G drives are operating at rated current, the ambient temperature has to be between -10°C and +45°C [14°F and 113°F]. When ambient temperature exceeds 45°C [113°F], decrease the rated current by 1% for every 1°C [1.8°F] temperature increase up to 50°C [122°F].																									
For both Frame F and G, when ambient temperature exceeds 50°C [122°F], decrease the rated current by 2% for every 1°C [1.8°F] temperature increase. Maximum allowable temperature is 60°C [140°F].																									
Ambient Temperature Derating for Frame F-G																									
<table border="1"> <caption>Data points for Ambient Temperature Derating for Frame F-G</caption> <thead> <tr> <th>Ambient Temperature (°C)</th> <th>Frame F Output Current Rating (%)</th> <th>Frame G Output Current Rating (%)</th> </tr> </thead> <tbody> <tr> <td>30</td> <td>100</td> <td>100</td> </tr> <tr> <td>35</td> <td>100</td> <td>100</td> </tr> <tr> <td>40</td> <td>100</td> <td>100</td> </tr> <tr> <td>45</td> <td>95</td> <td>100</td> </tr> <tr> <td>50</td> <td>90</td> <td>95</td> </tr> <tr> <td>55</td> <td>80</td> <td>85</td> </tr> <tr> <td>60</td> <td>70</td> <td>75</td> </tr> </tbody> </table>		Ambient Temperature (°C)	Frame F Output Current Rating (%)	Frame G Output Current Rating (%)	30	100	100	35	100	100	40	100	100	45	95	100	50	90	95	55	80	85	60	70	75
Ambient Temperature (°C)	Frame F Output Current Rating (%)	Frame G Output Current Rating (%)																							
30	100	100																							
35	100	100																							
40	100	100																							
45	95	100																							
50	90	95																							
55	80	85																							
60	70	75																							

WEG CFW500 AC Drives – Selection

Selecting the Proper Drive Rating, continued

Derate Output Current Based on Carrier Frequency (if necessary)										
Carrier Frequency Effects										
AC Drives rectify the incoming 50 or 60Hz line power resulting in DC power at 0Hz. The resulting DC power is then pulse-width modulated and supplied to the motor by the drive's power electronics. IGBTs invert the DC power, simulating a sine wave at the desired frequency (that's what allows variable speed in AC induction motors). The speed at which the IGBTs are turned ON and OFF is called the Carrier Frequency. In WEG CFW500 drives, the Carrier Frequency can range from 2kHz to 15kHz. Though Carrier Frequency can be adjusted, there are trade-offs between high Carrier Frequencies and low Carrier Frequencies.										
Benefits of Higher Carrier Frequencies:										
<ul style="list-style-type: none"> • Better efficiency (lower harmonic losses) in the motor • Lower audible noise 										
Benefits of Lower Carrier Frequencies:										
<ul style="list-style-type: none"> • Better efficiency in the drive • Lower EMI (electrical noise) • Reduced reflective wave peak voltage <p>As a general rule, the Carrier Frequency should be set as low as possible without creating unacceptable audible noise in the motor. Smaller systems can have higher Carrier Frequencies, but larger drives (>20 or 30hp) should not have Carrier Frequencies set higher than 6kHz. Heavy duty applications typically run around 2–4 kHz.</p>										
Derating Tables										
The table below shows the derating values for each model of WEG CFW500 drive.										
Carrier Frequency Derating, IP20 Drives, A–E Frame										
WEG MAT #	Model #	Frame	2.5 kHz	5.0 kHz	10.0 kHz	15.0 kHz				
15570800	CFW500A01P6B2NB20G2	A	1.6 A	1.6 A	1.6 A	1.6 A				
15571879	CFW500A02P6B2NB20G2	A	2.6 A	2.6 A	2.6 A	2.6 A				
15571881	CFW500A04P3B2NB20G2	A	4.3 A	4.3 A	3.5 A	2.8 A				
15572625	CFW500A07P0T2NB20G2	A	7A	7A	5.8 A	4.9 A				
15572689	CFW500A09P6T2NB20G2	A	9.6 A	9.6 A	8A	6.7 A				
15574655	CFW500B07P3B2DB20G2	B	7.3 A	7.3 A	6.1 A	5.1 A				
15575067	CFW500B10P0B2DB20G2	B	10A	10A	8A	6.5 A				
15575202	CFW500B16P0T2DB20G2	B	16A	16A	12.7 A	10.1 A				
15575701	CFW500C24P0T2DB20G2	C	24A	25A	19A	16A				
15575716	CFW500D28P0T2DB20G2	D	28A	28A	22A	18A				
15576540	CFW500D47P0T2DB20G2	D	47A	47A	36A	30A				
15577077	CFW500E56P0T2DB20G2	E	56A	56A	43A	33A				
15572819	CFW500A01P0T4NB20G2	A	1A	1A	1A	1A				
15572908	CFW500A01P6T4NB20G2	A	1.6 A	1.6 A	1.6 A	1.6 A				
15573714	CFW500A02P6T4NB20G2	A	2.6 A	2.6 A	2.6 A	2A				
15573819	CFW500A04P3T4NB20G2	A	4.3 A	4.3 A	2.9 A	2A				
15573823	CFW500A06P1T4NB20G2	A	6.1 A	6.1 A	4.3 A	3.1 A				
15575568	CFW500B02P6T4DB20G2	B	2.6 A	2.6 A	2.6 A	2A				
15575577	CFW500B04P3T4DB20G2	B	4.3 A	4.3 A	2.9 A	2A				
15575665	CFW500B06P5T4DB20G2	B	6.5 A	6.5 A	4.5 A	3.3 A				
15575699	CFW500B10P0T4DB20G2	B	10A	10A	6.5 A	4.3 A				
15575707	CFW500C14P0T4DB20G2	C	14A	14A	10A	7A				
15575711	CFW500C16P0T4D820G2	C	16A	16A	10A	7A				
15576919	CFW500D24P0T4DB20G2	D	24A	24A	15A	12A				
15577021	CFW500D31P0T4DB20G2	D	31A	31A	16A	13A				
15577211	CFW500E39P0T4DB20G2	E	39A	39A	30A	19A				
15577452	CFW500E49P0T4DB20G2	E	49A	49A	30A	20A				
Carrier Frequency Derating, IP20 Drives, F-G Frame										
WEG MAT #	Model #	Frame	2.5 kHz		4.0 kHz		5.0 kHz		10.0 kHz	
			ND	HD	ND	HD	ND	HD	ND	HD
15342437	CFW500F77P0T2DB20G2	F	77A	64A	77A	64A	–	–	42.3 A	36.6 A
15342760	CFW500F88P0T2DB20G2	F	88A	75A	88A	75A	–	–	52.6 A	43.7 A
15342909	CFW500F105T2DB20G2	F	105A	88A	88A	73A	–	–	52.6 A	43.7 A
15733937	CFW500F77P0T4DB20G2	F	77A	61A	77A	61A	–	–	42.3 A	36.6 A
15734064	CFW500F88P0T4DB20G2	F	88A	73A	88A	73A	–	–	52.6 A	43.7 A
15734119	CFW500F105T4DB20G2	F	105A	88A	88A	73A	–	–	52.6 A	43.7 A
15448371	CFW500G0142T4DB20G2	G	142A	115A	–	–	111A	90A	–	–
15448372	CFW500G0180T4DB20G2	G	180A	142A	–	–	140A	111A	–	–
15448373	CFW500G0211T4DB20G2	G	211A	180A	–	–	164A	140A	–	–

WEG CFW500 AC Drives – Selection

Selecting the Proper Drive Rating, continued

Derate Output Current Based on Carrier Frequency (if necessary)					
Derating Tables, continued					
The table below shows the derating values for each model of WEG CFW500 drive.					
Carrier Frequency Derating, IP66 Drives with Disconnect					
WEG MAT #	Model #	2.5 kHz	5.0 kHz	10.0 kHz	15.0 kHz
14990863	CFW500A01P6B2DB66DSG2	1.6 A	1.6 A	1.6 A	1.6 A
14991103	CFW500A02P6B2DB66DSG2	2.6 A	2.6 A	2.6 A	2.6 A
14991753	CFW500A04P3B2DB66DSG2	4.3 A	4.3 A	3.5 A	2.8 A
14938005	CFW500A07P3B2DB66DSG2	7.3 A	7.3 A	6.1 A	5.1 A
14938047	CFW500A10P0B2DB66DSG2	10A	10A	8A	6.7 A
14938113	CFW500A16P0T2DB66DSG2	16A	16A	12.7 A	10.1 A
14975838 *	CFW500B24P0T2DB66DSG2	24A	24A @ 4.0 kHz	19A	16A
14938655	CFW500B28P0T2DB66DSG2	28A	28A	22A	18A
14991953	CFW500A01P0T4DB66DSG2	1A	1A	1A	1A
14992148	CFW500A01P6T4DB66DSG2	1.6 A	1.6 A	1.6 A	1.6 A
14976517	CFW500A02P6T4DB66DSG2	2.6 A	2.6 A	2.6 A	2A
14976809	CFW500A04P3T4DB66DSG2	4.3 A	4.3 A	2.9 A	2A
14977065	CFW500A06P5T4DB66DSG2	6.5 A	6.5 A	4.5 A	3.3 A
14977266	CFW500A10P0T4DB66DSG2	10A	10A	6.5 A	4.3 A
14977397	CFW500B14P0T4DB66DSG2	14A	14A	10A	7A
14977556	CFW500B16P0T4DB66DSG2	16A	16A	10A	7A
14978365	CFW500B24P0T4DB66DSG2	24A	24A	15A	12A
14978573	CFW500B31P0T4DB66DSG2	31A	31A	16A	13A
Carrier Frequency Derating, IP66 Drives, No Disconnect					
WEG MAT #	Model #	2.5 kHz	5.0 kHz	10.0 kHz	15.0 kHz
14989840	CFW500A01P6B2DB66G2	1.6 A	1.6 A	1.6 A	1.6 A
14990985	CFW500A02P6B2DB66G2	2.6 A	2.6 A	2.6 A	2.6 A
14991517	CFW500A04P3B2DB66G2	4.3 A	4.3 A	3.5 A	2.8 A
14937890	CFW500A07P3B2DB66G2	7.3 A	7.3 A	6.1 A	5.1 A
14938041	CFW500A10P0B2DB66G2	10A	10A	8A	6.7 A
14938111	CFW500A16P0T2DB66G2	16A	16A	12.7 A	10.1 A
14975783 *	CFW500B24P0T2DB66G2	24A	24A @ 4.0 kHz	19A	16A
14938547	CFW500B28P0T2DB66G2	28A	28A	22A	18A
14991899	CFW500A01P0T4DB66G2	1A	1A	1A	1A
14992113	CFW500A01P6T4DB66G2	1.6 A	1.6 A	1.6 A	1.6 A
14975888	CFW500A02P6T4DB66G2	2.6 A	2.6 A	2.6 A	2A
14976683	CFW500A04P3T4DB66G2	4.3 A	4.3 A	2.9 A	2A
14976814	CFW500A06P5T4DB66G2	6.5 A	6.5 A	4.5 A	3.3 A
14977261	CFW500A10P0T4DB66G2	10A	10A	6.5 A	4.3 A
14977391	CFW500B14P0T4DB66G2	14A	14A	10A	7A
14977552	CFW500B16P0T4DB66G2	16A	16A	10A	7A
14977629	CFW500B24P0T4DB66G2	24A	24A	15A	12A
14978548	CFW500B31P0T4DB66G2	31A	31A	16A	13A
* Note: These models provide the listed carrier frequency derating at 4.0 kHz rather than 5.0 kHz.					

WEG CFW500 AC Drives – Selection

WEG CFW500 Drive Model Selection Tables

NOTE: For all model specifications, HD = Heavy Duty, ND = Normal Duty

WEG CFW500 IP20 240VAC Drives Selection Specifications																
WEG MAT #	Model #	Price	Applicable Motor 1,2		Drive Output		Drive Input		Input Protection		Drive		Dynamic Braking	Drawing Link		
			Maximum Power		Nominal Phase / Voltage	Rated Current ³ (A)	Nominal Phase / Voltage	Nominal Phase / Voltage	Rated Current (A)	Circuit Breaker (A)	Fuse ⁴ (A)	Weight (kg) [lb]			Frame Size	
			(hp)	(kW)												
15570800	CFW500A01P6B2NB20G2	\$232.00	0.25	0.18	3Ph/ 230VAC	1.6	3Ph/ 230VAC	1Ph or 3Ph/ 230VAC	4.0/2.0 ⁵	5.5/2.5	20	0.8 [1.76]	A	N	PDF	
15571879	CFW500A02P6B2NB20G2	\$238.00	0.50	0.37					2.6	6.5/3.1 ⁵	9.0/4.0	20		0.8 [1.76]	N	PDF
15571881	CFW500A04P3B2NB20G2	\$258.00	1	0.75					4.3	10.5/5.2 ⁵	14/6.3	25/20		0.8 [1.76]	N	PDF
15574655	CFW500B07P3B2DB20G2	\$346.00	2	1.50					7.3	17/8.6 ⁵	25/12	40/20	1.2 [2.65]	B	Y	PDF
15575067	CFW500B10P0B2DB20G2	\$403.00	3	2.20					10	25/12 ⁵	25/16	60/25	1.2 [2.65]		Y	PDF
15572625	CFW500A07P0T2NB20G2	\$321.00	2	1.50					7	8.5 ⁵	10	20	0.8 [1.76]	A	N	PDF
15572689	CFW500A09P6T2NB20G2	\$394.00	3	2.20				9.6	11.7 ⁵	16	25	0.8 [1.76]	N		PDF	
15575202	CFW500B16P0T2DB20G2	\$430.00	5	3.70				16	19.5 ⁵	25	40	1.2 [2.65]	B	Y	PDF	
15575701	CFW500C24P0T2DB20G2	\$728.00	7.5	5.50				24	29 ⁵	32	60	2.0 [4.4]	C	Y	PDF	
15575716	CFW500D28P0T2DB20G2	\$907.00	10	7.50				28	34.2	40	60	4.3 [9.47]	D	Y	PDF	
15576540	CFW500D47P0T2DB20G2	\$1,484.00	15	11.00				47	57.3	65	60	4.3 [9.47]		Y	PDF	
15577077	CFW500E56P0T2DB20G2	\$1,724.00	20	15.00				56	68.32	80	125	10 [22.05]	E	Y	PDF	
15342437	CFW500F77P0T2DB20G2	\$2,117.00	20 (25-ND)	15 (18.65-ND)				64 (77-ND)	61.44 (73.92-ND)	125	125	26 [57.3]	F	Y	PDF	
15342760	CFW500F88P0T2DB20G2	\$2,652.00	25 (30-ND)	18.65 (22-ND)				75 (88-ND)	72 (84.48-ND)	150	125	26 [57.3]		Y	PDF	
15342909	CFW500F0105T2DB20G2	\$3,596.00	30 (40-ND)	22 (30-ND)	88 (105-ND)	84.48 (100.8-ND)	200	125	26 [57.3]	Y	PDF					

1) For use with three-phase motors only.

2) The power values for the maximum applicable motor shown are reference values and are valid for WEG three-phase, four-pole induction motors with power supply of 230VAC. The proper sizing of the CFW500 drive must be determined as a function of the rated current of the motor being used.

3) Motor FLA may vary with speed and manufacturer. ALWAYS compare motor FLA to Nominal AMPS of drive.

4) For UL508C compliance, use UL fuse type J.

5) UL Type E Starter consisting of WEG MPW40 (Manual Motor Protector) + CLT (current Limiter) + LST (line side Terminal block) + TSB (Trip indicating unit)

WEG CFW500 AC Drives – Specifications

WEG CFW500 Drive Model Selection Tables, continued

NOTE: For all model specifications, HD = Heavy Duty, ND = Normal Duty

WEG CFW500 IP20 480VAC Drives Selection Specifications																
WEG MAT #	Model #	Price	Applicable Motor ^{1,2}		Drive Output (HD)		Drive Input		Input Protection		Drive		Dynamic Braking	Drawing Link		
			Maximum Power		Nominal Phase / Voltage	Rated Current ³ (A)	Nominal Phase / Voltage	Nominal Phase / Voltage	Rated Current (A)	Circuit Breaker (A)	Fuse ⁴ (A)	Weight (kg) [lb]			Frame Size	
			(hp)	(kW)												
15572819	CFW500A01P0T4NB20G2	\$297.00	0.33	0.18	3PH/ 480VAC	1	3PH/ 480VAC	3PH/ 480VAC	1.2	1.6 ⁵	20	0.8 [1.76]	A	N	PDF	
15572908	CFW500A01P6T4NB20G2	\$308.00	0.75	0.37					1.6	1.9	2.5 ⁵	20		0.8 [1.76]	N	PDF
15573714	CFW500A02P6T4NB20G2	\$331.00	1	0.75					2.6	3.2	4 ⁵	20		0.8 [1.76]	N	PDF
15573819	CFW500A04P3T4NB20G2	\$408.00	2	1.5					4.3	5.2	6.3 ⁵	20		0.8 [1.76]	N	PDF
15573823	CFW500A06P1T4NB20G2	\$501.00	3	2.2					6.1	7.4	10 ⁵	20		0.8 [1.76]	N	PDF
15575568	CFW500B02P6T4DB20G2	\$361.00	1	0.75					2.6	3.2	4 ⁵	20	1.2 [2.65]	B	Y	PDF
15575577	CFW500B04P3T4DB20G2	\$455.00	2	1.5					4.3	5.2	6.3 ⁵	20	1.2 [2.65]		Y	PDF
15575665	CFW500B06P5T4DB20G2	\$544.00	3	2.2					6.5	7.8	10 ⁵	20	1.2 [2.65]		Y	PDF
15575699	CFW500B10P0T4DB20G2	\$615.00	5	3.7					10	12.0	16 ⁵	25	1.2 [2.65]	Y	PDF	
15575707	CFW500C14P0T4DB20G2	\$763.00	7.5	5.5					14	17.1	20 ⁵	35	2.0 [4.4]	C	Y	PDF
15575711	CFW500C16P0T4DB20G2	\$826.00	10	7.5					16	19.5	25	35	2.0 [4.4]	C	Y	PDF
15576919	CFW500D24P0T4DB20G2	\$1,137.00	15	11					24	29.3	40	60	4.3 [9.47]	D	Y	PDF
15577021	CFW500D31P0T4DB20G2	\$1,420.00	20	15					31	37.8	50	60	4.3 [9.47]		Y	PDF
15577211	CFW500E39P0T4DB20G2	\$1,707.00	25	18.5					39	47.6	50	80	10 [22.05]	E	Y	PDF
15577452	CFW500E49P0T4DB20G2	\$2,149.00	30	22					49	59.8	65	100	10 [22.05]		Y	PDF
15733937	CFW500F77P0T4DB20G2	\$2,907.00	40	30					60	64.66	80	125	26 [57.3]	F	Y	PDF
15734064	CFW500F88P0T4DB20G2	\$3,723.00	50	37					73	77.38	100	125	26 [57.3]		Y	PDF
15734119	CFW500F0105T4DB20G2	\$4,539.00	60	45					88	93.28	125	125	26 [57.3]		Y	PDF
15448371	CFW500G0142T4DB20G2	\$5,349.00	75	55					115	110.4	175	300	52 [114.64]	G	Y	PDF
15448372	CFW500G0180T4DB20G2	\$6,554.00	100	75					142	136.3	225	300	52 [114.64]		Y	PDF
15448373	CFW500G0211T4DB20G2	\$7,603.00	150	110	180	172.8	250	300	52 [114.64]	Y	PDF					

1) For use with three-phase motors only.

