Data Sheet | Item Number: 750-8212/040-000

Controller PFC200; 2nd Generation; 2 x ETHERNET, RS-232/-485; Extreme

https://www.wago.com/750-8212/040-000

The PFC200 Controller is a compact PLC for the modular WAGO I/O System. Besides network and fieldbus interfaces, the controller supports all digital, analog and specialty modules found within the 750/753 Series.
Two ETHERNET interfaces and an integrated switch enable line topology wiring.
An integrated Webserver provides user configuration options, while displaying PFC200 status information.
Besides the processing industry and building automation, typical applications for the PFC200 include standard machinery and equipment control (e.g., packaging, bottling and manufacturing systems, as well as textile, metal and wood processing machines).
Programming per IEC 61131-3

- Programmable with CODESYS V3.5 from Firmware Release 23, WAGO-I/O-PRO V2.3 or *e!COCKPIT* up to Firmware Release 22
- Direct connection of WAGO's I/O modules
- 2 x ETHERNET (configurable), RS-232/-485
- Linux operating system with RT-Preempt patch
- Configuration via CODESYS, *e!COCKPIT* or Web-Based Management user interface
- Maintenance-free

The device is ideal for operation in extreme environments thanks to:

- An extended temperature range
- Greater immunity to impulse voltages and electromagnetic interference
- Higher vibration and shock resistance

Technical data

Communications	MQTT RS-232 serial interface RS-485 interface BACnet/IP, **requires an additional license** Telecontrol protocols, **requires an additional license** ETHERNET EtherNet/IP™ Adapter (slave) EtherNet/IP™ Scanner EtherCAT® Master OPC UA Server/Client OPC UA Pub/Sub (can be installed later) Modbus TCP master/slave Modbus (UDP), WagoAppPlcModbus Library Modbus (RTU), WagoAppPlcModbus Library
ETHERNET protocols	FTPS SNMP HTTP HTTPS SSH DHCP DNS NTP FTP
Telecontrol protocols	IEC 60870 (additional license as slave or master) IEC 61850 (additional license as Client or Server) DNP3 (additional license as Slave or Master)
Visualization	Web-Visu
Operating system	Real-time Linux (with RT-Preempt patch)
CPU	Cortex A8; 1 GHz
Programming languages per IEC 61131-3	Instruction List (IL) Ladder Diagram (LD) Function Block Diagram (FBD) Continuous Function Chart (CFC) Structured Text (ST) Sequential Function Chart (SFC)
Programming environment	CODESYS V3.5, Firmware Release 23 or higher *e!COCKPIT* (based on CODESYS V3) up to Firmware Release 22 WAGO-I/O-*PRO* V2.3 (based on CODESYS V2.3), up to Firmware Release 22
Configuration options	WAGO-I/O-*CHECK* Web-Based Management *e!RUNTIME* library CODESYS Library CODESYS V3 *e!COCKPIT*

Technical data

Baud rate (communication/fieldbus 1)	10/100 Mbit/s
Transmission rate	ETHERNET: 10/100 Mbit/s
Transmission medium (communication/fieldbus)	ETHERNET: Twisted pair S-UTP; 100 Ω; Cat. 5; 100 m maximum cable length
Main memory (RAM)	512 MB
Internal memory (flash)	4096 MB
Non-volatile hardware memory	128 KB
Program memory	CODESYS V2: 16 MB; CODESYS V3: 32 MB
Data memory	CODESYS V2: 64 MB; CODESYS V3: 128 MB
Non-volatile software memory	128 KB 128 KB
Type of memory card	SD and SDHC up to 32 GB (all guaranteed properties only valid with WAGO's memory card)
Memory Card Slot	Push-push mechanism; cover lid (sealable)
Number of modules per node (max.)	64
Number of modules without a bus extension (max.)	64
Input and output process image (internal) max.	1000 words/1000 words
Input and output process image (Modbus®) max.	CODESYS V2: 1000 words/1000 words; CODESYS V3: 32000 words/32000 words
Indicators	LED (SYS, RUN, I/O, U1 … U7) red/green/orange: Status of system, program, local data bus, status programmable by user (can be used via CODESYS library); LED (A, B) green: Status of system power supply, field supply
Derating	Derating (supply voltage): Ambient temperatures under laboratory conditions: (−25 … +30 %); for −40 … +55 °C: 24 V (−25 … +20 %); for +55 … +70 °C: 24 V (−25 … +10 %); Lower limit in all temperature ranges: −27.5 % (including 15 % residual ripple)
Supply voltage (system)	24 VDC; via pluggable connector (CAGE CLAMP® connection); Derating must be observed!
Input current (typ.) at nominal load (24 V)	550 mA
Total current (system supply)	1700 mA
Supply voltage (field)	24 VDC; Power supply via pluggable connector (CAGE CLAMP® connection); Transmission via power jumper contacts; Derating must be observed!
Current carrying capacity (power jumper contacts)	10 A
Number of outgoing power jumper contacts	2
Rated surge voltage	1 kV

Connection data

Connection technology: communication/fieldbus	Modbus (TCP, UDP): 2 x RJ-45; Modbus RTU: 1 x D-sub 9 socket; RS-232 serial interface: 1 x D-sub 9 socket; RS-485 interface: 1 x D-sub 9 socket
Connection technology: system supply	2 x CAGE CLAMP®
Connection technology: field supply	4 x CAGE CLAMP®
Connection type 1	System/field supply
Solid conductor	0.25 … 2.5 mm² / 24 … 14 AWG
Fine-stranded conductor	0.25 … 2.5 mm² / 24 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection technology: device configuration	1 x Male connector; 4-pole

Physical data

Width	78.6 mm / 3.094 inches
Height	100 mm / 3.937 inches
Depth	71.9 mm / 2.831 inches
Depth from upper-edge of DIN-rail	64.7 mm / 2.547 inches

Mechanical data

Weight	212.9 g
Color	dark gray
Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	without temperature derating: 0 … 2000 m; with temperature derating: 2000 … 5000 m (0.5 K/100 m); 5000 m (max.)
Relative humidity (without condensation)	95 %
Relative humidity (with condensation)	Short-term condensation per Class 3K7/IEC EN 60721-3-3 and E-DIN 40046-721-3 (except for wind-driven precipitation, water and ice formation)
Mounting position	Horizontal left, horizontal up, vertical top and vertical bottom
Mounting type	DIN-35 rail
Vibration resistance	per IEC 60068-2-6 (acceleration: 5g), EN 60870-2-2, IEC 60721-3-1, -3, EN 50155; EN 61373
Shock resistance	per IEC 60068-2-27 (15g/11 ms/half-sine/1,000 shocks; 25g/6 ms/1,000 shocks), EN 50155, EN 61373
EMC immunity to interference	per EN 61000-6-1, -2; EN 61131-2; marine applications; EN 50121-3-2; EN 50121-4, -5; EN 60255-26; EN 60870-2-1; EN 61850-3; IEC 61000-6-5; IEEE 1613; VDEW: 1994
EMC emission of interference	per EN 61000-6-3, -4, EN 61131-2, EN 60255-26, marine applications, EN 60870-2-1, EN 61850-3, EN 50121-3-2, EN 50121-4, -5
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Fire load	2.79 MJ
Permissible H_2S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO_2 contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data

ETIM 9.0	EC000236
ETIM 8.0	EC000236
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4066966053395
Customs tariff number	85371091990

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 693-98-1 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol 2-methylimidazole Diboron trioxide Lead Lead monoxide Perfluorobutane sulfonic acid (PFBS) and its salts
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	fd31b7f9-3a45-43a4-b763-d43ebea9a148
SCIP notification number (Belgium)	bc87a8d4-fcbd-4b6a-913b-a1ed970d4264