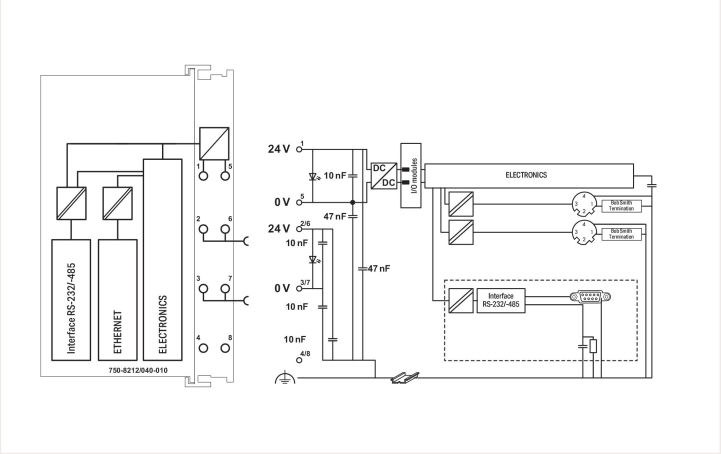
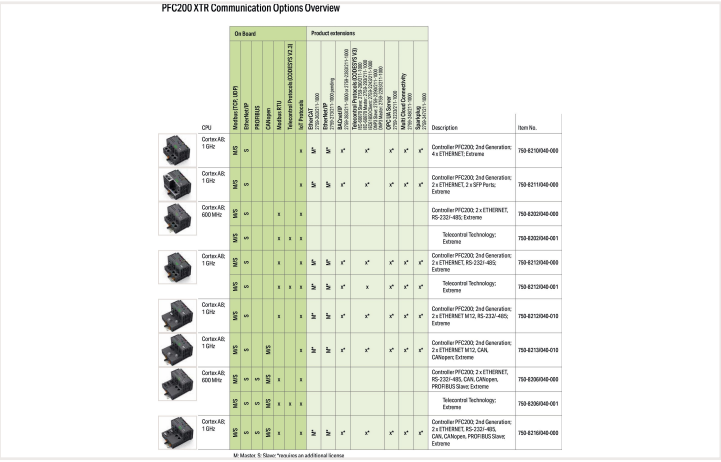
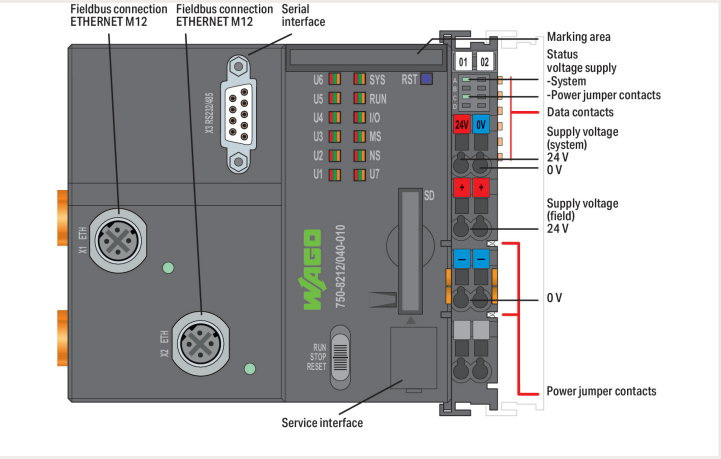
Data sheet | Item number: 750-8212/040-010

Controller PFC200; 2nd Generation; 2 x ETHERNET M12, RS-232/-485; Extreme







The PFC200 Controller is a compact PLC for the modular WAGO I/O System. Besides network and fieldbus interfaces, this controller supports all digital and analog input/output modules, as well as 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).

