

CFW08 - Wash

Drive

- N4X Wash Down Duty Enclosures
- Compact Size
- Full functionality of larger size drives
- DB Resistors available,
10% duty cycle



Motors | Automation | Energy | Transmission & Distribution | Coatings



Variable Frequency Drives CFW08 N4X Wash Down Duty

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 (indoor use only)
- ▣ 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 swiching 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



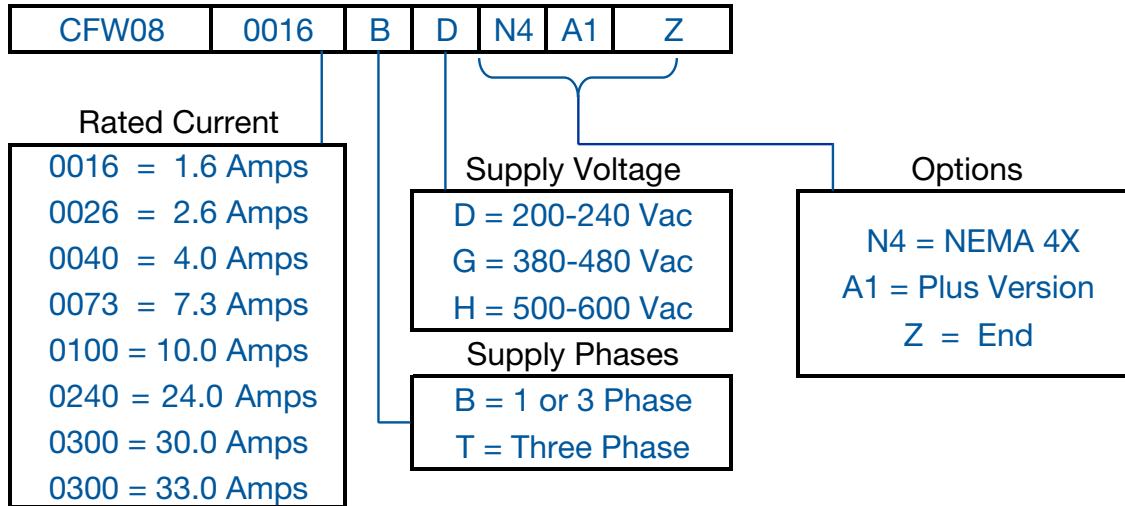
Applications NEMA 4X

- 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
 - ▣ DIN rail mounting through 2HP
 - ▣ Modbus Communication*
- *Requires optional RS-232 or RS-485 Interface

CFW08 WASH Catalog Number Sequence





Variable Frequency Drives CFW08 Wash

Wash Down - NEMA 4X Enclosure

Motor Voltage	Motor HP ¹	Drive Amps ²	Catalog Number	Braking Transistor	Frame Size	Dimensions (in.) HxWxD	Approx. Weight (lbs.)
230 Vac	Input Power Supply: Single or Three-Phase 200-240 Vac						
	2	7.3	CFW080073BDN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5
	3	10.0	CFW080100BDN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5
	Input Power Supply: Three-Phase 230 Vac						
	5	16	CFW080160TDN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5
	7 1/2	22	CFW080220TDN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
	10	28	CFW080280TDN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
	15	33	CFW080330TDN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
460 Vac	Input Power Supply: Three-Phase 380-480 Vac						
	1	2.7	CFW080027TGN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5
	2	4.3	CFW080043TGN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5
	3	6.5	CFW080065TGN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5
	5	10	CFW080100TGN4A1Z	Yes	A	10.4 x 6.5 x 8.5	5
	7 1/2	13	CFW080130TGN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
	10	16	CFW080160TGN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
	15	24	CFW080240TGN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
575 Vac ³	Input Power Supply: Three-Phase 500-600 Vac						
	1	1.7	CFW080017THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
	2	3.0	CFW080030THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
	3	4.3	CFW080043THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
	5	7.0	CFW080070THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
	7 1/2	10	CFW080100THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18
	10	12	CFW080120THN4A1Z	Yes	B	13.4 x 8.5 x 8.5	18

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.

