Industrial Motors

Commercial & Appliance Motors

Automation & Systems

Energy

Transmission & Distribution

Coatings

CFW503 VARIABLE SPEED DRIVE

Increase efficiency with **reliability** and cost-effectiveness in your production

Driving efficiency and sustainability

SUMMARY

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CFW503
VECTOR INVERTER
LOC
RUN
14000
81.6
mbar
BACK ESC
ENTER MENU
LOC REM
JOG
WARNING
ATTENCION

CFW503

MACHINERY DRIVE

Endless possibilities

The CFW503 variable speed drive combines modern design ***with performance***, offering precise control of three-phase induction motors. Equipped with ***sensorless vector control, closed-loop vector control and scalar V/F*** control, it adapts to various applications. The built-in SoftPLC improves automation by incorporating PLC functionalities. The CFW503 is a ***flexible and efficient solution*** for different operational needs.

High performance

- Wide power range and high overload capacity
- High performance control methods
- Models from 1.0 to 600 A (0.25 HP / 0.18 kW to 450 HP / 330 kW) at supply voltages 380-480
- V/f scalar control, VVW control, vector control with sensor and sensorless and permanent magnet motor control: VVW PM
- Allows the CFW503 to be used in a large variety of applications, improving their overall performance

Flexible

- Connectivity
- Advanced resources and functions
- Assembly options
- USB and Fieldbus communication modules for the most used industrial networks, like CANopen, DeviceNet, Profibus-DP, EtherNet/IP, PROFINET IO or Modbus-RTU
- Full integration with process network

Certifications

Innovative

- SoftPLC - built-in PLC functionalities
- Free programming softwares
- The VSD, motor and application can work in an interactive way, because it is possible to make customized logic and applications
- WPS softwares available at www.weg.net
- Ideal for machinery manufacturer

Reliable

- WEG Quality
- High reliability
- VSD lifetime is extended
- Protection against ground fault, short circuit, over temperature and others
- Internal RFI filter[1)] to reduce high-frequency electromagnetic interference
- 100% of the VSDs are tested at the factory under full load and maximum temperature
- Conformal coating (tropicalization) as standard, class 3C2 according to IEC 60721-3-3 and 3C3 as an option, to protect against corrosive gases in harsh environments
- It prevents damage to the inverter which can be caused by adverse situations, normally external factors

Note: 1) Under development.

Simplified programming and operation

Operating interface (HMI)

- Monitoring, setting of all parameters as well as commands
- Up to three parameters indication on the display, according to user selection
- Oriented start-up and grouped parameters
- Mandarin version available

Menu to select the group of parameters

CFW503 status

Secondary display

Soft keys function

Main display

Bar for variable monitoring

Unit of measurement (value of the main display)

Note: the operating interface (HMI) of the CFW503 is not removable. For remote operation of the HMI, use the CFW500-HMIR accessory, according to the accessory table on page 13.

Remote operating interface (HMI)

Solutions for machine consoles and panels.

Interface tools

- Graphic display with backlight
- Soft keys for easy operation
- Real time clock (RTC)
- Language selection
- Remote keypad

Accessory IHM-01

Maximizing performance through flexibility

Designed to offer flexibility and performance, the CFW503 adapts perfectly to the requirements of each application. Users can choose between different plug-in modules or opt for the standard version with CFW500-IOS. Installation is quick and intuitive, and the operating interface (HMI) with LCD display simplifies configuration. In addition, flash memory technology allows configurations to be transferred between units without the need for power, ensuring greater efficiency and practicality in the process.

Easily removable fan

The quick change system ensures simple and fast fan maintenance.

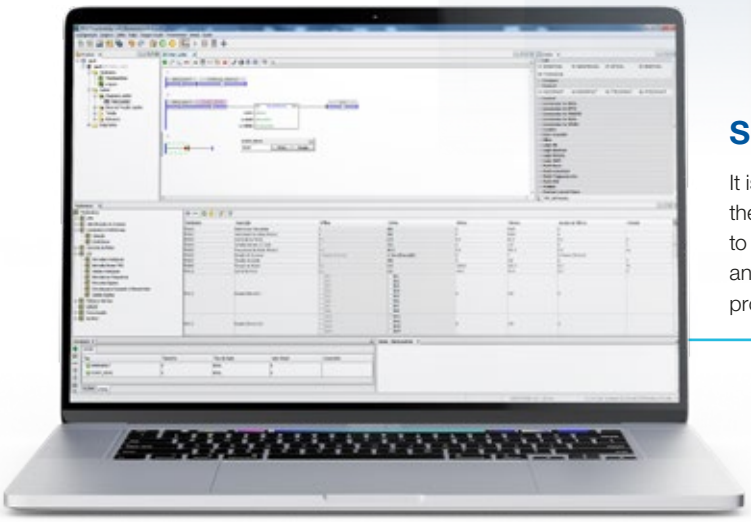
Flash memory module

(CFW500-MMF accessory)

Download/upload the settings to other CFW503 units without the need to power them up.

