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

www.wago.com/750-8202/000-022
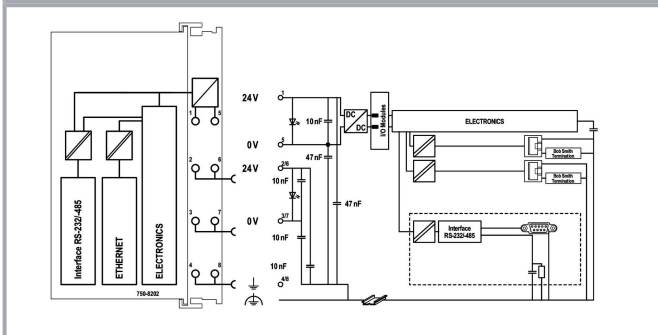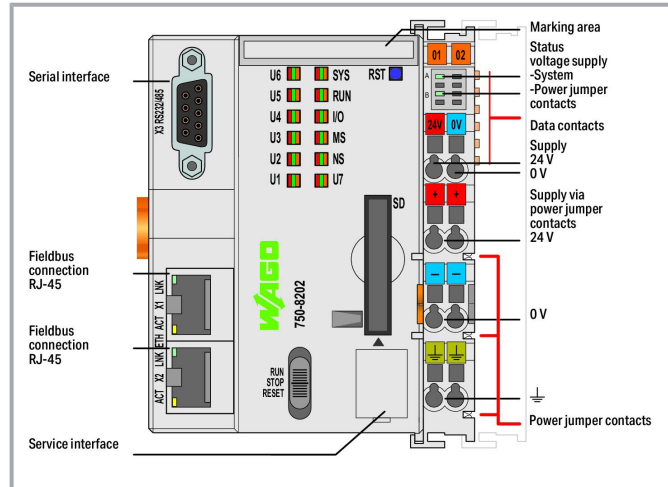
X This item has been discontinued.

Successor model

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

www.wago.com/2759-206/261-1000

Item no.750-8212
Controller PFC200; 2nd Generation; 2 x ETHERNET, RS-232/-485

www.wago.com/750-8212

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

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

Item description

Note:

For this item, a successor is available: 2759-206/261-1000

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

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's 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

Data
Notes

Note	
	Download and register the software: Formular

Technical data

Communication	Modbus (TCP, UDP)
	ETHERNET
	Modbus® RTU
	RS-232 serial interface
	RS-485 interface
	EtherNet/IP^{TM} Adapter (slave), library for *e!RUNTIME*
ETHERNET protocols	DHCP
	DNS
	NTP

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

	FTP
	FTPS
	SNMP
	HTTP
	HTTPS
	SSH
Visualization	Web-Visu
	Web Visu
Operating system	Real-time Linux (with RT-Preempt patch)
CPU	Cortex A8; 600 MHz
Programming languages per IEC 61131-3	Instruction List (IL)
	Ladder Diagram (LD)
	Function Block Diagram (FBD)
	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*
	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; CODESYS V3: 60 MB (Program and data memory (dynamically distributed))
Data memory	CODESYS V2: 64 MB; CODESYS V3: 60 MB Program and data memory (dynamically distributed)
Non-volatile software memory	128 Kbytes
Non-volatile software memory	128. Kbytes
Type of memory card	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 process image (internal) max.	1000 words/1000 words
Input and output process image (Modbus®) max.	CODESYS V2: 1000 words/1000 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

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

	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)
Input current (typ.) at nominal load (24 V)	550 mA
Total current (system supply)	1,700 mA
Supply voltage (actuator)	N/A N/A
Supply voltage (field)	24 VDC (-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 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 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 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	211.2 g
Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE

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

Environmental requirements

Ambient temperature (operation)	0 … +55 °C
Ambient temperature (storage)	-25 … +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 %
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	2.551 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

eCl@ss 10.0	27-24-26-07
eCl@ss 9.0	27-24-26-07
ETIM 8.0	EC000236
ETIM 7.0	EC000236
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4055143549196
Customs tariff number	85371091990
End of Sale	2021-10-31
End of Production	2023-12-31
End of Delivery	2021-12-31
End of Service and Repair	2024-12-31

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Environmental Product Compliance

