

# Variable Frequency Drives

## CFW08 WASH

The WEG CFW08 WASH Series is a redesign of our successful uline VFDs. Engineering improvements have produced one of the most compact and full featured microdrives in the marketplace.

Outstanding features and options in a NEMA 4 enclosure allow the CFW08 WASH to be successfully used in a large variety of applications.



### Standard Features

- Same programming as other WEG VFD's
- V/Hz and Sensorless Vector Control
- NEMA 4X(IP56) Enclosure
- Single and Three-phase input voltage
- 200-240V, 380-480V or 500-600 input voltage
- 150% current overload capacity
- 16 bit DSP controlled PWM output
- 2.5 / 5 / 10 / 15 kHz adjustable switching frequency
- Four isolated programmable digital inputs
- Two programmable relay outputs (1NO, 1NC, 240vac 0.5A)
- Two isolated programmable analog inputs (0-10V, 0/4-20mA)
- Protective features: Over current, motor overload, drive over temperature, output phase-to-phase and phase-to-ground short circuit, DC bus over and under voltage 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.
- Display readings: Motor speed, frequency, voltage, current, last fault, heatsink temperature and drive status
- Ambient: 32°F (0°C) to 104°F (40°C), 3300ft (1000m) altitude, 90% humidity, non-condensing
- SuperDrive (G1) compatible

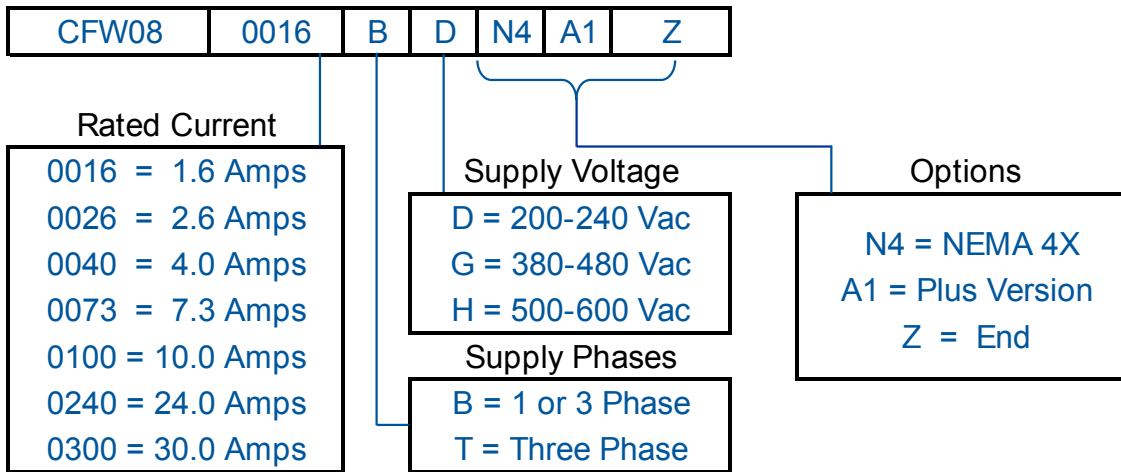
### Applications NEMA 4X

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

### Optional Features

- Dynamic Braking Resistors available
- Remote Keypad with Copy Function
- RS-232 or RS-485 Serial Interface
- Modbus Communication\*
- DIN rail mounting through 2HP  
\*Requires optional RS-232 or RS-485 Interface

