

CFW08 PLUS

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

Outstanding features and options in a NEMA 1 enclosure allow the CFW08 Plus to be successfully used in a large variety of applications.



APPLICATIONS

- Pumps
- Fans
- Blowers
- Conveyors
- Rollout tables
- Agitators
- Mixers

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
- KRS-485-CFW08

*Requires optional RS-232 or RS-485 Interface

STANDARD FEATURES

- V/Hz and Sensorless Vector Control
- NEMA 1 Enclosure
- Single and Three-phase input voltage
- 200-240V or 380-480V 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
- Two isolated programmable analog inputs
- 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



FRACTIONAL HP

GENERAL PURPOSE

NEMA PREMIUM EFFICIENCY

CRUSHER® DUTY

IEC TRU-METRIC™

PUMP MOTORS

DEFINITE PURPOSE

ADD-ON™ MODIFICATIONS

MOTOR TECHNICAL DATA

DRIVES & SOFT STARTERS

CONTROLS



VARIABLE FREQUENCY DRIVES



CFW08 PLUS – NEMA 1 ENCLOSURE

Motor Volts	Motor HP	Drive AMPS	Catalog Number	Braking Transistor	Frame Size	Dimensions (in.)H x W x D	App. Shpg. Wt. (lbs.)	List Price	Multiplier Symbol
230 V	INPUT POWER SUPPLY: SINGLE OR THREE-PHASE - 230V								
	1/4 or 1/3	1.6	CFW080016BDN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 439	V1
	1/2	2.6	CFW080026BDN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 462	V1
	1	4	CFW080040BDN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 505	V1
	2	7.3	CFW080073BDN1A1Z	YES	2	9.7 x 4.5 x 5.9	6	\$ 743	V1
	3	10	CFW080100BDN1A1Z	YES	2	9.7 x 4.5 x 5.9	6	\$ 831	V1
	INPUT POWER SUPPLY: THREE PHASE - 230V								
	1/4 or 1/3	1.6	CFW080016BDN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 439	V1
	1/2	2.6	CFW080026BDN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 462	V1
	1	4	CFW080040BDN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 505	V1
	2	7	CFW080070TDN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 643	V1
	2	7.3	CFW080073BDN1A1Z	YES	2	9.7 x 4.5 x 5.9	6	\$ 743	V1
	3	10	CFW080100BDN1A1Z	YES	2	9.7 x 4.5 x 5.9	6	\$ 831	V1
	5	16	CFW080160TDN1A1Z	YES	2	9.7 x 4.5 x 5.9	6	\$ 982	V1
	7.5	22	CFW080220TDN1A1Z	YES	3	8 x 5.6 x 6.5	8	\$ 1,415	V1
	10	28	CFW080280TDN1A1Z	YES	4	11.4 x 7.2 x 7.7	16	\$ 1,813	V1
460 V	INPUT POWER SUPPLY: THREE PHASE - 460V								
	1/4 or 1/3	1	CFW080010TGN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 578	V1
	3/4	1.6	CFW080016TGN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 609	V1
	1	2.6	CFW080026TGN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 645	V1
	1	2.7	CFW080027TGN1A1Z	YES	2	9.7 x 4.5 x 5.9	6	\$ 715	V1
	2	4	CFW080040TGN1A1Z	NO	1	6.8 x 3 x 5.2	3	\$ 777	V1
	2	4.3	CFW080043TGN1A1Z	YES	2	9.7 x 4.5 x 5.9	6	\$ 894	V1
	3	6.5	CFW080065TGN1A1Z	YES	2	9.7 x 4.5 x 5.9	6	\$ 1,065	V1
	5	10	CFW080100TGN1A1Z	YES	2	9.7 x 4.5 x 5.9	6	\$ 1,213	V1
	7.5	13	CFW080130TGN1A1Z	YES	3	8 x 5.6 x 6.5	8	\$ 1,485	V1
	10	16	CFW080160TGN1A1Z	YES	3	8 x 5.6 x 6.5	8	\$ 1,715	V1
	15	24	CFW080240TGN1A1Z	YES	4	11.4 x 7.2 x 7.7	16	\$ 2,301	V1
	20	30	CFW080300TGN1A1Z	YES	4	11.4 x 7.2 x 7.7	16	\$ 2,779	V1

Notes: 1) "HP" rating based on "average FLA value". Use as a guide only. Motor FLA may vary with speed and manufacturer. ALWAYS compare motor FLA to Nominal AMPS of drive.
2) For other technical data please refer to WEG product manual.

