



WEG Automation CFW11 VFD Selection Guide



VFD sizing is purely based on motor FLA (Full Load Amperage)

3 basic things to know before sizing a VFD:

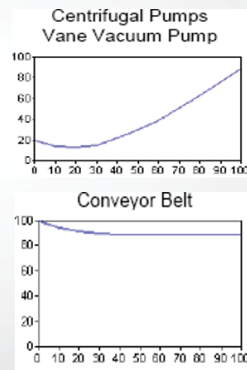
- Supply voltage and output voltage
- Motor current rating
- Application

Application examples: Normay Duty (ND, Variable torque) or HD (Heavy duty, Constant Torque)

Normal Duty – ND

Variable torque

Pumps, fans, general applications



Heavy Duty – HD

Constant torque

Mills, conveyors, screw compressors

Example of selecting a VFD:

DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer : V.J. PAMENSKY CANADA INC.

Product line : W22 - Nema Premium Efficiency

Frame : 364/5TC
Output : 75 HP (55 kW)
Poles : 4
Frequency : 60 Hz
Rated voltage : 575 V
Rated current : 69.8 A
L. R. Amperes : 446 A
LRC : 6.4
No load current : 26.4 A
Rated speed : 1780 rpm
Slip : 1.11 %
Rated torque : 218 ft.lb
Locked rotor torque : 240 %
Pull up torque : 187 %
Breakdown torque : 260 %

CFW11 - Standard - 500~600V

Material Number	Part Number	Rated Current		Motor ⁽¹⁾		Frame Size	Max. ⁽²⁾ Temp.	Brake Chopper
		ND	HD	ND	HD			
		A		HP				
575V - 3AC								
12394154	NA CFW11 0002 T5 ONFZ	2.9	2.7	2	2	B	50°C	Yes
12394157	NA CFW11 0004 T5 ONFZ	4.2	3.8	3	2	B	50°C	Yes
12394211	NA CFW11 0007 T5 ONFZ	7	6.4	5	5	B	50°C	Yes
12394213	NA CFW11 0010 T5 ONFZ	10	9	7.5	7.5	B	50°C	Yes
12394216	NA CFW11 0012 T5 ONFZ	12	10	10	7.5	B	50°C	Yes
12394248	NA CFW11 0017 T5 ONFZ	17	17	15	15	B	50°C	Yes
13111984	NA CFW11 0022 T5 ONFZ	22	19	20	15	C	50°C	Yes
13111985	NA CFW11 0027 T5 ONFZ	27	22	25	20	C	50°C	Yes
13111986	NA CFW11 0032 T5 ONFZ	32	27	30	25	C	50°C	Yes
13111987	NA CFW11 0044 T5 ONFZ	44	36	40	30	C	50°C	Yes
12394124	NA CFW11 0053 T6 ONBYZ	53	44	50	40	E	45°C	No
12394126	NA CFW11 0063 T6 ONBYZ	63	53	60	50	E	45°C	No
12394127	NA CFW11 0080 T6 ONBYZ	80	66	75	60	E	45°C	No
12394148	NA CFW11 0107 T6 ONBYZ	107	90	100	75	E	45°C	No
12394149	NA CFW11 0125 T6 ONBYZ	125	107	125	100	E	45°C	No

