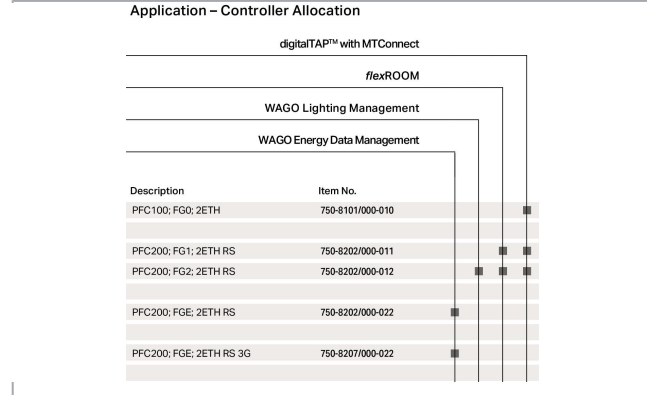
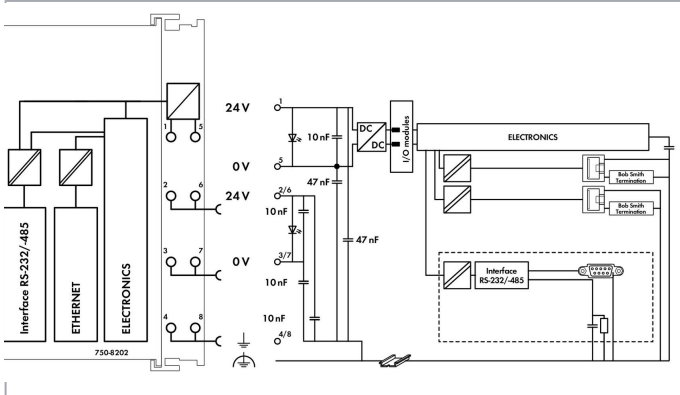
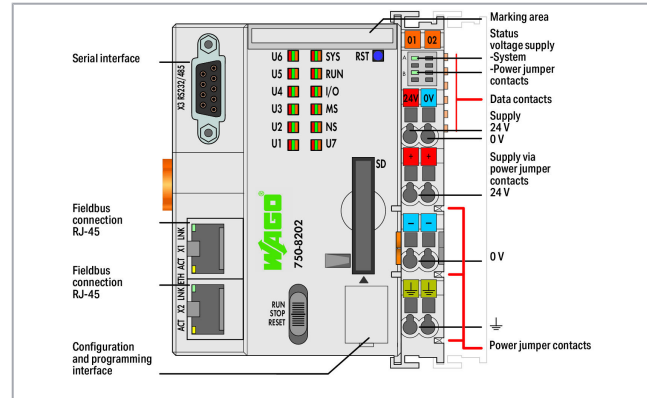
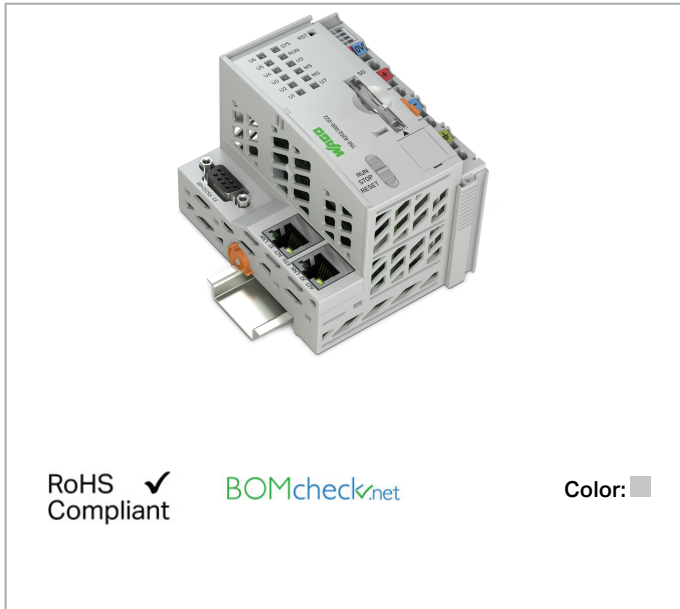


# Data sheet | Item number: 750-8202/000-022

Controller PFC200; Application for energy data management; 2 x  
ETHERNET, RS-232/-485



[www.wago.com/750-8202/000-022](http://www.wago.com/750-8202/000-022)



## Successor model



Item no. 2759-206/261-1000  
Application Energy Data Management; Single License; Online activation

[www.wago.com/2759-206/261-1000](http://www.wago.com/2759-206/261-1000)

## Item description

The controllers are designed for the processing of WAGO applications. You can identify these controllers by a special version of the item number.