CAS-No.	12060-00-3
	1303-86-2
	1314-23-4
	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
	Lead titanium oxide (PbTiO3)
	Perfluorobutane sulfonic acid (PFBS) and its salts
	Zirconium Oxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c)
	7(a)
	7(c)-I
	7(c)-II
SCIP notification number (Austria)	062c5be2-12e5-46d0-a821-5dab4cfd7d85
SCIP notification number (Belgium)	8f21d9b9-e5f7-4341-ba58-25f17e3a5ebe
SCIP notification number (Bulgaria)	e2cf1753-662a-4e86-82bc-9e5c97d6c1b5
SCIP notification number (Czech Republic)	0e98ca43-e4fe-4ce4-bbb5-68729300be7f
SCIP notification number (Denmark)	c6e6c509-ae1e-4d34-980f-dda1dd1aaa36
SCIP notification number (Finland)	f51ea02c-b5c3-4aa7-9e94-23b1bd955db0
SCIP notification number (France)	014d86c4-587f-45e8-bd0f-29c80e46946d
SCIP notification number (Germany)	2f9c283b-5b4b-4fb1-b9db-f0358a4b1655
SCIP notification number (Hungary)	85eb6525-0aa9-4fc9-8442-a554f2810f92
SCIP notification number (Italy)	a43e1e54-9f03-4a20-a5f5-0272febb88da
SCIP notification number (Netherlands)	db8fed33-cec1-4567-b568-1dad4468f564
SCIP notification number (Poland)	1ede61c0-2e96-4e3d-b3b9-37b8b9ff22bc
SCIP notification number (Romania)	76abdeff-4457-4eb5-9fbe-c0faf1309b56
SCIP notification number (Sweden)	d8a2fd1c-c3f7-48cd-b90d-54308a9a0158

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCC	CNCA-C23-01	2020312310000213
	CNEX		(Ex ec IIC T4 Gc)

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

Logo	EAC	TP TC 020/2011	EAC RU C-DE.AM02.
	Brjansker Zertifizierungsstelle		B.00087/19
	UL	UL 508	E175199 Sec.1
	Underwriters Laboratories Inc. (ORDINARY LOCATIONS)		
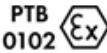
Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
CE	**EU-Declaration of Conformity** WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	BSH Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104

Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
PTB 0102	**ATEX** TUEV Nord Cert GmbH	EN 60079-0	TUEV_14_ATEX_148929_X (II 3 G Ex ec IIC T4 Gc)
	CCC CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
	IECEx TUEV Nord Cert GmbH	IEC 60079-0	IECEx TUN 14.0035 X (Ex ec IIC T4 Gc)
	INMETRO	IEC 60079-0	BR-Ex_TÜV 12.1297 X

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

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32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
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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.

TÜV Rheinland do Brasil Ltda.

UKEx WAGO GmbH & Co. KG	EN 60079-0		UKCA_WAGO22UKEX003X_ec

UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201		E198726 Sec.1

Optional accessories

Application

Bus extension

Item no.: 750-627
Bus Extension End Module

www.wago.com/750-627

Item no.: 750-628
Bus Extension Coupler Module

www.wago.com/750-628

2 up/down counters

Item no.: 750-638
2 up/down counter; 16 bits; 500 Hz

www.wago.com/750-638

M-Bus master

Item no.: 753-649
M-Bus Master

www.wago.com/753-649

Power measurement

Item no.: 750-495/000-001
3-Phase Power Measurement; 690 VAC, 5 A

www.wago.com/750-495
[/000-001](www.wago.com/750-495/000-001)

Item no.: 750-495/000-002
3-Phase Power Measurement; 690 VAC Rogowski coils

www.wago.com/750-495
[/000-002](www.wago.com/750-495/000-002)

Item no.: 750-495
3-Phase Power Measurement; 690 VAC, 1 A

www.wago.com/750-495

Serial interface RS-232/485

Item no.: 750-652
RS-232/485 Serial Interface

www.wago.com/750-652

Digital output

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	Item no.: 750-1506 8-channel digital input/output; 24 VDC; 0.5 A	www.wago.com/750-1506
	Item no.: 750-530 8-channel digital output; 24 VDC; 0.5 A	www.wago.com/750-530

System Power Supply

	Item no.: 750-613 System Power Supply; 24 VDC	www.wago.com/750-613

Analog input

	Item no.: 750-451 8-channel analog input; Resistance measurement; Adjustable	www.wago.com/750-451
	Item no.: 750-452 2-channel analog input; 0 … 20 mA; Differential input	www.wago.com/750-452
	Item no.: 750-496 8-channel analog input; 0/4 … 20 mA; Single-ended	www.wago.com/750-496
	Item no.: 750-497 8-channel analog input; 0 … 10 V/±10 VDC; Single-ended	www.wago.com/750-497

Digital input

	Item no.: 750-402 4-channel digital input; 24 VDC; 3 ms	www.wago.com/750-402

Bus end module

	Item no.: 750-600 End Module	www.wago.com/750-600

Memory card

Memory card

	Item no.: 758-879/000-001 Memory Card SD; SLC-NAND; 2 GByte; Temperature from -40 to 90 °C	www.wago.com/758-879 /000-001

