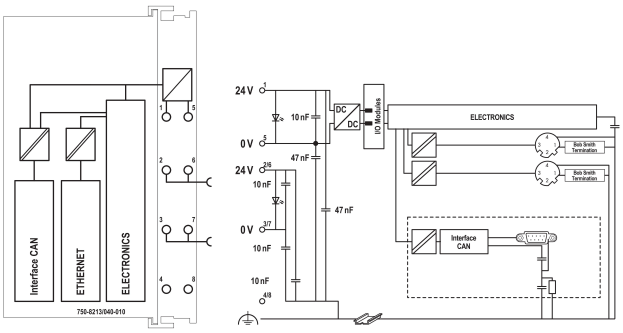
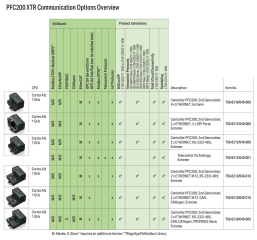
Data Sheet | Item Number: 750-8213/040-010

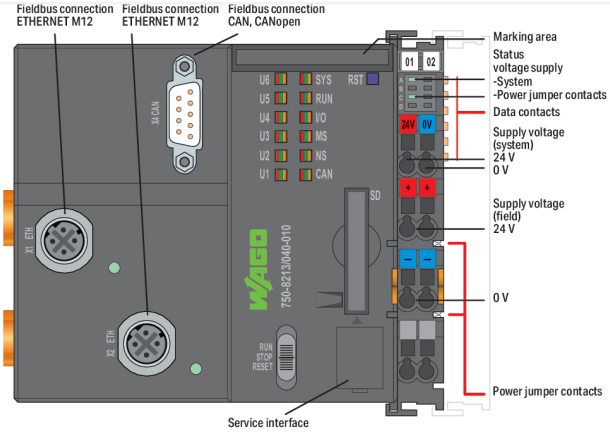
Controller PFC200; 2nd Generation; 2 x ETHERNET M12, CAN, CANopen; Extreme

https://www.wago.com/750-8213/040-010









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 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), CAN, CANopen
- 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 (depending on the application, a filter module may be needed; see the XTR System Manual)
- Higher vibration and shock resistance

Technical data

Communications	CANopen Modbus TCP master/slave Modbus (UDP), WagoAppPlcModbus Library ETHERNET EtherNet/IP™ Adapter (slave) EtherNet/IP™ Scanner EtherCAT® Master OPC UA Server/Client OPC UA Pub/Sub (can be installed later) MQTT BACnet/IP, **requires an additional license** Telecontrol protocols, **requires an additional license**
ETHERNET protocols	DHCP DNS NTP FTP FTPS SNMP HTTP HTTPS SSH
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 PREEMPT_RT 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	CODESYS V3 ***e!****COCKPIT* WAGO-I/O-*CHECK* Web-Based Management ***e!****RUNTIME* library CODESYS Library
Transmission 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; CODESYS V3: 32 MB
Data memory	CODESYS V2: 64 MB; CODESYS V3: 128 MB
Non-volatile software memory	128 KB
Non-volatile software memory	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
Input and output process image (CAN) max.	2000 words/2000 words
Drift – system clock (25 °C)	20 ppm
Drift – Real Time Clock (25 °C)	3 ppm
RTC backup time (25 °C)	30 days
Indicators	LED (SYS, RUN, I/O, CAN, U1 ... U6) red/green/orange: Status system, program, internal data bus, CANopen, status programmable by user (can be used via CODESYS library); LED (A, B) green: Status 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)

Continued on next page

Technical data

Supply voltage (system)	24 VDC, SELV/PELV; via wiring interface (CAGE CLAMP® connection); External fuse required: 2 A slow-blow; 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, SELV/PELV; via power jumper contacts (supply via CAGE CLAMP® connection; distribution via spring contact); External fuse required: 10 A slow-blow; Derating must be observed!
Current carrying capacity (power jumper contacts)	10 A
Number of outgoing power jumper contacts	2
Rated impulse withstand voltage	1 kV

Connection Data

Connection technology: communication/fieldbus	CANopen: 1 x D-sub 9 plug; Modbus (TCP, UDP): 2 x M12 socket; 4-pole; D-coded
Connection technology: system supply	2 x CAGE CLAMP®
Connection technology: field supply	4 x CAGE CLAMP®
Connectable conductor materials	Copper
Connection type	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

