CFW11 Series

Variable Frequency Drive **NEMA 12/IP55 Enclosure**



CFW11 NEMA 12/IP55 Enclosure

NEMA 12 / IP55 Enclosure with Disconnect Switch

Motor Voltage	ND /	VT ¹	HD / CT ¹						Approx.			
	Motor HP ²	Drive Amps ³	Motor HP ²	Drive Amps ³	- Catalog Number	Braking Transistor	Frame Size	Dimensions (in.) HxWxD ⁴	Weight (lbs.)	List Price	Multiplier	
Input Power Supply: Three-Phase 200-240 Vac with Dynamic Braking Transistor												
230 Vac	2	7.0	1 1/2	5.5	CFW110007T2055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$2,022	V1	
	3	10	2	8.0	CFW110010T2055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$2,074	V1	
	5	13	3	11	CFW110013T2055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$2,130	V1	
	5	16	5	13	CFW110016T2055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$2,601	V1	
	7 1/2	24	7 1/2	20	CFW110024T2055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$3,074	V1	
	10	28	10	24	CFW110028T2055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$3,529	V1	
	10	34	10	28	CFW110033T2055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$4,062	V1	
	15	45	15	36	CFW110045T2055DSZ	Yes	С	26.4 x 12.1 x 13.7	66.2	\$4,892	V1	
	20	54	20	45	CFW110054T2055DSZ	Yes	С	26.4 x 12.1 x 13.7	66.2	\$6,037	V1	
	25	70	20	56	CFW110070T2055DSZ	Yes	С	26.4 x 12.1 x 13.7	66.2	\$6,941	V1	
	30	86	25	70	CFW110086T2055DSZ	Yes	D	29.7 x 14.8 x 11.9	108	\$7,895	V1	
	40	105	30	86	CFW110105T2055DSZ	Yes	D	29.7 x 14.8 x 11.9	108	\$10,062	V1	
	Input Pow	er Supply:	Three-Phas	e 200-240	Vac without Dynamic Brakin	g Transistor						
	50	142	40	115	CFW110142T2055DSZ	No	E	39.4 x 16.9 x 15.3	211.7	\$12,539	V1	
	60	180	50	142	CFW110180T2055DSZ	No	E	39.4 x 16.9 x 15.3	211.7	\$17,211	V1	
	75	211	60	180	CFW110211T2055DSZ	No	E	39.4 x 16.9 x 15.3	211.7	\$22,167	V1	
	Input Power Supply: Three-Phase 380-480 Vac with Dynamic Braking Transistor											
460 Vac	2	3.6	2	3.6	CFW110003T4055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$1,873	V1	
	3	5.0	3	5.0	CFW110005T4055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$1,997	V1	
	5	7.0	3	5.5	CFW110007T4055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$2,065	V1	
	7 1/2	10	5	10	CFW110010T4055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$2,198	V1	
	10	13.5	7 1/2	11	CFW110013T4055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$2,632	V1	
	10	17	10	13.5	CFW110017T4055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$2,786	V1	
	15	24	10	19	CFW110024T4055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$3,622	V1	
	20	31	15	25	CFW110031T4055DSZ	Yes	В	20.8 x 10.7 x 11.0	37.5	\$4,427	V1	
	25	38	20	33	CFW110038T4055DSZ	Yes	С	26.4 x 12.1 x 13.7	66.2	\$5,610	V1	
	30	45	25	38	CFW110045T4055DSZ	Yes	С	26.4 x 12.1 x 13.7	66.2	\$6,728	V1	
	40	58.5	30	47	CFW110058T4055DSZ	Yes	С	26.4 x 12.1 x 13.7	66.2	\$7,678	V1	
	50/60	70.5	40	61	CFW110070T4055DSZ	Yes	D	29.7 x 14.8 x 11.9	108	\$9,412	V1	
	60/75	88	50	73	CFW110088T4055DSZ	Yes	D	29.7 x 14.8 x 11.9	108	\$11,084	V1	
	Input Power Supply: Three-Phase 380-480 Vac without Dynamic Braking Transistor											
	75	105	75	88	CFW110105T4055DSZ	No	E	39.4 x 16.9 x 15.3	211.7	\$12,198	V1	
	100/125	142	75	115	CFW110142T4055DSZ	No	E	39.4 x 16.9 x 15.3	211.7	\$15,062	V1	
	150	180	100/125	142	CFW110180T4055DSZ	No	E	39.4 x 16.9 x 15.3	211.7	\$21,115	V1	
	175	211	150	180	CFW110211T4055DSZ	No	E	39.4 x 16.9 x 15.3	211.7	\$27,554	V1	

Notes:

CT = Constant Torque, 150% overload / 60 sec.; VT = Variable Torque (Quadratic Load), 110% overload / 60 sec.
"HP" rating based on "average FLA values". Use as a guide only.