Plug-in modules

Selectable according to the application.



SoftPLC

It is a software resource added to the CFW503 which allows the user to implement and debug logic projects equivalent to a small PLC (Programmable Logic Controller), customizing and integrating the CFW503 to the application. The free WPS programming software is available at: www.weg.net.

Connectivity

The CFW503 allows connection to the main high-speed industrial communication networks, supporting widely adopted protocols such as CANopen, Profibus-DP, DeviceNet, PROFINET IO, EtherNet/IP and Modbus-TCP, depending on the plug-in module chosen. In addition, all plug-in modules have an RS485 serial interface with integrated Modbus-RTU protocol, providing greater versatility and ease of integration with various industrial systems.

Remote operating interface
(IHM-01 accessory)

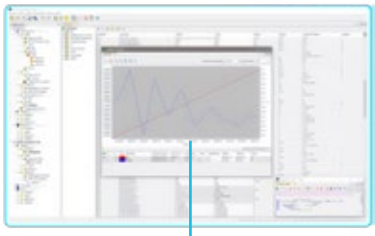
USB Connection
(CFW500-CUSB accessory)

Selectable plug-in modules

I/O expansion:
- IOS (standard, included in the version with plug-in), IOD, IOAD, IOR

Functionality expansion:
- Incremental encoder
- USB

Fieldbus communication protocols:
- CANopen
- DeviceNet
- RS232
- RS485
- Profibus-DP
- EtherNet/IP
- Modbus-TCP
- PROFINET IO
- BACnet
- SymbiNet

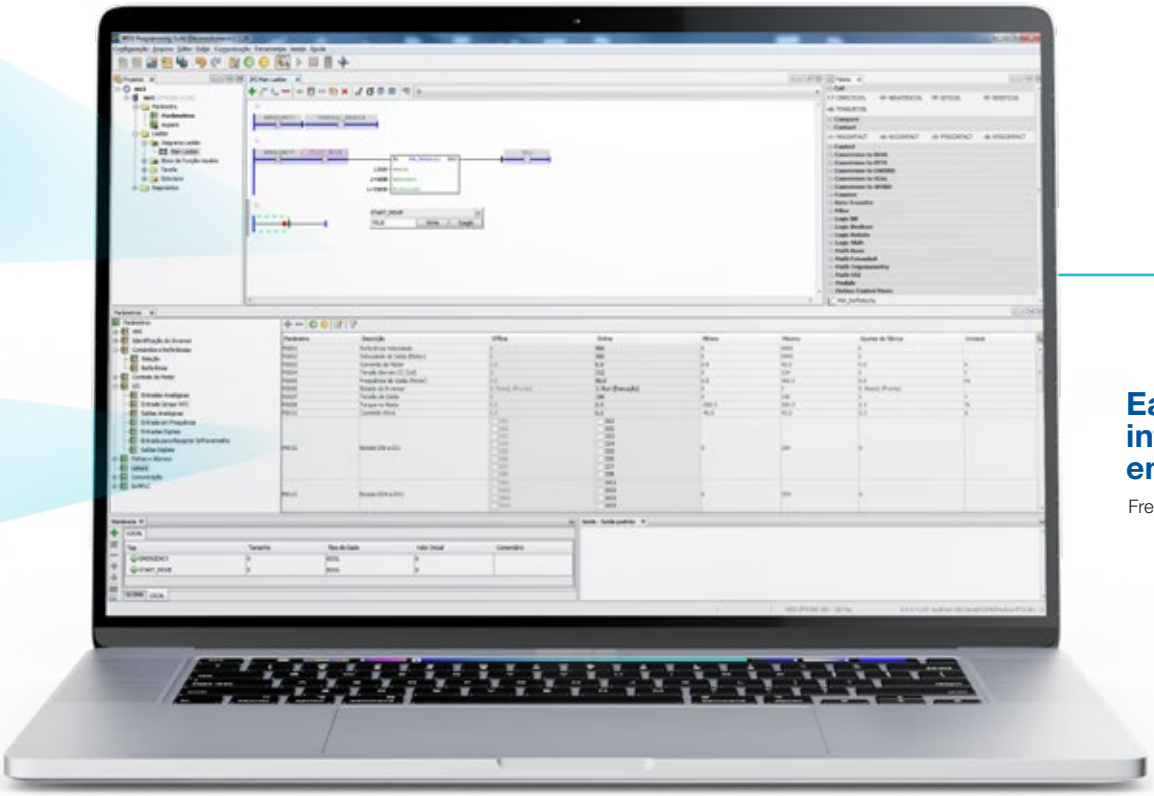


WPS software

Easy operation and view
Free at www.weg.net

Features

- Special engineering units (rpm, °C, Nm, mA, %, kW, kWh, among others)
- Password to protect the parameters
- Backup of all parameters (via SuperDrive G2 software, or plug-in memory MMF)
- Possibility to save up to two different settings on the memory of the CFW503
- Setting of the switching frequency according to the application requirements
- Speed reference via electronic potentiometer
- Multispeed with up to eight programmable speeds
- Slip compensation
- Manual or automatic torque boost (V/F scalar mode) or self-adjustment (VVW and vector modes)
- *Fire* mode
- Permanent magnet motor control: VVW PM
- Acceleration/deceleration ramps
- "S" type ramp
- DC braking
- Internal dynamic braking (except frame size A)
- PID controller to control processes in closed loop
- Flying start / Ride-through
- *Sleep* mode
- Skip frequencies or frequency ranges function adjustable
- Overload and overtemperature protection
- Overcurrent protection
- DC link voltage supervision
- Fault log



Easy and intuitive environment

Free at www.weg.net

Applications

Fans / exhausters

Centrifugal pumps

Conveyor belts

Cutting machines

Dryers and rotary ovens

Roller tables

Stirrers / mixer

Rotary filters

Granulators / palletizers

Coding[1)]

1	2	3	4	5	6	7	8	9	10
CFW503	A	02P6	T	4	NB	20	C2	---	---

1 - CFW503 variable speed drive
2 - Size of the CFW503, according to table 1 below
3 - Rated output current, according to table 1 below

Power supply	Three-phase (T)	
	380-480 VAC	
Voltage	01P0 = 1.0 A	39P0 = 39.0 A
	01P6 = 1.6 A	49P0 = 49.0 A
	02P6 = 2.6 A	77P0 = 77.0 A
	04P3 = 4.3 A	88P0 = 88.0 A
	06P1 = 6.1 A	0105 = 105 A
	02P6 = 2.6 A	0142 = 142 A
	04P3 = 4.3 A	0180 = 180 A
	06P5 = 6.5 A	0211 = 211 A
	10P0 = 10.0 A	0315 = 315 A
	14P0 = 14.0 A	0370 = 370 A
	16P0 = 16.0 A	0480 = 480 A
	24P0 = 24.0 A	0520 = 520 A
	31P0 = 31.0 A	0600 = 600 A

4 - Number of phases

T	Three-phase power supply

5 - Rated voltage

4	380-480 V

6 - Internal dynamic braking[2)]

NB	Without internal dynamic braking IGBT
DB	With internal dynamic braking IGBT

7 - Protection degree

20	IP20 protection degree

8 - RFI filter[3)]

Blank	Without internal RFI filter
C3	With internal RFI filter - category 3[4)]

9 - Special version

9.1 - Special hardware versions - Hxx

Blank	With standard plug-in module
H00	Without plug-in module

9.2 - Special softwares versions - Sxx

Blank	Standard software
Sxx	Special software

10 - IHM version

Blank	Standard software
CH	IHM Chinese version

Notes: 1) Other configurations available upon request.
2) Braking resistor not included. Braking IGBT is available as standard for the whole CFW503 line, except for frame size A of IP20 version.
3) Conducted emission level (IEC 61800-3).
In order to minimize such problem, WEG variable speed drives contain common-mode capacitive filters, which are enough to avoid this type of interference in most cases.
If necessary, our inverters also have radio frequency (RFI) filters to reduce even more those high-frequency electromagnetic interference signals. Item 8 of the table above shows how to select the models of internal RFI filters for the CFW503.
Definitions of IEC/EN 61800-3 standard.
Categories:
Category C1: variable speed drives with voltage rating below 1,000 V and intended for application in the "First Environment".
Category C3: inverters with voltage ratings below 1,000 V developed for application in the "Second Environment" and not designed for application in the "First Environment".
Environments: First Environment: environments that include domestic installations, such as establishments directly connected without intermediate transformers to the low voltage power line, which supplies buildings used for domestic purposes.
Second environment: environments that include all the buildings other than those directly connected to the low voltage power line, which supplies buildings used for domestic purposes.
4) Under development.