Variable Frequency Drives

CFW08 Wash

Options and Accessories



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



Variable Frequency Drives CFW08 - Wash

NON-STOCK (call for lead time)

CFW08 – DB Resistors 10% Duty Cycle

10% Duty Cycle

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

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

Variable Frequency Drives

CFW08 - Wash

CFW08 Plus – Technical Data

Technical Data

Power Supply	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	
Enclosure	Degree of Protection	NEMA 4/4X (indoor use only)	
Control	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.		
Control Inputs	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)		
Control Outputs	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		
Communication	Serial	Optional RS-232 serial interface, RS-485 with external RS-232/485 converter	
	Field Bus	Modbus RTU with external RS-232/485 converter	
Safety	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	
Ambient	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).	
Regulatory Conformance	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	
Special Functions	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		
Keypad	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		
Mounting	Surface mounting with screws.		



WEG Electric Corp. offers the following products, and more! With a full range of IEC/NEMA Global Certifications and a full line of products, WEG can supply the right solution for your needs anywhere in the world. To learn more about WEG's products and solutions or to locate a Distributor near you, please call **1-800-ASK-4WEG** or visit **www.weg.net**.

Low Voltage Motors,

Single and 3-Phase, 1/8 – 700HP

- General Purpose Motors
- Explosion Proof Motors
- Crusher Duty Motors
- IEC Tru-Metric Motors
- Pump Motors including JP/JM
- P-Base Pump Motors
- Oil Well Pumping Motors
- Pool & Spa Motors
- Brake Motors
- Compressor Duty Motors
- Farm Duty Motors
- Poultry Fan Motors
- Auger Drive Motors
- IEEE 841 Motors
- Stainless Steel Wash Down Motors
- Saw Arbor Motors
- Cooling Tower Motors
- Commercial HVAC Motors
- Pad Mounted Motors
- Vector Duty Motors

Large Electric Motors

- Low Voltage 3-phase motors up to 2,500HP
- Motors up to 70,000HP and 13,200V
- Wound Rotor Systems (including starters) up to 70,000HP and 13,200V
- Synchronous Motors up to 70,000HP and 13,200V
- Explosion proof motors (Ex-d) up to 1,500kW and 11kV
- Ex-n, Ex-e, Ex-p motors

Variable Frequency Drives

- Low Voltage 1/4 to 2500HP, 230V – 480V
- Medium Voltage 500-8000HP
- Multi-pump systems
- NEMA 4X
- Dynamic braking resistors
- Line and load reactors
- Plug and play technology
- Network communications: Profibus-DP, DeviceNet, Modbus-RTU
- PLC functions integrated
- Complete line of options and accessories

Soft Starters

- 3-1500HP
- Oriented start-up
- Built-in bypass contactor
- Universal source voltage (230-575V, 50/60Hz)
- Network communications: Profibus-DP, DeviceNet, Modbus-RTU
- Complete Line of options and accessories
- MV Soft-starter 3.3kV, 4.16kV: up to 3500HP, Withdrawable Power Stacks, & 8x PT100 Temperature monitoring

Controls

- Mini – Contactors
- IEC Contactors
- Thermal Overload Relays
- Manual Motor Protectors
- Molded Case Circuit Breakers
- Smart Relays
- Enclosed Starters: combination & non-combination,
- Pushbuttons & Pilot Lights
- Timing & Motor Protection Relays
- Terminal Blocks

Custom Panels

- Custom configured to your specification.
- NEMA 1, 12, 3R, 4 and 4X cabinets
- Quick delivery of preconfigured drives and soft starters
- UL 508 certified
- Low Voltage (230-460)
- Made in the U.S.A.

Generators

- Brushless Synchronous Generators for diesel gen-sets up to 4,200kVA
- Hydro-generators up to 25,000kVA
- Turbo-generators up to 62,500kVA

Power Transformers

- Built and engineered in North America
- Voltages < 500kV
- Ratings 5-300MVA
- Station class, oil filled, round core, copper windings
- Special configurations and designs available!
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- Designed, built, and engineered to ANSI standards.

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