CFW-11

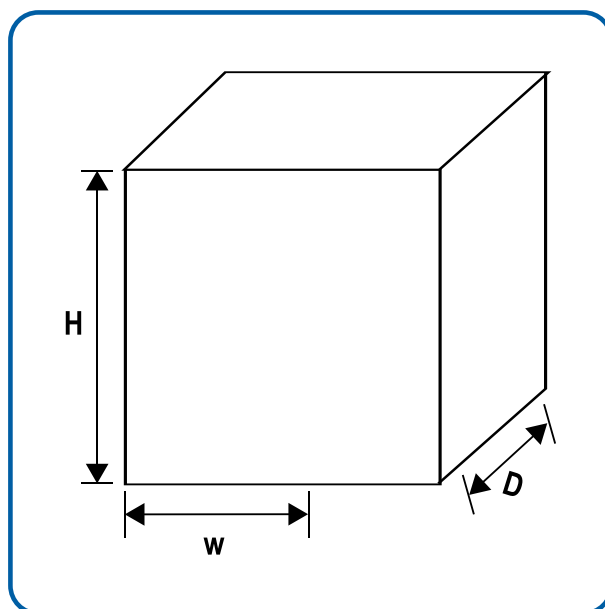


- Supply voltage: 200–690 V
- Rated currents: 3.6–1,411 A (2 to 900 HP)
- Vectrue Technology® – linear and adjustable scalar control (V/F), WEG voltage vector (VWV), sensorless vector (without encoder) and with encoder, sensorless vector WMagnet (without encoder) each with encoder
- Optimal Braking® – WEG inverter braking technology
- Optimal Flow® – for use in constant torque loads
- Smart thermal management
- Degree of protection: IP20, NEMA 1 and NEMA 12
- Built-in inductor on the DC link up to frame size G
- Single DC busbar
- Plug & Play Philosophy
- USB port
- Real time clock
- Built-in SoftPLC function – adds the functionalities of a PLC to the CFW11
- Operating interface (HMI) with graphic display and backlight
- Optional accessories:
 - Expansion boards of digital and analog inputs and outputs
 - Incremental Encoder Module
 - Safe Torque OFF Module (STO) for safety stop; category 3 PL and SIL CL 2 certified by TÜV Rheinland, according to EN ISO 13849-1, IEC 61800-5-2, IEC 62061 and IEC 61508 standards
 - Communication modules: DeviceNet, EtherNET-IP, Profibus-DP, RS232, RS485, Modbus-RTU and Profinet-IO
- RFI suppressor filter (optional, except for sizes E, F and G, which already have built-in RFI filter)
- Also available in modular versions – CFW11M
- Free SuperDrive G2 Software, for inverter parameterization, command and monitoring with USB connection

Dimensions and weight (without packaging):

IP20

Frame size	Height mm (in)	Width mm (in)	Depth mm (in)	Weight kg (lbs)
A	270 (10.63)	145 (5.71)	227 (8.94)	6.3 (13.89)
B	316 (12.44)	190 (7.48)	227 (8.94)	10.4 (22.93)
C	405 (15.94)	220 (8.66)	293 (11.54)	20.5 (45.19)
D	550 (21.65)	300 (11.81)	305 (12.01)	32.6 (71.87)
E	675 (26.57)	335 (13.19)	358 (14.09)	65.0 (143.30)
F	1234 (48.58)	430 (16.93)	360 (14.17)	168.0 (370.38)
G	1264 (49.76)	535 (21.06)	426 (16.77)	258.0 (568.79)
H	1414 (55.67)	686 (27.01)	421 (16.57)	220.0 (485.02)



NEMA 12 / IP55

B	529 (20.83)	273 (10.75)	279 (10.98)	17.0 (37.48)
C	670 (26.38)	307 (12.09)	348 (13.7)	30.0 (66.14)
D	754 (29.69)	375 (14.76)	301 (11.85)	49.0 (108.03)
E	1000 (39.37)	430 (16.93)	389 (15.31)	96.0 (211.64)

