

# Washdown Motors & Drives

Optimal Match for the Toughest Washdown Applications



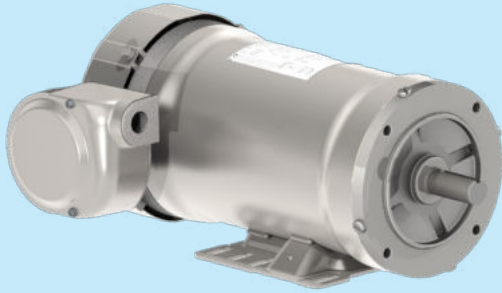
## Four Choices to Reduce Your Washdown Motor Replacement Costs

We offer four motor choices to provide you with the performance, durability and economy you need for specific washdown applications. This offers you more choices to lower your motor replacement costs and increase your return-on-investment.

### Encapsulated Washdown Motors

Encapsulated winding and a patented sealing system to ensure they will “standup” in the most severe applications.

#### Hydroduty™



#### The Ultimate Washdown Motor

- This is the ultimate stainless steel waterproof motor. It has been proven to provide 75% more cycles than other brands through extreme environment testing.
- Significantly reduces motor replacement and downtime costs
- Meets NEMA MG1 Part 31 for InverterDuty operation; 10:1 CT; 10:1 VT



#### Performance Specifications

- 1/2 to 5 hp, 860, 1140, 1725 or 3450 RPM
- TENV or TEFC enclosures
- NEMA Frames 56C, 143TC, 145TC and 182TC
- Metric Frame 80-B5 and 100L
- Meets IP69K enclosure protection

#### PickerPlus™



#### Severe Duty Feather Picker Motor

- Withstands frequent sanitizing with high pressure sprays and caustic fluids.
- Designed to withstand extreme side loading requirements

#### Performance Specifications

- 3 hp, 1725 RPM
- TEFC enclosure
- 145TC NEMA or 100L Metric Frames
- Footless or Base Mounted
- C-Face
- Meets IP69K enclosure protection

### General Purpose Washdown Motors

#### Shark™



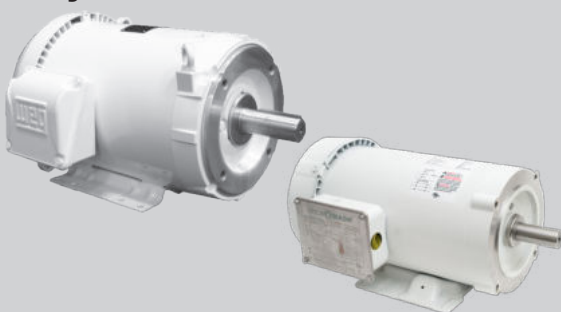
#### Stainless Steel Washdown Motor

- For use in food processing, pharmaceutical and other applications requiring extreme cleanliness
- Class F epoxy insulation
- Meets NEMA MG1 Part 31 for Inverter Duty operation; 6:1 CT; 10:1 VT

#### Performance Specifications

- 1-10 hp NEMA Premium
- 1800 and 3600 RPM
- TEFC enclosures
- Frames 143TC to 215TC
- Base Mounted
- Meets IP56 enclosure protection