Mounting type	DIN-35 rail

Material data

Housing material	Polycarbonate; polyamide 6.6
Fire load	2.485 MJ
Weight	258.4 g
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Ambient temperature (installation)	-20 … +70 °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.)
Mounting position	Horizontal left, horizontal up, vertical top and vertical bottom
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)
Vibration resistance	According to type test for marine classification (ABS, BV, DNV, IACS, LR): acceleration: 5g, IEC 60068-2-6, EN 60870-2-2, IEC 60721-3-1, -3, EN 50155, EN 61373
Shock resistance	per IEC 60068-2-27 (10g/16 ms/half-sine/1,000 shocks; 25g/6 ms/half-sine/1,000 shocks), EN 50155, EN 61373

Continued on next page

Environmental requirements

Corrosion Resistance	Conformal Coating: yes EN/IEC 60068-2-60: Method 4 ISA S71.04: G3 Group A
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
Permissible H_2S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO_2 contaminant concentration at a relative humidity 75 %	25 ppm

Data Act

Pre-contractual Information	Data-Act-750-Series-Controller

Commercial data

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143920674
Customs tariff number	85371091990

Product Classification

UNSPSC	32151705
ETIM 9.0	EC000236
ETIM 10.0	EC000236
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption
SCIP notification number (Austria)	40cdd260-6950-4a84-b3ff-e3d1aa4b86d5
SCIP notification number (Belgium)	e53fdf5d-af9c-49fb-8be0-08b25fa55362
SCIP notification number (Bulgaria)	84ad8633-2428-40fd-8225-8406267cc9c4
SCIP notification number (Czech Republic)	a62f7135-6735-40c4-9861-15214224d960
SCIP notification number (Denmark)	70d5ccb6-2d1f-43d8-94ff-968fd8bea83e
SCIP notification number (Finland)	af19ab39-b27b-43eb-a9a4-9b71e3cbcfd7
SCIP notification number (France)	cf1d8e0f-ff21-4ba3-b8ea-1d57ca69179b
SCIP notification number (Germany)	16f0877c-32e9-4521-b5e3-06ae03e2e057
SCIP notification number (Hungary)	6950096c-1dcd-4c8d-b7db-0f7d7f877d78
SCIP notification number (Italy)	50f13c38-e52a-4d2a-874c-2dcbca007bbe
SCIP notification number (Netherlands)	d53c2dfa-f3c8-48ef-9630-109f4ab18c25
SCIP notification number (Poland)	22221c8d-dc49-4bf0-ba15-7b4055fbd073
SCIP notification number (Romania)	09fdf9b5-750e-4214-a803-170ae96f767d
SCIP notification number (Sweden)	8eeb8dc2-23ad-4231-9e33-c76168836e75

Continued on next page

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-PFC750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Approval	Standard	Certificate Name
PRS Polski Rejestr Statków	-	TE/1099/880590/23

Approvals for hazardous areas

Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV 17 ATEX 193969X (II 3 G Ex ec IIC T4 Gc)
CCC CNEX	CNCA-C23-01	2020312310000214 (Ex ec IIC T4 Gc)
IECEx TUEV Nord Cert GmbH	IEC 60079-0	IECEx TUN 16.0046X (Ex ec IIC T4 Gc)
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX005X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-8213/040-010

Documentation

Manual

Product Manual PFC200 G2; 2xETHERNET M12, CAN, CANopen	2388470283 | 3 | en-US | 2025-09-25 16:28 06.10.2025	pdf 1333.92 KB

System Description

Controller PFC200 XTR, General Product Information	pdf 489.22 KB

Continued on next page

Additional Information

WAGO OPC UA Server	V 1.1.0 28.01.2021	pdf 1132.87 KB

Bid Text

750-8213/040-010	docx 18.60 KB
750-8213/040-010	xml 9.50 KB

Instruction Leaflet

CCC Ex (Additional information)	26.04.2023	pdf 144.58 KB

CAD/CAE-Data

CAD data

2D/3D Models
750-8213/040-010

CAE data

ZUKEN Portal
750-8213/040-010

Engineering-Software

Configuration and Commissioning Software

WAGO Ethernet Settings		
(759-316) WAGO Ethernet Settings / Serie 750	06.18.01.01 02.09.2021	zip 26678.54 KB
WAGOupload	1.16.1.0 02.02.2022	zip 12111.45 KB

