CFW 100 - Technical Data

Mains supply

Voltage and power range

1-phase, 200-240 V ac (+10% - 15%)

0.33 to 1 HP

Supply frequency 50/60 Hz (48 Hz a 62 Hz)

Motor connection

Voltage 3-phase, 0-100% of supply voltage

Output frequency 0 to 300 Hz, regulation of 0.1 Hz

Displacement power factor >0.97

Overload capacity 1.5 x In (drive) for 1 minute every 6 minutes

Switching frequency Default 5 kHz (selectable 2.5 to 15 kHz)

Acceleration time 0.1 to 999s

Deceleration time 0.1 to 999s

Environment

Temperature

50 ºC - IP20 without RFI flter

2% current derating for each ºC above the specifc operating temperature, limited to 60 ºC

Air relative humidity 5% to 90 % non-condensing

Altitude

Up to 1,000 m

1,000 m to 4,000 m - 1% current derating for each 100 m above 1,000 m

Degree of protection IP20

Performance

V/F control

Speed regulation: 1% of the rated speed (with slip compensation)

Speed variation range: 1:20

Vector control (VVW)

Speed regulation: 1% of the rated speed

Speed variation range: 1:30

Safety Protection

Overcurrent/phase-phase short circuit in the output

Overcurrent/phase-ground short circuit in the output

Under/overvoltage

Overtemperature in the heatsink

Overload in the motor

Overload in the power module (IGBTs)

External alarm / fault

Setting error

Communication protocol

Modbus-RTU Plug-in modules for RS485

CANopen Plug-in module CFW100-CCAN

Conectivity

USB Plug-in modules CFW100 - CUSB

Bluetooth® Plug-in modules CFW100 - CBLT

Infrared Plug-in modules CFW100 - IOADR

Safety standards

UL 508C Power conversion equipment.

UL 840 Insulation coordination including clearances and creepage distances for electrical equipment.

EN 61800-5-1 Safety requirements electrical, thermal and energy.

EN 50178 Electronic equipment for use in power installations.

EN 60204-1

"Safety of machinery. Electrical equipment of machines. Part 1: General requirements.

Note: For the machine to comply with this standard, the manufacturer of the machine is responsible

for installing an emergency stop device and equipment to disconnect the input power supply."

EN 60146 (IEC 146) Semiconductor converters.

EN 61800-2

Adjustable speed electrical power drive systems - Part 2: General requirements - Rating specifcations

for low voltage adjustable frequency AC power drive systems.

Electromagnetic

compatibility (EMC)

standards

(with external filter)

EN 61800-3

Adjustable speed electrical power drive systems - Part 3: EMC product standard including specifc

test methods.

EN 55011

Limits and methods of measurement of radio disturbance characteristics of industrial, scientifc and

medical (ISM) radio-frequency equipment.

CISPR 11

Industrial, scientifc and medical (ISM) radio-frequency equipment - Electromagnetic disturbance

characteristics - Limits and methods of measurement.

EN 61000-4-2

Electromagnetic compatibility (EMC) - Part 4: Testing and measurement techniques - Section 2:

Electrostatic discharge immunity test.

EN 61000-4-3

Electromagnetic compatibility (EMC) - Part 4: Testing and measurement techniques - Section 3:

Radiated, radio-frequency, electromagnetic feld immunity test.

EN 61000-4-4

Electromagnetic compatibility (EMC) - Part 4: Testing and measurement techniques - Section 4:

Electrical fast transient/burst immunity test.

EN 61000-4-5

Electromagnetic compatibility (EMC) - Part 4: Testing and measurement techniques - Section 5: Surge

immunity test.

EN 61000-4-6

Electromagnetic compatibility (EMC) - Part 4: Testing and measurement techniques - Section 6:

Immunity to conducted disturbances, induced by radio-frequency fields.

Mechanical construction

standards

EN 60529 Degrees of protection provided by enclosures (IP code).

UL 50 Enclosures for electrical equipment.