Driving Efficiency and Sustainability

CFW11 - NEMA 1 - Standard 200 ~ 240V

Material Number	Part Number	Rated Current		Motor (1)		Frame Size	Max.(2) Temp.	Brake Chopper
		ND	HD	ND	HD			
		A		HP				
230V - 1 or 3AC								
10574720	NA CFW11 0006 B2 ON1Z	6	5	1.5	1	A	50°C	Yes
10574721	NA CFW11 0007 B2 ON1Z	7	7	2	2	A	50°C	Yes
230V - 1AC								
10574722	NA CFW11 0010 S2 ON1Z	10	10	3	3	A	50°C	Yes
230V - 3AC								
10574723	NA CFW11 0007 T2 ON1Z	7	5.5	2	1	A	50°C	Yes
10574724	NA CFW11 0010 T2 ON1Z	10	8	3	2	A	50°C	Yes
10574725	NA CFW11 0013 T2 ON1Z	13	11	3	3	A	50°C	Yes
10574726	NA CFW11 0016 T2 ON1Z	16	13	5	3	A	50°C	Yes
10574727	NA CFW11 0024 T2 ON1Z	24	20	7.5	5	B	50°C	Yes
10574728	NA CFW11 0028 T2 ON1Z	28	24	10	7.5	B	50°C	Yes
10574729	NA CFW11 0033 T2 ON1Z	33.5	28	10	10	B	50°C	Yes
10574730	NA CFW11 0045 T2 ON1Z	45	36	15	10	C	50°C	Yes
10574731	NA CFW11 0054 T2 ON1Z	54	45	20	15	C	50°C	Yes
10574732	NA CFW11 0070 T2 ON1Z	70	56	25	20	C	50°C	Yes
10574705	NA CFW11 0086 T2 SZ	86	70	30	25	D	50°C	Yes
10574706	NA CFW11 0105 T2 SZ	105	86	40	30	D	50°C	Yes
11128905	NA CFW11 0142 T2 ON1Z	142	115	50	40	E	45°C	No
11128907	NA CFW11 0180 T2 ON1Z	180	142	60	50	E	45°C	No
11128946	NA CFW11 0211 T2 ON1Z	211	180	75	60	E	45°C	No

CFW11 - NEMA 1 - Standard 380 ~ 480V

460V - 3AC								
10574733	NA CFW11 0003 T4 ON1Z	3.6	3.6	2	2	A	50°C	Yes
10574734	NA CFW11 0005 T4 ON1Z	5	5	3	3	A	50°C	Yes
10574735	NA CFW11 0007 T4 ON1Z	7	5.5	3	3	A	50°C	Yes
10574736	NA CFW11 0010 T4 ON1Z	10	10	5	5	A	50°C	Yes
10574737	NA CFW11 0013 T4 ON1Z	13.5	11	7.5	7.5	A	50°C	Yes
10574738	NA CFW11 0017 T4 ON1Z	17	13.5	10	7.5	B	50°C	Yes
10574739	NA CFW11 0024 T4 ON1Z	24	19	15	10	B	50°C	Yes
10574740	NA CFW11 0031 T4 ON1Z	31	25	20	15	B	50°C	Yes
10574741	NA CFW11 0038 T4 ON1Z	38	33	25	20	C	50°C	Yes
10574742	NA CFW11 0045 T4 ON1Z	45	38	30	25	C	50°C	Yes
10574743	NA CFW11 0058 T4 ON1Z	58.5	47	40	30	C	50°C	Yes
10574718	NA CFW11 0070 T4 SZ	70.5	61	50	40	D	50°C	Yes
10574719	NA CFW11 0088 T4 SZ	88	73	60	50	D	50°C	Yes
11128979	NA CFW11 0105 T4 ON1Z	105	88	75	60	E	45°C	No
11128980	NA CFW11 0142 T4 ON1Z	142	115	100	75	E	45°C	No
11128981	NA CFW11 0180 T4 ON1Z	180	142	150	100	E	45°C	No
11128984	NA CFW11 0211 T4 ON1Z	211	180	150	150	E	45°C	No

CFW11 - NEMA 1 - Standard 500 ~ 600V

Material Number	Part Number	Rated Current		Motor (1)		Frame Size	Max.(2) Temp.	Brake Chopper
		ND	HD	ND	HD			
		A		HP				
575V - 3AC								
11995999	NA CFW11 0002 T5 ON1NFZ	2.9	2.7	2	2	B	50°C	Yes
11996002	NA CFW11 0004 T5 ON1NFZ	4.2	3.8	3	2	B	50°C	Yes
11996005	NA CFW11 0007 T5 ON1NFZ	7	6.4	5	5	B	50°C	Yes
11996006	NA CFW11 0010 T5 ON1NFZ	10	9	7.5	7.5	B	50°C	Yes
11996007	NA CFW11 0012 T5 ON1NFZ	12	10	10	7.5	B	50°C	Yes
11996058	NA CFW11 0017 T5 ON1NFZ	17	17	15	15	B	50°C	Yes
13107766	NA CFW11 0022 T5 ON1NFZ	22	19	20	15	C	50°C	Yes
13107778	NA CFW11 0027 T5 ON1NFZ	27	22	25	20	C	50°C	Yes
13107781	NA CFW11 0032 T5 ON1NFZ	32	27	30	25	C	50°C	Yes
13108091	NA CFW11 0044 T5 ON1NFZ	44	36	40	30	C	50°C	Yes
11990207	NA CFW11 0053 T6 ON1NBYZ	53	44	50	40	E	45°C	No
11990239	NA CFW11 0063 T6 ON1NBYZ	63	53	60	50	E	45°C	No
11990240	NA CFW11 0080 T6 ON1NBYZ	80	66	75	60	E	45°C	No
11990242	NA CFW11 0107 T6 ON1NBYZ	107	90	100	75	E	45°C	No
11990247	NA CFW11 0125 T6 ON1NBYZ	125	107	125	100	E	45°C	No
11990299	NA CFW11 0150 T6 ON1NBYZ	150	122	150	100	E	45°C	No