2) The power values for the maximum applicable motor shown are reference values and are valid for WEG three-phase, four-pole induction motors with power supply of 230VAC. The proper sizing of the CFW500 drive must be determined as a function of the rated current of the motor being used.

3) Motor FLA may vary with speed and manufacturer. ALWAYS compare motor FLA to Nominal AMPS of drive.

4) For UL508C compliance, use UL fuse type J.

5) UL Type E Starter consisting of WEG MPW40 (Manual Motor Protector) + CLT (current Limiter) + LST (line side Terminal block) + TSB (Trip indicating unit)

WEG CFW500 AC Drives – Specifications

WEG CFW500 Drive Model Selection Tables, continued

NOTE: For all model specifications, HD = Heavy Duty, ND = Normal Duty

WEG CFW500 IP66 240–480 VAC Drives Selection Specifications																
WEG MAT #	Model #	Price	Applicable Motor ^{1,2}		Drive Output		Drive Input		Input Protection		Drive		Dynamic Braking	Disconnects	Drawing Link	
			Maximum Power		Nominal Phase / Voltage	Rated Current ³ (A)	Nominal Phase / Voltage	Nominal Phase / Voltage	Rated Current (A)	Circuit Breaker (A)	Fuse ⁴ (A)	Weight (kg) [lb]				Frame Size
			(hp)	(kW)												
With Integrated Lockable Disconnect																
14990863	CFW500A01P6B2DB66DSG2	\$492.00	0.25	0.18	3Ph/ 230VAC	1.6	3Ph/ 230VAC	1Ph or 3Ph/ 230VAC	1.6	5.5/2.5 ⁵	40/20	22	A	Y	Y	PDF
14991103	CFW500A02P6B2DB66DSG2	\$506.00	0.5	0.37		2.6			2.6	9.0/4.0 ⁵	40/20	22				PDF
14991753	CFW500A04P3B2DB66DSG2	\$539.00	1	0.75		4.3			4.3	14/6.3 ⁵	40/20	22				PDF
14938005	CFW500A07P3B2DB66DSG2	\$644.00	2	1.5		7.3			7.3	25/12 ⁵	40/20	22				PDF
14938047	CFW500A10P0B2DB66DSG2	\$691.00	3	2.2		10			10.0	25/16 ⁵	40/20	22				PDF
14938113	CFW500A16P0T2DB66DSG2	\$856.00	5	3.7		16			16.0	25 ⁵	40	22				PDF
14975838	CFW500B24P0T2DB66DSG2	\$1,234.00	7.5	5.5	3Ph/ 230VAC	24	3Ph/ 230VAC	24.0	32 ⁵	60	26.5	B	Y	Y	PDF	
14938655	CFW500B28P0T2DB66DSG2	\$1,441.00	10	7.5		28		28.0	40	60	26.5				PDF	
14991953	CFW500A01P0T4DB66DSG2	\$602.00	0.33	0.25		1		1.0	1.6 ⁵	20	22				PDF	
14992148	CFW500A01P6T4DB66DSG2	\$619.00	0.5	0.37	3Ph/ 480VAC	1.6	3Ph/ 480VAC	3Ph/ 480VAC	1.6	2.5 ⁵	20	22	A	Y	Y	PDF
14976517	CFW500A02P6T4DB66DSG2	\$627.00	1	0.75		2.6			2.6	4 ⁵	20	22				PDF
14976809	CFW500A04P3T4DB66DSG2	\$743.00	2	1.4		4.3			4.3	6.3 ⁵	20	22				PDF
14977065	CFW500A06P5T4DB66DSG2	\$885.00	3	2.2		6.5			6.5	10 ⁵	20	22				PDF
14977266	CFW500A10P0T4DB66DSG2	\$1,045.00	5	3.7		10			10.0	16 ⁵	25	22				PDF
14977397	CFW500B14P0T4DB66DSG2	\$1,298.00	7.5	5.5		14			14.0	20 ⁵	35	26.5				PDF
14977556	CFW500B16P0T4DB66DSG2	\$1,415.00	10	7.5	3Ph/ 480VAC	16	3Ph/ 480VAC	3Ph/ 480VAC	19.5	25	35	B	Y	Y	PDF	
14978365	CFW500B24P0T4DB66DSG2	\$1,914.00	15	11		24			24.0	40	60				26.5	PDF
14978573	CFW500B31P0T4DB66DSG2	\$2,310.00	20	15		31			31.0	50	60				26.5	PDF
No Disconnect																
14989840	CFW500A01P6B2DB66G2	\$427.00	0.25	0.18	3Ph/ 230VAC	1.6	3Ph/ 230VAC	1Ph or 3Ph/ 230VAC	1.6	5.5/2.5 ⁵	40/20	22	A	Y	N	PDF
14990985	CFW500A02P6B2DB66G2	\$440.00	0.5	0.37		2.6			2.6	9.0/4.0 ⁵	40/20	22				PDF
14991517	CFW500A04P3B2DB66G2	\$468.00	1	0.75		4.3			4.3	14/6.3 ⁵	40/20	22				PDF
14937890	CFW500A07P3B2DB66G2	\$558.00	2	1.5		7.3			7.3	25/12 ⁵	40/20	22				PDF
14938041	CFW500A10P0B2DB66G2	\$602.00	3	2.2		10			10.0	25/16 ⁵	40/20	22				PDF
14938111	CFW500A16P0T2DB66G2	\$743.00	5	3.7		16			16.0	25 ⁵	40	22				PDF
14975783	CFW500B24P0T2DB66G2	\$1,073.00	7.5	5.5	3Ph/ 230VAC	24	3Ph/ 230VAC	3Ph/ 230VAC	24.0	32 ⁵	60	26.5	B	Y	N	PDF
14938547	CFW500B28P0T2DB66G2	\$1,252.00	10	7.5		28			28.0	40	60	26.5				PDF
14991899	CFW500A01P0T4DB66G2	\$523.00	0.33	0.25		1			1.0	1.6 ⁵	20	22				PDF
14992113	CFW500A01P6T4DB66G2	\$537.00	0.5	0.37	3Ph/ 480VAC	1.6	3Ph/ 480VAC	3Ph/ 480VAC	1.6	2.5 ⁵	20	22	A	Y	N	PDF
14975888	CFW500A02P6T4DB66G2	\$545.00	1	0.75		2.6			2.6	4 ⁵	20	22				PDF
14976683	CFW500A04P3T4DB66G2	\$647.00	2	1.5		4.3			4.3	6.3 ⁵	20	22				PDF
14976814	CFW500A06P5T4DB66G2	\$770.00	3	2.2		6.5			6.5	10 ⁵	20	22				PDF
14977261	CFW500A10P0T4DB66G2	\$908.00	5	3.7		10			10.0	16 ⁵	25	22				PDF
14977391	CFW500B14P0T4DB66G2	\$1,128.00	7.5	5.5		14			14.0	20 ⁵	35	26.5				PDF
14977552	CFW500B16P0T4DB66G2	\$1,229.00	10	7.5	3Ph/ 480VAC	16	3Ph/ 480VAC	3Ph/ 480VAC	19.5	25	35	B	Y	N	PDF	
14977629	CFW500B24P0T4DB66G2	\$1,664.00	15	11		24			24.0	40	60				26.5	PDF
14978548	CFW500B31P0T4DB66G2	\$2,008.00	20	15		31			31.0	50	60				26.5	PDF

1) For use with three-phase motors only.

2) The power values for the maximum applicable motor shown are reference values and are valid for WEG three-phase, four-pole induction motors with power supply of 230VAC. The proper sizing of the CFW300 drive must be determined as a function of the rated current of the motor being used.

3) Motor FLA may vary with speed and manufacturer. ALWAYS compare motor FLA to Nominal AMPS of drive.

4) For UL508C compliance, use UL fuse type J.

5) UL Type E Starter consisting of WEG MPW40 (Manual Motor Protector) + CLT (current Limiter) + LST (line side Terminal block) + TSB (Trip indicating unit)

WEG CFW500 AC Drives – Specifications

WEG CFW500 Drive Model Selection Tables, continued

CFW500 General Specifications (Applicable to All Models)			
Control	Method	V/f (Scalar), VVW (Voltage Vector Control), Vector control with encoder, SVC (Sensorless Vector Control) without encoder, PWM SVM (Space Vector Modulation)	
	Output Frequency Range	0–500 Hz; 0.015 Hz resolution	
Performance	Speed Control	V/f (Scalar)	<ul style="list-style-type: none"> Regulation (with slip compensation): 1% of the rated speed Speed variation range: 1:20
		VVW	<ul style="list-style-type: none"> Regulation: 1% of the rated speed Speed variation range: 1:30
		VVW PM	<ul style="list-style-type: none"> Regulation: 0.1% of the rated speed Speed variation range: 1:20
		Sensorless	<ul style="list-style-type: none"> Regulation: 0.5% of the rated speed Speed variation range: 1:100
		Vector w/ Encoder	<ul style="list-style-type: none"> Regulation 0.1% of the rated speed with a digital reference (keypad, serial, fieldbus, electronic potentiometer, multispeed)
	Torque Control	<ul style="list-style-type: none"> Range: 10 to 180%, regulation: $\pm 5\%$ of the rated torque (with encoder) Range: 20 to 180%, regulation $\pm 10\%$ of the rated torque (sensorless above 3 Hz) 	
Inputs	Analog	<ul style="list-style-type: none"> 1 insulated input, levels: (0 to 10) V or (0 to 20) mA or (4 to 20) mA Linearity error $\leq 0.25\%$ Impedance: 100kΩ for voltage input, 500Ω for current input Programmable functions Maximum voltage permitted in the input: 30VDC 	
	Digital	<ul style="list-style-type: none"> 4 insulated inputs Programmable functions: active high (PNP) with maximum low of 15VDC and minimum high of 20VDC, or active low (NPN) with maximum low of 5VDC and minimum high of 9VDC Maximum input voltage: 30VDC Input current: 4.5 mA Maximum input current: 5.5 mA 	
Outputs	Analog	<ul style="list-style-type: none"> 1 insulated output, levels: (0 to 10) V or (0 to 20) mA or (4 to 20) mA Linearity error $\leq 0.25\%$ Programmable functions $R_L \geq 10k\Omega$ (0 to 10) V or $R_L \leq 500\Omega$ (0 to 20 mA / 4 to 20 mA) 	
	Relay	<ul style="list-style-type: none"> 1 relay with NA/NF contact Maximum voltage: 240VAC Maximum current: 0.5 A Programmable functions 	
	Transistor	<ul style="list-style-type: none"> 1 insulated digital output open sink (uses as reference the 24VDC power supply) Maximum current 150 mA** (maximum capacity for the 24VDC power supply) Programmable functions <p>Note: When the digital output load is fed by an external power supply, the output status remains indefinite until the internal 24V power supply is stable.</p>	
	Power Supply	<ul style="list-style-type: none"> 24VDC $\pm 20\%$ power supply. Maximum capacity: 150mA 10VDC power supply. Maximum capacity: 2mA 	
Communication	Interface RS485	<ul style="list-style-type: none"> Insulated RS485 Modbus-RTU/BACnet protocol with maximum communication of 38.4 kbps 	
Safety	Protection	<ul style="list-style-type: none"> Overcurrent/phase-phase short circuit in the output Overcurrent/phase-ground short circuit in the output Under/overvoltage Overtemperature in the heatsink Overload in the motor Overload in the power module (IGBTs) External alarm/fault Setting error 	
Keypad	Integral (HMI)	<ul style="list-style-type: none"> 9 keys: Start/Stop, Up arrow, Down arrow, Direction of Rotation, Jog, Local/Remote, BACK/ESC, and ENTER/MENU LCD display View/editing of all parameters Indication accuracy: <ul style="list-style-type: none"> -Current: 5% of the rated current -Speed resolution: 0.1 Hz 	
Enclosure	IP20	Available models in frame size A, B, C, D, E, F, and G	
	NEMA1/IP20	Available models in frame size A, B, C, D, E, F, and G with NEMA1 kit	
	NEMA 12	Enclosed models available in frame size A and B	
	NEMA 4X Indoor/Outdoor		
	IP66 Indoor/Outdoor		

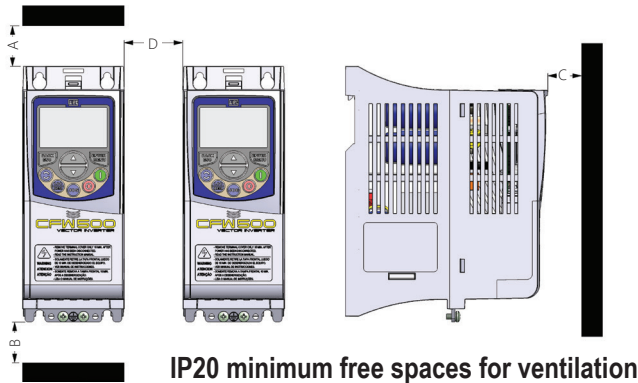
CFW500 AC Drives – Specifications

WEG CFW500 Drive Model Selection Tables, continued

CFW500 General Specifications, <i>continued</i> (Applicable to All Models)	
Input Voltage Range	1-phase & 3-phase 230V models: 200–240 VAC (-15%, +10%) 3-phase 460V models: 380–480 VAC (-15%, +10%)
Input Frequency Range	50/60Hz (48 to 62 Hz)
Allowable Input Phase Imbalance	≤3% of rated phase-to-phase input voltage
Overvoltage	Category III (IEC/EN 61010/UL 508C)
Ambient Operating Temperature	<ul style="list-style-type: none"> CFW500-IP20, Frame A to E (with minimum clearance on each side): 14°F (-10°C) to 122°F (50°C) w/o derating. Up to 140°F (60°C) with derating. CFW500-IP20, Frame F: 14°F (-10°C) to 104 °F (40°C) w/o derating. Up to 140°F (60°C) with derating. CFW500-IP20, Frame G: 14°F (-10°C) to 113 °F (45°C) w/o derating. Up to 140°F (60°C) with derating. CFW500-IP66 Drives: 14°F (-10°C) to 104 °F (40°C) w/o derating. Up to 122°F (50°C) with derating.
Altitude	0 to 3300ft [1000m]; up to 13,200 ft [4000m] with current derating (1% per 100m above 1000m)
Humidity	5 to 95% non-condensing
Mounting	DIN rail or surface mounting with screws
Mounting Orientation	Vertical and upright; can be mounted side-to-side (zero stack)
Environmental Protection Rating	IP20 or IP66
Agency Approvals	cUL _{US} , TUV, CE

WEG CFW500 AC Drives – Specifications

Minimum Clearances and Air Flow for WEG CFW500 IP20 Series Drives



IP20 minimum free spaces for ventilation

CFW500 IP20 Minimum Mounting Clearances*

Frame Size	A mm [in]	B mm [in]	C mm [in]	D mm [in]
A	15 [0.59]	40 [1.57]	30 [1.18]	10 [0.39]
B	35 [1.38]	50 [1.97]	40 [1.57]	15 [0.59]
C	40 [1.57]	50 [1.97]	50 [1.97]	30 [1.18]
D	40 [1.57]	50 [1.97]	50 [1.97]	40 [1.57]
E	110 [4.33]	130 [5.11]	50 [1.97]	40 [1.57]
F	110 [4.33]	130 [5.11]	10 [0.39]	30 [1.18]
G	150 [5.91]	250 [9.844]	20 [0.78]	80 [3.15]

* Failure to follow the minimum mounting clearances may cause the fan to malfunction and cause a heat dissipation problem.

CFW500 IP20 Loss Ratings and Temperatures

WEG MAT #	Model #	Duty	Output Rated Current [A _{rms}]	Overload Currents		Rated Carrier Frequency [kHz]	Nominal Drive Surrounding Temperature		Input Rated Current [A _{rms}]	Drive Power Losses	
				1 min [A _{rms}]	3s [A _{rms}]		IP20 with Min. Free Space [°C/°F]	Side-by-side IP20 or Type 1 [°C/°F]		Surface Mounting [W]	Flange Mounting [W]
15570800	CFW500A01P6B2NB20G2	-	1.6	2.4	3.2	5	50 / 122	40 / 104	4.0 / 2.0*	18	-
15571879	CFW500A02P6B2NB20G2	-	2.6	3.9	5.2	5	50 / 122	40 / 104	6.5 / 3.1*	30	-
15571881	CFW500A04P3B2NB20G2	-	4.3	6.5	8.6	5	50 / 122	40 / 104	10.5 / 5.2*	49	-
15574655	CFW500B07P3B2DB20G2	-	7.3	11	14.6	5	50 / 122	40 / 104	17 / 8.6*	84	-
15575067	CFW500B10P0B2DB20G2	-	10	15	20	5	50 / 122	40 / 104	25 / 12*	115	-
15572625	CFW500A07P0T2NB20G2	-	7.0	10.5	14	5	50 / 122	40 / 104	8.5	80	-
15572689	CFW500A09P6T2NB20G2	-	9.6	14.5	19.2	4	45 / 113	40 / 104	11.7	115	-
15575202	CFW500B16P0T2DB20G2	-	16	24	32	5	50 / 122	40 / 104	19.5	185	-
15575701	CFW500C24P0T2DB20G2	-	24	36	48	4	40 / 104	40 / 104	29	275	-
15575716	CFW500D28P0T2DB20G2	-	28	42	56	5	50 / 122	40 / 104	34.2	320	-
15576540	CFW500D47P0T2DB20G2	-	47	70.5	94	5	50 / 122	40 / 104	57.3	500	-
15572819	CFW500A01P0T4NB20G2	-	1.0	1.5	2.0	5	50 / 122	40 / 104	1.2	20	-
15572908	CFW500A01P6T4NB20G2	-	1.6	2.4	3.2	5	50 / 122	40 / 104	1.9	25	-
15573714	CFW500A02P6T4NB20G2	-	2.6	3.9	5.2	5	50 / 122	40 / 104	3.2	45	-
15573819	CFW500A04P3T4NB20G2	-	4.3	6.5	8.6	5	50 / 122	40 / 104	5.2	65	-
15573823	CFW500A06P1T4NB20G2	-	6.1	9.2	12.2	5	50 / 122	40 / 104	7.4	105	-
15575568	CFW500B02P6T4DB20G2	-	2.6	3.9	5.2	5	50 / 122	40 / 104	3.2	45	-
15575577	CFW500B04P3T4DB20G2	-	4.3	6.5	8.6	5	50 / 122	40 / 104	5.2	65	-
15575665	CFW500B06P5T4DB20G2	-	6.5	9.8	13	5	50 / 122	40 / 104	7.8	105	-
15575699	CFW500B10P0T4DB20G2	-	10	15	20	5	50 / 122	40 / 104	12	170	-
15575707	CFW500C14P0T4DB20G2	-	14	21	28	5	50 / 122	40 / 104	17.1	220	-
15575711	CFW500C16P0T4DB20G2	-	16	24	32	5	50 / 122	40 / 104	19.5	270	-
15576919	CFW500D24P0T4DB20G2	-	24	36	48	5	50 / 122	40 / 104	29.3	405	-
15577021	CFW500D31P0T4DB20G2	-	31	46.5	62	5	50 / 122	40 / 104	37.8	500	-

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* A_{rms} values noted with an asterisk are for 3-phase installations of 1-phase/3-phase capable drives.

WEG CFW500 AC Drives – Specifications

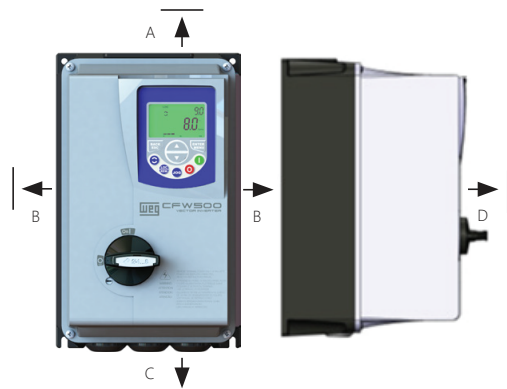
Minimum Clearances and Air Flow for WEG CFW500 IP20 Series Drives

CFW500 IP20 Loss Ratings and Temperatures											
WEG MAT #	Model #	Duty	Output Rated Current [A _{rms}]	Overload Currents		Rated Carrier Frequency [kHz]	Nominal Drive Surrounding Temperature		Input Rated Current [A _{rms}]	Drive Power Losses	
				1 min [A _{rms}]	3s [A _{rms}]		IP20 with Min. Free Space [°C/°F]	Side-by-side IP20 or Type 1 [°C/°F]		Surface Mounting [W]	Flange Mounting [W]
<i>Continued from previous page</i>											
15577077	CFW500E56P0T2DB20G2	ND	70	77	105	5	40 / 104	40 / 104	74.9	795	–
		HD	56	84	112	5	50 / 122	40 / 104	68.32	600	
15342437	CFW500F77P0T2DB20G2	ND	77	84.7	115.5	4	40 / 104	40 / 104	73.92	900	150
		HD	64	96	128	4	40 / 104	40 / 104	61.44	730	110
15342760	CFW500F88P0T2DB20G2	ND	88	96.8	132	4	40 / 104	40 / 104	84.48	1000	160
		HD	75	112.5	150	4	40 / 104	40 / 104	72	860	120
15342909	CFW500F0105T2DB20G2	ND	105	115.5	157.5	2.5	40 / 104	40 / 104	100.8	1200	180
		HD	88	132	176	2.5	40 / 104	40 / 104	84.48	1000	140
15577211	CFW500E39P0T4DB20G2	ND	45	49.5	67.5	5	40 / 104	40 / 104	48.2	810	–
		HD	39	58.5	78	5	50 / 122	40 / 104	47.58	650	
15577452	CFW500E49P0T4DB20G2	ND	58.5	64.4	87.8	5	40 / 104	40 / 104	62.6	985	–
		HD	49	73.5	98	5	50 / 122	40 / 104	59.78	750	
15733937	CFW500F77P0T4DB20G2	ND	77	84.7	115.5	4	40 / 104	40 / 104	81.62	1050	170
		HD	61	91.5	122	4	40 / 104	40 / 104	64.66	830	130
15734064	CFW500F88P0T4DB20G2	ND	88	96.8	132	4	40 / 104	40 / 104	93.28	1200	180
		HD	73	109.5	146	4	40 / 104	40 / 104	77.38	1000	140
15734119	CFW500F0105T4DB20G2	ND	105	115.5	157.5	2.5	40 / 104	40 / 104	111.30	1430	200
		HD	88	132	176	2.5	40 / 104	40 / 104	93.28	1200	160
15448371	CFW500G0142T4DB20G2	ND	142	156.2	213	2.5	45 / 113	45 / 113	136.32	1680	210
		HD	115	172.5	230	2.5	45 / 113	45 / 113	110.4	1290	200
15448372	CFW500G0180T4DB20G2	ND	180	198	270	2.5	45 / 113	45 / 113	172.8	2050	360
		HD	142	213	284	2.5	45 / 113	45 / 113	136.32	1570	350
15448373	CFW500G0211T4DB20G2	ND	211	232.1	316.5	2.5	45 / 113	45 / 113	202.56	2330	360
		HD	180	270	360	2.5	45 / 113	45 / 113	172.8	1940	350

* A_{rms} values noted with an asterisk are for 3-phase installations of 1-phase/3-phase capable drives.

WEG CFW500 AC Drives – Specifications

Minimum Clearances and Air Flow for WEG CFW500 IP66 Series Drives



IP66 minimum free spaces for ventilation

CFW500 IP66 Minimum Mounting Clearances*				
Frame Size	A mm [in]	B mm [in]	C mm [in]	D mm [in]
A	36 [1.38]	15 [0.59]	50 [1.97]	50 [1.97]
B	50 [1.97]	40 [1.57]	60 [2.36]	50 [1.97]

* Failure to follow the minimum mounting clearances may cause the fan to malfunction and cause a heat dissipation problem.

CFW500 IP66 Loss Ratings and Temperatures

WEG MAT #	Model # (CFW500+...)	Output Rated Current [A _{rms}]	Overload Currents		Rated Carrier Frequency [kHz]	Nominal Drive Surrounding Temperature [°C/°F]	Input Rated Current [A _{rms}]	Drive Power Losses
			1 min [A _{rms}]	3s [A _{rms}]				Surface Mounting [W]
14989840	CFW500A01P6B2DB66G2	1.6	2.4	3.2	5	40 / 104	3.5 / 2.0*	18
14990863	CFW500A01P6B2DB66DSG2	1.6	2.4	3.2	5	40 / 104	3.5 / 2.0*	18
14990985	CFW500A02P6B2DB66G2	2.6	3.9	5.2	5	40 / 104	5.7 / 3.1*	30
14991103	CFW500A02P6B2DB66DSG2	2.6	3.9	5.2	5	40 / 104	5.7 / 3.1*	30
14991517	CFW500A04P3B2DB66G2	4.3	6.5	8.6	5	40 / 104	10.5 / 5.2*	49
14991753	CFW500A04P3B2DB66DSG2	4.3	6.5	8.6	5	40 / 104	10.5 / 5.2*	49
14937890	CFW500A07P3B2DB66G2	7.3	11	14.6	5	40 / 104	16 / 8.6*	84
14938005	CFW500A07P3B2DB66DSG2	7.3	11	14.6	5	40 / 104	16 / 8.6*	84
14938041	CFW500A10P0B2DB66G2	10	15	20	5	40 / 104	22.1 / 12*	115
14938047	CFW500A10P0B2DB66DSG2	10	15	20	5	40 / 104	22.1 / 12*	115
14938111	CFW500A16P0T2DB66G2	16	24	32	5	40 / 104	19.5	185
14938113	CFW500A16P0T2DB66DSG2	16	24	32	5	40 / 104	19.5	185
14975783	CFW500B24P0T2DB66G2	24	36	48	4	40 / 104	29	275
14975838	CFW500B24P0T2DB66DSG2	24	36	48	4	40 / 104	29	275
14938547	CFW500B28P0T2DB66G2	28	42	56	5	40 / 104	34.0	320
14938655	CFW500B28P0T2DB66DSG2	28	42	56	5	40 / 104	34.0	320
14991899	CFW500A01P0T4DB66G2	1	1.5	2	5	40 / 104	1.2	20
14991953	CFW500A01P0T4DB66DSG2	1	1.5	2	5	40 / 104	1.2	20
14992113	CFW500A01P6T4DB66G2	1.6	2.4	3.2	5	40 / 104	1.9	25
14992148	CFW500A01P6T4DB66DSG2	1.6	2.4	3.2	5	40 / 104	1.9	25
14975888	CFW500A02P6T4DB66G2	2.6	3.9	5.2	5	40 / 104	3.2	45
14976517	CFW500A02P6T4DB66DSG2	2.6	3.9	5.2	5	40 / 104	3.2	45
14976683	CFW500A04P3T4DB66G2	4.3	6.5	8.6	5	40 / 104	5.2	65
14976809	CFW500A04P3T4DB66DSG2	4.3	6.5	8.6	5	40 / 104	5.2	65
14976814	CFW500A06P5T4DB66G2	6.5	9.8	13	5	40 / 104	7.8	105
14977065	CFW500A06P5T4DB66DSG2	6.5	9.8	13	5	40 / 104	7.8	105
14977261	CFW500A10P0T4DB66G2	10	15	20	5	40 / 104	12	170
14977266	CFW500A10P0T4DB66DSG2	10	15	20	5	40 / 104	12	170
14977391	CFW500B14P0T4DB66G2	14	21	28	5	40 / 104	17.1	220
14977397	CFW500B14P0T4DB66DSG2	14	21	28	5	40 / 104	17.1	220
14977552	CFW500B16P0T4DB66G2	16	24	32	5	40 / 104	19.5	270
14977556	CFW500B16P0T4DB66DSG2	16	24	32	5	40 / 104	19.5	270
14977629	CFW500B24P0T4DB66G2	24	36	48	5	40 / 104	29.3	405
14978365	CFW500B24P0T4DB66DSG2	24	36	48	5	40 / 104	29.3	405
14978548	CFW500B31P0T4DB66G2	31	46.5	62	5	40 / 104	34.0	500
14978573	CFW500B31P0T4DB66DSG2	31	46.5	62	5	40 / 104	34.0	500

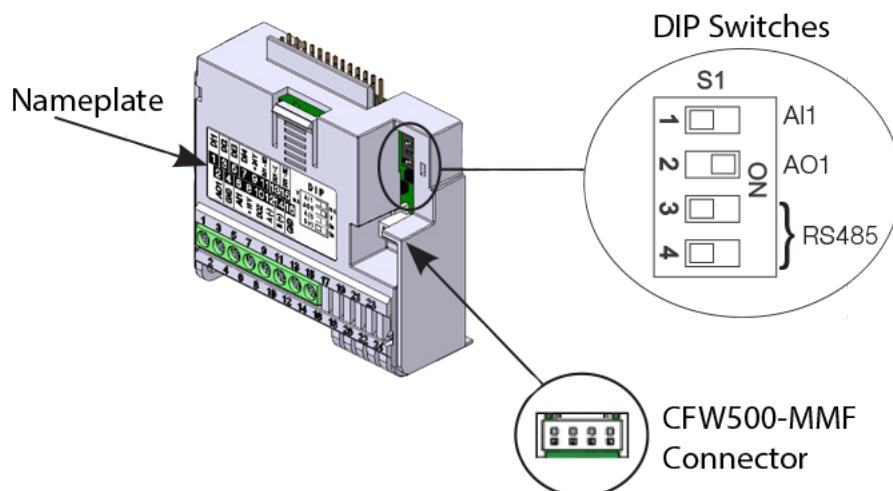
* A_{rms} values noted with an asterisk are for 3-phase installations of 1-phase/3-phase capable drives.

WEG CFW500 Drives – Control Connections

Installation and Connection (Default CFW500-IOS Module)

The location of the plug-in module and DIP switches to select the type of analog input and output signal and the termination of the RS485 network is shown below.

The CFW500 drives are supplied with the digital inputs configured as active low (NPN), analog input and output configured for signal in voltage 0–10 V and with termination resistor of the RS485 set to OFF.



Note: To use the analog inputs and/or outputs with signal in current, you must set the switch S1 and the related parameters per the table below. For further information, please refer to the WEG CFW500 programming manual.



Note: To modify the digital inputs from active low to active high, check the use of parameter P0271 in the WEG CFW500 programming manual.

CFW500 Switch Configuration				
Input/Output	Signal	Setting of Switch S1	Signal Range	Parameter Setting
AI1	Voltage	S1.1 = OFF	0–10 V	P233 = 0 (direct reference) or 2 (inverse reference)
	Current	S1.1 = ON	0–20 mA	P233 = 0 (direct reference) or 2 (inverse reference)
			4–20 mA	P233 = 1 (direct reference) or 3 (inverse reference)
AO1	Voltage	S1.2 = ON	0–10 V	P253 = 0 (direct reference) or 3 (inverse reference)
	Current	S1.2 = OFF	0–20 mA	P253 = 1 (direct reference) or 4 (inverse reference)
			4–20 mA	P253 = 2 (direct reference) or 5 (inverse reference)

Switch Settings for RS485			
Communication	Switch	Switch Setting	Option
RS485	S1	S1.3 = OFF and S1.4 = OFF	RS485 terminal OFF
		S1.3 = ON and S1.4 = ON	RS485 terminal ON

For the correct connection of the control, use:

- Cable gauge: 0.5 mm² [20 AWG] to 1.5 mm² [14 AWG]
- Maximum torque: 0.5 N·m [4.50 lbf·in]
- Wire the plug-in module connector with shielded cable and separate from the other wiring (power, command in 110V/220VAC, etc.) according to the table below. If those cables must cross other cables, run them perpendicularly, maintaining a minimum spacing of 5cm [1.97 in] at the crossing point.

Cable Separation Distance		
Drive Output Rated Current	Length of the Cable	Minimum Separation Distance
≤ 24A	≤ 100m [330ft]	≥ 10cm [3.94 in]
	> 100m [330ft]	≥ 25cm [9.84 in]
≥ 28A	≤ 30m [100ft]	≥ 10cm [3.94 in]
	> 30m [100 ft]	≥ 25cm [9.84 in]

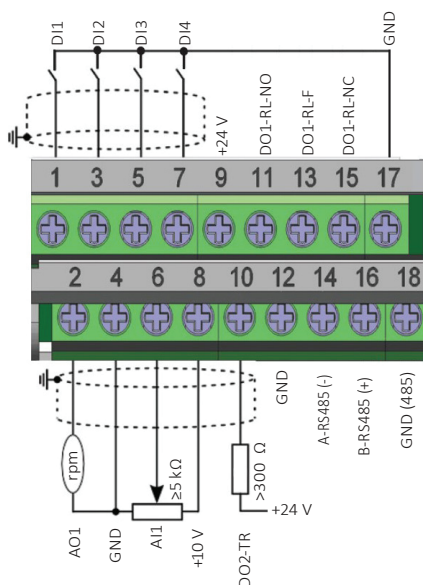
WEG CFW500 Drives– Control Connections

Control Connections

The control connections (analog input/output, digital input/output, and RS485 interface) must be configured according to the specification of the plug-in module's connector. Refer to the plug-in module's instructions. The typical functions and connections for the CFW500-IOS standard plug-in module are shown below. For additional details about the specifications of the connector signals, please see Chapter 8, Technical Specifications, of the WEG CFW500 User Manual.



Note: The connections below are specific to the CFW500-IOS module that comes standard with the WEG CFW500 drive.



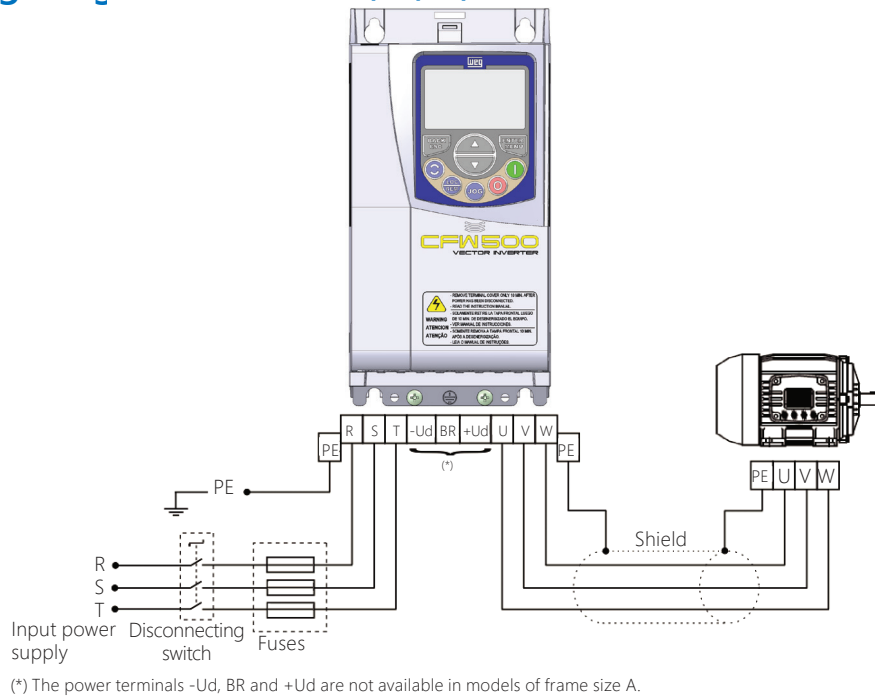
CFW500-IOS Connectors		
Connector	Description	
1	DI1	Digital Input 1
3	DI2	Digital Input 2
5	DI3	Digital Input 3
7	DI4	Digital Input 4
9	+24V	Power supply +24VDC
11	DO1-RL-NO	Digital Output 1 (NO contact for Relay 1)
13	DO1-RL-C	Digital Output 1 (Common point for Relay 1)
15	DO1-RL-NC	Digital Output 1 (NC contact of Relay 1)
17	GND	Reference 0V
2	AO1	Analog Output 1
4	GND	Reference 0V
6	AI1	Analog Input 1
8	+10V	Reference +10VDC for potentiometer
10	DO2-TR	Digital Output 2 (Transistor)
12	GND	Reference 0V
14	RS485-A	RS485 (Terminal A)
16	RS485-B	RS485 (Terminal B)
18	GND (485)	RS485 (Ground)

CFW500-IOS Connection Specifications		
Type	Terminal	Description
Inputs	AI1	<ul style="list-style-type: none"> 1 insulated input, levels: 0–10 V or 0–20 mA or 4–20 mA Linearity error ≤ 0.25% Impedance: 100kΩ for voltage input, 500Ω for current input Programmable functions Maximum voltage permitted in the input: 30VDC
	DI1 – DI4*	<ul style="list-style-type: none"> 4 insulated inputs Programmable functions: active high (PNP) with maximum low of 15VDC and minimum high of 20VDC, or active low (NPN) with maximum low of 5VDC and minimum high of 9VDC Maximum input voltage: 30VDC Input current: 4.5 mA Maximum input current: 5.5 mA
Outputs	AO1	<ul style="list-style-type: none"> 1 insulated output, levels: 0–10 V or 0–20 mA or 4–20 mA Linearity error ≤ 0.25% Programmable functions $R_L \geq 10 \text{ k}\Omega$ (0–10 V) or $R_L \leq 500\Omega$ (0–20 mA / 4–20 mA)
	DO1-RL-NO DO1-RL-F DO1-RL-NC	<ul style="list-style-type: none"> 1 relay with NA/NF contact Maximum voltage: 240VAC Maximum current: 0.5 A Programmable functions
	DO2-TR	<ul style="list-style-type: none"> 1 insulated digital output open sink (uses as reference the 24VDC power supply) Maximum current 150 mA (maximum capacity fo the 24VDC power supply) Programmable functions <p>Note: When the digital output load is fed by an external power supply, the output status remains indefinite until the internal 24V power supply is stable.</p>
	“+24V” “+10V”	<ul style="list-style-type: none"> 24VDC ± 20% power supply. Maximum capacity: 150mA** 10VDC power supply. Maximum capacity: 2mA
Communication	A-RS485(-) B-RS485(+) GND(485)	<ul style="list-style-type: none"> Insulated RS485 Modbus-RTU/BACnet protocol with maximum communication of 38.4 kbps

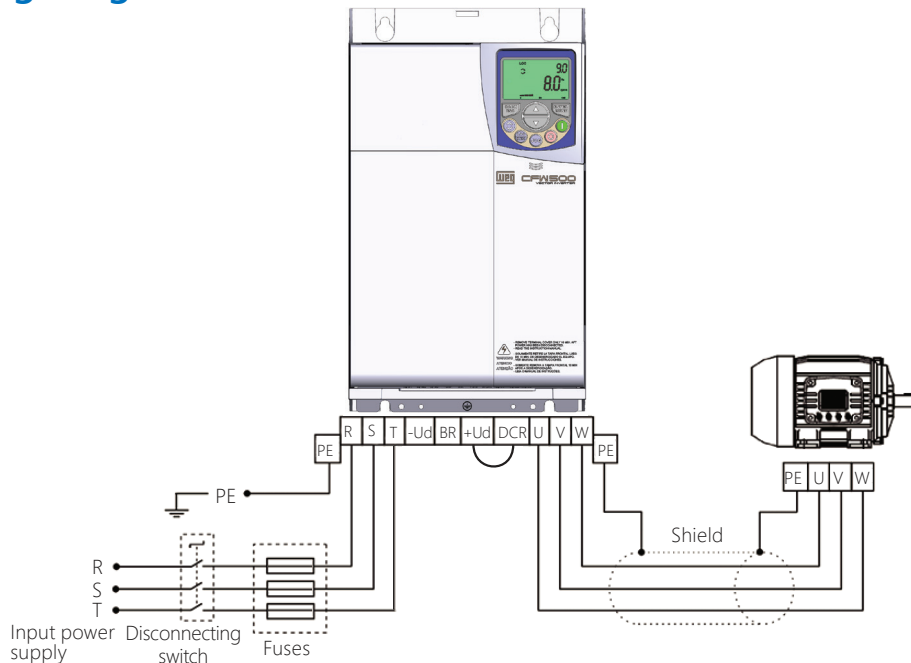
* When using digital inputs active high (PNP), source voltage from +24V, terminal 9.

WEG CFW500 Drives – Basic Wiring Diagrams

Circuit Wiring Diagram: Frame A, B, C, and F Models



Circuit Wiring Diagram: Frame D and E Models



WARNING! PROVIDE A DISCONNECT DEVICE FOR THE DRIVE POWER SUPPLY. THIS DEVICE MUST TURN OFF THE POWER SUPPLY WHENEVER NECESSARY (DURING MAINTENANCE, FOR INSTANCE).



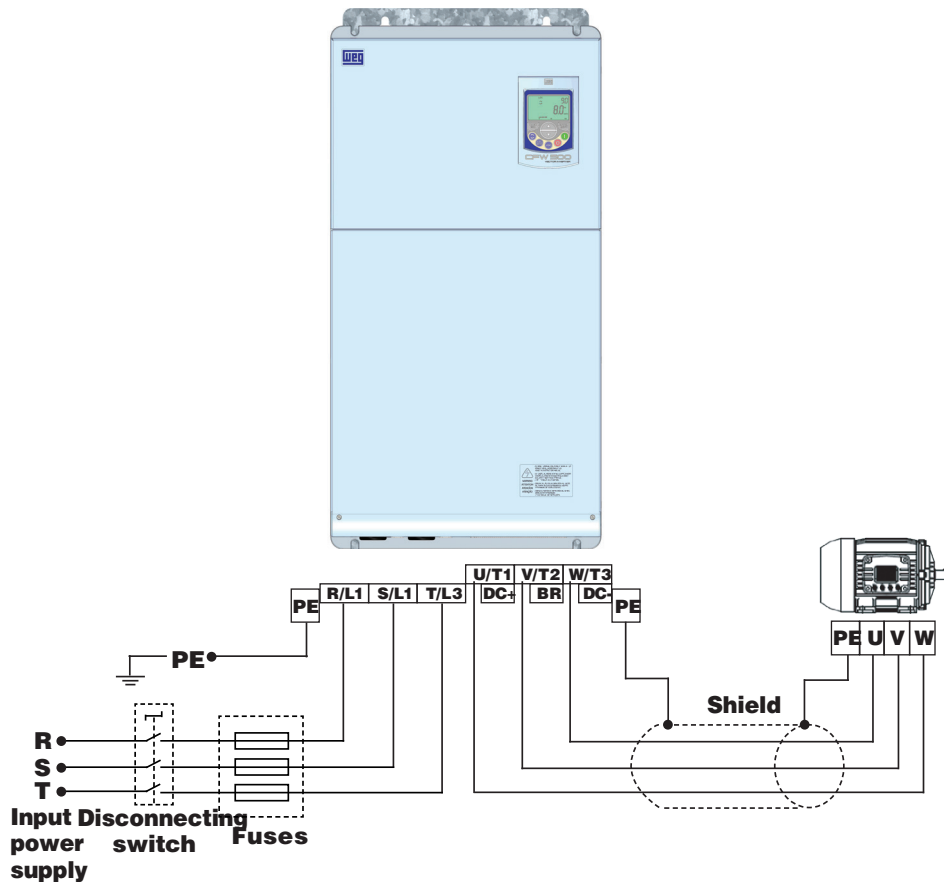
WARNING! THE POWER SUPPLY THAT FEEDS THE DRIVE MUST HAVE A GROUNDED NEUTRAL. IN CASE OF IT NETWORKS, REFER TO THE INSTRUCTIONS IN SECTION 3.2.3.3 OF THE WEG CFW500 USER MANUAL.



Note: The input power supply voltage must be compatible with the drive rated voltage. Power factor correction capacitors are not needed at the drive input (L/L1, N/L2, L3, or R, S, T) and must not be installed at the output (U, V, W).

WEG CFW500 Drives – Basic Wiring Diagrams

Circuit Wiring Diagram: Frame G Models



WARNING! PROVIDE A DISCONNECT DEVICE FOR THE DRIVE POWER SUPPLY. THIS DEVICE MUST TURN OFF THE POWER SUPPLY WHENEVER NECESSARY (DURING MAINTENANCE, FOR INSTANCE).



WARNING! THE POWER SUPPLY THAT FEEDS THE DRIVE MUST HAVE A GROUNDED NEUTRAL. IN CASE OF IT NETWORKS, REFER TO THE INSTRUCTIONS IN SECTION 3.2.3.3 OF THE WEG CFW500 USER MANUAL.

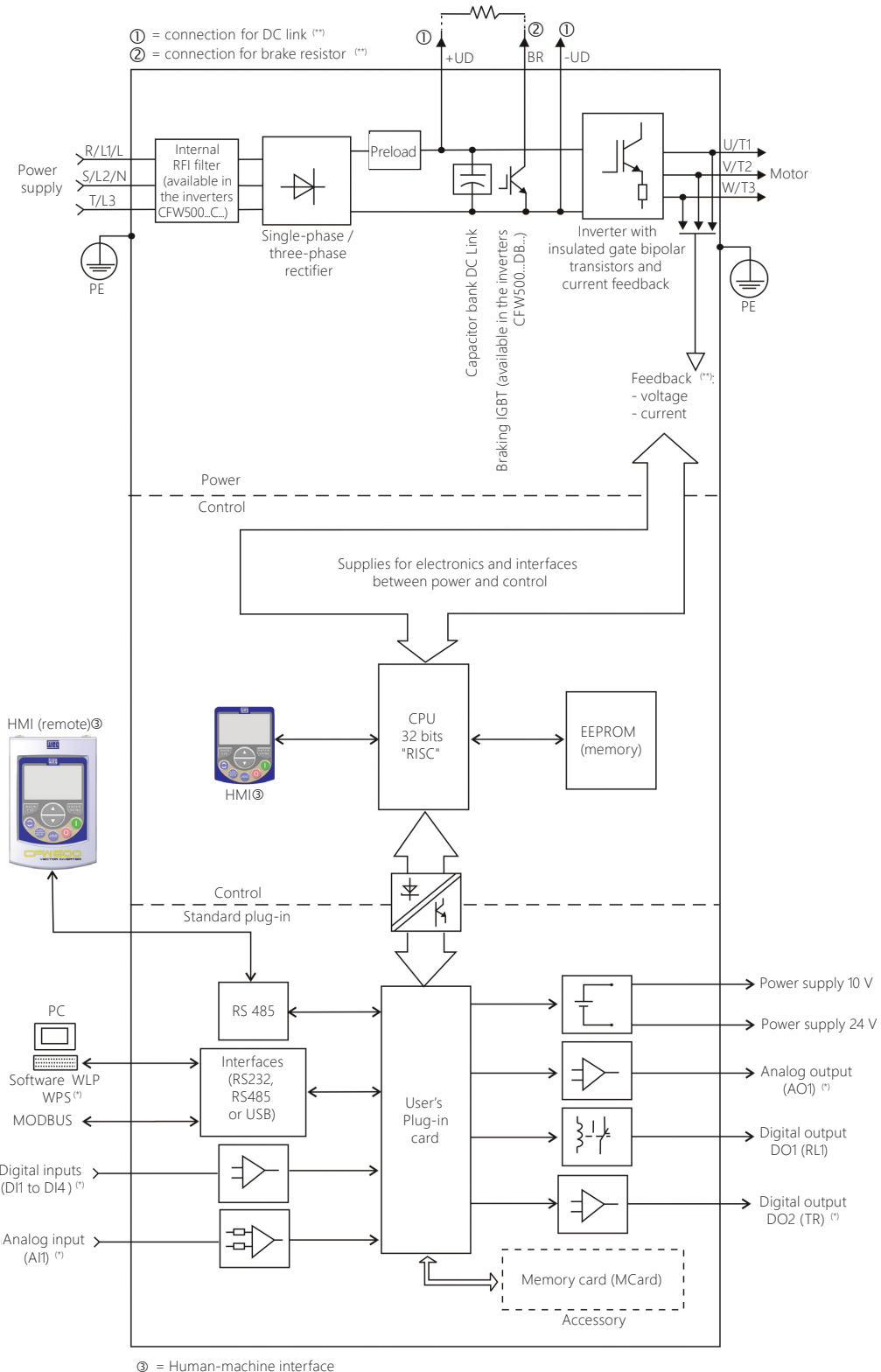


Note: The input power supply voltage must be compatible with the drive rated voltage. Power factor correction capacitors are not needed at the drive input (L/L1, N/L2, L3, or R, S, T) and must not be installed at the output (U, V, W).

WEG CFW500 Drives – Basic Wiring Diagrams

Control Wiring Diagram: Full I/O

Note: Users MUST connect wiring according to the circuit diagram shown below. (Refer to WEG CFW500 user manual for additional specific wiring information.)



(*) The number of analog/digital inputs/outputs, as well as other resources, may vary according to the plug-in module used. For further information, refer to the guide supplied with the accessory.

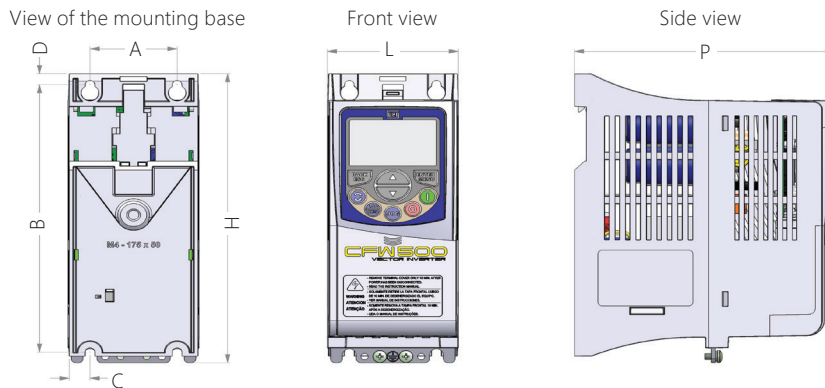
(**) Not available in frame size A.

WEG CFW500 AC Drives – Drive Mounting

WEG CFW500 IP20 Drive Positioning and Mounting

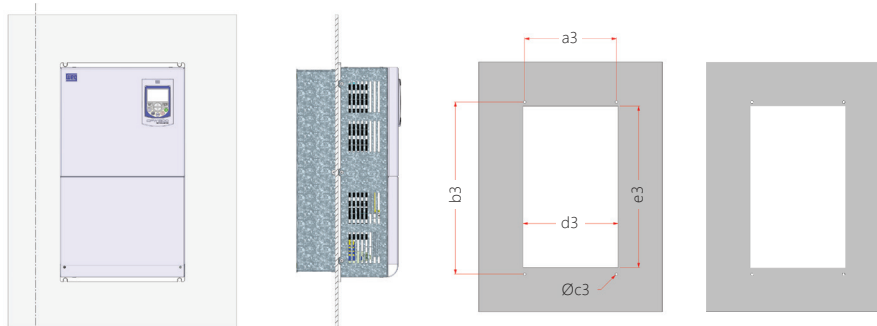
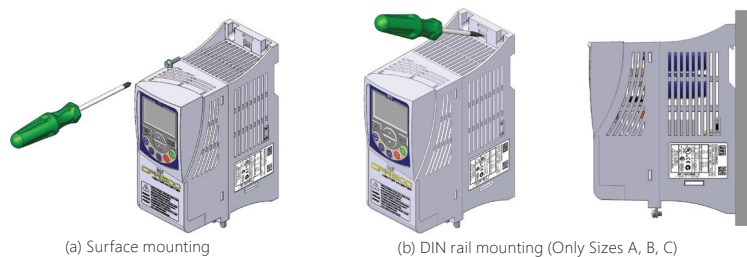
Mount the drive in the upright position on a flat and vertical service. Install and tighten the screws per the maximum torque values in the table below.

Allow the minimum clearances described in the specifications section to allow proper ventilation for cooling. Do not install heat sensitive components directly above the drive.



WEG CFW500 IP20 Series Drive Mounting Requirements										
Frame Size	A	B	C	D	H	L	P	Weight	Mounting Bolt	Recommended Torque
	mm [in]							kg [lb]		N-m [lbf-in]
A	50.0 [1.97]	175.0 [6.89]	11.9 [0.47]	7.2 [0.28]	189.0 [7.44]	75.0 [2.95]	150.0 [5.91]	0.8 [1.76]	M4	2 [17.7]
B	75.0 [2.95]	185.0 [7.30]	11.8 [0.46]	7.3 [0.29]	199.0 [7.83]	100.0 [3.94]	160.0 [6.30]	1.2 [2.65]	M4	2 [17.7]
C	100.0 [3.94]	195.0 [7.70]	16.7 [0.66]	5.8 [0.23]	210.0 [8.27]	135.0 [5.31]	165.0 [6.50]	2 [4.4]	M5	3 [26.5]
D	125.0 [4.92]	290.0 [11.41]	27.5 [1.08]	10.2 [0.40]	306.6 [12.07]	180.0 [7.08]	166.5 [6.55]	4.3 [9.48]	M6	4.5 [39.82]
E	150.0 [5.90]	330.0 [12.99]	34.0 [1.34]	10.6 [0.42]	350.0 [13.78]	220.0 [8.66]	191.5 [7.54]	10 [22.05]	M6	4.5 [39.82]
F	200.0 [7.87]	525.0 [20.67]	42.5 [1.67]	15.0 [0.59]	550.0 [21.65]	300.0 [11.81]	254.0 [10]	26 [57.3]	M8	19 [168.16]
G	200.0 [7.87]	650 [25.59]	57 [2.24]	15 [0.59]	675 [26.57]	335.3 [13.2]	314 [12.36]	52 [114.64]	M8	20 [177.0]

Figure 2: Drive dimensions for mechanical installation



(c) Flange mounting - standard drive (only for Frame size F/G. See User Manual Appendix B Figure B.3 for dimensions)

WEG CFW500 AC Drives – Drive Mounting

WEG CFW500 IP66 Drive Positioning and Mounting

Mount the drive in the upright position on a flat and vertical service. Install and tighten the screws per the maximum torque values in the table below.

Allow the minimum clearances described in the specifications section to allow proper ventilation for cooling. Do not install heat sensitive components directly above the drive.

