

# CFW11M/W

## Modular Drive



The CFW11M/W is the new generation of the panel mount modular drive, an optimized variable speed drive with excellent static and dynamic performance, highly precise torque, and speed and position control. The CFW11M/W G2 series presents a modular design, with configurations from one to five power units (UP11 G2), one control unit (UC11 G2) and wiring cables. The modular assembly increases the reliability of the inverter and simplifies its maintenance, making it perfect for panel builders. A single control unit (UC11 G2) can control up to 5 power units UP11 G2.



CFW11 Modular drive is available in two versions:

### Air-Cooled (CFW11M)

The air-cooled version is available in the following current ranges<sup>1)</sup>:

634 A to 3,012 A (550-2,500 HP / 400-1,850 kW - ND) in 436 to 750 V dc; 496 A to 2,356 A (550-2,500 HP / 400-1,850 kW - ND) in 574 to 970 V dc or 439 A to 2,085 A (600-2,800 HP / 440-2,000 kW - ND) in 758 V dc to 1,150 V dc

### Water-Cooled (CFW11W)

The water-cooled version is available from<sup>2)</sup>:

780 A to 3,705 A (1,000-5,000 HP / 750-3,750 kW - ND) in 574 V dc to 1,150 V dc

### Normal Duty (ND)

110% for 60 seconds every 10 minutes  
150% for 3 seconds every 10 minutes

### Heavy Duty (HD)

150% for 60 seconds every 10 minutes  
200% for 3 seconds every 10 minutes

Notes: 1) The motor powers are reference values specified for WEG motors with 4 poles, 440 V ac for models with DC power supply 436-750 V dc; 575 V ac for models with DC power supply of 574-970 V dc and 690 V ac for models with DC power supply of 758-1,150 Vdc.

The proper sizing must be done according to the rated current of the motors used.

2) The maximum motor power are just reference values; they are specified for WEG 4 pole 690 V motors for models with DC power supply of 758...1,150 V dc. The proper sizing must be done according to the rated current of the motors used.

## Benefits

- High compactness and power density;
- Sensorless or closed loop Vector, Scalar (V/f) or VVW control;
- The sensorless vector control allows high torque and fast response, even at very low speeds or at the start;
- Many configurations are possible: 6, 12 or 18 pulses, or also regenerative braking, allowing low harmonic levels;
- The vector with encoder control enables high precision in the drive throughout the speed range (even stopped motor);
- Optimal Braking function for vector control, allowing the controlled braking of the motor, eliminating the use of braking resistor in some applications;
- Self-Tuning function for vector control: allows the automatic setting of control parameters and regulators based on the identification (also automatic) of the motor parameters and load;
- Same platform of CFW11 series, sharing features and most of accessories;
- Built-in SoftPLC, equivalent to a small PLC, that allows to customize and integrate the VSD to the application;
- Communication protocols: Modbus-RTU, Modbus-TCP, Profibus-DP, DeviceNet, EtherNet/IP and PROFINET IO.

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## Typical Applications

Used in applications with high power and those requiring safety, flexibility and ruggedness, the modular drive CFW11M/W can be applied in several industrial segments.

Sugar and Alcohol



Pulp and Paper



Cement



Steel Industry



Refrigeration



Mining



Oil and Gas



Naval Propulsion



To assemble the complete drive in a cabinet, additional items are necessary, such as input rectifier, power busbar, pre-charge circuit, panel ventilation or cooling system<sup>1)</sup>, mounting rack<sup>2)</sup>, protection fuses and input reactance.



**CFW11M**



**CFW11W**

Notes: 1) Panel ventilation is necessary for CFW11M G2, while cooling system with liquid coolant is necessary for CFW11W.

2) Mounting rack is necessary for CFW11M G2 and permits to assemble up to 3 power modules side-by-side in 800 mm wide panels.



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