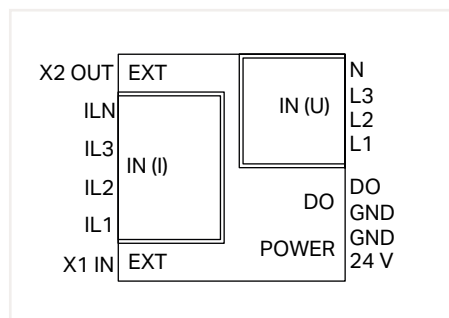


3-Phase Power Signal Conditioner; 3 x 400 / 690 V; 1 A; Modbus RTU Serie 2857



3



3-Phase Power Signal Conditioner;
3 x 400 / 690 V; 1 A; Modbus RTU

	Item No.	Pack. Unit
	2857-570/024-001	1

Short description:

WAGO's 3-phase power signal conditioner in a DIN-rail-mount enclosure measures electrical data in three-phase supply networks – remotely from the control level. Measured variables such as active/apparent/reactive power, energy consumption, power factor, phase angle and frequency can be accessed via Modbus® Interface. In addition, the measured variables can be stored on a microSD card.

Features:

- Current measurement via 1A current transformer
- Mobile measurement and storage of measured values on microSD card
- Configuration and display of measured values during operation via configuration interface
- Compact device in DIN-rail-mount enclosure saves space used for building technology
- Communication of measured values via Modbus® Interface
- Configurable digital signal output as pulse output

Notes:

- Additional setting options via interface configuration software
- In the present network, ensure that the neutral conductor is not dangerously active!

Specialty Functions:



Configuration via:



Configuration

Configuration options	Interface configuration software
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Input

Input signal type	Voltage; Current
Network configuration	3-phase power measurement with N-conductor (4 conductors); 3-phase power measurement with N-conductor (3 conductors)
Input signal (voltage)	3 x 400 VAC (ULN); 3 x 690 VAC (ULL)
Input signal (current)	4 x 1 AAC (current transformer)
Frequency range	45 ... 65 Hz (Harmonics analysis: 0 ... 3.3 kHz)
Input resistance (voltage input)	1.5 MΩ
Input resistance (current input)	22 mΩ
Input voltage (max.)	400 VAC (ULN); 690 VAC (ULL)
Input current (max.)	1 AAC
Response threshold	10 mA
Resolution (current)	10 mA

Output – Digital

Max. switching voltage (DO)	Supply voltage applied
Max. continuous current (DO)	100 mA (no internal restriction)
Configurable functions (DO)	Threshold value switch; S0 interface (pulse output)

Communication

Communication	Modbus RTU
Interface	RS-485 (2-wire) via RJ-45
Number of participants (max.)	32
Addressing	Via interface configuration software

Signal Processing

Measurement method	True RMS measurement (measured value acquisition with 8 kHz)
Measured variables (calculated)	Line-to-line voltage; Power output; Energy; Power factors; Mains frequency; Harmonic analysis (up to the 41st harmonic); Total harmonic distortion (THD)
Signal form	Any periodic signals (considering the threshold frequencies)
Limit frequency	15.9 kHz
Type of memory card	WAGO 758-879/000-3102 (microSD; max. 2 GB)

Measurement Error

Transmission error (max.)	≤ 0.5 % for current and voltage (of the full scale value)
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Power Supply

Nominal supply voltage US	24 VDC (SELV)
Supply voltage range	±30 %
Power consumption at nominal supply voltage	≤ 50 mA (+ IDO)

Safety and Protection

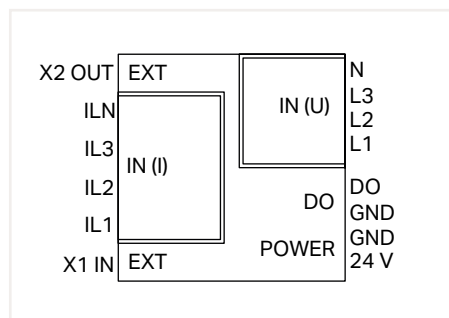
Rated voltage	400 VAC
Test voltage (input/output/supply)	3.51 kVAC; 50 Hz; 1 min
Overvoltage category	III
Pollution degree	2
Protection type	IP20

Connection Data	
Connection type	Voltage
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	WAGO 804 Series
Solid conductor	0.25 ... 2.5 mm ² / 20 ... 12 AWG
Fine-stranded conductor	0.25 ... 2.5 mm ² / 22 ... 12 AWG
Strip length	10 ... 11 mm / 0.39 ... 0.43 inch
Connection type 2	Current/Power supply/DO
Connection technology 2	Push-in CAGE CLAMP®
WAGO Connector 2	WAGO 805 Series
Solid conductor 2	0.2 ... 1.5 mm ² / 24 ... 16 AWG
Fine-stranded conductor 2	0.2 ... 1.5 mm ² / 24 ... 16 AWG
Strip length 2	9 ... 10 mm / 0.35 ... 0.39 inch
Connection type 3	Modbus® communication
Connector	2 x RJ-45 (daisy chain configuration)
Geometric Data	
Width	72 mm / 2.835 inch
Height from upper-edge of DIN-rail	55 mm / 2.165 inch
Depth	90 mm / 3.543 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	118 g
Environmental Requirements	
Surrounding air temperature (operation)	-40 ... +70 °C
Surrounding air temperature (storage)	-40 ... +85 °C
Relative humidity	5 ... 95 % (non-condensing)
Standards and Specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3
Standards/specifications	EN 61010-1

3-Phase Power Signal Conditioner; 3 x 400 / 690 V; 5 A; Modbus RTU Serie 2857



3



3-Phase Power Signal Conditioner;
3 x 400 / 690 V; 5 A; Modbus RTU

	Item No.	Pack. Unit
	2857-570/024-005	1

Short description:

WAGO's 3-phase power signal conditioner in a DIN-rail-mount enclosure measures electrical data in three-phase supply networks – remotely from the control level. Measured variables such as active/apparent/reactive power, energy consumption, power factor, phase angle and frequency can be accessed via Modbus® Interface. In addition, the measured variables can be stored on a microSD card.

Features:

- Current measurement via 5A current transformer
- Mobile measurement and storage of measured values on microSD card
- Configuration and display of measured values during operation via configuration interface
- Compact device in DIN-rail-mount enclosure saves space used for building technology
- Communication of measured values via Modbus® Interface
- Configurable digital signal output as pulse output

Notes:

- Additional setting options via interface configuration software
- In the present network, ensure that the neutral conductor is not dangerously active!

Specialty Functions:



Configuration via:



Configuration

Configuration options	Interface configuration software
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Input

Input signal type	Voltage; Current
Network configuration	3-phase power measurement with N-conductor (4 conductors); 3-phase power measurement with N-conductor (3 conductors)
Input signal (voltage)	3 x 400 VAC (ULN); 3 x 690 VAC (ULL)
Input signal (current)	4 x 5 AAC (current transformer)
Frequency range	45 ... 65 Hz (Harmonics analysis: 0 ... 3.3 kHz)
Input resistance (voltage input)	1.5 MΩ
Input resistance (current input)	22 mΩ
Input voltage (max.)	400 VAC (ULN); 690 VAC (ULL)
Input current (max.)	1 AAC
Response threshold	5 mA
Resolution (current)	0.15 mA

Output – Digital

Max. switching voltage (DO)	Supply voltage applied
Max. continuous current (DO)	100 mA (no internal restriction)
Configurable functions (DO)	Threshold value switch; S0 interface (pulse output)

Communication

Communication	Modbus RTU
Interface	RS-485 (2-wire) via RJ-45
Number of participants (max.)	32
Addressing	Via interface configuration software

Signal Processing

Measurement method	True RMS measurement (measured value acquisition with 8 kHz)
Measured variables (calculated)	Line-to-line voltage; Power output; Energy; Power factors; Mains frequency; Harmonic analysis (up to the 41st harmonic); Total harmonic distortion (THD)
Signal form	Any periodic signals (considering the threshold frequencies)
Limit frequency	15.9 kHz
Type of memory card	WAGO 758-879/000-3102 (microSD; max. 2 GB)

Measurement Error

Transmission error (max.)	≤ 0.5 % for current and voltage (of the full scale value)
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Power Supply

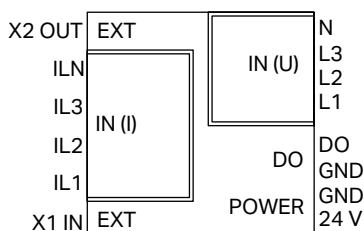
Nominal supply voltage US	24 VDC (SELV)
Supply voltage range	±30 %
Power consumption at nominal supply voltage	≤ 50 mA (+ IDO)

Safety and Protection

Rated voltage	400 VAC
Test voltage (input/output/supply)	3.51 kVAC; 50 Hz; 1 min
Overvoltage category	III
Pollution degree	2
Protection type	IP20