Specification

CFW503 IP20 - 380-480 V

CFW503 variable speed drive						Maximum applicable motor[1]			
						Normal duty (ND)		Heavy duty (HD)	
Reference	Power supply (V)		Frame size	Rated current (A)		HP	kW	HP	kW
				HD	ND				
CFW503A01P0T4	Three-phase	380-480	A	1	1	0.25	0.18	0.25	0.18
CFW503A01P6T4				1.6	1.6	0.5	0.37	0.5	0.37
CFW503A02P6T4				2.6	2.6	1.5	1.1	1.5	1.1
CFW503A06P1T4				5	6.1	3	2.2	2	1.5
CFW503A08P2T4				7	8.2	5	3.7	3	2.2
CFW503B02P6T4			B	2.6	2.6	1.5	1.1	1.5	1.1
CFW503B04P3T4				4.3	4.3	2	1.5	2	1.5
CFW503B10P0T4				7	10	6	4.5	3	2.2
CFW503B14P0T4				10	14	7.5	5.6	6	4.5
CFW503C16P0T4			C	14	16	10	7.5	7.5	5.6
CFW503C18P0T4				16	18	10	7.5	10	7.5
CFW503D32P0T4			D	25	32	20	15	15	11
CFW503D37P1T4				32	37.1	25	18.5	20	15
CFW503E45P0T4			E	39	45	30	22	25	18.5
CFW503E58P5T4				49	58.5	40	30	30	22
CFW503F77P0T4			F	64	77	50	37	40	30
CFW503F88P0T4				73	88	60	45	50	37
CFW503F0105T4				88	105	75	55	60	45
CFW503G0142T4			G	115	142	100	75	75	55
CFW503G0180T4				142	180	150	110	100	75
CFW503G211T4				190	211	175	132	150	110
CFW503H0315T4			H	211	315	220	160	175	132
CFW503H0370T4				315	370	270	200	220	160
CFW503I0480T4			I	415	480	350	260	300	220
CFW503I0520T4				480	520	400	300	350	260
CFW503I0600T4				515	600	450	330	400	300

Optional items

These are hardware resources added to the CFW503 in the manufacturing process, and they should be requested via smart code.

Internal dynamic braking (IGBT)[1]

Used for quick stop of the motor with external[1] braking resistor.
The braking IGBT is available as standard for the whole line, except for frame A of IP20 version.

Notes: 1) External braking resistor not included. To specify the correct braking resistor, please refer to the CFW503 User's Manual.
2) Under development.

Internal RFI filter[2]

Inverters with internal RFI filter (code C2 or C3) when installed, maintained and used on the application they were designed for, and in compliance with the relevant installation standards and manufacturer's instructions, reduce conducted disturbance from the inverter to the main power supply in high frequency band (>150 kHz), complying to the relevant EMC standards, such as EN 61800-3 and EN 55011.

Accessories

Reference	Description	Illustrative figures
	Input and output (I/O) expansion	
CFW500-IOS[1)]	Standard plug-in module (included in the version with plug-in module)	
CFW500-IOD	Digital input and output (I/O) expansion plug-in module	
CFW500-IOAD	Digital and analog input and output (I/O) expansion plug-in module	
CFW500-IOR-B	Relay output expansion plug-in module	
	Functionality expansion	
CFW500-ENC	Plug-in module with encoder input	
CFW500-CUSB	Plug-in module with USB port	
	Communication on Fieldbus network	
CFW500-CCAN	CAN communication plug-in module (CANopen/DeviceNet)	
CFW500-CRS232	RS232 communication plug-in module	
CFW500-CRS485-B	RS485 communication plug-in module	
CFW500-CPDP	Profibus-DP communication plug-in module	
CFW500-CETH-IP	EtherNet/IP communication plug-in module	
CFW500-CEMB-TCP	Modbus-TCP communication plug-in module	
CFW500-CEPN-IO	PROFINET IO communication plug-in module	
	Memory	
CFW500-MMF	Flash memory module	
	Interfaces	
CFW500-HMIR	Remote operating interface (HMI)	
HMI-01	Alphanumeric HMI	
CFW503-RHMIF	Frame for remote HMI	
CFW500-CCHMIR1M	1-meter cable set for remote operating interface (HMI)	
CFW500-CCHMIR2M	2-meter cable set for remote operating interface (HMI)	
CFW500-CCHMIR3M	3-meter cable set for remote operating interface (HMI)	
CFW500-CCHMIR5M	5-meter cable set for remote operating interface (HMI)	
CFW500-CCHMIR75M	7.5-meter cable set for remote operating interface (HMI)	
CFW500-CCHMIR10M	10-meter cable set for remote operating interface (HMI)	
	Description	
CFW500-KPCSA	Shielding kit for the power cables - size A (standard for option C2 and C3)	
CFW500-KPCSB	Shielding kit for the power cables - size B (standard for option C2 and C3)	
CFW500-KPCSC	Shielding kit for the power cables - size C (standard for option C2 and C3)	
CFW500-KPCSD	Shielding kit for the power cables - size D (standard for option C2 and C3)	
CFW500-KPCSE	Shielding kit for the power cables - size E (standard for option C2 and C3)	
CFW500-KPCSF	Shielding kit for the power cables - size F (standard for option C3)	
CFW500-KPCSG	Shielding kit for the power cables - size G (standard for option C3)	