#### HydroWash™



#### White Painted Washdown Motor

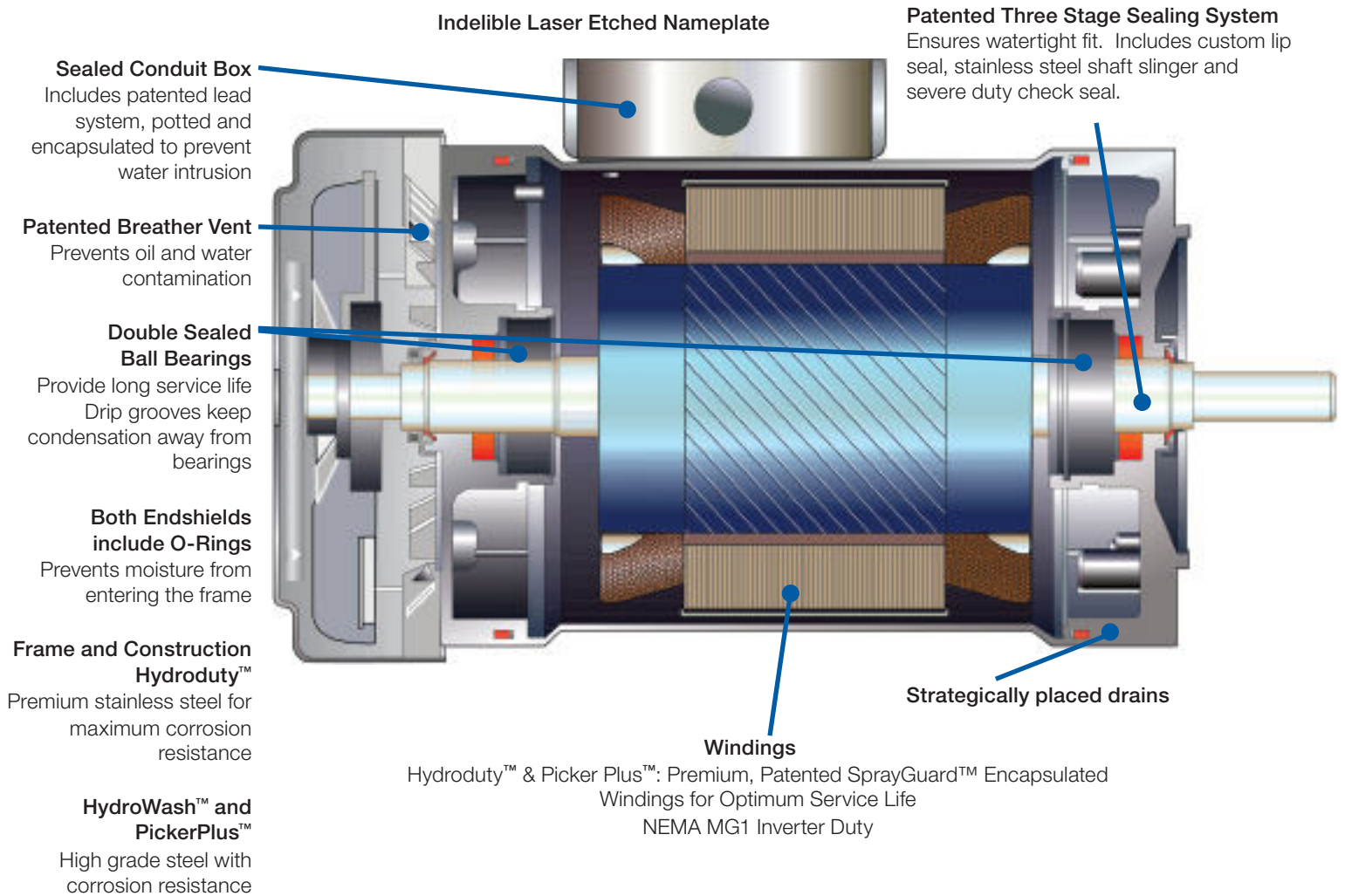
- Designed for long service life in general purpose washdown applications
- It provides extended service life that can reduce your downtime costs for motor replacement
- Meets NEMA MG1 Part 31 for Inverter Duty operation; 6:1 CT; 10:1 VT

#### Performance Specifications

- 1/2 to 25hp
- TENV or TEFC enclosures
- NEMA Frames 56C - 256TC
- Footless or Base Mounted
- Meets IP56 enclosure protection

## Severe Duty Washdown Motors

### Designed and Built to Last Longer



## Trust WEG for the Toughest - Longest Lasting Motors for Washdown Applications

- **Built Durable** Withstands frequent sanitizing with high pressure spray, especially designed for severe duty washdown applications.
- **Economical** Long lasting design providing extended service life that can save you thousands of dollars in downtime costs.
- **Exceptional Warranty** We stand by our motors with an exceptional warranty; 12 months from date of the first installation or 24 months from date on motor nameplate. (Specific to HydroDuty motors this warranty will also cover all water-related motor failures resulting from typical sanitary washdown procedures for the aforementioned period of time.)