CFW08 PLUS – ACCESSORIES

Description		Catalog Number	List Price	Multiplier Symbol
Keypads	NEMA 4 Remote Keypad (requires MIS-CFW08-RS & cable)	HMI-CFW08-RS	\$ 135	V1
	Remote Keypad Interface	MIS-CFW08-RS	\$ 64	V1
	Keypad Cover	TCL-CFW08	\$ 7	V1
Keypad Cables	3.3 ft Remote Keypad Cable	CAB-RS-1	\$ 14	V1
	6.6 ft Remote Keypad Cable	CAB-RS-2	\$ 17	V1
	10 ft Remote Keypad Cable	CAB-RS-3	\$ 20	V1
	16 ft Remote Keypad Cable	CAB-RS-5	\$ 33	V1
	25 ft Remote Keypad Cable	CAB-RS-7.5	\$ 37	V1
	33 ft Remote Keypad Cable	CAB-RS-10	\$ 43	V1
Options	RS-232 Serial Comm. Module (mounted in place of keypad)	KCS-CFW08	\$ 97	V1
	RS-232/485 Converter (mounted externally)	MIW-02	\$ 221	V1
	PC Communication Kit	KSD-CFW08	\$ 124	V1
	Interface for RS-485 Communication	KRS-485-CFW08	\$ 186	V1
	Easy Mounting Kit - Size 1	KFIX-CFW08-M1	\$ 12	V1
	Easy Mounting Kit - Size 2	KFIX-CFW08-M2	\$ 12	V1
	NEMA 1 Kit - IP20 - Size 1	KN1-CFW08-M1	\$ 15	V1
	NEMA 1 Kit - IP20 - Size 2	KN1-CFW08-M2	\$ 25	V1
	DIN Rail Mounting Base - Size 1	KMD-CFW08-M1	\$ 7	V1
	Remote Station-includes Start PB, Stop PB, Speed Pot	CFW-REM	\$ 505	V1
120VAC Digital Input Adaptor Board (4 inputs)	KAC-120-CFW08	\$ 145	V1	

FRACTIONAL HP

GENERAL PURPOSE

NEMA PREMIUM EFFICIENCY

CRUSHER® DUTY

IEC TRU-METRIC™

PUMP MOTORS

DEFINITE PURPOSE

ADD-ON™ MODIFICATIONS

MOTOR TECHNICAL DATA

DRIVES & SOFT STARTERS

CONTROLS

VARIABLE FREQUENCY DRIVES



CFW08 PLUS – DB RESISTORS 10% DUTY CYCLE

Motor Volts	Motor HP	For Use with CFW08 Plus Model Number:	Catalog Number	OHMS	WATTS	List Price	Multiplier Symbol
230 V	2	CFW080073BDN1A1Z	CFDB39-224	39	224	\$ 183	V1
	3	CFW080100BDN1A1Z	CFDB27-298	27	298	\$ 183	V1
	5	CFW080160TDN1A1Z	CFDB22-373	22	373	\$ 183	V1
	7.5	CFW080220TDN1A1Z	CFDB15-560	15	560	\$ 319	V1
	10	CFW080280TDN1A1Z	CFDB10-746	10	746	\$ 319	V1
460 V	1	CFW080027TGN1A1Z	CFDB120-298	120	298	\$ 183	V1
	2	CFW080043TGN1A1Z	CFDB120-298	120	298	\$ 183	V1
	3	CFW080065TGN1A1Z	CFDB100-224	100	224	\$ 183	V1
	5	CFW080100TGN1A1Z	CFDB47-746	47	746	\$ 319	V1
	7.5	CFW080130TGN1A1Z	CFDB33-746	33	746	\$ 319	V1
	10	CFW080160TGN1A1Z	CFDB33-746	33	746	\$ 319	V1
	15	CFW080240TGN1A1Z	CFDB22-1119	22	1119	\$ 481	V1
	20	CFW080300TGN1A1Z	CFDB18-1492	18	1492	\$ 638	V1

Note: These are non-stocked items, consult WEG for availability.