Subject to changes. Please also observe the further product documentation!

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Do you have any questions about our products?  
We are always happy to take your call at +49 (571) 887-44222.



The application can be downloaded from the respective item on our website. Additional information can be obtained from the application documentation.

The controllers can also be used with their own applications as they offer all possibilities of the respective standard variant beyond the use of the WAGO application(s).

Programming per IEC 61131-3

- Programmable via *e!COCKPIT*
- Direct connection of WAGO I/O Modules
- 2 x ETHERNET (configurable), RS-232/485
- Linux operating system with RT-Preempt patch
- Configuration via *e!COCKPIT* or Web-Based Management interface
- Maintenance-free

Suitable software application:

- Energy data management

**Note:**

Download and register the software: Formular

**Data**

**Technical data**

|                    |   |
|--------------------|---|
| Communication      | Modbus® RTU<br>Modbus (TCP, UDP)<br>Ethernet<br>Modbus RTU<br>RS-232 serial interface<br>RS-485 Serial Interface<br>EtherNet/IP™ Adapter (slave), library for e!RUNTIME |
| ETHERNET protocols | DHCP<br>DNS<br>NTP<br>FTP<br>FTPS<br>SNMP<br>HTTP<br>HTTPS<br>SSH   |
| Visualization      | Web Visu  |
| Operating system   | Real-time Linux (with RT-Preempt patch)   |

Subject to changes. Please also observe the further product documentation!



|  |  |
|--|--|
| CPU  | Cortex A8; 600 MHz   |
| Programming languages per IEC 61131-3            | Instruction List (IL)<br>Ladder Diagram (LD)<br>Function Block Diagram (FBD), Continuous Function Chart (CFC)<br>Structured Text (ST)<br>Sequential Function Chart (SFC)   |
| Programming environment                          | e!COCKPIT (based on CODESYS V3)<br>WAGO-I/O-PRO V2.3 (based on CODESYS V2.3)   |
| Configuration options                            | e!COCKPIT<br>Web-based management  |
| 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; 100 m maximum cable length  |
| Main memory (RAM)                                | 256 MB   |
| Internal memory (flash)                          | 256 MB   |
| Non-volatile hardware memory                     | 128 Kbytes   |
| Program memory                                   | CODESYS V2: 16 MB; e!RUNTIME: 60 MB (Program and data memory (dynamically distributed))  |
| Data memory                                      | CODESYS V2: 64 MB; e!RUNTIME: 60 MB Program and data memory (dynamically distributed)  |
| Non-volatile software memory                     | 128 Kbytes   |
| Non-volatile software memory                     | 128. Kbytes  |
| Memory card type                                 | SD and SDHC up to 32 GB (all guaranteed properties only valid with WAGO 758-879/000-001 Memory Card)   |
| Memory card slot                                 | Push-push mechanism; Cover lid (sealable)  |
| Number of modules per node (max.)                | 250  |
| Number of modules without a bus extension (max.) | 64   |
| Input and output (internal) process image (max.) | 1000 Worte/1000 Worte  |
| Input and output (MODBUS) process image (max.)   | CODESYS V2: 1000 Worte/1000 Worte  |
| 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 |
| Supply voltage (system)                          | 24 VDC (-25 ... +30 %); via pluggable connector (CAGE CLAMP® connection)<br>DC 24 V (-25 ... +30 %); via pluggable connector (CAGE CLAMP® connection)  |
| Input current (typ.) at nominal load (24 V)      | 550 mA   |
| Total current (system supply)                    | 1,700 mA   |
| Supply voltage (field)                           | 24 VDC (-25 ... +30 %); via power jumper contacts  |

Subject to changes. Please also observe the further product documentation!



|   |  |
|---|--|
|   | DC 24 V (-25 ... +30 %); via power jumper contacts |
| Current carrying capacity (power jumper contacts) | 10 A   |
| Number of outgoing power jumper contacts          | 3  |
| Isolation   | 500 V system/field                                 |

### 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 serial interface: 1 x D-sub 9 socket |
| Connection technology: system supply          | 2 x CAGE CLAMP®   |
| Connection technology: field supply           | 6 x CAGE CLAMP®   |
| Connection type (1)                           | System/field supply   |
| Solid conductor                               | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG  |
| Fine-stranded conductor                       | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG  |
| Strip length                                  | 8 ... 9 mm / 0.31 ... 0.35 inch   |
| Connection technology: device configuration   | 1 x Male connector; 4-pole  |