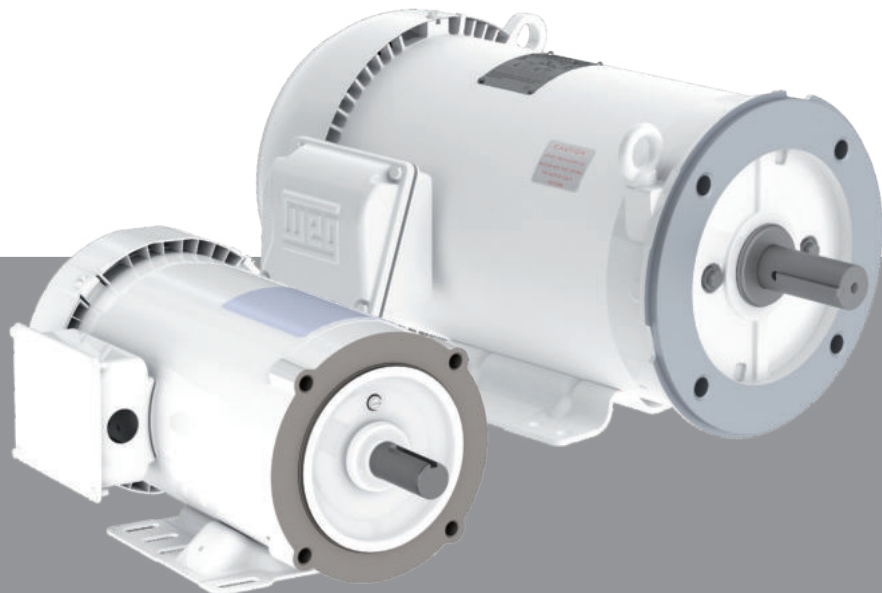
The Washdown line was designed to meet the requirements of industries where there is a constant need for hygiene and cleanliness of the environment through high pressure water jets and/or chemical products. Washdown motors are applied in food, beverage and pharmaceutical industries.

## Standard Features

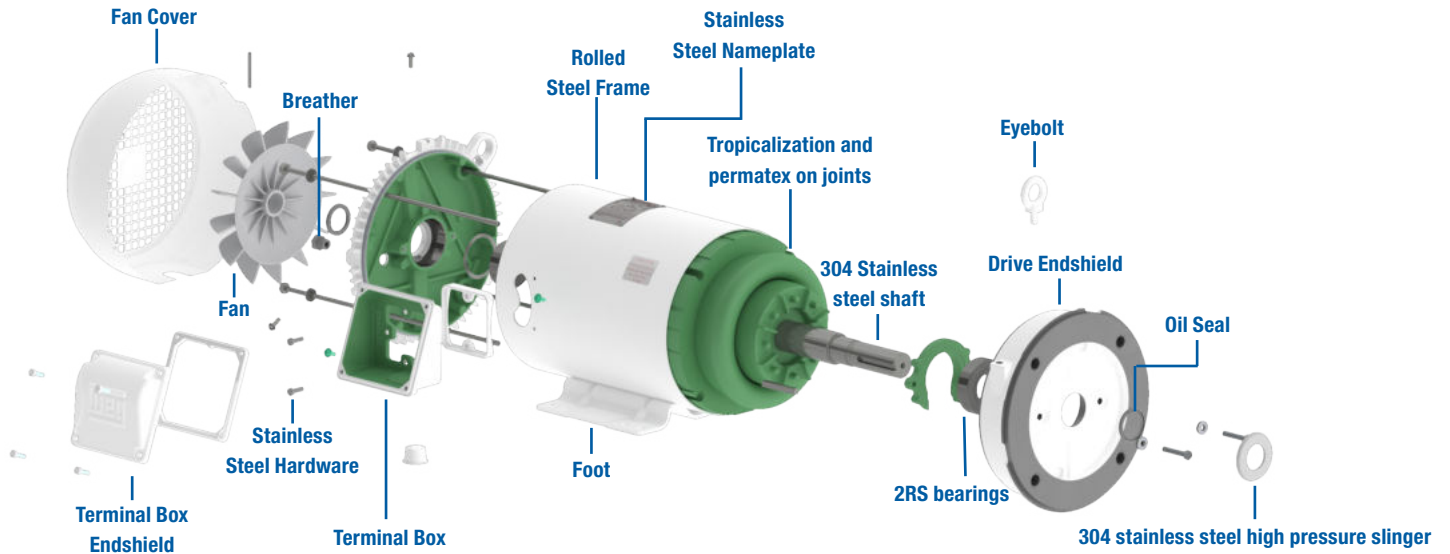
- Output: 1/2 up to 25 HP
- Frames: 56 up to 254/6T
- Number of poles: 2 up to 6
- Certification CSA/UL
- Efficiency: NEMA Standard and NEMA Premium
- Voltage:
  - Frames 56 and 145T - 208-230/460 V with 9 leads
  - Frames 182/4T and 213/5T - 208-230/460//190-220/380-415 V with 9 leads
  - Frames 254/6T - 208-230/460//190-220/380-415 V with 12 leads
- Service factor: 1.15
- Mounting: F-1
- Insulation class "F" ( $\Delta T$  80 K)
- Degree of protection: IP56
- Shaft material: Stainless Steel (AISI 304)
- Bearing type: Shielded (2RS)
- Permatex on joints for frames 182/4T and above
- Viton O'Ring on joints for frames 56 and 145T
- Color: Porcelain White - Munsell N 9.5
- Coating NOBAC® for frames 180 and above
- Internal painting: Tropicalized (Epoxy for frames 180 and above)
- Breather on non drive endshield
- Vibration: Grade A
- Drive end bearing seal: Oil seal with stainless steel spring and 304 stainless steel high pressure external shaft slinger
- Non drive end bearing seal: Oil seal with stainless steel spring
- Type of grease: Mobil Polyrex EM
- Fan material: plastic
- Aluminium flanges
- Terminal box material: Aluminium
- External screws and key: Stainless Steel