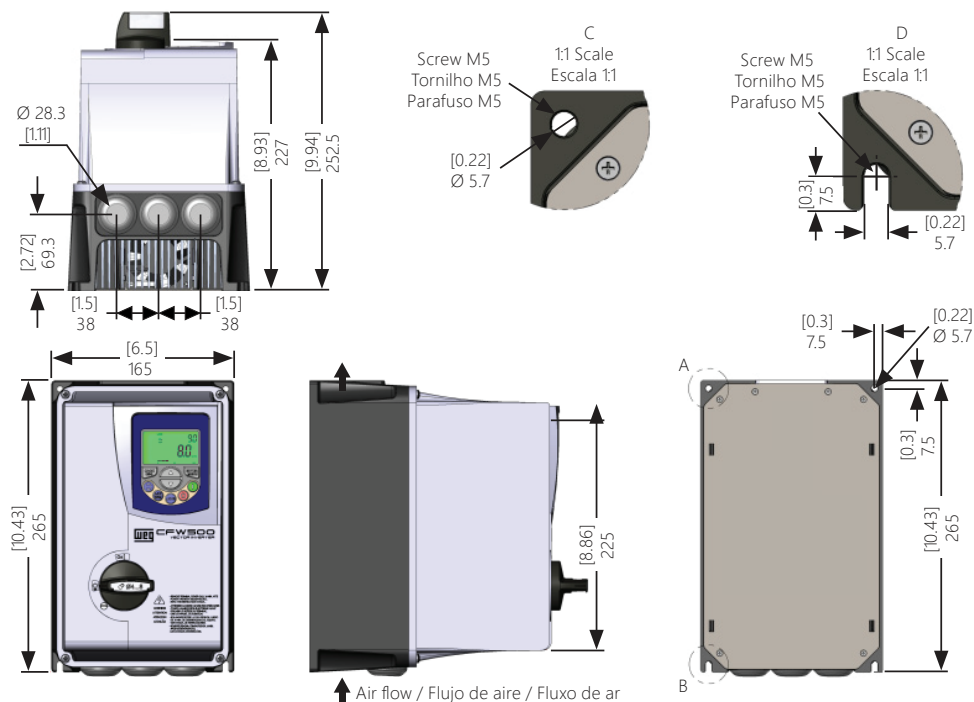


Figure A.1: Dimensions of the CFW500 IP66 frame size A
 Figura A.1: Dimensiones CFW500 IP66 tamaño A
 Figura A.1: Dimensões CFW500 IP66 mecânica A

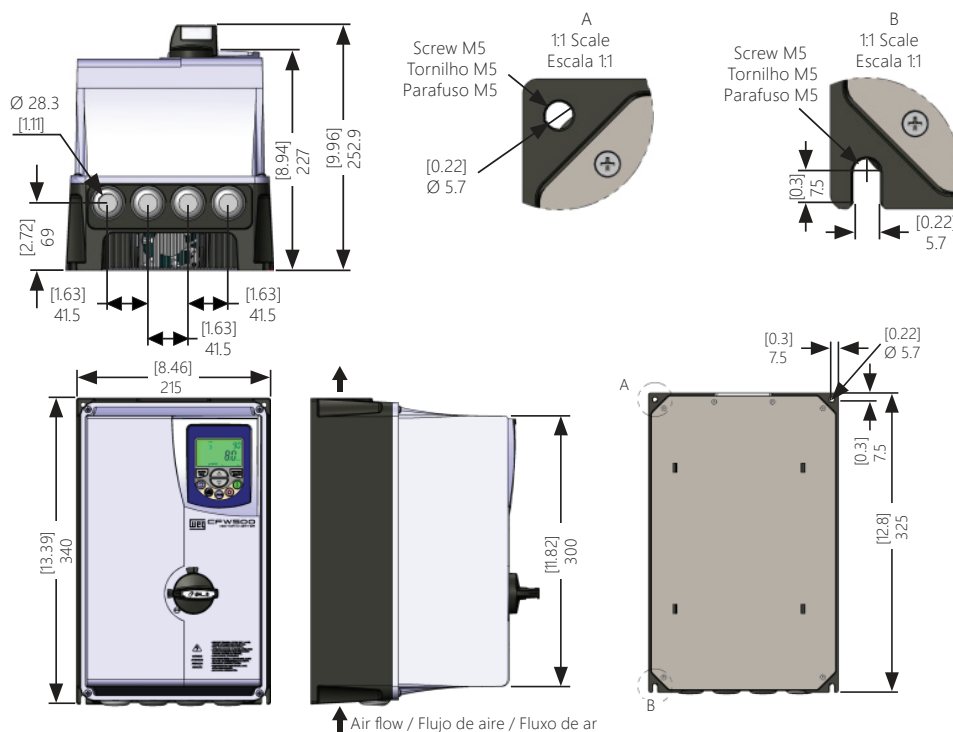


Figure A.2: Dimensions of the CFW500 IP66 frame size B
 Figura A.2: Dimensiones CFW500 IP66 tamaño B
 Figura A.2: Dimensões CFW500 IP66 mecânica B

WEG CFW500 AC Drives – Accessories

WEG CFW500 Accessory Setup and Compatibility

Optional accessories for the WEG CFW500 series drives can be easily installed using the “plug and play” method. Installed accessories are automatically recognized by the drive, and the code for the connected part is added to parameter P027.

All accessories must be installed or modified with power disconnected from the drive.

Reference the table to the right to determine which accessories are compatible with each drive type.

Refer to the following pages for details about each accessory.

WEG CFW500 Available Accessories				
WEG MAT #	Model #	Description	IP20 Series Drives	IP66 Series Drives
14741859	CFW500-IOS	Standard plug-in module, replacement	✓	✓
14742006	CFW500-IOD	Digital input and output plug-in module (I/O)	✓	✓
14742129	CFW500-IOAD	Digital and analog input and output plug-in module (I/O)	✓	✓
14968050	CFW500-IOR-B	Digital output communication plug-in module	✓	✓
14742001	CFW500-CUSB	USB communication plug-in module	✓	✓
14742005	CFW500-CRS232	RS232 communication plug-in module	✓	✓
15353140	CFW500-CRS485-B	RS485 communication plug-in module	✓	✓
12619000	CFW500-ENC	Encoder input module	✓	✓
12892814	CFW500-CETH-IP	EtherNet/IP communication plug-in module	✓	✓
12892815	CFW500-CEMB-TCP	Modbus TCP communication plus-in module	✓	✓
15560296	CFW500-SFY2	Safety function module (STO and SS1-t)*	✓	✓
11636485	CFW500-MMF	Flash memory module	✓	✓
11833992	CFW500-HMIR	Serial remote keypad (non-text)	✓	✓
15578295	HMI-01	Advanced remote keypad (text)	✓	✓
15578297	CFW500-RHMIF	Mounting frame for HMI-01 keypad	✓	✓
12330016	CFW500-CCHMIR01M	1m serial remote keypad cable kit	✓	✓
12330460	CFW500-CCHMIR03M	3m serial remote keypad cable kit	✓	✓
12330461	CFW500-CCHMIR05M	5m serial remote keypad cable kit	✓	✓
12330463	CFW500-CCHMIR10M	10m serial remote keypad cable kit	✓	✓
11527460	CFW500-KN1A	NEMA1 kit for frame size A (standard for option N1)	✓	-
11527459	CFW500-KN1B	NEMA1 kit for frame size B (standard for option N1)	✓	-
12133824	CFW500-KN1C	NEMA1 kit for frame size C (standard for option N1)	✓	-
12692970	CFW500-KN1D	NEMA1 kit for frame size D (standard for option N1)	✓	-
13104601	CFW500-KN1E	NEMA1 kit for frame size E (standard for option N1)	✓	-
14601107	CFW500-KN1F	NEMA1 kit for frame size F (standard for option N1)	✓	-
15461789	CFW500-KN1G	NEMA1 kit for frame size G (standard for option N1)	✓	-
11951056	CFW500-KPCSA	Kit for power cables clamping, frame size A**	✓	-
11951108	CFW500-KPCSB	Kit for power cables clamping, frame size B**	✓	-
12133826	CFW500-KPCSC	Kit for power cables clamping, frame size C**	✓	-
12692971	CFW500-KPCSD	Kit for power cables clamping, frame size D**	✓	-
13055389	CFW500-KPCSE	Kit for power cables clamping, frame size E**	✓	-
14601158	CFW500-KPCSF	Kit for power cables clamping, frame size F**	✓	-
15461788	CFW500-KPCSG	Kit for power cables clamping, frame size G**	✓	-
14391148	CFW50X-FAN-A	Main cooling fan, replacement, 60x60x15 mm	✓	-
12350492	CFW50X-FAN-BC	Main cooling fan, replacement, 70x70x15 mm	✓	-
14391151	CFW50X-FAN-D1	Main cooling fan, replacement, 60x60x25.4 mm	✓	-
12852366	CFW50X-FAN-D2	Main cooling fan, replacement, 60x60x38 mm	✓	-
14391152	CFW50X-FAN-D3	Main cooling fan, replacement, 60x60x25.4 mm	✓	-
12852367	CFW50X-FAN-D4	Main cooling fan, replacement, 60x60x38 mm	✓	-
13770165	CFW50X-FAN-E	Main cooling fan, replacement, 80x80x38 mm	✓	-
15245117	CFW50X-FAN-F1	Main cooling fan, replacement, 80x80x38 mm	✓	-
12295730	CFW50X-FAN-G1	Main cooling fan, replacement, 15x172x51 mm, 24 VDC	✓	-
12295732	CFW50X-FAN-G2	Main cooling fan, replacement, 15x172x51 mm, 48 VDC	✓	-

* The STO module cannot be used in conjunction with a NEMA1 kit for IP20 Frames A-E.

** The power cable clamping kits cannot be used in conjunction with a NEMA1 kit.

WEG CFW500 AC Drives – Accessories

WEG CFW500 Safety Module

The CFW500-SYF2 is a safety module capable of providing STO (Safe Torque Off) and SS1-t (Safe Stop 1 Time Controlled) safety operations.

- The STO function disables torque-generating power to the motor. This method of disabling the motor is very reliable against unexpected motor starts, even under a fault condition. When activated, the STO safety function blocks power from the drive's output electronic circuit, causing the motor to coast to a stop.
- The SS1-t function also disables torque-generating power to the motor but waits a predetermined period of time to allow the drive to impose a deceleration ramp before removing torque. This is especially useful in situations where inertial loads need to be decelerated before torque is removed from the motor.



The CFW500-SYF2 module can be installed on any CFW500 series drive in a dedicated slot on the top of the drive. It does not conflict with the installation of I/O or communications modules.

WEG CFW500 Safety Module							
WEG MAT #	Model #	Price	Description	Features/Specifications		Drawing Link	CFW500 Drive
15560296	CFW500-SYF2	\$72.00	Safety function module (STO and SS1-t)*	Safety functions	Safe torque off (STO) according to IEC/EN 61800-6-2 or stop category 0 according to IEC/EN 60204-1	PDF	All
					Safe stop 1 time controlled (SS1-t) according to IEC/EN 61800-6-2 or stop category 1 according to IEC/EN 60204-1		
				Safety category	SIL 3, per IEC 61508 / IEC 62061 / IEC 61800-5-2 PL e, category 4, as per EN ISO 13849-1		
				PF_{Davg}	< 2.74 x 10 ⁻⁴		
				PFH (1/h)	< 3.13 x 10 ⁻⁹		
				MTTF_d(y)	> 1600 years		
				DC_{avg}	93%		
				Proof test interval	20 years		
				Response/reaction time	< 100ms		
				OSSD test pulses	Pulse duration: < 1ms Interval between pulses on same channel: > 8ms Interval between pulses on different channels: > 4ms		
Safety input signals	ON: 15VDC – 30 VDC						
Maximum discrepancy time between safety input signals	1s						
Safety power supply	+24VDC ± 15% SELV type according to IEC 60950-1 PELV type according to IEC 60204-1						

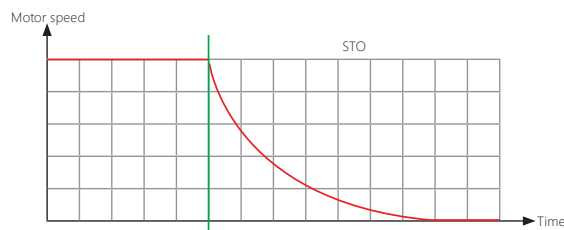


Figure 1: STO behavior

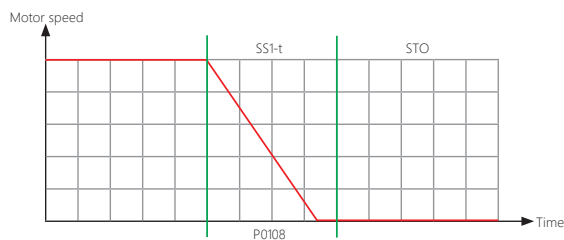


Figure 1.2: SS1-t behavior

WEG CFW500 AC Drives – Accessories

WEG CFW500 Optional Input/Output Accessories

Each WEG CFW500 drive comes with a CFW500-IOS (p/n 14741859) pre-installed, but other modules are available as optional accessories.

To use any of the optional modules, the existing module must be removed and replaced with the new module.

The first table below shows the I/O modules that are available for WEG CFW500 drives. The second table provides their I/O configurations

WEG CFW500 Input/Output (I/O) Modules						
WEG MAT #	Model #	Price	Description	Features/Specifications	Drawing Link	CFW500 Drive
14741859	CFW500-IOS	\$56.00	Standard plug-in module, replacement	Replacement for CFW500-IOS module that comes standard with all WEG CFW500 drives. <ul style="list-style-type: none"> Analog input: 1-channel, current/voltage Analog output: 1-channel, current/voltage Discrete input: 4-point, sourcing Discrete output: 2-point, relay (1) Form C (SPDT) relay 	PDF	All
14742006	CFW500-IOD	\$72.00	Digital input and output plug-in module (I/O)	WEG Electric CFW500 series relay/analog combo module. <ul style="list-style-type: none"> Analog input: 1-channel, current/voltage Analog output: 1-channel, current/voltage Discrete input: 8-point, sourcing Discrete output: 5-point, relay (1) Form C (SPDT) relay 	PDF	All
14742129	CFW500-IOAD	\$93.00	Digital and analog input and output plug-in module (I/O)	WEG Electric CFW500 series relay/analog combo module. <ul style="list-style-type: none"> Analog input: 3-channel, current/voltage Analog output: 2-channel, current/voltage Discrete input: 6-point, sourcing Discrete output: 4-point, relay (1) Form C (SPDT) relay 	PDF	All
14968050	CFW500-IOR-B	\$63.00	Digital output communication plug-in module	WEG Electric CFW500 series relay/analog combo module. <ul style="list-style-type: none"> Analog input: 1-channel, current/voltage Analog output: 1-channel, current/voltage Discrete input: 5-point, sinking/sourcing Discrete output: 5-point relay (3) Form A (SPST) relays, (1) Form C (SPDT) relay 	PDF	All
12619000	CFW500-ENC	\$107.00	Encoder input module	WEG Electric CFW500 series encoder analog combo module. <ul style="list-style-type: none"> 400kHz maximum switching frequency 1-channel quadrature encoder input Analog input: 1-channel Analog Output: 1-channel 	PDF	All

WEG CFW500 I/O Module Configurations										
WEG MAT #	Model #	Functions								
		Inputs		Encoder Inputs	Outputs			Fieldbus Networks	Supply	
		Digital	Analog		Analog	Digital Relay	Digital Transistor		RS485	10V
14741859	CFW500-IOS	4	1	–	1	1	1	1	1	1
14742006	CFW500-IOD	8	1	–	1	1	4	1	1	1
14742129	CFW500-IOAD	6	3	–	2	1	3	1	1	1
14968050	CFW500-IOR-B	5	1	–	1	4	1	1	1	1
12619000	CFW500-ENC	5	1	1	1	3	1	1	–	1



14741859



14968050



12619000

WEG CFW500 AC Drives – Accessories

WEG CFW500 Optional Communication Modules

Each WEG CFW500 drive comes with a CFW500-IOS (p/n 14741859) pre-installed, but other modules are available as optional accessories.

To use any of the optional modules, the existing module must be removed and replaced with the new module.

The following communication modules are available for WEG CFW500 drives:

WEG CFW500 Communication Modules						
WEG MAT #	Model #	Price	Description	Features/Specifications	Drawing Link	CFW500 Drive
14742001*	CFW500-CUSB	\$107.00	USB communication plug-in module	WEG Electric CFW500 series communication module, Modbus RTU and BACnet. <ul style="list-style-type: none"> • (1) RS-485 (3-pin terminal) port • (1) miniB-USB port 	PDF	All
14742005	CFW500-CRS232	\$71.00	RS232 communication plug-in module	WEG Electric CFW500 series communication module, Modbus RTU and BACnet. <ul style="list-style-type: none"> • (1) RS-232 (3-pin terminal) port • (1) RS-485 (3-pin terminal) port 	PDF	All
15353140	CFW500-CRS485-B	\$73.00	RS485 communication plug-in module	WEG Electric CFW500 series communication module, Modbus RTU and BACnet. <ul style="list-style-type: none"> • (2) RS-485 (3-pin terminal) ports 	PDF	All
12892814	CFW500-CETH-IP	\$255.00	EtherNet/IP communication plug-in module	WEG Electric CFW500 series communication module, EtherNet/IP, Modbus RTU, and BACnet. <ul style="list-style-type: none"> • (1) Ethernet (RJ45) port • (1) RS-485 (3-pin terminal) port 	PDF	All
12892815	CFW500-CEMB-TCP	\$255.00	Modbus TCP communication plus-in module	WEG Electric CFW500 series communication module, Modbus TCP, Modbus RTU, and BACnet. <ul style="list-style-type: none"> • (1) Ethernet (RJ45) port • (1) RS-485 (3-pin terminal) port 	PDF	All

* The USB plug-in module (14742001) requires a Virtual Com Port driver. This driver can be found at <http://www.ftdichip.com/Drivers/VCP.htm>

WEG CFW500 Communication Module Configurations													
WEG MAT #	Model #	Functions											
		Inputs		Outputs			USB Port	Fieldbus Networks				Supply	
		Digital	Analog	Analog	Digital Relay	Digital Transistor		RS232	RS485	EtherNet/IP	Modbus-TCP	10V	24V
14742001	CFW500-CUSB	4	1	1	1	1	1	–	1	–	–	1	1
14742005	CFW500-CRS232	2	1	1	1	1	–	1	1	–	–	–	1
15353140	CFW500-CRS485-B	4	2	1	2	1	–	–	2	–	–	1	1
12892814	CFW500-CETH-IP	2	1	1	1	1	–	–	1	1	–	–	1
12892815	CFW500-CEMB-TCP	2	1	1	1	1	–	–	1	–	1	–	1



14742001



14742005



12892814

WEG CFW500 AC Drives – Accessories

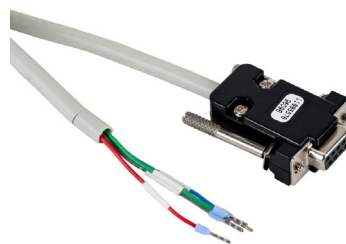
WEG CFW500 HMI Accessories and Cables

The WEG CFW500 has several optional HMI accessories. Two remote keypads (standard and advanced) along with connecting cables, a NEMA12 mounting frame, and a flash memory module for transferring parameters and user data are available. All of these modules can work in conjunction with any other installed optional accessories.

WEG CFW500 HMI Accessories						
WEG MAT #	Model #	Price	Description	Features/Specifications	Drawing Link	CFW500 Drive
11833992	CFW500-HMIR	\$86.00	Serial remote keypad	WEG Electric CFW500 series remote serial HMI keypad. Mounting hardware included. HMI cable kit required.	PDF	All
15578295	HMI-01	\$104.00	Advanced remote keypad	WEG Electric CFW500 series remote advanced text HMI keypad. Mounting hardware included. HMI cable kit required.	PDF	All
15578297	CFW500-RHMIF	\$13.00	Frame for Advanced keypad	WEG Electric CFW500 series frame assembly, NEMA12. For use with the remote advanced text keypad (HMI-01). Mounting hardware included.	PDF	All
12330016	CFW500-CCHMIR01M	\$12.00	1m serial remote keypad cable kit	WEG Electric CFW500 series keypad mounting cable, cable length 3.2 ft [1m].	PDF	All
12330460	CFW500-CCHMIR03M	\$21.00	3m serial remote keypad cable kit	WEG Electric CFW500 series keypad mounting cable, cable length 9.8 ft [3m].	PDF	All
12330461	CFW500-CCHMIR05M	\$26.00	5m serial remote keypad cable kit	WEG Electric CFW500 series keypad mounting cable, cable length 16.4 ft [5m].	PDF	All
12330463	CFW500-CCHMIR10M	\$37.00	10m serial remote keypad cable kit	WEG Electric CFW500 series keypad mounting cable, cable length 32.8 ft [10m].	PDF	All
11636485	CFW500-MMF	\$97.00	Flash memory module	WEG Electric CFW500 series flash memory module. <ul style="list-style-type: none"> Allows data transfer such as user parameters and SoftPLC user programs Battery powered, drive should be disconnected from power during data transfer DO NOT USE when the drive is powered on 	PDF	All



11833992



1233 series cable



11636485



15578295

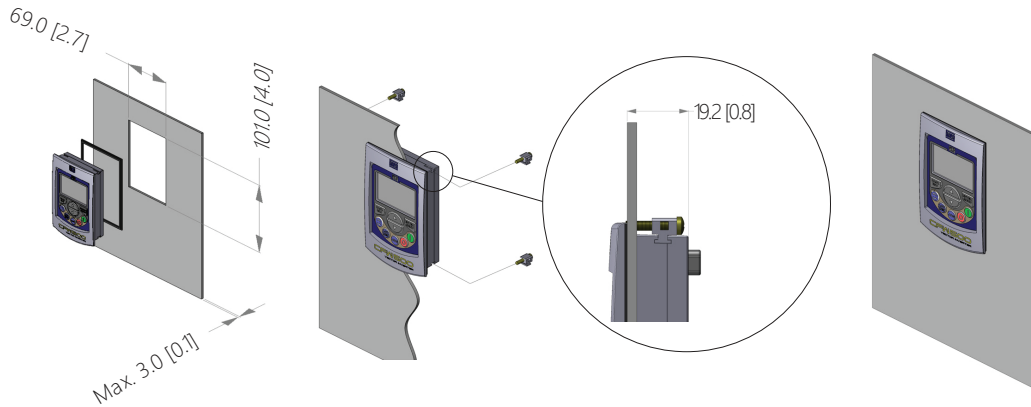


15578297

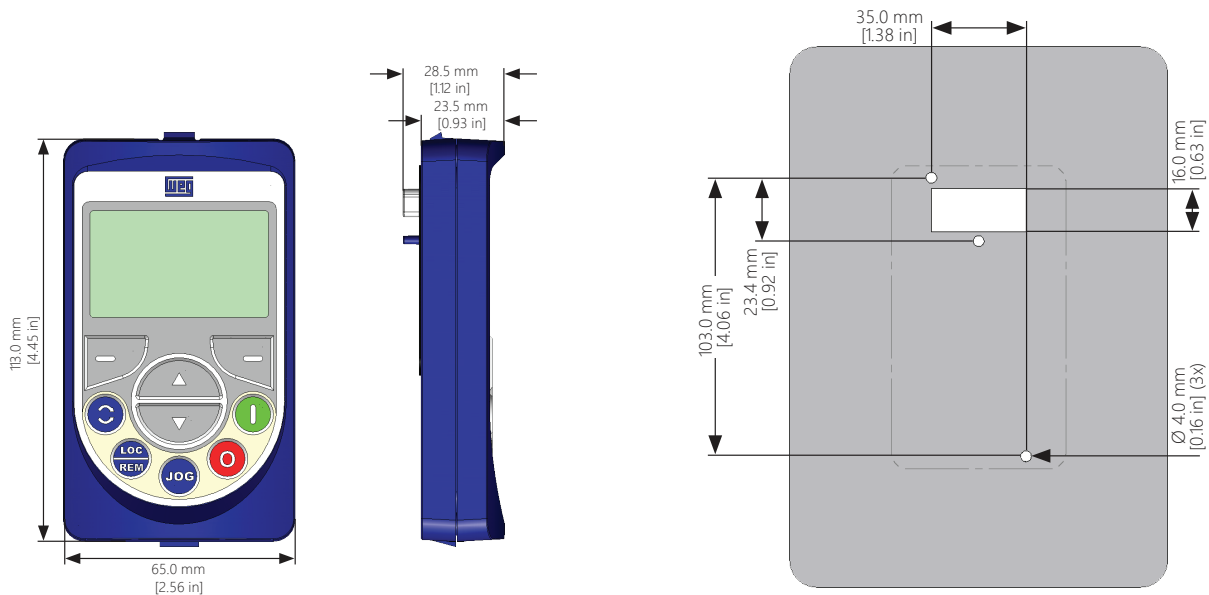
WEG CFW500 AC Drives – Accessories

WEG CFW500 HMI Accessories Mounting and Installation

Standard Remote Keypad Mounting



Advanced Remote Keypad Mounting



Flash Module Mounting



WEG CFW500 AC Drives – Accessories

WEG CFW500 Optional NEMA1 Frame Kits

NEMA1 frame kits are available for all CFW500 series IP20 rated drives. These kits will upgrade the drive enclosure to the NEMA1 standard. Note that the NEMA1 frame kits are NOT compatible with the CFW500 series IP66 rated drives.



Note: The NEMA1 frame kits cannot be used with the CFW500 series cable clamps - these two accessories are mutually exclusive.

WEG CFW500 NEMA1 Frame Kits						
WEG MAT #	Model #	Price	Description	Features/Specifications	Drawing Link	CFW500 Drive
11527460	CFW500-KN1A	\$14.00	NEMA1 kit for frame size A (standard for option N1)	WEG Electric CFW500 series conduit box, NEMA1. For use with WEG CFW500 series A Frame AC drives. Mounting hardware included.	PDF	IP20
11527459	CFW500-KN1B	\$16.50	NEMA1 kit for frame size B (standard for option N1)	WEG Electric CFW500 series conduit box, NEMA1. For use with WEG CFW500 series B Frame AC drives. Mounting hardware included.	PDF	IP20
12133824	CFW500-KN1C	\$22.50	NEMA1 kit for frame size C (standard for option N1)	WEG Electric CFW500 series conduit box, NEMA1. For use with WEG CFW500 series C Frame AC drives. Mounting hardware included.	PDF	IP20
12692970	CFW500-KN1D	\$30.00	NEMA1 kit for frame size D (standard for option N1)	WEG Electric CFW500 series conduit box, NEMA1. For use with WEG CFW500 series D Frame AC drives. Mounting hardware included.	PDF	IP20
13104601	CFW500-KN1E	\$33.00	NEMA1 kit for frame size E (standard for option N1)	WEG Electric CFW500 series conduit box, NEMA1. For use with WEG CFW500 series E Frame AC drives. Mounting hardware included.	PDF	IP20
14601107	CFW500-KN1F	\$84.00	NEMA1 kit for frame size F (standard for option N1)	WEG Electric CFW500 series conduit box, NEMA1. For use with WEG CFW500 series F Frame AC drives. Mounting hardware included.	PDF	IP20
15461789	CFW500-KN1G	\$106.00	NEMA1 kit for frame size G (standard for option N1)	WEG Electric CFW500 series conduit box, NEMA1. For use with WEG CFW500 series G Frame AC drives. Mounting hardware included.	PDF	IP20



WEG CFW500 AC Drives – Accessories

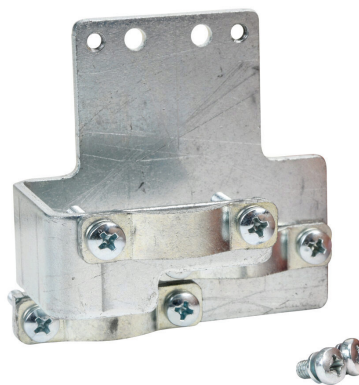
WEG CFW500 Optional Cable Clamps

The optional cable clamps can be used to provide strain relief for the cabling connected to the drive. The clamps hold the cable by the outer jacket so that the drive connection is not providing the main support to the cable. This protects the individual conductors attached to the terminals of the drive.



Note: The NEMA1 frame kits cannot be used with the CFW500 series cable clamps - these two accessories are mutually exclusive.

WEG CFW500 Cable Clamp Kits						
WEG MAT #	Model #	Price	Description	Features/Specifications	Drawing Link	CFW500 Drive
11951056	CFW500-KPCSA	\$21.00	Kit for power cables clamping, frame size A	WEG Electric CFW500 series cable clamp. <ul style="list-style-type: none"> Allows for strain relief clamping of power and motor leads at the drive. For use with CFW500 series A Frame AC drives. 	PDF	IP20
11951108	CFW500-KPCSB	\$22.50	Kit for power cables clamping, frame size B	WEG Electric CFW500 series cable clamp. <ul style="list-style-type: none"> Allows for strain relief clamping of power and motor leads at the drive. For use with CFW500 series B Frame AC drives. 	PDF	IP20
12133826	CFW500-KPCSC	\$23.50	Kit for power cables clamping, frame size C	WEG Electric CFW500 series cable clamp. <ul style="list-style-type: none"> Allows for strain relief clamping of power and motor leads at the drive. For use with CFW500 series C Frame AC drives. 	PDF	IP20
12692971	CFW500-KPCSD	\$26.00	Kit for power cables clamping, frame size D	WEG Electric CFW500 series cable clamp. <ul style="list-style-type: none"> Allows for strain relief clamping of power and motor leads at the drive. For use with CFW500 series D Frame AC drives. 	PDF	IP20
13055389	CFW500-KPCSE	\$33.00	Kit for power cables clamping, frame size E	WEG Electric CFW500 series cable clamp. <ul style="list-style-type: none"> Allows for strain relief clamping of power and motor leads at the drive. For use with CFW500 series E Frame AC drives. 	PDF	IP20
14601158	CFW500-KPCSF	\$72.00	Kit for power cables clamping, frame size F	WEG Electric CFW500 series cable clamp. <ul style="list-style-type: none"> Allows for strain relief clamping of power and motor leads at the drive. For use with CFW500 series F Frame AC drives. 	PDF	IP20
15461788	CFW500-KPCSG	\$89.00	Kit for power cables clamping, frame size G	WEG Electric CFW500 series cable clamp. <ul style="list-style-type: none"> Allows for strain relief clamping of power and motor leads at the drive. For use with CFW500 series G Frame AC drives. 	PDF	IP20



CFW500 Cable Clamp

WEG CFW500 AC Drives – Accessories

WEG CFW500 Replacement Cooling Fans

Replacement cooling fans are available for all IP20 models of the CFW500 AC Drive. Simply remove the old fan and install the replacement part.

WEG CFW500 Replacement Fan Kits						
WEG MAT #	Model #	Price	Description	Features/Specifications	Drawing Link	CFW500 Drive
14391148	CFW50X-FAN-A	\$65.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 60 x 60 x 15 mm • 24 VDC • For use with CFW500 series A Frame AC drives 	PDF	IP20, Frame A
12350492	CFW50X-FAN-BC	\$62.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 70 x 70 x 15 mm • 12 VDC • For use with CFW500 series B and C Frame AC drives 	PDF	IP20, Frame B and C
14391151	CFW50X-FAN-D1	\$65.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 60 x 60 x 25.4 mm • 24 VDC • For use with CFW500 series drive # 15575716 	PDF	15575716
12852366	CFW50X-FAN-D2	\$283.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 60 x 60 x 38 mm • 24 VDC • For use with CFW500 series drive # 15576540 	PDF	15576540
14391152	CFW50X-FAN-D3	\$65.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 60 x 60 x 25.4 mm • 24 VDC • For use with CFW500 series drive # 15576919 	PDF	15576919
12852367	CFW50X-FAN-D4	\$215.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 60 x 60 x 38 mm • 24 VDC • For use with CFW500 series drive # 15577021 	PDF	15577021
13770165	CFW50X-FAN-E	\$257.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 80 x 80 x 38 mm • 24 VDC • For use with CFW500 series E Frame AC drives 	PDF	IP20, Frame E
<i>Continued on next page</i>						



Frame A Replacement Fan



Frame B and C Replacement Fan



Frame D (dual fan model) Replacement Fan



Frame E Replacement Fan

WEG CFW500 AC Drives – Accessories

WEG CFW500 Replacement Cooling Fans, continued

WEG CFW500 Replacement Fan Kits						
WEG MAT #	Model #	Price	Description	Features/Specifications	Drawing Link	CFW500 Drive
15245117	CFW50X-FAN-F1	\$247.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 80 x 80 x 38 mm • 24VDC • For use with CFW500 series F Frame AC drives 	PDF	IP20, Frame F
12295730	FAN 24VDC CAB 40mm	\$334.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 150 x 172 x 51 mm • 24VDC • For use with CFW500 series G frame 75hp AC drives 	PDF	IP20, Frame G
12295732	FAN 48VDC CAB 60mm	\$596.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 150 x 172 x 51 mm • 48VDC • For use with CFW500 series G frame 100 and 150 hp AC drives 	PDF	IP20, Frame G
15746587	CFW500-66-FAN-AB	\$62.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 60 x 60 x 25 mm • 12VDC • For use with CFW500 series IP66 230VAC 7.5 hp and below, 480VAC 10hp and below AC drives 	PDF	IP66, Frame A & B
15746630	CFW500-66-FAN-B	\$106.00	Replacement cooling fan	WEG Electric CFW500 series main cooling fan, replacement. <ul style="list-style-type: none"> • 60 x 60 x 38 mm • 24VDC • For use with CFW500 series IP66 230VAC 10hp, 480VAC 15 and 20 hp AC drives 	PDF	IP66 Frame B



**Frame F
Replacement Fan**



**Frame G
Replacement Fan**

WEG CFW500 Compatible Accessories

Fuses and Circuit Breakers for WEG CFW500 AC Drives

Protection devices are essential to prevent damage to your WEG CFW500 drive and application equipment. Please use the fuse specification chart below to select fuses that are applicable to your WEG CFW500 drive. Only use UL-certified fuses which comply with your local regulations.

Fuse Specification Chart WEG CFW500 Drives								
WEG MAT #	Model #	Input Voltage	Amps	Fuse				
				Class J ¹		Class J Holder		
				1-Phase	3-Phase	1-Phase	3-Phase	
IP20 Drives								
15570800	CFW500A01P6B2NB20G2	1-phase or 3-phase / 230VAC	20	JHL20 (JHL20-1)	JHL20 (JHL20-1)	JM60030-2CR	JM60030-3CR	
15571879	CFW500A02P6B2NB20G2		20	JHL20 (JHL20-1)	JHL20 (JHL20-1)	JM60030-2CR	JM60030-3CR	
15571881	CFW500A04P3B2NB20G2		25	JHL25 (JHL25-1)	JHL20 (JHL20-1)	JM60030-2CR	JM60030-3CR	
15574655	CFW500B07P3B2DB20G2		40	JHL40 (JHL40-1)	JHL20 (JHL20-1)	JM60060-2CR	JM60030-3CR	
15575067	CFW500B10P0B2DB20G2		60	JHL60 (JHL60-1)	JHL25 (JHL25-1)	JM60060-2CR	JM60030-3CR	
15572625	CFW500A07P0T2NB20G2	3-phase / 230VAC	20		JHL20 (JHL20-1)		JM60030-3CR	
15572689	CFW500A09P6T2NB20G2		25		JHL25 (JHL25-1)		JM60030-3CR	
15575202	CFW500B16P0T2DB20G2		40		JHL40 (JHL40-1)		JM60060-3CR	
15575701	CFW500C24P0T2DB20G2		60		JHL60 (JHL60-1)		JM60060-3CR	
15575716	CFW500D28P0T2DB20G2		60		JHL60 (JHL60-1)		JM60060-3CR	
15576540	CFW500D47P0T2DB20G2		60		JHL100		JM60100-1MW14-3	
15577077	CFW500E56P0T2DB20G2		125		JHL125		JM60200-1MW16-3	
15342437	CFW500F77P0T2DB20G2		125		Mersen A100P125-4 ³		Mersen P266L ³	
15342760	CFW500F88P0T2DB20G2		125		Mersen A100P125-4 ³		Mersen P266L ³	
15342909	CFW500F0105T2DB20G2		125		Mersen A100P125-4 ³		Mersen P266L ³	
15572819	CFW500A01P0T4NB20G2		3-phase / 480VAC		20		JHL20 (JHL20-1)	JM60030-3CR
15572908	CFW500A01P6T4NB20G2				20		JHL20 (JHL20-1)	JM60030-3CR
15573714	CFW500A02P6T4NB20G2				20		JHL20 (JHL20-1)	JM60030-3CR
15573819	CFW500A04P3T4NB20G2	20		JHL20 (JHL20-1)	JM60030-3CR			
15573823	CFW500A06P1T4NB20G2	20		JHL20 (JHL20-1)	JM60030-3CR			
15575568	CFW500B02P6T4DB20G2	20		-	JM60030-3CR			
15575577	CFW500B04P3T4DB20G2	20		JHL20 (JHL20-1)	JM60030-3CR			
15575665	CFW500B06P5T4DB20G2	20		JHL20 (JHL20-1)	JM60030-3CR			
15575699	CFW500B10P0T4DB20G2	25		JHL25 (JHL25-1)	JM60030-3CR			
15575707	CFW500C14P0T4DB20G2	35		JHL35 (JHL35-1)	JM60060-3CR			
15575711	CFW500C16P0T4DB20G2	35		JHL35 (JHL35-1)	JM60060-3CR			
15576919	CFW500D24P0T4DB20G2	60		JHL60 (JHL60-1)	JM60060-3CR			
15577021	CFW500D31P0T4DB20G2	60		JHL60 (JHL60-1)	JM60060-3CR			
15577211	CFW500E39P0T4DB20G2	80		JHL80	JM60100-1MW14-3			
15577452	CFW500E49P0T4DB20G2	100		JHL100	JM60100-1MW14-3			
15733937	CFW500F77P0T4DB20G2	125		JHL125	JM60200-1MW16-3			
15734064	CFW500F88P0T4DB20G2	125		JHL125	JM60200-1MW16-3			
15734119	CFW500F0105T4DB20G2	125		JHL125	JM60200-1MW16-3			
15448371	CFW500G0142T4DB20G2	300		Mersen A100P300-4 ³	3 x Mersen P266L ³			
15448372	CFW500G0180T4DB20G2	300		Mersen A100P300-4 ³	3 x Mersen P266L ³			
15448373	CFW500G0211T4DB20G2	300		Mersen A100P300-4 ³	3 x Mersen P266L ³			