Notes: 1) Accessory already included if the CFW503 version with the standard plug-in module is selected. The plug-in modules can also be sold separately as an accessory item or spare part.
2) Use a plug-in module per CFW503.

Accessories

Configuration of the plug-in modules[1)]

Plug-in module	Functions																
	Inputs		Outputs			USB port	Input for encoder[3)]	Fieldbus networks								Supply	
	Digital	Analog	Analog	Digital relay	Digital transistor			CANopen DeviceNet	RS232	RS485	Profibus-DP	EtherNet/IP	Modbus-TCP	PROFINET IO	BACnet	10 V	24 V
CFW500-IOS	4	1	1	1	1	-	-	-	-	1	-	-	-	-	1	1	1
CFW500-IOD	8	1	1	1	4	-	-	-	-	1	-	-	-	-	-	1	1
CFW500-IOAD	6	3	2	1	3	-	-	-	-	1	-	-	-	-	-	1	1
CFW500-IOR	5[2)]	1	1	4	1	-	-	-	-	1	-	-	-	-	-	1	1
CFW500-ENC	5[2)]	1	1	4	1	-	1	-	-	1	-	-	-	-	-	1	1
CFW500-CUSB	4	1	1	1	1	1	-	-	-	1	-	-	-	-	-	1	1
CFW500-CCAN	2	1	1	1	1	-	-	1	-	1	-	-	-	-	-	1	-
CFW500-CRS232	2	1	1	1	1	-	-	-	1	1	-	-	-	-	-	-	1
CFW500-CRS485	4	2	1	2	1	-	-	-	-	2	-	-	-	-	1	1	1
CFW500-CPDP	2	1	1	1	1	-	-	-	-	1	1	-	-	-	-	-	1
CFW500-CPDP2	2	1	1	1	1	-	-	-	-	1	1	-	-	-	-	-	1
CFW500-CETH-IP	2	1	1	1	1	-	-	-	-	1	-	1	-	-	-	-	1
CFW500-CEMB-TCP	2	1	1	1	1	-	-	-	-	1	-	-	1	-	-	-	1
CFW500-CEPN-IO	2	1	1	1	1	-	-	-	-	1	-	-	-	1	-	-	1

Notes: 1) All plug-in models have at least one RS485 port. The CFW500-CRS485 plug-in module has two RS485 ports.
The CFW503 allows the installation of one plug-in module per unit.
2) The digital input DI5 is always NPN, and it cannot be configured for PNP like the others.
3) Incremental encoder (A/A - B/B).
See the installation guides of the plug-in modules on the website www.weg.net.