## Optionals

- Other mountings
- Voltage: 575 V with 6 leads
- Space heaters
- Thermal protection
- Cable glands
- Threaded center hole (shaft)
- Vibration: Grade B
- SGR shaft grounding ring (Inverter use)
- Shaft material: Stainless Steel (AISI 316)



## Superior Products - Superior Parts



## CFW500-N4X/IP66 WASHDOWN DRIVE

The WEG CFW500 Wash series is a redesign of our most successful CFW500 series product line. Engineer improvements have produced one of the most compact and full featured washdown drive in the market.

The new version with IP66/NEMA 4X protection rating increases the product robustness, ensuring protection against the ingress of dust and water jets from any direction, which allows its use and installation both indoors and outdoors. The new IP66 models of the CFW500 line have the following characteristics.

### Standard Features

- Same programming as other WEG VFDs including CFW500-IP20.
- Built-in SoftPLC.
- Scalar, Vector Control (Senseless and closed loop with encoder feedback) & VVW PM (suitable for fan, Pump and compressor).
- NEMA 4X(IP66) Enclosure.
- Available with and without disconnect switch.
- Suitable for indoor and Outdoor use.
- 200-240V, 380-480V or 500-600 input voltage.
- Heavy Duty rated - 150% current overload capacity.
- 0 to 500 Hz output frequency.
- 2.5 to 15 kHz adjustable switching frequency (5 kHz standard)
- Built-in 24Vdc Power supply (max. 150 mA).
- Built-in RS-485 (Modbus RTU) communication.
- Four isolated programmable digital inputs.
- One programmable relay output (1NO, 1NC, 240vac 0.5A).
- One programmable transistor output.
- One isolated programmable analog input (0-10V, 0/4-20mA).
- One isolated programmable analog output (0-10V, 0/4-20mA).
- Protective features: Over current (Phase-Phase short circuit in the output or phase-ground short circuit in the output), Under/overvoltage, overtemperature in heatsink, motor overload, IGBT overload and external fault.
- Control features: Linear and "S" ramp acceleration and deceleration, local/remote control, DC braking, torque boost, motor slip compensation, electronic pot, preset speeds, adjustable V/Hz profile, maximum and minimum adjustable frequency limits, two skip frequencies, adjustable output current limit, JOG, ride-thru, flying start and PID regulator.
- Same keypad with backlight as of CFW500 product line with Main display line, secondary display line and bar graph display.
- Ambient: 14°F (-10°C) to 104°F (40°C), 3300ft (1000m) altitude, 5-95% humidity, non-condensing.
- WLP and WPS (only 230VAC and 460VAC Models) compatible.