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

4) Dimensions are provided for estimating purposes only. Always refer to as built drawings for actual measurements.

All CFW11 IP55/NEMA12 drives have maximum 40°C ambient temperature without derating For other technical data please refer to WEG product manual.

CFW11 NEMA 12/IP55 Enclosure

Technical Data								
Power Supply	Voltage	Three Phase	200-240, 380-480 Vac (+10%, -15%)					
	Frequency	50 / 60Hz +/- 2Hz						
	Displacement Power Factor (Cos)	Greater than 0.98						
Enclosure	Degree of Protection	NEMA 12 or IP55						
Control	Control Modes	Volts per Hertz (Scalar)	Voltage Vector (VVW)					
		Sensorless Vector	Vector with encoder					
	Power Output	Sinusoidal PWM (Space Vector Modulation)						
		IGBT Transistors						
	Switching Frequency	1.25, 2.0, 2.5, 5.0 or 10.0 kHz						
	Frequency Range	0-300 Hz in Scalar Mode; 120 Hz in Vector Mode						
	Overload Capacity	CT = Constant Torque, 150% overload / 60 sec. VT = Variable Torque (Quadratic Load), 110% overload / 60 sec.						
Control Inputs	Six (6) Programmable isolated digital inputs, 24Vdc logic							
	Two (2) isolated programmable differential analog inputs 11 bit; programmable for current or voltage (0-10V, 4-20mA or 0-20mA)							
Control Outputs	Three (3) Programmable relay output; NO/NC (Form C); 240Vac, 30Vdc / 1.0 A							
	Two (2) isolated programmable analog outputs 11 bit; programmable for current or voltage (0-10V, 4-20mA or 0-20mA)							
Communication	Serial	Optional RS-232 serial interface, RS-485 with external RS-232/485 converter						
	Field Bus	Isolated RS-485 / Modbus RTU (standard)						
		CAN interface module (CANopen/DeviceNet)						
		Profibus DP interface module						
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	-10°C (14°F) to 40°C (104°F), up to 104°F (50°C) with output current derating						
	Humidity	S-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	IEC 60146	Semiconductor convertors						
Conformance	UL 508 C	Power Conversion Equipment						
	UL 840	Insulation coordination including clearances and creepage distances for electrical equipment.						
	EN 50178	Electronic equipment for use in power installations						
	EN 61800-2	General requirements adjustable speed electrical power drive systems						
	EN 61800-3	EMC product standard including specific test methods adjustable speed electrical power drive systems						
	EN 61800-5-1	Safety requirements adjustable speed electrical power drive systems						
	EN 60204-1	Safety of machinery. Electrical equipment of machines. Part 1: General requirements.						
	RoHS and WEEE Guidelines							
Approvals	UL, cUL, CE, C-Tick, IRAM							
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	Graphical LCD display and 9 operator keys: Start/Stop, Up arrow, Down arrow, Direction of rotation, Jog, Local/Remote, Right soft key and Left soft key							
	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							



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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, 41.6kV: up to 3500HP, Withdrawable Power Stacks & 8

3500HP, Withdrawable Power Stacks, & 8x PT100 Temperature monitoring

Controls

Terminal Blocks

Mini – Contactors IEC Contactors Thermal Overload Relays Manual Motor Protectors Molded Case Circuit Breakers Smart Relays Enclosed Starters: combination & noncombination, Pushbuttons & Pilot Lights Timing & Motor Protection Relays **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! Ask your WEG Sales Representative for details.

Designed, built, and engineered to ANSI standards.

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WEG can package any of its products for ease of sale! Enjoy a single point of contact for the entire package of products and assistance from quote through after-sales support. Ask your WEG Sales Representative for details.

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