CFW11 - Accessories

Material Number	Part Number	Slot	Description
Communication Modules			
11008102	RS485-01	3	RS-485 serial communication module (Modbus-RTU)
11008103	RS232-01	3	RS-232C serial communication module (Modbus-RTU)
11008104	RS232-02	3	RS-232C serial communication module with DIP-switches for microcontroller's flash memory programming.
11008105	CAN/RS485-01	3	CAN and RS-485 communication module (CANopen / Modbus/DeviceNet)
11008106	CAN-01	3	CAN interface module (CANopen/DeviceNet)
11045488	PROFIBUS DP-01	3	Profibus DP-V1 interface module
11008107	PROFDP-05	4	Profibus DP-V1 interface module
11008158	DEVICENET-05	4	DeviceNet interface module
10933688	ETHERNET/IP-05	4	Ethernet/IP interface module - 1 Port
12272760	ETHERNETIP-2P-05	4	Ethernet/IP interface module - 2 Ports
14926615	ETHERCAT-05	4	EtherCAT interface module
11008160	RS232-05	4	RS-232 serial communication module (Modbus-RTU)
11008161	RS485-05	4	RS-485 serial communication module (Modbus-RTU)
11550476	MODBUSTCP-05	4	Modbus - TCP/IP interface module - 1 Port
14033951	MODBUSTCP-2P-05	4	Modbus - TCP/IP interface module - 2 Ports
11550548	PROFINETIO-05	4	Profinet interface module - 2 Ports

Keypad Accessories			
11008913	HMI-01	-	CFW-11 keypad
11010521	RHMIF-01	-	Frame for keypad remote assembly, IP56
11010298	HMID-01	-	Blank cover for keypad slot

Cables for HMI			
10950192	CAB-RS-1M	-	1m (3.3ft) Remote Keypad Cable
10951226	CAB-RS-2M	-	2m (6.6ft) Remote Keypad Cable
10951223	CAB-RS-3M	-	3m (10ft) Remote Keypad Cable
10951227	CAB-RS-5M	-	5m (16ft) Remote Keypad Cable
10951240	CAB-RS-7,5M	-	7.5m (25ft) Remote Keypad Cable
10951239	CAB-RS-10M	-	10m (33ft) Remote Keypad Cable

Conduit Kit			
11010787	KN1A-01	-	NEMA 1 - Conduit kit for frame size A + Power cables shielding
11010800	KN1B-01	-	NEMA 1 - Conduit kit for frame size B + Power cables shielding
11010802	KN1C-01	-	NEMA 1 - Conduit kit for frame size C + Power cables shielding
11010264	KIP21D-01	-	IP21 - Kit for frame size D (top cover)
10960842	KN1E-01	-	NEMA 1 – Top cover kit for frame size E (T4 - 105 and 142A / T6 - All sizes)
10960850	KN1E-02	-	NEMA 1 – Top cover kit + Conduit for frame size E (T4 – 180 and 211A)
11417558	KN1F-01	-	NEMA 1 - Conduit kit for frame size F
11417559	KN1G-01	-	NEMA 1 - Conduit kit for frame size G
12362029	KIP20	-	IP20 kit for DBW03 / DBW04



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