Table continued on next page

- 1 - Per UL standard
- 2 - Non UL standard
- 3 - Not available at AutomationDirect

WEG CFW500 Compatible Accessories

Fuses and Circuit Breakers, *continued*

Fuse Specification Chart WEG CFW500 Drives, <i>continued</i>								
WEG MAT #	Model #	Input Voltage	Amps	Fuse				
				Class J ¹		Class J Holder		
				1-Phase	3-Phase	1-Phase	3-Phase	
Table continued from previous page								
IP66 Drives								
14990863	CFW500A01P6B2DB66DSG2	1-phase or 3-phase / 230VAC	20	JHL20 (JHL20-1)	JHL20 (JHL20-1)	JM60030-2CR	JM60030-3CR	
14991103	CFW500A02P6B2DB66DSG2		20	JHL20 (JHL20-1)	JHL20 (JHL20-1)	JM60030-2CR	JM60030-3CR	
14991753	CFW500A04P3B2DB66DSG2		25	JHL25 JHL25-1	JHL20 (JHL20-1)	JM60030-2CR	JM60030-3CR	
14938005	CFW500A07P3B2DB66DSG2		40	JHL40 (JHL40-1)	JHL20 (JHL20-1)	JM60060-2CR	JM60030-3CR	
14938047	CFW500A10P0B2DB66DSG2	3-phase / 230VAC	60	JHL60 (JHL60-1)	JHL25 JHL25-1	JM60060-2CR	JM60030-3CR	
14938113	CFW500A16P0T2DB66DSG2		40	-	JHL40 (JHL40-1)	-	JM60060-3CR	
14975838	CFW500B24P0T2DB66DSG2		60	-	JHL60 (JHL60-1)	-	JM60060-3CR	
14938655	CFW500B28P0T2DB66DSG2		60	-	JHL60 (JHL60-1)	-	JM60060-3CR	
14991953	CFW500A01P0T4DB66DSG2	3-phase / 480VAC	20	-	JHL20 (JHL20-1)	-	JM60030-3CR	
14992148	CFW500A01P6T4DB66DSG2		20	-	JHL20 (JHL20-1)	-	JM60030-3CR	
14976517	CFW500A02P6T4DB66DSG2		20	-	JHL20 (JHL20-1)	-	JM60030-3CR	
14976809	CFW500A04P3T4DB66DSG2		20	-	JHL20 (JHL20-1)	-	JM60030-3CR	
14977065	CFW500A06P5T4DB66DSG2		20	-	JHL20 (JHL20-1)	-	JM60030-3CR	
14977266	CFW500A10P0T4DB66DSG2		25	-	JHL25 JHL25-1	-	JM60030-3CR	
14977397	CFW500B14P0T4DB66DSG2		35	-	JHL35 (JHL35-1)	-	JM60060-3CR	
14977556	CFW500B16P0T4DB66DSG2		35	-	JHL35 (JHL35-1)	-	JM60060-3CR	
14978365	CFW500B24P0T4DB66DSG2		60	-	JHL60 (JHL60-1)	-	JM60060-3CR	
14978573	CFW500B31P0T4DB66DSG2		60	-	JHL60 (JHL60-1)	-	JM60060-3CR	
14989840	CFW500A01P6B2DB66G2		1-phase or 3-phase / 230VAC	20	JHL20 (JHL20-1)	JHL20 (JHL20-1)	JM60030-2CR	JM60030-3CR
14990985	CFW500A02P6B2DB66G2			20	JHL20 (JHL20-1)	JHL20 (JHL20-1)	JM60030-2CR	JM60030-3CR
14991517	CFW500A04P3B2DB66G2	25		JHL25 JHL25-1	JHL20 (JHL20-1)	JM60030-2CR	JM60030-3CR	
14937890	CF W500A07P3B2DB66G2	40		JHL40 (JHL40-1)	JHL20 (JHL20-1)	JM60060-2CR	JM60030-3CR	
14938041	CFW500A10P0B2DB66G2	3-phase / 230VAC	60	JHL60 (JHL60-1)	JHL25 JHL25-1	JM60060-2CR	JM60030-3CR	
14938111	CFW500A16P0T2DB66G2		40	-	JHL40 (JHL40-1)	-	JM60060-3CR	
14975783	CFW500B24P0T2DB66G2		60	-	JHL60 (JHL60-1)	-	JM60060-3CR	
14938547	CFW500B28P0T2DB66G2		60	-	JHL60 (JHL60-1)	-	JM60060-3CR	
14991899	CFW500A01P0T4DB66G2	3-phase / 480VAC	20	-	JHL20 (JHL20-1)	-	JM60030-3CR	
14992113	CFW500A01P6T4DB66G2		20	-	JHL20 (JHL20-1)	-	JM60030-3CR	
14975888	CFW500A02P6T4DB66G2		20	-	JHL20 (JHL20-1)	-	JM60030-3CR	
14976683	CFW500A04P3T4DB66G2		20	-	JHL20 (JHL20-1)	-	JM60030-3CR	
14976814	CFW500A06P5T4DB66G2		20	-	JHL20 (JHL20-1)	-	JM60030-3CR	
14977261	CFW500A10P0T4DB66G2		25	-	JHL25 JHL25-1	-	JM60030-3CR	
14977391	CFW500B14P0T4DB66G2		35	-	JHL35 (JHL35-1)	-	JM60060-3CR	
14977552	CFW500B16P0T4DB66G2		35	-	JHL35 (JHL35-1)	-	JM60060-3CR	
14977629	CFW500B24P0T4DB66G2		60	-	JHL60 (JHL60-1)	-	JM60060-3CR	
14978548	CFW500B31P0T4DB66G2		60	-	JHL60 (JHL60-1)	-	JM60060-3CR	

1 - Per UL standard
2 - Non UL standard

WEG CFW500 Compatible Accessories

Fuses and Circuit Breakers, *continued*

WEG CFW500 AC Drive Circuit Breaker Component Selection							
WEG MAT #	Model #	Input Voltage	Max Current (A)	WEG Circuit Breaker	WEG Current Limiter	WEG Power Terminal Block	WEG Short Circuit Alarm Contact
IP20 Drives							
15570800	CFW500A01P6B2NB20G2	1-phase / 3-phase 230VAC IP20	16	MPW40-3-D063 / MPW40-3-D025	CLT32MPW40	LST25	TSB
15571879	CFW500A02P6B2NB20G2		16	MPW40-3-U010 / MPW40-3-U004			
15571881	CFW500A04P3B2NB20G2		16	MPW40-3-U016 / MPW40-3-D063			
15574655	CFW500B07P3B2DB20G2		25	MPW40-3-U025 / MPW40-3-U016			
15575067	CFW500B10P0B2DB20G2		25	MPW40-3-U032 / MPW40-3-U016			
15572625	CFW500A07P0T2NB20G2	3-phase 230VAC IP20	16	MPW40-3-U010	Any UL Listed CB	N/A	
15572689	CFW500A09P6T2NB20G2		16	MPW40-3-U016			
15575202	CFW500B16P0T2DB20G2		25	MPW40-3-U025			
15575701	CFW500C24P0T2DB20G2		32	MPW40-3-U032			
15575716	CFW500D28P0T2DB20G2		125				
15576540	CFW500D47P0T2DB20G2		125				
15577077	CFW500E56P0T2DB20G2		125				
15342437	CFW500F77P0T2DB20G2		225				
15342760	CFW500F88P0T2DB20G2		225				
15342909	CFW500F0105T2DB20G2		225				
15572819	CFW500A01P0T4NB20G2		3-phase 460VAC IP20	16			
15572908	CFW500A01P6T4NB20G2	16		MPW40-3-D025			
15573714	CFW500A02P6T4NB20G2	16		MPW40-3-U004			
15573819	CFW500A04P3T4NB20G2	16		MPW40-3-D063			
15573823	CFW500A06P1T4NB20G2	16		MPW40-3-U010			
15575568	CFW500B02P6T4DB20G2	25		MPW40-3-U004			
15575577	CFW500B04P3T4DB20G2	25		MPW40-3-D063			
15575665	CFW500B06P5T4DB20G2	25		MPW40-3-U010			
15575699	CFW500B10P0T4DB20G2	25		MPW40-3-U016			
15575707	CFW500C14P0T4DB20G2	32		MPW40-3-U020			
15575711	CFW500C16P0T4DB20G2	32		MPW40-3-U032			
15576919	CFW500D24P0T4DB20G2	40		Any UL Listed CB			
15577021	CFW500D31P0T4DB20G2	50					
15577211	CFW500E39P0T4DB20G2	50					
15577452	CFW500E49P0T4DB20G2	65					
15733937	CFW500F77P0T4DB20G2	100					
15734064	CFW500F88P0T4DB20G2	100					
15734119	CFW500F0105T4DB20G2	125					
15448371	CFW500G0142T4DB20G2	175					
15448372	CFW500G0180T4DB20G2	225					
15448373	CFW500G0211T4DB20G2	250					

Table continued on next page

WEG CFW500 Compatible Accessories

Fuses and Circuit Breakers, *continued*

WEG CFW500 AC Drive Circuit Breaker Component Selection, <i>continued</i>								
WEG MAT #	Model #	Input Voltage	Max Current (A)	WEG Circuit Breaker	WEG Current Limiter	WEG Power Terminal Block	WEG Short Circuit Alarm Contact	
Table continued from previous page								
IP66 Drives								
14990863	CFW500A01P6B2DB66DSG2	1-phase / 3-phase 230VAC IP66	16	MPW40-3-U025 / MPW40-3-U016	CLT32MPW40	LST25	TSB	
14991103	CFW500A02P6B2DB66DSG2		16					
14991753	CFW500A04P3B2DB66DSG2		16					
14938005	CFW500A07P3B2DB66DSG2	25	MPW40-3-U025 / MPW40-3-U016					
14938047	CFW500A10P0B2DB66DSG2	25	MPW40-3-U032 / MPW40-3-U016					
14938113	CFW500A16P0T2DB66DSG2	3-phase 230VAC IP66	25.0	MPW40-3-U025				
14975838	CFW500B24P0T2DB66DSG2		32.0	MPW40-3-U032				
14938655	CFW500B28P0T2DB66DSG2		125.0	Any UL Listed CB	N/A			
14991953	CFW500A01P0T4DB66DSG2	3-phase 460VAC IP66	16.0	MPW40-3-U016	CLT32MPW40	LST25	TSB	
14992148	CFW500A01P6T4DB66DSG2		16.0					
14976517	CFW500A02P6T4DB66DSG2		25.0					
14976809	CFW500A04P3T4DB66DSG2		25.0	MPW40-3-U025				
14977065	CFW500A06P5T4DB66DSG2		25.0	MPW40-3-U032				
14977266	CFW500A10P0T4DB66DSG2		25.0	MPW40-3-U032				
14977397	CFW500B14P0T4DB66DSG2		32.0	MPW40-3-U032				
14977556	CFW500B16P0T4DB66DSG2		32.0	MPW40-3-U032				
14978365	CFW500B24P0T4DB66DSG2		125.0	Any UL Listed CB	N/A			
14978573	CFW500B31P0T4DB66DSG2		125.0					
14989840	CFW500A01P6B2DB66G2		1-phase / 3-phase 230VAC IP66	16	MPW40-3-U025 / MPW40-3-U016	CLT32MPW40	LST25	TSB
14990985	CFW500A02P6B2DB66G2			16				
14991517	CFW500A04P3B2DB66G2			16				
14937890	CFW500A07P3B2DB66G2	25	MPW40-3-U025 / MPW40-3-U016					
14938041	CFW500A10P0B2DB66G2	25	MPW40-3-U032 / MPW40-3-U016					
14938111	CFW500A16P0T2DB66G2	3-phase 230VAC IP66	25.0	MPW40-3-U025				
14975783	CFW500B24P0T2DB66G2		32.0	MPW40-3-U032				
14938547	CFW500B28P0T2DB66G2		125.0	Any UL Listed CB	N/A			
14991899	CFW500A01P0T4DB66G2	3-phase 460VAC IP66	16.0	MPW40-3-U016	CLT32MPW40	LST25	TSB	
14992113	CFW500A01P6T4DB66G2		16.0					
14975888	CFW500A02P6T4DB66G2		25.0					
14976683	CFW500A04P3T4DB66G2		25.0	MPW40-3-U025				
14976814	CFW500A06P5T4DB66G2		25.0	MPW40-3-U032				
14977261	CFW500A10P0T4DB66G2		25.0	MPW40-3-U032				
14977391	CFW500B14P0T4DB66G2		32.0	MPW40-3-U032				
14977552	CFW500B16P0T4DB66G2		32.0	MPW40-3-U032				
14977629	CFW500B24P0T4DB66G2		125.0	Any UL Listed CB	N/A			
14978548	CFW500B31P0T4DB66G2		125.0					

WEG CFW500 Compatible Accessories

Braking Resistors for WEG CFW500 AC Drives

WEG CFW500 AC Drive Braking Component Selection										
WEG MAT #	Model #	Input Voltage	Drive Rated Amps	Motor HP	Resistor Part #	Braking Chopper of VFD				
						Max Current (Imax)	Recommended Resistor (Ohms)	Braking RMS Current (A)	Peak Power (kW)	
IP20 Drives										
15570800	CFW500A01P6B2NB20G2	1-phase / 3-phase 230VAC IP20	1.6	0.25	No Dynamic Braking (These Models)					
15571879	CFW500A02P6B2NB20G2		2.6	0.5						
15571881	CFW500A04P3B2NB20G2		4.3	1						
15574655	CFW500B07P3B2DB20G2		7.3	2	GS-BR-400W040	10	39	7	3.9	
15575067	CFW500B10P0B2DB20G2		10	3	GS-27P5-BR	15	27	11	6.1	
15572625	CFW500A07P0T2NB20G2	3-phase 230VAC IP20	7	2	No Dynamic Braking (These Models)					
15572689	CFW500A09P6T2NB20G2		9.6	3						
15575202	CFW500B16P0T2DB20G2		16	5						GS-27P5-BR
15575701	CFW500C24P0T2DB20G2		24	7.5	GS-BR-1K0W020	26	15	13	10.1	
15575716	CFW500D28P0T2DB20G2		28	10		38	10	18	14.4	
15576540	CFW500D47P0T2DB20G2		47	15	GS-BR-1K5W013	45	8.6	22	17.4	
15577077	CFW500E56P0T2DB20G2		56	20	GS-BR-1K5W3P3 (x2 series)	95	4.7	48	42.4	
15342437	CFW500F77P0T2DB20G2		77	30	GS-BR-1K0W4P3 (x2 series)	66.7	6	43	26.7	
15342760	CFW500F88P0T2DB20G2		88	30		66.7	6	43	26.7	
15342909	CFW500F0105T2DB20G2		105	40	GS-BR-1K5W3P3 (x2 series)	133	3	90	53.1	
15572819	CFW500A01P0T4NB20G2		3-phase 460VAC IP20	1	0.25	No Dynamic Braking (These Models)				
15572908	CFW500A01P6T4NB20G2			1.6	0.5					
15573714	CFW500A02P6T4NB20G2			2.6	1.5					
15573819	CFW500A04P3T4NB20G2			4.3	2					
15573823	CFW500A06P1T4NB20G2			6.1	3					
15575568	CFW500B02P6T4DB20G2	2.6		1.5	GS-BR-400W150	6	127	4.5	4.6	
15575577	CFW500B04P3T4DB20G2	4.3		2		6	127	4.5	4.6	
15575665	CFW500B06P5T4DB20G2	6.5		3	GS-43P0-BR (X2 parallel)	8	100	5.7	6.4	
15575699	CFW500B10P0T4DB20G2	10		5	GS-4015-BR-ENC	16	47	11.5	12.0	
15575707	CFW500C14P0T4DB20G2	14		7.5	GS-BR-1K5W043	24	33	14	19.0	
16675711	CFW500C16P0T4DB20G2	16		10	GS-BR-1K5W043	24	33	14	19.0	
15576919	CFW500D24P0T4DB20G2	24		15	GS-4030-BR-ENC	34	22	21	25.4	
15577021	CFW500D31P0T4DB20G2	31		20	GS-BR-1K0W020 (X4 series parallel)	48	18	27	41.5	
15577211	CFW500E39P0T4DB20G2	39		25		78	8.6	39	52.3	
15577452	CFW500E49P0T4DB20G2	49		30		78	8.6	39	52.3	
15733937	CFW500F77P0T4DB20G2	77		50	GS-BR-1K5W013 (X4 series parallel)	66.7	12	43	53.4	
15734064	CFW500F88P0T4DB20G2	88		60		66.7	12	43	53.4	
15734119	CFW500F0105T4DB20G2	105		75	GS-BR-1K5W012 (X4 series parallel)	129	6.2	63	103.2	
15448371	CFW500G0142T4DB20G2	142		100	n/a*	267	3	142	n/a	
15448372	CFW500G0180T4DB20G2	180		150	n/a*	267	3	180	n/a	
15448373	CFW500G0211T4DB20G2	211	175	n/a*	364	2.2	191.7	n/a		

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* Compatible braking resistor not available at this time.