CFW08 PLUS – TECHNICAL DATA

POWER SUPPLY	Voltage	Single or Three Phase	220...240V (+10%, -15%)
		Three Phase	380...480V (+10%, -15%)
	Frequency	50 / 60Hz +/- 2Hz	
	Cos (Displacement Power Factor)	Greater than 0.98	
ENCLOSURE	Degree of Protection	NEMA1	
CONTROL	Control Modes	V/Hz Sensorless Voltage Vector	
	Processor	16 bit DSP	
	Power Output	Sinusoidal PWM (Space Vector Modulation) IGBT Transistors 2.5, 5, 10 or 15kHz	
	Switching Frequency	2.5, 5, 10 or 15kHz Switching Frequency	
	Frequency Range	0 - 300 Hz	
	Overload Capacity	150% during 60 sec. every 10 min.	
	CONTROL INPUTS	4 programmable isolated digital inputs, NPN or 24Vdc logic (PNP)	
2 x programmable differential analog inputs, programmable for current or voltage with 0.25% linearity error, and can be set as DI or as PTC input			
2 programmable relay outputs, one NO (Form A) and one NC (Form B): 250 V / 0.5 A			
CONTROL OUTPUTS	1 x outputs with independent NO and NC at a same common		
	1 x 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	0...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 10% / 3300 ft (1000m) output current derating	
CONFORMITITES	EMC Directive 89 / 336 / EEC	Electromagnetic compatibility - Industrial Environment EMC - Emission and Immunity	
	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		
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	Screws or optional DIN rail mount		

FRACTIONAL HP

GENERAL PURPOSE

NEMA PREMIUM EFFICIENCY

CRUSHER® DUTY

IEC TRU-METRIC™

PUMP MOTORS

DEFINITE PURPOSE

ADD-ON™ MODIFICATIONS

MOTOR TECHNICAL DATA

DRIVES & SOFT STARTERS

CONTROLS



VARIABLE FREQUENCY DRIVES

FRACTIONAL HP

GENERAL PURPOSE

NEMA PREMIUM EFFICIENCY

CRUSHER® DUTY

IEC TRU-METRIC™

PUMP MOTORS

DEFINITE PURPOSE

ADD-ON™ MODIFICATIONS

MOTOR TECHNICAL DATA

DRIVES & SOFT STARTERS

CONTROLS

CFW09 VECTRUE INVERTER

The WEG CFW09 Series of Variable Frequency Drives incorporates the world's most advanced technology in drives for three-phase AC induction motors. *The Vectrue Technology™* represents a significant advancement, allowing this new generation of WEG VFD's to combine V / F, Sensorless Vector and Closed Loop Vector (with encoder) control techniques all in one product. A WEG innovation simplified applications that require braking torque. *Optimal Braking™* eliminates the need for the dynamic braking resistor in some applications allowing a simpler, more compact and economic solution.



APPLICATIONS

- Pumps
- Fans / Blowers
- Conveyors
- Compressors
- Agitators and Mixers
- Extruders
- Grizzly Feeders
- Centrifuges
- Cranes and Hoists
- Rollout Tables
- Presses
- Saws

STANDARD FEATURES

- V/Hz or Sensorless Vector Control via parameter selection
- Self Tuning to motor parameters
- NEMA 1 Enclosure up to 200HP
- IP20 "Finger Safe" Enclosure from 250 to 500HP
- 200-240V or 380-480V input voltage
- Single or Three-phase input voltage up to 3HP/230V
- 150% current overload capacity
- DC bus connections accessible
- Detachable Smart Keypad with dual display and Copy Function
- 32 bit RISC microprocessor controlled PWM output
- 1.25 / 2.5 / 5 / 10 kHz adjustable switching frequency
- Six isolated programmable digital inputs
- Three programmable relay outputs (250Vac / 1A)
- Two isolated programmable analog inputs
- Two programmable analog outputs
- 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, power supply under voltage and phase loss 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 motor speed limits, three skip frequencies, adjustable output current limit, JOG, ride-thru, flying start and PID regulator
- Display readings: Motor speed, frequency, voltage, current and torque, output power (kW), last four faults, drive status, digital and analog I/O status, hours powered and hours running
- Ambient: 32°F (0°C) to 104°F (40°C), 3300 ft (1000m) altitude, 90% humidity, non- condensing

OPTIONAL FEATURES

- Closed loop vector control
- Remote keypad with cable and mounting frame
- RS-232 or RS-485 Serial Interface
- On/Off line PC programming with Superdrive
- Fieldbus Comm: Profibus DP, DeviceNet or Modbus RTU*
- Encoder buffered output
- Additional digital and analog I/O
- Dynamic Braking Resistors available for most models