Dimensions and weights

IP20 version

Size	a	b	c	d	h	L	P	Weight
	mm [in]	mm [in]	mm [in]	mm [in]	mm [in]	mm [in]	mm [in]	kg [lb]
A	50 [1.97]	175 [6.89]	11.9 [0.47]	7.2 [0.28]	189 [7.44]	75 [2.95]	150 [5.91]	0.8 [1.76]1)
B	75 [2.95]	185 [7.3]	11.8 [0.46]	7.3 [0.29]	199 [7.83]	100 [3.94]	160 [6.3]	1.2 [2.65]1)
C	100 [3.94]	195 [7.7]	16.7 [0.66]	5.8 [0.23]	210 [8.27]	135 [5.31]	165 [6.5]	2 [4.4]
D	125 [4.92]	290 [11.41]	27.5 [1.08]	10.2 [0.4]	306.6 [12.1]	180 [7.08]	166.5 [6.55]	4.3 [9.48]
E	150 [5.9]	330 [13]	34 [1.34]	10.6 [0.4]	350 [13.8]	220 [8.7]	191.5 [7.5]	10 [22.05]
F	200 [7.87]	525 [20.67]	42.5 [1.67]	15 [0.59]	550 [21.65]	300 [11.81]	254 [10]	26 [57.3]
G	200 [7.87]	650 [25.59]	57 [2.24]	15 [0.59]	675 [26.57]	335.3 [13.2]	314 [12.36]	52 [114.64]
H	125 [4.92]2)	1,000 [39.37]	43 [1.69]	27 [1.06]	1,074.3 [42.30]	370 [14.57]	360.1 [14.18]	78 [172]
I	150 [5.91]3)	1,200 [47.24]	48 [1.89]	27 [1.06]	1,233.7 [48.57]	430 [16.93]	360 [14.18]	105 [231.5]

Notes: In frame sizes F and G, the inverter CFW503 can also be mounted in flange.
Dimension tolerance: ±1.0 mm (±0.039 in).
1) This value refers to the heaviest weight of the frame size.
2) In the frame size H there are 3 holes, therefore the total width between the holes is 250 mm (9.84 in).
3) In frame size I there are 3 holes, therefore the total width between the holes is 300 mm (11.81 in).

Front view

Side view

Standards

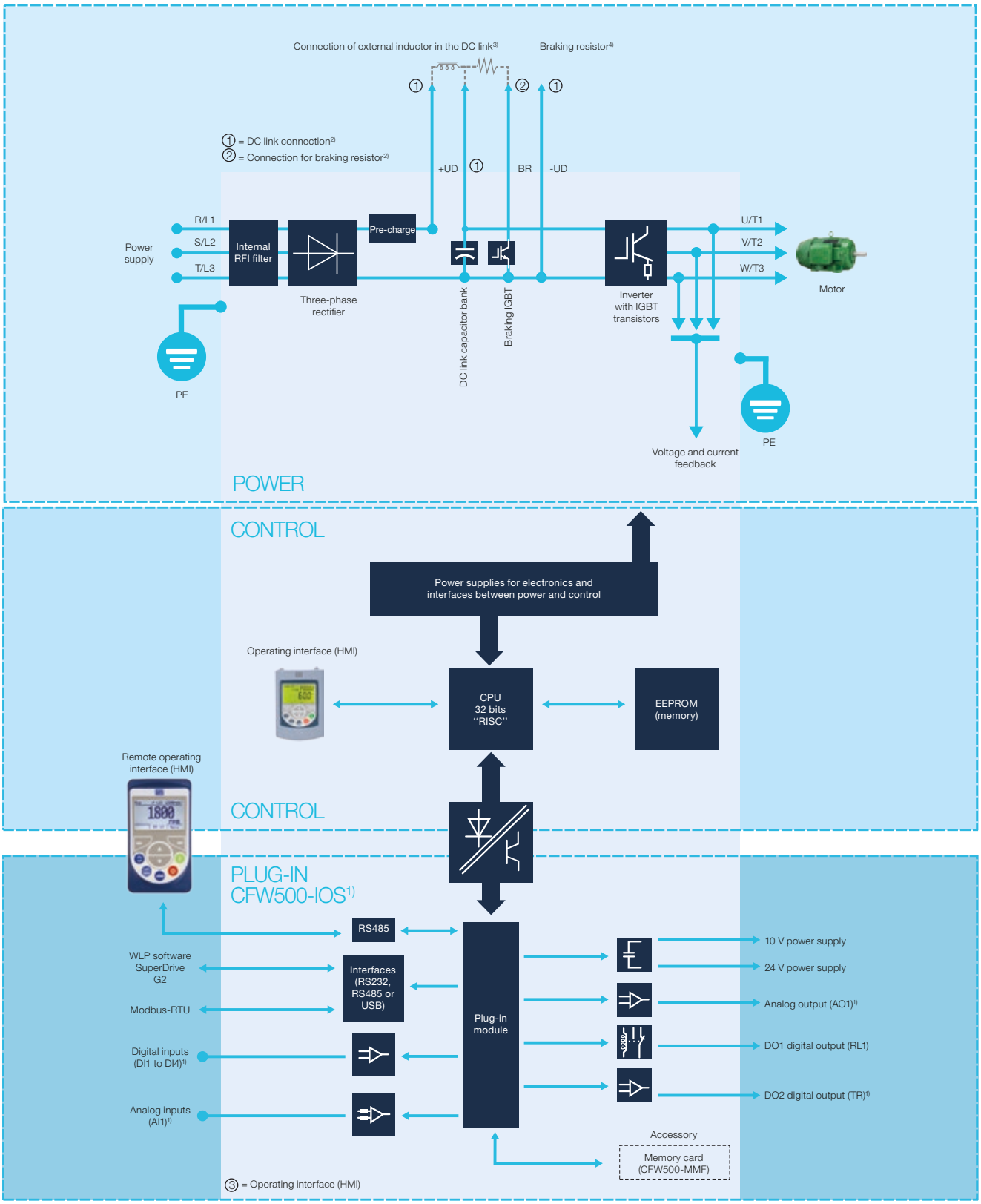
Standards	Safety standards	UL 508C - Power conversion equipment
		UL 840 - Insulation coordination including clearances and creepage distances for electrical equipment
		EN 61800-5-1 - Safety requirements electrical, thermal and energy