Power supplies

Power supply unit

	Item no.: 787-1012 Switched-mode power supply; Compact; 1-phase; 24 VDC output voltage; 2.5 A output current	www.wago.com/787-1012
	Item no.: 787-1606 Switched-mode power supply; Classic; 1-phase; 24 VDC output voltage; 2 A output current; NEC Class 2; DC OK signal	www.wago.com/787-1606

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Downloads
Documentation

Manual

System Manual WAGO I/O System 750/753 Decentralized Automation Technology	V 3.3.0 2023 May 4	pdf 8.8 MB	Download
Product Manual PFC200 FGx 2ETH RS Controller PFC200; FGx; 2 x ETHERNET, RS-232/-485	V 1.2.0 2019 Nov 15	pdf 5.0 MB	Download
Cyber Security for Controller PFC100 / PFC200	V 1.0.0 2019 Oct 31	pdf 4.9 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

Bid Text

750-8202/000-022 doc - Datei	2019 Aug 2	doc 39.9 kB	Download
750-8202/000-022 X81 - Datei	2019 Aug 2	xml 9.4 kB	Download

Instruction Leaflet

CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/*	2023 Apr 26	pdf 163.6 kB	Download
Beipackzettel Applikationscontroller Beipackzettel mit dem Hinweis auf den Download der Software		pdf 425.0 kB	Download

Tutorial

Set IP address with Ethernet Settings 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	3.0 2017 Dec 18	mp4 88.3 MB	Download
Establish connection to a controller using SSH In this video we are demonstrating how to establish a SSH connec-tion with a controller using for example PuTTY to be able to work with the LINUX console.	1.0 2017 Aug 5	mp4 29.0 MB	Download

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

Contents: 0:21 Download and install the SSH client; 0:40 Establish the SSH
connection; 0:50 Log on to the Controller

Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	Download
WAGO OPC UA Server	V 1.1.0 2021 Jan 28	pdf 1.2 MB	Download
750-8202/000-022, WAGO Energy Data Management		pdf 387.8 kB	Download

System Description

Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 789.0 kB	Download
Controller PFC100/200, General Product Information		pdf 592.5 kB	Download

Application Notes

Application Note e!COCKPIT

Application Note Data Plotter The Data Plotter is a Web application that can be used as a visualization tool for the data logger in CODESYS V2.3 and e!COCKPIT. It allows the user to graphically display data captured by the data logger library (WAGO_Datalogger_02.lib for CODESYS V2.3 and WagoAppDatalogger for e!COCKPIT from V1.2.100.6023).	2023-06-01 2023 Jun 1	zip 6.7 MB	Download
SNMP Communication (a500850) This application note explains how the WAGO controllers PFC100 andPFC200 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.	1.1.0 2020 Feb 20	zip 3.8 MB	Download
eCOCKPIT application note installation MySQL-Server 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.	1.0.3 2019 Sep 9	pdf 1.9 MB	Download
HART Tool Routing via ETHERNET with 750-820x and e!RUNTIME (a116130) This application note describes how to set up asset management systems, which facilitate simple, efficient configuration of HART field devices.	1.0.0 2019 Mar 22	pdf 2.9 MB	Download

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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.

Application Note CoDeSys 2.3

Application Note Data Plotter	2023-06-01	zip	Download
The Data Plotter is a Web application that can be used as a visualization tool for the data logger in CODESYS V2.3 and e!COCKPIT. It allows the user to graphically display data captured by the data logger library (WAGO_Datalogger_02.lib for CODESYS V2.3 and WagoAppDatalogger for e!COCKPIT from V1.2.100.6023).	2023 Jun 1	6.7 MB	

Libraries

Library

WagoLibFTPS_01	1.17	zip	Download
This library provides a function block for FTP and FTPS communication. FTPS supports explicit and implicit TLS encryption: - Explicit FTP over TLS: Client explicitly asks for TLS encryptions by issuing the command "AUTH TLS" (Described in RFC4217) - Implicit FTP over TLS: Client tries to establish an TLS connection immediatelly.	2020 Nov 9	411.5 kB	

Engineering-Software

Configuration and Commissioning Software

WAGO-IO-PRO Demo-Version (759-912) / Serie 750, 758 und 762	V 2.3.9.68	zip	Download
Für ein Firmwareupdate können Sie sich jederzeit an den Support wenden.	2022 Feb 17	125.5 MB	

Runtime Software

Firmware

Image Update (SD Karte) PFC100/200 WAGO_FW0750-8xxx_V031010_IX22_SP1_I	V 22 SP1 2022 Dec 12	zip 210.8 MB	Download
WUP Update (WAGOuploadTool) PFC100/200 WAGO_FW0750-8xxx_V031010_IX22_SP1_W	V 22 SP1 2022 Dec 12	zip 208.5 MB	Download

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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

Environmental Product Compliance

Compliance Search

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

Installation Notes

Product family

Controller 750
Show all products from the family

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