### Physical data

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

### Mechanical data

|                    |  |
|--------------------|--|
| Weight             | 211.2 g  |
| Color              | light gray   |
| Housing material   | Polycarbonate; polyamide 6.6<br>Polycarbonate, polyamide 6.6 |
| Conformity marking | CE   |

### Environmental requirements

|   |   |
|---|---|
| Surrounding air temperature (operation) | 0 ... 55 °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.) |

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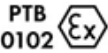



|  |                                       |
|--|---------------------------------------|
| Relative humidity (without condensation)   | 95 %                                  |
| Mounting position  | any                                   |
| Mounting type  | DIN-35 rail                           |
| Vibration resistance   | per IEC 60068-2-6                     |
| Shock resistance   | 15g per IEC 60068-2-27                |
| EMC immunity to interference   | per EN 61000-6-2, marine applications |
| EMC emission of interference   | per EN 61000-6-3, marine applications |
| Exposure to pollutants   | Per IEC 60068-2-42 and IEC 60068-2-43 |
| Fire load  | 1.517 MJ                              |
| 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

|                       |               |
|-----------------------|---------------|
| Packaging type        | BOX           |
| Country of origin     | DE            |
| GTIN                  | 4055143549196 |
| Customs tariff number | 85371091990   |


### Approvals / Certificates

#### Ex-Approvals

| Logo   | Approval   | Additional Approval Text | Certificate name      |
|--|--|--------------------------|-----------------------|
|                      | ATEX<br>TUEV Nord Cert GmbH                                | EN 60079-0               | TUEV_14_ATEX_148929_X |
| <br>Ex nA IIC T4 Gc | CCCEX<br>CQST/CNEx   | CNCA-C23-01              | 2020312310000213      |
|                      | IECEX<br>TUEV Nord Cert GmbH                               | IEC 60079-0              | IECEX_TUN_14.0035_X   |
|                      | UL<br>Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201                | E198726 Sec.1         |



Subject to changes. Please also observe the further product documentation!

## UL-Approvals










| Logo   | Approval   | Additional Approval Text | Certificate name |
|--|--|--------------------------|------------------|
|  | UL<br>UL International Netherlands B.V. (ORDINARY LOCATIONS) | UL 508                   | E175199<br>Sec.1 |

## Compatible products

## power supply








|  |   |  |
|--|---|--|
|  | <b>Item no.: 787-1012</b><br>Switched-mode power supply; Compact; 1-phase; 24 VDC output voltage; 2.5 A output current                          | <a href="http://www.wago.com/787-1012">www.wago.com/787-1012</a> |
|  | <b>Item no.: 787-1606</b><br>Switched-mode power supply; Classic; 1-phase; 24 VDC output voltage; 2 A output current; NEC Class 2; DC OK signal | <a href="http://www.wago.com/787-1606">www.wago.com/787-1606</a> |

## application


|  |  |  |
|--|--|--|
|    | <b>Item no.: 750-1506</b><br>8-channel digital input/output; 24 VDC; 0.5 A; light gray             | <a href="http://www.wago.com/750-1506">www.wago.com/750-1506</a>               |
|   | <b>Item no.: 750-402</b><br>4-channel digital input; 24 VDC; 3 ms; light gray                      | <a href="http://www.wago.com/750-402">www.wago.com/750-402</a>                 |
|  | <b>Item no.: 750-451</b><br>8-channel analog input; Resistance measurement; Adjustable; light gray | <a href="http://www.wago.com/750-451">www.wago.com/750-451</a>                 |
|  | <b>Item no.: 750-452</b><br>2-channel analog input; 0 ... 20 mA; Differential input; light gray    | <a href="http://www.wago.com/750-452">www.wago.com/750-452</a>                 |
|  | <b>Item no.: 750-495</b><br>3-Phase Power Measurement; 690 VAC, 1 A; light gray                    | <a href="http://www.wago.com/750-495">www.wago.com/750-495</a>                 |
|  | <b>Item no.: 750-495/000-001</b><br>3-Phase Power Measurement; 690 VAC, 5 A; light gray            | <a href="http://www.wago.com/750-495/000-001">www.wago.com/750-495/000-001</a> |
|  | <b>Item no.: 750-495/000-002</b><br>3-Phase Power Measurement; 690 VAC Rogowski coils; light gray  | <a href="http://www.wago.com/750-495/000-002">www.wago.com/750-495/000-002</a> |
|  | <b>Item no.: 750-496</b><br>8-channel analog input; 0/4 ... 20 mA; Single-ended; -                 | <a href="http://www.wago.com/750-496">www.wago.com/750-496</a>                 |
|  | <b>Item no.: 750-497</b><br>8-channel analog input; 0 ... 10 V/±10 VDC; Single-ended; -            | <a href="http://www.wago.com/750-497">www.wago.com/750-497</a>                 |
|  | <b>Item no.: 750-530</b><br>8-channel digital output; 24 VDC; 0.5 A; light gray                    | <a href="http://www.wago.com/750-530">www.wago.com/750-530</a>                 |

Subject to changes. Please also observe the further product documentation!



|  |  |  |
|--|--|--|
|  | <b>Item no.: 750-600</b><br>End Module; light gray                         | <a href="http://www.wago.com/750-600">www.wago.com/750-600</a> |
|  | <b>Item no.: 750-613</b><br>System Power Supply; 24 VDC; light gray        | <a href="http://www.wago.com/750-613">www.wago.com/750-613</a> |
|  | <b>Item no.: 750-627</b><br>Bus Extension End Module; light gray           | <a href="http://www.wago.com/750-627">www.wago.com/750-627</a> |
|  | <b>Item no.: 750-628</b><br>Bus Extension Coupler Module                   | <a href="http://www.wago.com/750-628">www.wago.com/750-628</a> |
|  | <b>Item no.: 750-638</b><br>2 up/down counter; 16 bits; 500 Hz; light gray | <a href="http://www.wago.com/750-638">www.wago.com/750-638</a> |
|  | <b>Item no.: 750-652</b><br>RS-232/485 Serial Interface; light gray        | <a href="http://www.wago.com/750-652">www.wago.com/750-652</a> |
|  | <b>Item no.: 753-649</b><br>M-Bus Master; -                                | <a href="http://www.wago.com/753-649">www.wago.com/753-649</a> |

**memory card**

|   |  |  |
|---|--|--|
|  | <b>Item no.: 758-879/000-001</b><br>Memory Card SD; SLC-NAND; 2 GByte; Temperature from -40 to 90 °C | <a href="http://www.wago.com/758-879/000-001">www.wago.com/758-879/000-001</a> |
|---|--|--|

**Downloads**

**Documentation**

**Manual**

|  |                         |               |          |
|--|-------------------------|---------------|----------|
| PFC200 FGx 2ETH RS<br>Controller PFC200; FGx; 2 x ETHERNET, RS-232/-485        | V 1.2.0<br>15. 11. 2019 | pdf<br>5.0 MB | Download |
| Cyber Security for Controller PFC100 / PFC200                                  | V 1.2.0                 | pdf<br>8.3 MB | Download |
| Systemhandbuch WAGO I/O System 750 / 753<br>Dezentrale Automatisierungstechnik | V 3.0.0<br>4. 3. 2021   | pdf<br>6.6 MB | Download |

**Bid Text**

|                                 |            |                |          |
|---------------------------------|------------|----------------|----------|
| 750-8202/000-022<br>doc - Datei | 2. 8. 2019 | doc<br>39.9 kB | Download |
| 750-8202/000-022                | 2. 8. 2019 | xml            | Download |

Subject to changes. Please also observe the further product documentation!



X81 - Datei

9.4 kB

**Tutorial**

|  |              |         |          |
|--|--------------|---------|----------|
| Set IP address with Ethernet Settings  | 3.0          | mp4     | Download |
| In this video we are demonstrating how you can set a IP address with Ethernet Settings. Content: 00:27 – Chapter #1 Download and install software; 00:56 – Chapter #2 Open Ethernet Settings; 01:10 – Chapter #3 Establish serial Connection; 01:34 – Chapter #4 Set IP address; 02:10 – Chapter #5 Check IP address | 18. 12. 2017 | 88.3 MB |          |

|  |            |         |          |
|--|------------|---------|----------|
| Establish connection to a controller using SSH   | 1.0        | mp4     | Download |
| In this video we are demonstrating how to establish a SSH connection with a controller using for example PuTTY to be able to work with the LINUX console. Contents: 0:21 Download and install the SSH client; 0:40 Establish the SSH connection; 0:50 Log on to the Controller | 5. 8. 2017 | 29.0 MB |          |

**Additional Information**

|  |         |          |          |
|--|---------|----------|----------|
| Disposal; Electrical and electronic equipment, Packaging | V 1.0.0 | pdf      | Download |
|  |         | 265.8 kB |          |

|   |  |          |          |
|---|--|----------|----------|
| 750-8202/000-022, WAGO Energy Data Management |  | pdf      | Download |
|   |  | 387.8 kB |          |

|                    |             |        |          |
|--------------------|-------------|--------|----------|
| WAGO OPC UA Server | V 1.1.0     | pdf    | Download |
|                    | 28. 1. 2021 | 1.2 MB |          |

**System Description**

|   |  |          |          |
|---|--|----------|----------|
| Overview on WAGO-I/O-SYSTEM 750 approvals |  | pdf      | Download |
|   |  | 780.2 kB |          |

|  |  |          |          |
|--|--|----------|----------|
| Controller PFC100/200, General Product Information |  | pdf      | Download |
|  |  | 591.2 kB |          |

**Application Notes**

**Application Note e!COCKPIT**

|   |            |        |          |
|---|------------|--------|----------|
| eCOCKPIT application note installation MySQL-Server   | 2019-09-09 | pdf    | Download |
| This Application Note explains how a MySQL-Server can be set up and used on a PFC 200. The Application shows how measurement values of the 3-Phase Power Measurement Module can be written into a database. | 9. 9. 2019 | 1.9 MB |          |

|                              |             |        |          |
|------------------------------|-------------|--------|----------|
| SNMP Communication (a500850) | V1.1.0      | zip    | Download |
|                              | 20. 2. 2020 | 3.8 MB |          |

Subject to changes. Please also observe the further product documentation!





This application note explains how the WAGO controllers PFC100 and PFC200 can communicate via SNMP: Sending traps / inform notifications, creating an MIB and using the controller as an SNMP agent. To do so, the SNMP-specific libraries for WAGO-I/O-PRO V2.3 and e!COCKPIT are used.

|  |             |        |          |
|--|-------------|--------|----------|
| HART Tool Routing via ETHERNET with 750-820x and e!RUNTIME (a116130)   | 1.0.0       | pdf    | Download |
| This application note describes how to set up asset management systems, which facilitate simple, efficient configuration of HART field devices.<br>With the Cerabar PMC51 (Endress+Hauser) as an example, a connection is established from any HART sensor to a WAGO PROFIBUS Controller and a WAGO ETHERNET fieldbus coupler. The configuration is made with the asset management software WAGOframe, PACTware und FieldCare. | 22. 3. 2019 | 2.9 MB |          |

## Libraries

| Library   |             |          |          |
|---|-------------|----------|----------|
| WagoLibFTPS_01  | V 1.15      | zip      | Download |
| This library provides a function block for FTP and FTPS communication. FTPS supports explicit and implicit TLS encryption:<br>- Explicit FTP over TLS: Client explicitly asks for TLS encryptions by issuing the command "AUTH TLS" (Described in RFC4217)<br>- Implicit FTP over TLS: Client tries to establish an TLS connection immediately. | 14. 1. 2019 | 416.5 kB |          |

## Engineering-Software

### Configuration and Commissioning Software

|   |            |          |          |
|---|------------|----------|----------|
| WAGO-IO-PRO Demo-Version (759-912) / Serie 750, 758 und 762 | 2.3.9.61   | zip      | Download |
|   | 3. 7. 2015 | 372.0 MB |          |

## CAD/CAE-Data

### CAE data

|                                    |     |          |
|------------------------------------|-----|----------|
| EPLAN Data Portal 750-8202/000-022 | URL | Download |
| ZUKEN Portal 750-8202/000-022      | URL | Download |
| EPLAN Data Portal 750-8202/000-022 | URL | Download |

### CAD data

|                               |     |          |
|-------------------------------|-----|----------|
| 2D/3D Models 750-8202/000-022 | URL | Download |
|-------------------------------|-----|----------|

Subject to changes. Please also observe the further product documentation!



## Environmental Product Compliance

### Compliance Search

|  |     |          |
|--|-----|----------|
| Environmental Product Compliance 750-8202/000-022                                    | URL | Download |
| Controller PFC200; Application for energy data management; 2 x ETHERNET, RS-232/-485 |     |          |

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## Installation Notes

### Product family

**Controller 750**

[Show all products from the family](#)

Subject to changes. Please also observe the further product documentation!