Advantages:

- Programming per IEC 61131-3
- Programmable via WAGO-I/O-*PRO* V2.3 or ***e!****COCKPIT*
- 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 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

Communication	Modbus (TCP, UDP) ETHERNET EtherNet/IP™ Adapter (slave), library for ***e!****RUNTIME* Modbus® RTU RS-232 serial interface RS-485 interface MQTT EtherCAT® master (**requires an additional license**) BACnet/IP, **requires an additional license**
ETHERNET protocols	DHCP DNS NTP FTP FTPS SNMP HTTP HTTPS SSH
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	***e!****COCKPIT* (based on CODESYS V3) WAGO-I/O-*PRO* V2.3 (based on CODESYS V2.3)
Configuration options	***e!****COCKPIT* WAGO-I/O-*CHECK* Web-Based Management ***e!****RUNTIME* library CODESYS Library
Baud rate (communication/fieldbus 1)	10/100 Mbit/s
Baud rate	ETHERNET: 10/100 Mbit/s
Transmission medium (communication/fieldbus)	ETHERNET: Twisted pair S-UTP; 100 Ω; Cat. 5; M12 D-coded; 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; e!RUNTIME: 32 MB
Data memory	CODESYS V2: 64 MB; e!RUNTIME: 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 Memory Card)
Memory card slot	Push-push mechanism; cover lid (sealable)
Number of modules per node (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; ***e!****RUNTIME*: 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, C) 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

Continued on next page

Connection data

Connection technology: communication/fieldbus	Modbus TCP/UDP: 2 x M12 socket; 4-pole; D-coded; 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	112 mm / 4.409 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	259.2 g
Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	-40 … +70 °C
Surrounding air temperature (storage)	-40 … +85 °C
Protection type	IP20
Pollution degree (5)	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 (standing/lying); vertical
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	0.383 MJ

Continued on next page

Commercial data

ETIM 8.0	EC000236
ETIM 7.0	EC000236
PU (SPU)	1 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4055143920551
Customs tariff number VKOrg Germany	85371091990

Approvals and certificates

Ex-Approvals

Approval	Standard	Certificate name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV 17 ATEX 193969X (II 3 G Ex ec IIC T4 Gc)
IECEx TUEV Nord Cert GmbH	IEC 60079-0	IECEx TUN 16.0046X (Ex ec IIC T4 Gc)
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Country specific Approvals

Approval	Standard	Certificate name
EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02.B.00087/19

Ship Approvals

Approval	Standard	Certificate name
DNV DNV Germany GmbH	DNV-CG-0339,Aug.2021	TAA00000Y7

UL-Approvals

Approval	Standard	Certificate name
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199 Sec11

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance
750-8212/040-010

Continued on next page

Documentation

Manual

Controller PFC200 G2; 2xETHERNET M12, RS-232/-485	V 1.2.0 11.03.2021	pdf 8781.84 KB
Dokumentation Grid Gateway	1.0.0.0 18.02.2021	pdf 7335.21 KB

System Description

Controller PFC200 XTR, General Product Information	pdf 489.22 KB

Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 259.56 KB
WAGO OPC UA Server	V 1.1.0 28.01.2021	pdf 1132.87 KB

Bid Text

750-8212/040-010	docx 18.69 KB
750-8212/040-010	xml 9.53 KB

Application Notes

Application Note e!COCKPIT

e!COCKPIT Anwendungshinweis HVAC BACnet Macros (a2021010)	1.0.0 13.04.2022	zip 7936.45 KB
e!COCKPIT Application Note OPC UA Client (a2022001)	1.0.0 05.04.2022	zip 1336.65 KB

CAD/CAE-Data

CAD data

2D/3D Models 750-8212/040-010	

CAE data

ZUKEN Portal 750-8212/040-010	

Engineering-Software

Configuration and Commissioning Software

WAGOupload	1.15.0.0 02.02.2022	zip 11092.25 KB

Runtime Software

Firmware

Image Update (SD Karte) PFC100/200	V 21 04.04.2022	zip 200475.83 KB
WUP Update (WAGOuploadTool) PFC100/200	V 21 04.04.2022	zip 198347.19 KB