## CFW08 WASH Catalog Number Sequence



*Table intended as reference only and not to create part numbers.*

# Variable Frequency Drives

CFW08 WASH

Wash Down - NEMA 4X Enclosure

Motor Voltage	Motor HP <sup>1</sup>	Drive Amps <sup>2</sup>	Catalog Number	Braking Transistor	Frame Size	Dimensions (in.) HxWxD	Approx. Weight (lbs.)	Multiplier
230 Vac	<b>Input Power Supply: Single or Three-Phase 200-240 Vac</b>							
	2	7.3	CFW080073BDN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5	V1
	3	10.0	CFW080100BDN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5	V1
	<b>Input Power Supply: Three-Phase 230 Vac</b>							
	5	16	CFW080160TDN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5	V1
	7 1/2	22	CFW080220TDN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
	10	28	CFW080280TDN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
460 Vac	<b>Input Power Supply: Three-Phase 380-480 Vac</b>							
	1	2.7	CFW080027TGN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5	V1
	2	4.3	CFW080043TGN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5	V1
	3	6.5	CFW080065TGN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5	V1
	5	10	CFW080100TGN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5	V1
	7 1/2	13	CFW080130TGN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
	10	16	CFW080160TGN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
	15	24	CFW080240TGN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
	20	30	CFW080300TGN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
	575 Vac <sup>3</sup>	<b>Input Power Supply: Three-Phase 500-600 Vac</b>						
1		1.7	CFW080017THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
2		3.0	CFW080030THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
3		4.3	CFW080043THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
5		7.0	CFW080070THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
7 1/2		10	CFW080100THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1
10		12	CFW080120THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18	V1

**Notes:**

- 1) "HP" rating based on "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. Consult WEG for availability.
- For other technical data please refer to WEG product manual.

### Options and Accessories

Type	Catalog Number	Description	Multiplier
Keypad	<b>HMI-CFW08-RS</b>	NEMA12 Remote Keypad (requires MIS-CFW08-RS & cable)	V1
	<b>MIS-CFW08-RS</b>	Remote Keypad Interface	V1
	<b>TCL-CFW08</b>	Keypad Cover	V1
	<b>CAB-RS-1</b>	3.3 ft (1m) Remote Keypad Cable	V1
	<b>CAB-RS-2</b>	6.6 ft (2m) Remote Keypad Cable	V1
	<b>CAB-RS-3</b>	9.9 ft (3m) Remote Keypad Cable	V1
	<b>CAB-RS-5</b>	16 ft (3m) Remote Keypad Cable	V1
	<b>CAB-RS-7.5</b>	25 ft (7.5m) Remote Keypad Cable	V1
	<b>CAB-RS-10</b>	33 ft (10m) Remote Keypad Cable	V1
I/O	<b>KAC-120-CFW08</b>	120VAC Digital Input Adaptor Board (4 inputs)	V1
Communication	<b>KCS-CFW08</b>	RS-232 Serial Comm. Module (mounted in place of keypad)	V1
	<b>MIW-02</b>	RS-232/485 Converter (mounted externally)	V1
	<b>KSD-CFW08</b>	PC Communication Kit	V1
	<b>KRS-485-CFW08</b>	Interface for RS-485 Communication	V1
DC Power Supply	<b>KDC-24V-CFW08</b>	24VDC power supply with standard CFW08 HMI integrated	V1
	<b>KDC-24VR-CFW08</b>	24VDC power supply with interface for remote keypad	V1
Remote Oper. Station	<b>CSW-SP3PBS</b>	Remote Operator Station-includes 22mm Start PB, Stop PB, 1-NC and 1-NO contact block, 5k-ohm Potentiometer and legends (replaces CFW-REM)	Z5
	<b>CSW30-SP3PBS</b>	Remote Operator Station-includes 30mm Start PB, Stop PB, 1-NC and 1-NO contact block, 5k-ohm Potentiometer and legends (replaces CFW-REM)	Z5



# Variable Frequency Drives

## Dynamic Braking Resistors for CFW08 WASH

NON-STOCK (call for lead time)

### 10% Duty Cycle

Motor Voltage	Motor HP <sup>1</sup>	CFW08 Catalog Number	WEG DB Resistor Catalog Number <sup>2</sup>	Ohms	Watts	Multiplier
230 Vac	<b>Input Power Supply: Single or Three-Phase 200-240 Vac</b>					
	2	CFW080073BDN4A1Z	<b>CFDB39-224</b>	39	224	V1
	3	CFW080100BDN4A1Z	<b>CFDB27-298</b>	27	298	V1
	5	CFW080160TDN4A1Z	<b>CFDB22-373</b>	22	373	V1
	7 1/2	CFW080220TDN4A1Z	<b>CFDB15-560</b>	15	560	V1
	10	CFW080280TDN4A1Z	<b>CFDB10-746</b>	10	746	V1
460 Vac	<b>Input Power Supply: Three-Phase 380-480 Vac</b>					
	1	CFW080027TGN1A1Z	<b>CFDB120-298</b>	120	298	V1
	2	CFW080043TGN1A1Z	<b>CFDB120-298</b>	120	298	V1
	3	CFW080065TGN1A1Z	<b>CFDB100-224</b>	100	224	V1
	5	CFW080100TGN1A1Z	<b>CFDB47-746</b>	47	746	V1
	7 1/2	CFW080130TGN1A1Z	<b>CFDB33-746</b>	33	746	V1
	10	CFW080160TGN1A1Z	<b>CFDB33-746</b>	33	746	V1
	15	CFW080240TGN1A1Z	<b>CFDB22-1119</b>	22	1119	V1
	20	CFW080300TGN1A1Z	<b>CFDB18-1492</b>	18	1492	V1

**Notes:**

- 1) "HP" rating based on "average FLA values". Use as a guide only.
- 2) Dynamic Braking Resistors are non-stock items. Consult WEG for availability

General Information  
 CFW100  
 CFW300  
 CFW500  
 CFW700  
 CFW11  
 CFW11M  
 PUMP GENIUS  
 CFW700 SINGLE PHASE  
 CFW08 WASH  
 CFW501  
 CFW701  
 HWW701  
 SSW05  
 SSW07  
 SSW06  
 EDP11 EDP700  
 GPH2  
 TPH2

### Technical Data

<b>Power Supply</b>	Voltage	Single Phase or Three Phase	200-240V (+10%, -15%)
		Three phase	380-480V (+10%, -15%)
	Frequency	50 / 60Hz +/- 2Hz	
	Displacement Power Factor (Cos)	Greater than 0.98	
<b>Enclosure</b>	Degree of Protection	NEMA 4	
<b>Control</b>	Control Modes	Volts per Hertz (Scalar)	
		Sensorless Voltage Vector VVW	
	Power Output	Sinusoidal PWM (Space Vector Modulation)	
		IGBT Transistors	
	Switching Frequency	2.5, 5, 10 or 15kHz	
	Frequency Range	0-300 Hz	
Overload Capacity	150% for 60 seconds, repeatable every 10 min.		
<b>Control Inputs</b>	4 programmable isolated digital inputs, NPN or 24Vdc logic (PNP)		
	2 programmable differential analog inputs; programmable for current or voltage Can be set as DI or as PTC input (0-10V, 4-20mA or 0-20mA)		
<b>Control Outputs</b>	2 programmable relay outputs: One NO (Form A) and one NC (Form B): 240 V / 0.5 A		
	1 Output with independent NO and NC at a same common		
	1 Analog Output; programmable for voltage (0-10V) or current (0-20 mA or 4-20 mA) and with 0.25% linearity error		
<b>Communication</b>	Serial	Optional RS-232 serial interface, RS-485 with external RS-232/485 converter	
	Field Bus	Modbus RTU with external RS-232/485 converter	
<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	32° - 104°F (40°C), up to 122°F (50°C) with 2% / 1.8°F (1°C) output current derating	
	Humidity	5-90% Non Condensing	
	Altitude	0-3300 ft (1000m), up to 13,200 ft (4000m) with 1% output current derating per 330ft (100m) above 3300 ft (1000m).	
<b>Regulatory Conformance</b>	EMC Directive 89 / 336 / EEC	Electromagnetic compatibility – Industrial Environment EMC Emission and Immunity with optional filter	
	ENC61800-3		
	LVD 73/23/EEC	Low Voltage Directive	
	UL 508 C	Power Conversion Equipment	
<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, PID Controller		
<b>Keypad</b>	4 digit display, 2 indicator LEDs and 8 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		
<b>Mounting</b>	Surface mounting with screws.		

General Information

CFW100

CFW300

CFW500

CFW700

CFW11

CFW11M

CFW11M

PUMP GENIUS

CFW700 SINGLE PHASE

CFW08 WASH

CFW501

CFW701

HVW701

SSW05

SSW07

SSW06

EDP11 EDP700

GPH2

TPH2