For Indoor / Outdoor Use



### Applications NEMA 4X

- Pumps
- Fans
- Blowers
- Conveyors
- Rollout tables
- Agitators
- Mixers
- Any washdown applications



# CFW500 - N4X/IP66 VFD W/O DISCONNECT SWITCH

Motor Voltage	HD - Motor HP <sup>1</sup>	HD - Drive Amps <sup>2</sup>	Catalog Number	Braking Transistor	Frame Size <sup>4</sup>	Dimensions (in.) HxWxD	Approx. Weight (lbs.)	List Price	Multiplier New (Old)	
230 Vac / 3 Phase	Input Power Supply: Single or Three-Phase 200-240 Vac									
	1/3	1.6	<a href="#">CFW500A01P6B2DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$775	V1G (V1)	
	3/4	2.6	<a href="#">CFW500A02P6B2DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$800	V1G (V1)	
	1 1/2	4.3	<a href="#">CFW500A04P3B2DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$850	V1G (V1)	
	2	7.3	<a href="#">CFW500A07P3B2DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$1,015	V1G (V1)	
	3	10.0	<a href="#">CFW500A10P0B2DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$1,095	V1G (V1)	
	Input Power Supply: Three-Phase 200-240 Vac									
	5	16	<a href="#">CFW500A16P0T2DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$1,350	V1G (V1)	
	7 1/2	24	<a href="#">CFW500B24P0T2DB66G2</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$1,950	V1G (V1)	
	10	28	<a href="#">CFW500B28P0T2DB66G2</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$2,275	V1G (V1)	
	10	33	<a href="#">CFW500B33P0T2DB66G2</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$2,675	V1G (V1)	
	460 Vac / 3 Phase	Input Power Supply: Three-Phase 380-480 Vac								
		1/2	1.0	<a href="#">CFW500A01P0T4DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$950	V1G (V1)
1		1.6	<a href="#">CFW500A01P6T4DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$975	V1G (V1)	
2		2.6	<a href="#">CFW500A02P6T4DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$990	V1G (V1)	
3		4.3	<a href="#">CFW500A04P3T4DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$1,175	V1G (V1)	
5		6.5	<a href="#">CFW500A06P5T4DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$1,400	V1G (V1)	
7 1/2		10	<a href="#">CFW500A10P0T4DB66G2</a>	Yes	A	10.4 x 6.5 x 8.9	22.0	\$1,650	V1G (V1)	
10		14	<a href="#">CFW500B14P0T4DB66G2</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$2,050	V1G (V1)	
10		16	<a href="#">CFW500B16P0T4DB66G2</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$2,275	V1G (V1)	
15		24	<a href="#">CFW500B24P0T4DB66G2</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$3,025	V1G (V1)	
25		31	<a href="#">CFW500B31P0T4DB66G2</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$3,650	V1G (V1)	
575 Vac / 3 Phase <sup>3</sup>	Input Power Supply: Three-Phase 500-600 Vac									
	1 1/2	1.7	<a href="#">CFW500B01P7T5DB66</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$1,590	V1G (V1)	
	3	3.0	<a href="#">CFW500B03P0T5DB66</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$1,670	V1G (V1)	
	3	4.3	<a href="#">CFW500B04P3T5DB66</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$1,890	V1G (V1)	
	7 1/2	7.0	<a href="#">CFW500B07P0T5DB66</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$2,115	V1G (V1)	
	10	10.0	<a href="#">CFW500B10P0T5DB66</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$2,330	V1G (V1)	
	10	12.0	<a href="#">CFW500B12P0T5DB66</a>	Yes	B	13.4 x 8.5 x 8.9	26.5	\$2,615	V1G (V1)	

Notes:

- 1) HP rating based on WEG W22 motors average FLA values. Use as a guide only.
- 2) Motor FLA may vary with speed and manufacturer. ALWAYS compare motor FLA to Nominal AMPS of drive.
- 3) All 575V drives are non-stocked items and are still Generation-1 drives, consult WEG for availability.
- 4) Frame Size A & B are rated for 40°C ambient temperature.