Runtime Software

Firmware

Image Update (SD Karte) PFC100/200 für Codesys V2.3 u. E!cockpit	V 22 SP1 12.12.2022	zip 205815.20 KB
PFC200, Firmware Update für CoDeSys V3.5	V 23 24.02.2023	zip 167985.38 KB
WUP Update (WAGOuploadTool) PFC100/200 Codesys V2.3 u. E!cockpit	V 22 SP1 12.12.2022	zip 203580.70 KB

System Software

CODESYS V3.5

Continued on next page

1 Compatible Products

1.1 Product Expansions

1.1.1 Runtime software



Item No.: 2759-2283/211-1000
Runtime; BACnet; 300; M; Single License; Online activation



Item No.: 2759-2273/211-1000
Runtime; BACnet; 300; S; Single License; Online activation



Item No.: 2759-283/211-1000
Runtime; BACnet; 300; Single License; Online activation



Item No.: 2759-2293/211-1000
Runtime; DNP3 Master; M; Single License; Online activation



Item No.: 2759-2290/211-1000
Runtime; DNP3 Slave; Single License; Online activation



Item No.: 2759-293/211-1000
Runtime; IEC60870 Master; M; Single License; Online activation



Item No.: 2759-290/211-1000
Runtime; IEC60870 Slave; Single License; Online activation



Item No.: 2759-2243/211-1000
Runtime; IEC61850 Client; M; Single License; Online activation



Item No.: 2759-2240/211-1000
Runtime; IEC61850 Server; Single License; Online activation



Item No.: 2759-248/211-1000
Runtime; Multi Cloud Connectivity; Single License; Online activation



Item No.: 2759-247/211-1000
Runtime; Sparkplug; Single License; Online activation

1.2 Optional Accessories

1.2.1 Communication

1.2.1.1 Communication cable



Item No.: 750-923
Configuration cable; USB connector; Length: 2.5 m



Item No.: 750-923/000-001
Configuration cable; USB connector; Length: 5 m

1.2.2 DIN-rail

1.2.2.1 Mounting accessories



Item No.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

1.2.3 Marking

1.2.3.1 Group marker carrier



Item No.: 750-107
Group marker carrier

Continued on next page

1.2.3.2 Marker

Item No.: 2009-145/000-006
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 2009-145/000-007
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 2009-145/000-023
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 2009-145/000-012
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 2009-145/000-005
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 2009-145/000-024
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 2009-145/000-002
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

Item No.: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue

Item No.: 248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray

Item No.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

Item No.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

Item No.: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange

Item No.: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

Item No.: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet

Item No.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

Item No.: 248-501/000-002
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

1.2.3.3 Marker carrier

Item No.: 750-103
Group marker carrier

1.2.4 Memory card

1.2.4.1 Memory card

Item No.: 758-879/000-2116
Memory Card SD; pSLC-NAND; 16 GB; Temperature range: -40 to 85°C

1.2.5 Shield termination

1.2.5.1 Shield clamping saddles

Item No.: 790-108
Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 … 8 mm

Item No.: 790-208
Shield clamping saddle; 12.4 mm wide; 3 … 8 mm

Item No.: 790-116
Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 … 16 mm

Item No.: 790-216
Shield clamping saddle; 21.8 mm wide; 6 … 16 mm

Item No.: 790-124
Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 … 24 mm

Item No.: 790-220
Shield clamping saddle; 30 mm wide; 6 … 20 mm

Item No.: 790-140
Shield clamping saddle; diameter of compatible conductor

Continued on next page

1.2.6 Software

1.2.6.1 Software Application



Item No.: 2759-245/211-1000
Library Controller Redundancy Master; Single License; Online activation

1.2.7 System enclosure

1.2.7.1 System enclosure



Item No.: 850-825
IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20



Item No.: 850-826
IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827
IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828
IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item No.: 850-826/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item No.: 850-834
IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20



Item No.: 850-835
IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-836
IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-814/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate



Item No.: 850-815/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate



Item No.: 850-816/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate



Item No.: 850-817/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate