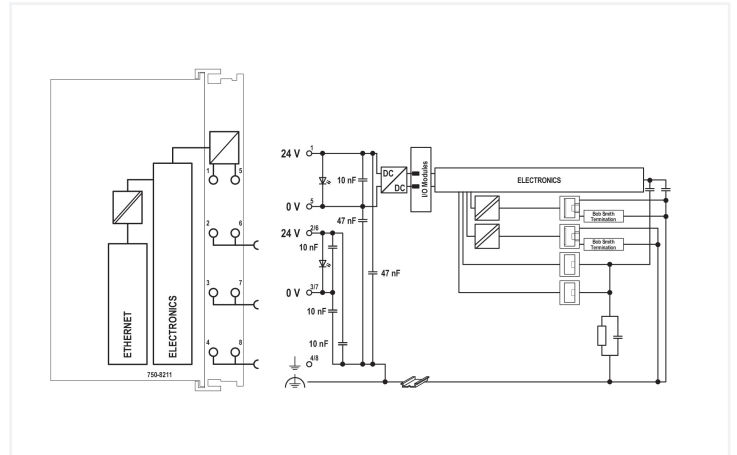


**Data Sheet | Item Number: 750-8211/040-001**  
**Controller PFC200; 2nd Generation; 2 x ETHERNET, 2 x 100Base-FX; Telecontrol**  
**technology; Extreme**

<https://www.wago.com/750-8211/040-001>



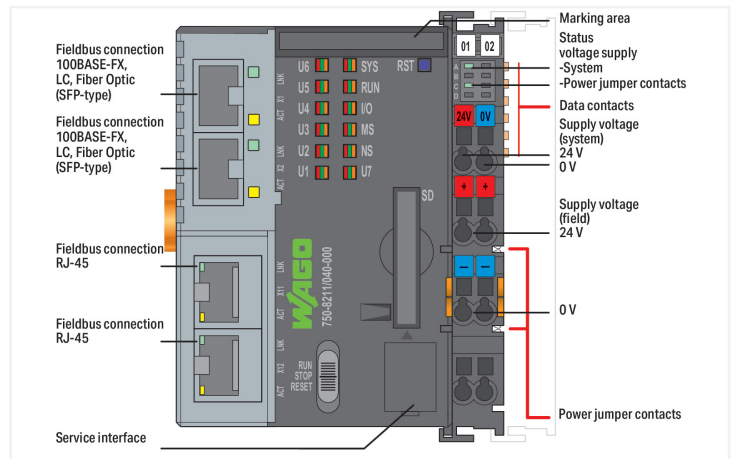
Similar to illustration



Similar to illustration

PFC200 ITR Communication Options Overview

Option	Protocol	Port	Power	Notes	Availability
Ethernet	100BASE-TX	100BASE-TX	24V	Standard Ethernet	Standard
	100BASE-FX	100BASE-FX	24V	Standard Ethernet	Standard
SFP	100BASE-FX	100BASE-FX	24V	Standard Ethernet	Standard
	100BASE-FX	100BASE-FX	24V	Standard Ethernet	Standard
SFP	100BASE-FX	100BASE-FX	24V	Standard Ethernet	Standard
	100BASE-FX	100BASE-FX	24V	Standard Ethernet	Standard
SFP	100BASE-FX	100BASE-FX	24V	Standard Ethernet	Standard
	100BASE-FX	100BASE-FX	24V	Standard Ethernet	Standard
SFP	100BASE-FX	100BASE-FX	24V	Standard Ethernet	Standard
	100BASE-FX	100BASE-FX	24V	Standard Ethernet	Standard



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 two SFP ports 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, 2 x SFP port
- 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	Modbus TCP master/slave Modbus (UDP), WagoAppPlicModbus Library Modbus (RTU), WagoAppPlicModbus 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, <b>requires an additional license</b>
ETHERNET protocols	DHCP DNS NTP FTP FTPS SNMP HTTP HTTPS SSH
Telecontrol protocols	IEC 60870 IEC 61850 DNP3
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 <b>e!COCKPIT</b> (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 <b>e!COCKPIT</b> WAGO-I/O-CHECK Web-Based Management <b>e!RUNTIME</b> library CODESYS Library
Transmission rate	ETHERNET: 10/100 Mbit/s; Fiber optic: 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
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
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, 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)

### Technical data

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 impulse withstand voltage	1 kV

### Connection Data

Connection technology: communication/fieldbus	Modbus (TCP, UDP): 2 x RJ-45; 2 x SFP slots (e.g., with SFP module and LC fiber-optic connector)
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 mm <sup>2</sup> / 24 ... 14 AWG
Fine-stranded conductor	0.25 ... 2.5 mm <sup>2</sup> / 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

Mounting type	DIN-35 rail
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### Material data

Housing material	Polycarbonate; polyamide 6.6
Fire load	2.488 MJ
Weight	333.6 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: 0.7g, 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

### Environmental requirements

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 <sub>2</sub> S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO <sub>2</sub> contaminant concentration at a relative humidity 75 %	25 ppm

### Commercial data

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4066966100914
Customs tariff number	85371091990

### Product Classification

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

### 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)	796c4755-958a-48e5-95af-623c2e19b578
SCIP notification number (Belgium)	0c7dd553-eade-442f-92c9-17eceb942de
SCIP notification number (Bulgaria)	3ea3086b-7b8c-4d93-84db-bdd7abb51310
SCIP notification number (Czech Republic)	f41bb1de-84e8-442d-a839-0ea511d3705c
SCIP notification number (Denmark)	23e75201-db2b-4c51-b7d6-56670a3de190
SCIP notification number (Finland)	8a0b24de-7e51-472b-aafa-10b8b3ee0807
SCIP notification number (France)	0b21716b-41cc-443e-920e-5e2651a1f01d
SCIP notification number (Germany)	55468596-14be-40ad-a4d0-a27dbadef80e
SCIP notification number (Hungary)	39aa050c-dd9c-4547-8451-e99729ed34a8
SCIP notification number (Italy)	c96ce986-6965-4136-860f-7e59ed6df150
SCIP notification number (Netherlands)	51bdbc69-9fc8-42d8-a00f-f55559af0e27
SCIP notification number (Poland)	f27e7503-d3dc-447a-8a7c-735232644e54
SCIP notification number (Romania)	5bae77ae-0f84-4223-b6ec-ffb39b529cdf
SCIP notification number (Sweden)	2e661474-c880-43fd-9354-b4f2748f6fa9

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

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-8211/040-001	<a href="#">↓</a>
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Documentation

Manual

Product Manual PFC200; G2; 2ETH 2SFP; (TELE;) XTR	1.8.0 / FW 26 27.11.2023	pdf 4795.76 KB	<a href="#">↓</a>
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Additional Information

WAGO OPC UA Server	V 1.1.0 28.01.2021	pdf 1132.87 KB	<a href="#">↓</a>
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CAD/CAE-Data

CAD data

2D/3D Models 750-8211/040-001	<a href="#">↓</a>
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CAE data

EPLAN Data Portal 750-8211/040-001	<a href="#">↓</a>
ZUKEN Portal 750-8211/040-001	<a href="#">↓</a>

## Engineering-Software

### Configuration and Commissioning Software

CODESYS V3.5	png	315.13 KB	
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## Runtime Software

### Firmware

Image Update (SD Karte) PFC100/200 für Codesys V2.3 u. Elcockpit	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. Elcockpit	V 22 SP1 12.12.2022	zip 203580.70 KB	

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 DIN-rail

##### 1.1.1.1 Mounting accessories



**Item No.: 210-196**

Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



**Item No.: 210-198**

Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored



**Item No.: 210-197**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



**Item No.: 210-114**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



**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



**Item No.: 210-112**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored



**Item No.: 210-113**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

### 1.1.2 Marking

#### 1.1.2.1 Group marker carrier



**Item No.: 750-107**

Group marker carrier

#### 1.1.2.2 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.: 2009-145/000-017**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green

1.1.2.2 Marker

<p><b>Item No.: 2009-145/000-012</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange</p>	<p><b>Item No.: 2009-145/000-005</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red</p>	<p><b>Item No.: 2009-145/000-024</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet</p>	<p><b>Item No.: 2009-145</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p>
<p><b>Item No.: 2009-145/000-002</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow</p>	<p><b>Item No.: 248-501/000-006</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue</p>	<p><b>Item No.: 248-501/000-007</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray</p>	<p><b>Item No.: 248-501/000-023</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green</p>
<p><b>Item No.: 248-501/000-017</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green</p>	<p><b>Item No.: 248-501/000-012</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange</p>	<p><b>Item No.: 248-501/000-005</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red</p>	<p><b>Item No.: 248-501/000-024</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet</p>
<p><b>Item No.: 248-501</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	<p><b>Item No.: 248-501/000-002</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow</p>		

1.1.2.3 Marker carrier

<p><b>Item No.: 750-103</b> Group marker carrier</p>
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1.1.3 Memory card

1.1.3.1 Memory card

<p><b>Item No.: 758-879/000-2108</b> Memory Card SD; pSLC-NAND; 8 GB; Temperature range: -40 to 90°C</p>	<p><b>Item No.: 758-879/000-001</b> Memory Card SD; SLC-NAND; 2 GByte; Temperature from -40 to 90 °C</p>
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1.1.4 Plug

1.1.4.1 SFP module

<p><b>Item No.: 852-202</b> SFP Module 100BASE; FX Multi-Mode 1310 nm LC; 2 km; DDM; Extreme; silver-colored</p>
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## 1.1.5 Shield termination

### 1.1.5.1 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

## 1.1.6 Software

### 1.1.6.1 Software Application



**Item No.: 2759-2015/261-1000**

Application Grid Gateway; Single License; Online activation

## 1.1.7 System enclosure

### 1.1.7.1 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