## CFW500 - N4X/IP66 VFD With DISCONNECT SWITCH

Motor Voltage	HD - Motor HP <sup>1</sup>	HD - Drive Amps <sup>2</sup>	Catalog Number	Braking Transistor	Frame Size <sup>4</sup>	Dimensions (in.) HxWxD	Approx. Weight (lbs.)	List Price	Multiplier New (Old)	
230 Vac / 3 Phase	Input Power Supply: Single or Three-Phase 200-240 Vac									
	1/3	1.6	<a href="#">CFW500A01P6B2DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$895</b>	V1G (V1)	
	3/4	2.6	<a href="#">CFW500A02P6B2DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$920</b>	V1G (V1)	
	1 1/2	4.3	<a href="#">CFW500A04P3B2DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$980</b>	V1G (V1)	
	2	7.3	<a href="#">CFW500A07P3B2DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$1,170</b>	V1G (V1)	
	3	10.0	<a href="#">CFW500A10P0B2DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$1,255</b>	V1G (V1)	
	Input Power Supply: Three-Phase 200-240 Vac									
	5	16	<a href="#">CFW500A16P0T2DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$1,555</b>	V1G (V1)	
	7 1/2	24	<a href="#">CFW500B24P0T2DB66DSG2</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$2,245</b>	V1G (V1)	
	10	28	<a href="#">CFW500B28P0T2DB66DSG2</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$2,620</b>	V1G (V1)	
	10	33	<a href="#">CFW500B33P0T2DB66DSG2</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$3,080</b>	V1G (V1)	
	460 Vac / 3 Phase	Input Power Supply: Three-Phase 380-480 Vac								
		1/2	1.0	<a href="#">CFW500A01P0T4DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$1,095</b>	V1G (V1)
1		1.6	<a href="#">CFW500A01P6T4DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$1,125</b>	V1G (V1)	
2		2.6	<a href="#">CFW500A02P6T4DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$1,140</b>	V1G (V1)	
3		4.3	<a href="#">CFW500A04P3T4DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$1,350</b>	V1G (V1)	
5		6.5	<a href="#">CFW500A06P5T4DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$1,610</b>	V1G (V1)	
7 1/2		10	<a href="#">CFW500A10P0T4DB66DSG2</a>	Yes	A	10.4 x 6.5 x 9.9	22.0	<b>\$1,900</b>	V1G (V1)	
10		14	<a href="#">CFW500B14P0T4DB66DSG2</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$2,360</b>	V1G (V1)	
10		16	<a href="#">CFW500B16P0T4DB66DSG2</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$2,620</b>	V1G (V1)	
15		24	<a href="#">CFW500B24P0T4DB66DSG2</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$3,480</b>	V1G (V1)	
25		31	<a href="#">CFW500B31P0T4DB66DSG2</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$4,200</b>	V1G (V1)	
575 Vac / 3 Phase 3	Input Power Supply: Three-Phase 500-600 Vac									
	1 1/2	1.7	<a href="#">CFW500B01P7T5DB66DS</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$1,830</b>	V1G (V1)	
	3	3.0	<a href="#">CFW500B03P0T5DB66DS</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$1,925</b>	V1G (V1)	
	3	4.3	<a href="#">CFW500B04P3T5DB66DS</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$2,175</b>	V1G (V1)	
	7 1/2	7.0	<a href="#">CFW500B07P0T5DB66DS</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$2,435</b>	V1G (V1)	
	10	10.0	<a href="#">CFW500B10P0T5DB66DS</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$2,680</b>	V1G (V1)	
	10	12.0	<a href="#">CFW500B12P0T5DB66DS</a>	Yes	B	13.4 x 8.5 x 9.9	26.5	<b>\$3,005</b>	V1G (V1)	

Notes:

- 1) HP rating based on WEG W22 motors average FLA values. Use as a guide only.
- 2) Motor FLA may vary with speed and manufacturer. ALWAYS compare motor FLA to Nominal AMPS of drive.
- 3) All 575V drives are non-stocked items and are still Generation-1 drives, consult WEG for availability.
- 4) Frame Size A & B are rated for 40°C ambient temperature.



## Options and Accessories

Type	CATALOG NUMBER	Description	Apprx. Shpg. Wt. (lbs.)
I/O	<a href="#">CFW500-IOS</a> <sup>1</sup>	CFW500 I/O Module; 4 DI, 1 AI, 1 AO, 1 DOR, 1 DOT, 1 RS485, 10vdc, 24vdc	0.2
I/O	<a href="#">CFW500-IOD</a>	CFW500 I/O Module; 8 DI, 1 AI, 1 AO, 1 DOR, 4 DOT, 1 RS485, 10vdc, 24vdc	0.2
I/O	<a href="#">CFW500-IOAD</a>	CFW500 I/O Module; 6 DI, 3 AI, 2 AO, 1 DOR, 3 DOT, 1 RS485, 10vdc, 24vdc	0.2
I/O	<a href="#">CFW500-IOR-B</a>	CFW500 I/O Module; 5 DI, 1 AI, 1 AO, 4 DOR, 1 DOT, 1 RS485, 10vdc, 24vdc	0.2
Encoder Input	<a href="#">CFW500-ENC</a>	CFW500 Encoder Module; Quad Input A & B, 1 RS485, 5 DI, 1 AI, 1 AO, 3 DOR, 1 DOT, 24vdc	0.2
USB Card	<a href="#">CFW500-CUSB</a>	CFW500 Comm. Module; 1 USB, 1 RS485, 4 DI, 1 AI, 1 AO, 1 DOR, 1 DOT, 10vdc, 24vdc	0.2
RS232 Card	<a href="#">CFW500-CRS232</a>	CFW500 Comm. Module; 1 RS232, 1 RS485, 4 DI, 1 AI, 1 AO, 1 DOR, 1 DOT, 24vdc	0.2
RS485 Card	<a href="#">CFW500-CRS485-B</a>	CFW500 Comm. Module; 2 RS485, 4 DI, 2 AI, 1 AO, 2 DOR, 1 DOT, 10vdc, 24vdc	0.2
CANopen Card	<a href="#">CFW500-CCAN</a>	CFW500 Comm. Module; 1 CAN/DeviceNet, 1 RS485, 2 DI, 1 AI, 1 AO, 1 DOR, 1 DOT, 10vdc, 24vdc	0.2
Profibus DP & DP-V1 Module	<a href="#">CFW500-CPDP2</a>	CFW500 Comm. Module; 1-Profibus DP & DP-V1 100BASE TX RJ-45 Port, 1-RS485, 2-DI, 1-AI, 1-AO, 1-DOR, 1-DOT, 24vdc (Terminal Block Connector)	0.2
Modbus TCP Comm. Module	<a href="#">CFW500-CEMB-TCP</a>	CFW500 Comm. Module; 1-Modbus TCP 100BASE TX RJ-45 Port, 1-RS485, 2-DI, 1-AI, 1-AO, 1-DOR, 1-DOT, 24vdc	0.2
ProfiNet I/O Comm. Module	<a href="#">CFW500-CEPN-IO</a>	CFW500 Comm. Module; 1-ProfiNet I/O 100BASE TX RJ-45 Port, 1-RS485, 2-DI, 1-AI, 1-AO, 1-DOR, 1-DOT, 24vdc	0.2
EtherNet IP Comm. Module	<a href="#">CFW500-CETH-IP</a>	CFW500 Comm. Module; 2-DI, 1-AI, 1-AO, 1-DOR, 1-DOT, 1-RS485, 1-EtherNet IP 100BASE TX RJ-45 Port, 24vdc	0.2
STO Module	<a href="#">CFW500-SFY2</a> <sup>2</sup>	CFW500 Safety Function Module; Safe Torque Off (STO) / Stop Category 0, Safe Stop 1 Time Controlled (SS1-t) / Stop Category 1; Safety Category: SIL 3, PL e	1.8
STO Module Plug	<a href="#">CFW50X-STO-JMP</a>	CFW50x STO module plug	0.2
Flash Memory Module	<a href="#">CFW500-MMF</a>	CFW500 Flash Memory Module for saving and reloading program and parameters to / from the drive.	0.2
Remote Keypad - Non Text	<a href="#">CFW500-HMIR</a> <sup>3</sup>	CFW500 Remote non-text Keypad for mounting through enclosure door (Mounting Frame Kit is not required).	0.6
Remote Keypad - Advanced Text	<a href="#">HMI-01</a> <sup>4</sup>	CFW500 Remote Advanced Text Keypad for mounting through enclosure door (Mounting Frame Kit is required).	0.4
Remote Keypad - Advanced Text Frame Kit	<a href="#">CFW500-RHMIF</a>	CFW500 Remote Advanced Text Keypad enclosure door mounting frame kit	0.5
HMI Cable 1M	<a href="#">CFW500-CCHMIR01M</a>	3.3 ft (1 meter) Remote Keypad Cable	0.5
HMI Cable 2M	<a href="#">CFW500-CCHMIR02M</a>	6.6 ft (2 meter) Remote Keypad Cable	0.7
HMI Cable 3M	<a href="#">CFW500-CCHMIR03M</a>	9.9 ft (3 meter) Remote Keypad Cable	1.0
HMI Cable 5M	<a href="#">CFW500-CCHMIR05M</a>	16 ft (5 meter) Remote Keypad Cable	1.2
HMI Cable 7.5M	<a href="#">CFW500-CCHMIR075M</a>	25 ft (7.5 meter) Remote Keypad Cable	1.5
HMI Cable 10M	<a href="#">CFW500-CCHMIR010M</a>	33 ft (10 meter) Remote Keypad Cable	2.0

Notes:

1. CFW500-IOS Card is included as standard with CFW500-IP66 Drives.
2. The Safety Function Module can be installed in the CFW500-IP66 drives in addition to the IOS module / any other I/O module / communication module. This model only works with 230VAC and 460VAC drives.
3. The "CFW500-HMIR" Remote Keypad (Non-Text) requires Qty. (1) CFW500-CCHIR0xM cable. ("x" represents the cable length in meters).
4. The "HMI-01" remote Keypad (Advanced Text) requires Qty. (1) CFW500-RHMIF & Qty. (1) CFW500-CCHIR0xM cable. ("x" represents the cable length in meters). This keypad only works with 230VAC and 460VAC drives.

## CFW500-N4X/IP66 Technical Data

<b>Power Supply</b>	Voltage	Single phase or Three Phase	200-240 Vac (+10%, -15%)
		Three phase	380-480 Vac, 500-600 Vac (+10%, -15%)
	Frequency	50 / 60Hz +/- 2Hz	
<b>Enclosure</b>	Degree of Protection	NEMA 4X / IP66	
	Mounting	Indoor / Outdoor	
<b>Control</b>	Control Modes	Volts per Hertz (Scalar)	VVW: Voltage vector control
		Sensorless Voltage Vector	Vector control with encoder
	Power Output	Sinusoidal PWM (Space Vector Modulation)	
		IGBT Transistors	
	Switching Frequency	2.5kHz to 15kHz	
	Frequency Range	0-500 Hz, resolution of 0.015 Hz	
	Overload Capacity	150% for 60 seconds, repeatable every 10 min.	
<b>Inputs</b>	4 programmable isolated digital inputs, 24V DC, NPN (Active Low) or PNP (Active High)		
	1 programmable isolated analog input; programmable for current or voltage (0-10V, 4-20mA or 0-20mA)		
<b>Outputs</b>	1 programmable relay output: Form C (One NO & NC contact), 240 V / 0.5 A		
	1 programmable isolated open collector digital output (transistor Output); 24Vdc.		
	1 programmable isolated analog output; programmable for current or voltage (0-10V, 4-20mA or 0-20mA)		
<b>Power Supply</b>	24 Vdc, +/- 20%, Max. 150 mA		
	10 Vdc, Max. 2 mA		
<b>Communication</b>	Isolated RS485 (One Port)		
	Modbus-RTU with max. communication of 38.4 kbps		
<b>Safety</b>	Protections	Motor over current	DC link over voltage
		Motor overload	DC link under voltage
		Output phase-to-phase short circuit	Drive over temperature
		Output phase-to-ground short circuit	External fault
		Programming error	
<b>Ambient</b>	Temperature	14 - 104°F (-10 to 40°C), up to 122°F (50°C) with 2% / 1.8°F (1°C) output current derating.	
	Humidity	5-95% Non Condensing	
	Altitude	0-3300 ft (1000m), up to 13,200 ft (4000m) with 1% / 328ft (100 m) output current derating.	
<b>Regulatory Conformance</b>	Safety Standards	UL 508C, UL 840, IEN/EN 61800-5-1, EN 50178, IEC/EN 60204-1, IEC/EN 60146, IEC/EN 61800-2	
	Electromagnetic Compatibility (EMC)	IEC/EN 61800-3, CISPR 11, IEC/EN 61000-4-2/3/4/5/6.	
	Mechanical Construction	IEC/EN 60529, UL 50, IEC/EN 60721-3-3	
<b>Special Functions</b>	Linear and "S" ramp accel and decel, local/remote control, FWD/REV selection, DC braking, manual and auto torque boost, motor slip compensation, electronic pot, two skip frequencies, maximum and minimum adjustable frequency limits, adjustable output current, Dc bus regulation, Speed/Torque Control, PID		
<b>Keypad</b>	Three lines of Display (Main display, Secondary display & Bar display) displaying three parameters, LDC; 9 keys		
	Readouts for: output frequency (Hz), output current (A), output voltage (V), motor torque (%) in vector mode, DC bus voltage (V), value proportional to frequency (Ex.: RPM), heatsink temperature, fault and status messages		