WEG CFW500 Compatible Accessories

Braking Resistors for WEG CFW500 AC Drives, *continued*

WEG CFW500 AC Drive Braking Component Selection, <i>continued</i>										
WEG MAT #	Model #	Input Voltage	Drive Rated Amps	Motor HP	Resistor Part #	Braking Chopper of VFD				
						Max Current (Imax)	Recommended Resistor (Ohms)	Braking RMS Current (A)	Peak Power (kW)	
Table continued from previous page										
IP66 Drives										
14990863	CFW500A01P6B2DB66DSG2	1-phase / 3-phase 230VAC IP66	1.6	0.25	GS-BR-400W150	6	127	4.5	4.6	
14991103	CFW500A02P6B2DB66DSG2		2.6	0.5		6	127	4.5	4.6	
14991753	CFW500A04P3B2DB66DSG2		4.3	1		6	127	4.5	4.6	
14938005	CFW500A07P3B2DB66DSG2		7.3	2		GS-BR-400W040	10	39	7	3.9
14938047	CFW500A10P0B2DB66DSG2		10	3		GS-27P5-BR	15	27	11	6.1
14938113	CFW500A16P0T2DB66DSG2	3-phase 230VAC IP66	16	5	GS-BR-1K0W020	20	20	14	8.0	
14975838	CFW500B24P0T2DB66DSG2		24	7.5		26	15	13	10.1	
14938655	CFW500B28P0T2DB66DSG2		28	10		GS-BR-1K5W013	38	10	18	14.4
14991953	CFW500A01P0T4DB66DSG2		1	0.25		GS-BR-400W150	6	127	4.5	4.6
14992148	CFW500A01P6T4DB66DSG2		1.6	0.5			6	127	4.5	4.6
14976517	CFW500A02P6T4DB66DSG2	2.6	1.5	6	127		4.5	4.6		
14976809	CFW500A04P3T4DB66DSG2	4.3	2	6	127		4.5	4.6		
14977065	CFW500A06P5T4DB66DSG2	6.5	3	GS-43P0-BR (X2 parallel)	8		100	5.7	6.4	
14977266	CFW500A10P0T4DB66DSG2	3-phase 460VAC IP66	10	5	GS-4010-BR	16	47	11.5	12.0	
14977397	CFW500B14P0T4DB66DSG2		14	7.5	GS-BR-1K5W043	24	33	14	19.0	
14977556	CFW500B16P0T4DB66DSG2		16	10		24	33	14	19.0	
14978365	CFW500B24P0T4DB66DSG2		24	15	GS-4030-BR-ENC	34	22	21	25.4	
14978573	CFW500B31P0T4DB66DSG2		31	20	GS-BR-1K0W020 (X4 series parallel)	48	18	27	41.5	
14989840	CFW500A01P6B2DB66G2	1-phase / 3-phase 230VAC IP66	1.6	0.25	GS-BR-400W150	6	127	4.5	4.6	
14990985	CFW500A02P6B2DB66G2		2.6	0.5		6	127	4.5	4.6	
14991517	CFW500A04P3B2DB66G2		4.3	1		6	127	4.5	4.6	
14937890	CFW500A07P3B2DB66G2		7.3	2		GS-BR-400W040	10	39	7	3.9
14938041	CFW500A10P0B2DB66G2		10	3		GS-27P5-BR	15	27	11	6.1
14938111	CFW500A16P0T2DB66G2	3-phase 230VAC IP66	16	5	GS-BR-1K0W020	20	20	14	8.0	
14975783	CFW500B24P0T2DB66G2		24	7.5		26	15	13	10.1	
14938547	CFW500B28P0T2DB66G2		28	10		GS-BR-1K5W013	38	10	18	14.4
14991899	CFW500A01P0T4DB66G2		1	0.25		GS-BR-400W150	6	127	4.5	4.6
14992113	CFW500A01P6T4DB66G2		1.6	0.5			6	127	4.5	4.6
14975888	CFW500A02P6T4DB66G2	2.6	1.5	6	127		4.5	4.6		
14976683	CFW500A04P3T4DB66G2	4.3	2	6	127		4.5	4.6		
14976814	CFW500A06P5T4DB66G2	6.5	3	GS-43P0-BR (X2 parallel)	8		100	5.7	6.4	
14977261	CFW500A10P0T4DB66G2	3-phase 460VAC IP66	10	5	GS-4010-BR	16	47	11.5	12.0	
14977391	CFW500B14P0T4DB66G2		14	7.5	GS-BR-1K5W043	24	33	14	19.0	
14977552	CFW500B16P0T4DB66G2		16	10	GS-BR-1K5W043	24	33	14	19.0	
14977629	CFW500B24P0T4DB66G2		24	15	GS-4030-BR-ENC	34	22	21	25.4	
14978548	CFW500B31P0T4DB66G2		31	20	GS-BR-1K0W020 (X4 series parallel)	48	18	27	41.5	

WEG CFW500 Compatible Accessories

Line Reactors/Voltage Time Filters

Installing an AC Line Reactor on the input side of an AC motor drive can increase line impedance, improve the power factor, reduce input current, increase system capacity, and reduce interference generated from the motor drive.

Installing a load reactor or voltage time filter on the drive's output side can increase the high-frequency impedance to reduce the dV/dT and terminal voltage to protect the motor. Use output filters if the motor cable length exceeds 100ft [30m].

WEG CFW500 Line/Load Reactor and AC Output Filter												
WEG MAT #	Model #	Input Voltage (VAC)	Motor HP	Drive Output		Line Reactor*		Load Reactor*	Output Filter*			
				Rated Current	Phase / Nominal	1-phase	3-phase	3-phase	3-phase			
IP20 Drives												
15570800	CFW500A01P6B2NB20G2	1-phase or 3-phase / 230VAC	0.25	1.6	3-phase / 230VAC	LR2-20P2-1PH	LR2-20P2	LR2-20P2	N/A			
15571879	CFW500A02P6B2NB20G2		0.5	2.6		LR2-20P5-1PH or LR2-20P5	LR2-20P5 or LR2-20P2	LR2-20P5 or LR2-20P2	VTF-246-CFG			
15571881	CFW500A04P3B2NB20G2		1	4.3		LR2-21P0-1PH or LR2-20P7	LR2-21P0 or LR2-20P5	LR2-21P0 or LR2-20P5	VTF-24-FH			
15574655	CFW500B07P3B2DB20G2		2	7.3		LR-22P0-1PH or LR-25P0	LR2-22P0 or LR2-20P7	LR2-22P0 or LR2-20P7	VTF-246-GJJ			
15575067	CFW500B10P0B2DB20G2		3	10		LR-23P0-1PH or LR-25P0	LR-23P0 or LR2-22P0	LR-23P0 or LR2-22P0	VTF-246-HKL			
15572625	CFW500A07P0T2NB20G2	3-phase / 230VAC	2	7	3-phase / 230VAC	N/A	LR2-22P0 or LR2-20P7	LR2-22P0 or LR2-20P7	VTF-246-GJJ			
15572689	CFW500A09P6T2NB20G2		3	9.6			LR-23P0 or LR2-22P0	LR-23P0 or LR2-22P0	VTF-246-HKL			
15575202	CFW500B16P0T2DB20G2		5	16			LR-25P0	LR-25P0	VTF-24-JL			
15575701	CFW500C24P0T2DB20G2		7.5	24			LR-27P5	LR-27P5	VTF-246-KMN			
15575716	CFW500D28P0T2DB20G2		10	28			LR-2010	LR-2010	VTF-246-LPQ			
15576540	CFW500D47P0T2DB20G2		15	47			LR-2015	LR-2015	VTF-246-MQR or VTF-246-NRS			
15577077	CFW500E56P0T2DB20G2		20	56			LR-2020	LR-2020	VTF-246-NRS or VTF-246-PSU			
15342437	CFW500F77P0T2DB20G2		20	64			LR-2025	LR-2025	VTF-246-PSU			
15342760	CFW500F88P0T2DB20G2		(25-ND)	(77-ND)			LR-2025	LR-2025	VTF-246-PSU			
15342760	CFW500F88P0T2DB20G2		25	75			LR-2025	LR-2025	VTF-246-PSU			
15342760	CFW500F88P0T2DB20G2		(30-ND)	(88-ND)			LR-2030	LR-2030	VTF-246-RUV			
15342909	CFW500F0105T2DB20G2		30	88			LR-2030	LR-2030	VTF-246-RUV			
15342909	CFW500F0105T2DB20G2		(40-ND)	(105-ND)			LR-2040	LR-2040	VTF-246-RUV			
15572819	CFW500A01P0T4NB20G2		3-phase / 480VAC	0.33			1	3-phase / 480VAC	N/A	LR2-40P3	LR2-40P3	N/A
15572908	CFW500A01P6T4NB20G2			0.75			1.6			LR2-40P7	LR2-40P7	VTF-46-DE
15573714	CFW500A02P6T4NB20G2	1		2.6	LR2-41P0	LR2-41P0	VTF-246-CFG					
15573819	CFW500A04P3T4NB20G2	2		4.3	LR2-42P0	LR2-42P0	VTF-24-FH					
15573823	CFW500A06P1T4NB20G2	3		6.1	LR2-44P0	LR2-44P0	VTF-246-GJJ					
15575568	CFW500B02P6T4DB20G2	1		2.6	LR2-41P0	LR2-41P0	VTF-246-CFG					
15575577	CFW500B04P3T4DB20G2	2		4.3	LR2-42P0	LR2-42P0	VTF-24-FH					
15575665	CFW500B06P5T4DB20G2	3		6.5	LR2-44P0	LR2-44P0	VTF-246-GJJ					
15575699	CFW500B10P0T4DB20G2	5		10	LR2-45P0	LR2-45P0	VTF-246-HKL					
15575707	CFW500C14P0T4DB20G2	7.5		14	LR-4010	LR-4010	VTF-24-JL					
15575711	CFW500C16P0T4DB20G2	10		14	LR-4010	LR-4010	VTF-24-JL					
15576919	CFW500D24P0T4DB20G2	15		24	LR-4015	LR-4015	VTF-246-KMN					
15577021	CFW500D31P0T4DB20G2	20		31	LR-4020	LR-4020	VTF-246-LPQ					
15577211	CFW500E39P0T4DB20G2	25		39	LR-4025	LR-4025	VTF-246-MQR					
15577452	CFW500E49P0T4DB20G2	30		49	LR-4030	LR-4030	VTF-246-NRS					
15733937	CFW500F77P0T4DB20G2	40		61	LR-4040	LR-4040	VTF-246-PSU					
15733937	CFW500F77P0T4DB20G2	50		(77-ND)	LR-4050	LR-4050	VTF-246-PSU					
15734064	CFW500F88P0T4DB20G2	50		73	LR-4050	LR-4050	VTF-246-PSU					
15734064	CFW500F88P0T4DB20G2	60		(88 - ND)	LR-4060	LR-4060	VTF-246-RUV					
15734119	CFW500F0105T4DB20G2	60		88	LR-4060	LR-4060	VTF-246-RUV					
15734119	CFW500F0105T4DB20G2	75		(105 - ND)	LR-4075	LR-4075	VTF-246-RUV					
15448371	CFW500G0142T4DB20G2	75		115	LR-4075	LR-4075	VTF-246-RUV					
15448371	CFW500G0142T4DB20G2	100		(142-ND)	LR-4075	LR-4075	VTF-246-RUV					
15448372	CFW500G0180T4DB20G2	100		142	LR-4100	LR-4100	n/a					
15448372	CFW500G0180T4DB20G2	150		(180-ND)	LR-4100	LR-4100	n/a					
15448373	CFW500G0211T4DB20G2	150		180	LR-4150	LR-4150	n/a					
15448373	CFW500G0211T4DB20G2	175		(211-ND)	LR-4150	LR-4150	n/a					

Table continued on next page

* All specs for the LR, LR2, and VTF can be found at www.automationdirect.com

WEG CFW500 Compatible Accessories

Line Reactors/Voltage Time Filters, *continued*

WEG CFW500 Line/Load Reactor and AC Output Filter, <i>continued</i>									
WEG MAT #	Model #	Input Voltage (VAC)	Motor HP	Drive Output		Line Reactor*		Load Reactor*	Output Filter*
				Rated Current	Phase / Nominal	1-phase	3-phase	3-phase	3-phase
Table continued from previous page									
IP66 Drives									
14990863	CFW500A01P6B2DB66DSG2	1-phase or 3-phase / 230VAC	0.25	1.6	3-phase / 230VAC	LR2-20P2-1PH	LR2-20P2	LR2-20P2	N/A
14991103	CFW500A02P6B2DB66DSG2		0.5	2.6		LR2-20P5-1PH or LR2-20P5	LR2-20P5	LR2-20P5	VTF-246-CFG
14991753	CFW500A04P3B2DB66DSG2		1	4.3		LR2-21P0-1PH or LR2-20P7	LR2-21P0	LR2-21P0	VTF-24-FH
14938005	CFW500A07P3B2DB66DSG2		2	7.3		LR-22P0-1PH or LR-25P0	LR2-22P0	LR2-22P0	VTF-246-GJJ
14938047	CFW500A10P0B2DB66DSG2		3	10		LR-23P0-1PH or LR-25P0	LR-23P0	LR-23P0	VTF-246-HKL
14938113	CFW500A16P0T2DB66DSG2	3-phase / 230VAC	5.0	16	3-phase / 230VAC	N/A	LR-25P0	LR-25P0	VTF-24-JL
14975838	CFW500B24P0T2DB66DSG2		7.5	24			LR-27P5	LR-27P5	VTF-246-KMN
14938655	CFW500B28P0T2DB66DSG2		10.0	28			LR-2010	LR-2010	VTF-246-LPQ
14991953	CFW500A01P0T4DB66DSG2	3-phase / 480VAC	0.3	1	3-phase / 480VAC	N/A	LR2-40P3	LR2-40P3	N/A
14992148	CFW500A01P6T4DB66DSG2		0.5	1.6			LR2-40P5	LR2-40P5	N/A
14976517	CFW500A02P6T4DB66DSG2		1.0	2.6			LR2-41P0	LR2-41P0	VTF-246-CFG
14976809	CFW500A04P3T4DB66DSG2		2.0	4.3			LR2-42P0	LR2-42P0	VTF-246-DGH
14977065	CFW500A06P5T4DB66DSG2		3.0	6.5			LR2-44P0	LR2-44P0	VTF-24-FH
14977266	CFW500A10P0T4DB66DSG2		5.0	10			LR2-45P0	LR2-45P0	VTF-246-GJJ
14977397	CFW500B14P0T4DB66DSG2		7.5	14			LR-4010	LR-4010	VTF-24-JL
14977556	CFW500B16P0T4DB66DSG2		10.0	14			LR-4010	LR-4010	VTF-24-JL
14978365	CFW500B24P0T4DB66DSG2		15.0	24			LR-4015	LR-4015	VTF-246-KMN
14978573	CFW500B31P0T4DB66DSG2		20.0	31			LR-4020	LR-4020	VTF-246-LPQ
14989840	CFW500A01P6B2DB66G2		1-phase or 3-phase / 230VAC	0.25			1.6	3-phase / 230VAC	LR2-20P2-1PH
14990985	CFW500A02P6B2DB66G2	0.5		2.6	LR2-20P5-1PH or LR2-20P5	LR2-20P5	LR2-20P5		VTF-246-CFG
14991517	CFW500A04P3B2DB66G2	1		4.3	LR2-21P0-1PH or LR2-20P7	LR2-21P0	LR2-21P0		VTF-24-FH
14937890	CFW500A07P3B2DB66G2	2		7.3	LR-22P0-1PH or LR-25P0	LR2-22P0	LR2-22P0		VTF-246-GJJ
14938041	CFW500A10P0B2DB66G2	3		10	LR-23P0-1PH or LR-25P0	LR-23P0	LR-23P0		VTF-246-HKL
14938111	CFW500A16P0T2DB66G2	3-phase / 230VAC	5.0	16	3-phase / 230VAC	N/A	LR-25P0	LR-25P0	VTF-24-JL
14975783	CFW500B24P0T2DB66G2		7.5	24			LR-27P5	LR-27P5	VTF-246-KMN
14938547	CFW500B28P0T2DB66G2		10.0	28			LR-2010	LR-2010	VTF-246-LPQ
14991899	CFW500A01P0T4DB66G2	3-phase / 480VAC	0.3	1	3-phase / 480VAC	N/A	LR2-40P3	LR2-40P3	N/A
14992113	CFW500A01P6T4DB66G2		0.5	1.6			LR2-40P5	LR2-40P5	N/A
14975888	CFW500A02P6T4DB66G2		1.0	2.6			LR2-41P0	LR2-41P0	VTF-246-CFG
14976683	CFW500A04P3T4DB66G2		2.0	4.3			LR2-42P0	LR2-42P0	VTF-246-DGH
14976814	CFW500A06P5T4DB66G2		3.0	6.5			LR2-44P0	LR2-44P0	VTF-246-GJJ
14977261	CFW500A10P0T4DB66G2		5.0	10			LR2-45P0	LR2-45P0	VTF-246-HKL
14977391	CFW500B14P0T4DB66G2		7.5	14			LR-4010	LR-4010	VTF-24-JL
14977552	CFW500B16P0T4DB66G2		10.0	14			LR-4010	LR-4010	VTF-24-JL
14977629	CFW500B24P0T4DB66G2		15.0	24			LR-4015	LR-4015	VTF-246-KMN
14978548	CFW500B31P0T4DB66G2		20.0	31			LR-4020	LR-4020	VTF-246-LPQ

* All specs for the LR, LR2, and VTF can be found at www.automationdirect.com.

WEG CFW Series Software

CFW-WPS Software Package

WEG CFW-WPS configuration software is available as a free download or on a USB card. The software is compatible with all CFW100, CFW300, and CFW500 drives. Requires a PC USB port, and either a USB-485M serial adapter or a USB cable, and the following:

CFW100:

- Using RS485 via the CFW100-CRS485 module
- Using USB via the CUSB module

CFW300:

- Using RS485 via the CFW300-CRS485 module
- Using RS232 via the CFW300-CRS232 module

CFW500:

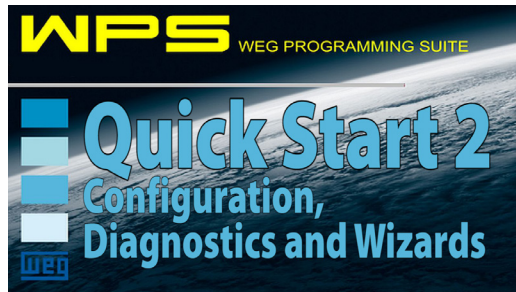
- Using RS485 via either the CFW500-IOS module or an optional module (CFW500-CRS485-B)
- Using USB via the CFW500-CUSB module
- Using Ethernet communications with option modules (CFW500-CETH-IP) and RJ45 cable

See the WPS quick start videos for more information:

- Drive Parameters: <https://www.automationdirect.com/VID-DR-0071>



- Configuration, Diagnostics, and Wizards: <https://www.automationdirect.com/VID-DR-0074>



WEG CFW500 Configuration Software					
Model #	Version	Price	Description	Features/Specifications	CFW500 Drive
CFW-WPS	USB Card	\$10.50	WEG Electric Windows Configuration Software: for all WEG AC drives (PN# CFW-WPS)	USB card containing WEG WPS software.	All
	Download	Free		Download software for free through the AutomationDirect.com website: <ul style="list-style-type: none"> • CFW-WPS Software 	



CFW-WPS
USB Installation Card

CFW Series Software

CFW-WLP Software Package

WEG WLP software is only needed for access to the Pump Genius configuration tool. The Pump Genius makes configuring Pumping applications a snap. From single pumps to multi-pump systems, the software walks you through building a pumping application to suit your specific needs. Pump Genius is compatible with CFW500 drives only. Requires a PC USB port and connection options identical to WPS software.

For Download only:

<https://www.automationdirect.com/support/software-downloads?itemcode=WEG%20WLP>

See the "how to" video for more information:

<https://www.automationdirect.com/VID-DR-0335>