		EN 50178 - Electronic equipment for use in power installations
		EN 60204-1 - Safety of machinery. Electrical equipment of machines. Part 1: general requirements Note: In order to have a machine in accordance with this standard, the manufacturer of the machine is responsible for installing an emergency stop device and a device for disconnection from the power line
		EN 60146 (IEC 146) - Semiconductor converters
		EN 61800-2 - Adjustable speed electrical power drive systems - Part 2: general requirements - Rating specifications for low voltage adjustable frequency AC power drive systems
	Electromagnetic compatibility standards	EN 61800-3 - Adjustable speed electrical power drive systems - Part 3: EMC product standard including specific test methods
		EN 55011 - Limits and methods of measurement of radio disturbance characteristcs of industrial, scientific and medical (ISM) radio-frequency equipment
		CISPR 11 - Industrial, scientific 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 - Part 4: testing and measurement techniques - Section 3: ratiated, radio-frequency, electromagnetic field immunity test
		EN 61000-4-4 - Electromagnetic compatibility - Part 4: testing and measurement techniques - Section 4: electrical fast transient/burst immunity test
		EN 61000-4-5 - Electromagnetic compatibility - Part 4: testing and measurement techniques - Section 5: surge immunity test
		EN 61000-4-6 - Electromagnetic compatibility - 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
		IEC 60721-3-3 - Classification of environmental conditions - Part 3: classification of groups of environmental parameters and their severities - Section 3: stationary use at weather protected locations level 3M4

