CFW 11 - Variable Frequency Drives

- 1.5 to 3 HP - 200-240V - Single-phase
- 1.5 to 75 HP - 200-240V - Three-phase
- 2 to 900 HP - 380-480V - Three-phase
- 2 to 900 HP - 500-690V - Three-phase

CFW 11M Modular Drive up to 2500 HP

Innovative, Flexible and Easy to Use

Innovative and Easy to Use
The CFW-11 presents many innovations that are helpful and beneficial to customers, mainly due to the simplicity of its installation and operation. The CFW-11 was developed based on Plug-and-Play philosophy (connect and use) allowing simple and fast installation of the drive and its accessories. The Keypad has a navigation and programming system inspired by mobile phones, with soft-key buttons. It is possible to access the parameters sequentially or through groups of parameters. The Keypad also makes the Oriented Start-up function available, guiding the user through the necessary programming.

Flexibility
The CFW-11 adapts to the customer's needs through a broad range of accessories which are easily installed. Besides this, the standard product comes with a small PLC called Soft PLC that offers PLC functionalities and it allows the costumer for creation of his/her own user applications through the WLP software (programming in LADDER).

Connectivity
Communication protocols: Modbus-RTU, Modbus-TCP, Profibus-DP-V1, DeviceNet, CANopen, EtherNet/IP, EtherCAT, PROFINET-IO and BACnet.

1-877-PAMENSKY (726-3675)

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Vectrue Technology®
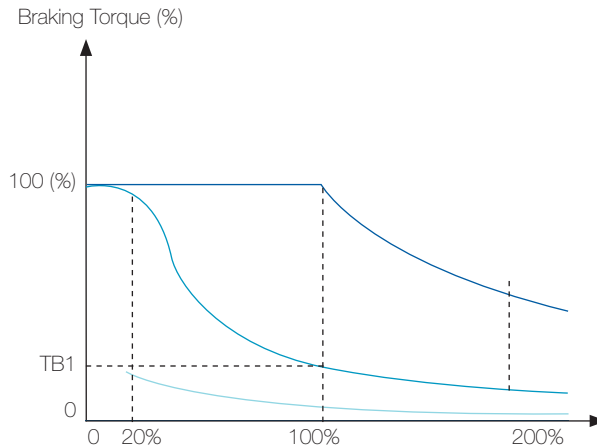WEG VARIABLE SPEED DRIVE CONTROL TECHNOLOGY
- Linear and adjustable V/f, VVW (Voltage Vector WEG) and vector control are available in the same product.
- Two types of vector control: Sensorless and closed loop Vector control (Encoder Interface required).
- Sensorless vector control permits high torque and quick response in open loop, even at low speeds.
- The self-tuning function automatically matches the vector control or VVW to the motor and load used.
- Through the adjustable V/f control, it is possible, for example, to adjust a quadratic V/f curve, providing energy savings for quadratic torque loads (e.g.: centrifugal pumps and fans).

Optimal Braking®
In applications involving high inertia loads and short deceleration times is required, a large amount of energy is returned from the motor to the VSD. To handle this energy, traditional VSDs have to dissipate it as heat in power resistors. Such resistors are usually large and some installation criteria must be considered due to their heat dissipation.
As an alternative to the use of braking resistors, CFW11 features a special braking method in vector control mode known as Optimal Braking®. This innovation delivers a high performance braking torque without requiring a braking resistor.
The following graph shows the advantages of using Optimal Braking® compared to other methods, thus ensuring an optimized and low cost solution for braking applications.

Wmagnet Drive System®
Frequency Inverter controlling permanent magnet motors. The WMagnet System (WMagnet motor + CFW11) has the hightest efficiency levels in the market.
It is a perfect match for applications where speed variation, low noise level and reduced size are required. In Sersorless mode the Wmagnet System is able to perform torque control at zero speed without the need for forced ventilation.

Main characteristics of the set CFW11 + WMagnet motor
- Voltage Range: 380 V to 480 V AC
- Power Rating: 11 to 160 kW (15 to 220 HP)
- Methods of control: Sensorless Vector and closed loop control (vector with encoder)
- WMagnet control Algorithm included on the CFW11 standard version
- Variety of communication protocols (Fieldus) is available when running WMagnet control also CFW11 communication modules are utilized.
- Fieldbus modules available: Modbus RTU,Modbus TCP, Profibus DP-V1, DeviceNet, CANopen and Ethernet / IP.

Typical Braking Torque x Speed Graph for a 10 HP / 7.5 kW motor driven by a CFW11

- Dynamic Braking Torque Curve
- Optimal Braking® Torque Curve
- DC Braking Torque Curve

Optimal Flux®
TECHNOLOGY FOR MOTORS DRIVEN BY VSDs IN APPLICATIONS WITH CONSTANT TORQUE LOADS
- Rated torque at low speeds eliminating the need for independent ventilation or motor oversizing.
- Space saving and cost reduction of the application.
- Improved performance of the package VSD and motor (an exclusive WEG solution).

The Optimal flux function works when the set High Efficiency WEG motor + CFW11/09 is used.

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