*Requires optional RS-232 or RS-485 Interface

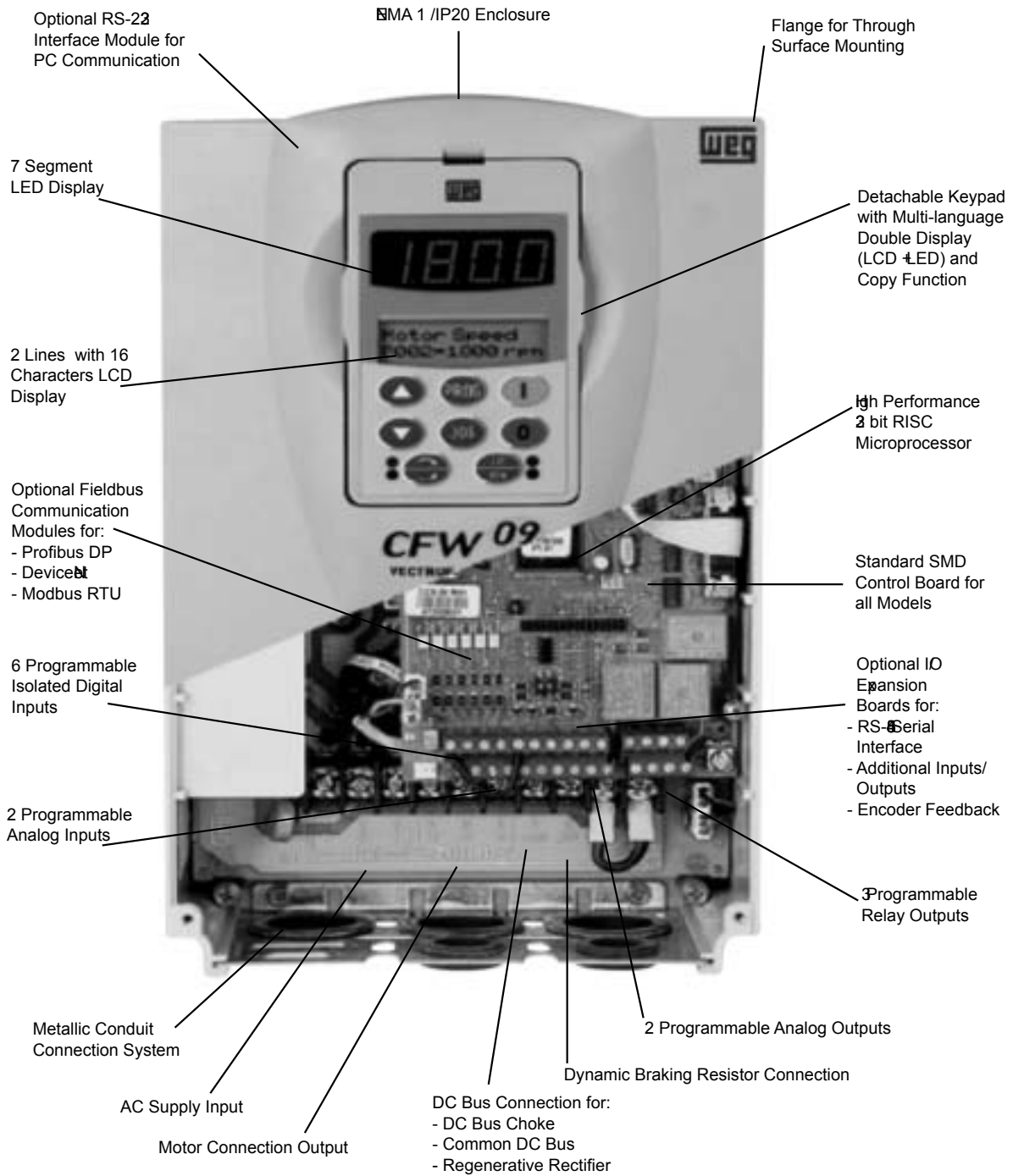


VARIABLE FREQUENCY DRIVES



A COMPLETE, FLEXIBLE AND COMPACT PRODUCT

CFW 09
VECTRUE INVERTER



FRACTIONAL HP

GENERAL PURPOSE

NEMA PREMIUM EFFICIENCY

CRUSHER® DUTY

IEC TRU-METRIC™

PUMP MOTORS

DEFINITE PURPOSE

ADD-ON™ MODIFICATIONS

MOTOR TECHNICAL DATA

DRIVES & SOFT STARTERS

CONTROLS