Technical specifications

Power rating	Power supply	Tolerance: -15 to +10%
		Frequency: 50/60 Hz (48 Hz to 62 Hz)
		Phase imbalance: ≤3% of the rated phase-phase input voltage
		Transient voltages and overvoltages according to Category III (EN 61010/UL 508C)
		Maximum of 10 (line) connections per hour (1 every 6 minutes)
		Typical efficiency: ≥97%
Control	Method	V/F (scalar) VVW: voltage vector control Vector without encoder (sensorless) and closed loop vector with encoder VVW PM vector control for permanent magnet motors
	Output frequency	0 to 500 Hz, resolution of 0.015 Hz
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
	Sensorless	Speed regulation: 0.5% of the rated speed Speed variation range: 1:100
	Vector control with Encoder	Speed regulation: 0.1% of the rated speed Speed variation range: 1:100
	PM VVW Control[4)]	Regulation: 0.1 % of the rated speed Speed variation range: 1:20
Environment conditions	Temperature around the CFW503	-10 °C to 40 °C Inverters for mechanics A to I: for temperatures surrounding the inverter higher than the specifications, it is necessary to apply of 2 % of current derating for each Celsius degree, limited to an increase of 10 ºC (50 ºF).
	Aggressive environments	Protection Class 3C2 - Standard coating on the internal circuits, according to IEC 60721-3-3 (standard model)
		Protection Class 3C3 - Extra coating - optional, according to IEC 60721-3-3 (optional)
	Air relative humidity	5% to 95% non-condensing
	Altitude	Up to 1,000 m (maximum altitude under normal conditions) 1,000 to 4,000 m: current derating of 1% for each 100 m above 1,000 m of altitude
	Pollution degree	2 (EN 50178 and UL 508C), with non-conductive pollution Condensation must not cause conduction of the accumulated residues
Inputs[1)]	Analog	1 isolated input. Levels: (0 to 10) V or (0 to 20) mA or (4 to 20) mA Linearity error ≤0.25% Impedance: 100 kΩ for voltage input, 500 Ω for current input Programmable functions, including PTC input Maximum voltage accepted in the inputs: 30 V_{DC}
	Digital	4 isolated inputs Programmable functions: Active high (PNP): maximum low level of 15 V_{DC}; minimum high level of 20 V_{DC} Active low (NPN): maximum low level of 5 V_{DC}; minimum high level of 9 V_{DC} Maximum input voltage of 30 V_{DC} Input current: 4.5 mA Maximum input current: 5.5 mA
Outputs[1)]	Analog	1 isolated output. Levels (0 to 10) V or (0 to 20) mA or (4 to 20) mA Linearity error ≤0.25% Programmable functions RL ≥10 kΩ (0 to 10 V) or RL ≤500 Ω (0 to 20 mA / 4 to 20 mA)
	Relay	1 relay with NO/NC contact Maximum voltage: 240 V_{AC} Maximum current of 0.5 A Programmable functions
	Transistor	1 isolated open sink digital output (using as reference the 24 V_{DC} power supply) Maximum current of 150 mA (maximum capacity of the 24 V_{DC} power supply)[2)] Programmable functions
	Power supply	24 V_{DC} power supply Maximum capacity: 150 mA[2)] Power supply of 10 V_{DC} Maximum capacity: 2 mA
Communication	Selectable plug-in	Fieldbus: Modbus-RTU, CANopen, DeviceNet, Profibus-DP, EtherNet/IP, Modbus-TCP, PROFINET IO, BACnet, SymbiNet USB, RS485 and RS232 ports
Safety	Protection	Phase-phase overcurrent/short circuit in the output Phase-ground overcurrent/short circuit in the output Undervoltage/overvoltage in the power Overtemperature of the heatsink Motor overload Overload on the power module (IGBTs) External fault / alarm Programming error
Operating interface (HMI)	Standard (built in the CFW503)	9 keys: Run/Stop, Increment, Decrement, Direction of rotation, Jog, Local/Remote, Back/Esc and Enter/Menu LCD Display It allows accessing/changing all the parameters Accuracy of the indications: Current: 5% of the rated current Speed resolution: 0.1 Hz
Protection degree	IP20	Sizes A, B, C, D, E, F, G, H and I

Notes: 1) The number and/or types of analog/digital inputs/outputs may vary according to the plug-in module (accessory) used. In the table above, the standard plug-in module (CFW500-IOS) was taken into account. For further information, refer to the CFW503 user manual.
2) The maximum capacity of 150 mA considers the load of the 24 V power supply plus the transistor output, that is, the sum of the consumption of both must not exceed 150 mA.
3) Designed for exclusive industrial or professional use.
4) The VVW PM function is available for all inverters with firmware version V2.2x or higher, except for size A models in IP20.

Block diagram of IP20



Notes: 1) The number of inputs and outputs (analog and digital), as well as other resources, may vary according to the plug-in module used. For further information, refer to the CFW503 user manual.
2) Not available for size A.
3) To check if the model has an inductor in the link, consult the manual.
4) Resistor not included. Internal dynamic braking (IGBT) built-in the whole line, except for frame size A of IP20 version.

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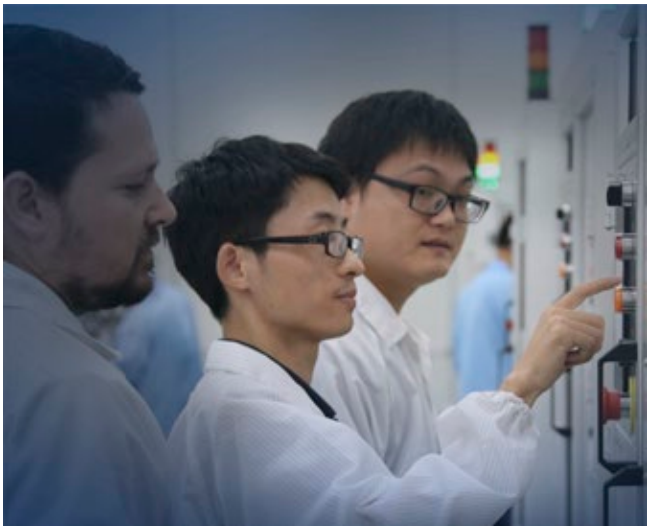
Availability is to have a global support network

Partnership is to create solutions that suits your needs

Competitive edge is to unite technology and inovation



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The values shown are subject to change without prior notice.
The information contained is reference values.