Connection Data	
Connection type	Voltage
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	WAGO 804 Series
Solid conductor	0.25 ... 2.5 mm ² / 20 ... 12 AWG
Fine-stranded conductor	0.25 ... 2.5 mm ² / 22 ... 12 AWG
Strip length	10 ... 11 mm / 0.39 ... 0.43 inch
Connection type 2	Current/Power supply/DO
Connection technology 2	Push-in CAGE CLAMP®
WAGO Connector 2	WAGO 805 Series
Solid conductor 2	0.2 ... 1.5 mm ² / 24 ... 16 AWG
Fine-stranded conductor 2	0.2 ... 1.5 mm ² / 24 ... 16 AWG
Strip length 2	9 ... 10 mm / 0.35 ... 0.39 inch
Connection type 3	Modbus® communication
Connector	2 x RJ-45 (daisy chain configuration)
Geometric Data	
Width	72 mm / 2.835 inch
Height from upper-edge of DIN-rail	55 mm / 2.165 inch
Depth	90 mm / 3.543 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	118 g
Environmental Requirements	
Surrounding air temperature (operation)	-40 ... +70 °C
Surrounding air temperature (storage)	-40 ... +85 °C
Relative humidity	5 ... 95 % (non-condensing)
Standards and Specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3
Standards/specifications	EN 61010-1

3-Phase Power Signal Conditioner; 3 x 400 / 690 V; RC; Modbus RTU Serie 2857



3-Phase Power Signal Conditioner;
3 x 400 / 690 V; RC; Modbus RTU

Item No.	Pack. Unit
2857-570/024-000	1

Short description:

WAGO's 3-phase power signal conditioner in a DIN-rail-mount enclosure measures electrical data in three-phase supply networks – remotely from the control level. Measured variables such as active/apparent/reactive power, energy consumption, power factor, phase angle and frequency can be accessed via Modbus® Interface. In addition, the measured variables can be stored on a microSD card.

Features:

- Current measurement via Rogowski Coils RC xxx
- Mobile measurement and storage of measured values on microSD card
- Configuration and display of measured values during operation via configuration interface
- Compact device in DIN-rail-mount enclosure saves space used for building technology
- Communication of measured values via Modbus® Interface
- Configurable digital signal output as pulse output

Notes:

- Additional setting options via interface configuration software
- In the present network, ensure that the neutral conductor is not dangerously active!

Specialty Functions:



Configuration via:



Configuration

Configuration options	Interface configuration software
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Input

Input signal type	Voltage; Current
Network configuration	3-phase power measurement with N-conductor (4 conductors); 3-phase power measurement with N-conductor (3 conductors)
Input signal (voltage)	3 x 400 VAC (ULN); 3 x 690 VAC (ULL); 4 x 90 mVAC (WAGO Rogowski Coils RC xxx)
Sensitivity	22.5 mV/kA (WAGO Rogowski Coils RC xxx)
Measurement range (current)	4 x 4000 AAC (WAGO Rogowski Coils RC xxx)
Frequency range	45 ... 65 Hz (Harmonics analysis: 0 ... 3.3 kHz)

Output – Digital

Max. switching voltage (DO)	Supply voltage applied
Max. continuous current (DO)	100 mA (no internal restriction)
Configurable functions (DO)	Threshold value switch; SO interface (pulse output)

Communication

Communication	Modbus RTU
Interface	RS-485 (2-wire) via RJ-45
Number of participants (max.)	32
Addressing	Via interface configuration software

Signal Processing

Measurement method	True RMS measurement (measured value acquisition with 8 kHz)
Measured variables (calculated)	Line-to-line voltage; Power output; Energy; Power factors; Mains frequency; Harmonic analysis (up to the 41st harmonic); Total harmonic distortion (THD)
Signal form	Any periodic signals (considering the threshold frequencies)
Limit frequency	15.9 kHz
Type of memory card	WAGO 758-879/000-3102 (microSD; max. 2 GB)

Measurement Error

Transmission error (max.)	≤ 0.5 % for current and voltage (of the full scale value)
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Power Supply

Nominal supply voltage US	24 VDC (SELV)
Supply voltage range	±30 %
Power consumption at nominal supply voltage	≤ 50 mA (+ IDO)

Safety and Protection

Rated voltage	400 VAC
Test voltage (input/output/supply)	3.51 kVAC; 50 Hz; 1 min
Overtoltage category	III
Pollution degree	2
Protection type	IP20

Connection Data	
Connection type	Voltage
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	WAGO 804 Series
Solid conductor	0.25 ... 2.5 mm ² / 20 ... 12 AWG
Fine-stranded conductor	0.25 ... 2.5 mm ² / 22 ... 12 AWG
Strip length	10 ... 11 mm / 0.39 ... 0.43 inch
Connection type 2	Current/Power supply/DO
Connection technology 2	Push-in CAGE CLAMP®
WAGO Connector 2	WAGO 805 Series
Solid conductor 2	0.2 ... 1.5 mm ² / 24 ... 16 AWG
Fine-stranded conductor 2	0.2 ... 1.5 mm ² / 24 ... 16 AWG
Strip length 2	9 ... 10 mm / 0.35 ... 0.39 inch
Connection type 3	Modbus® communication
Connector	2 x RJ-45 (daisy chain configuration)
Geometric Data	
Width	72 mm / 2.835 inch
Height from upper-edge of DIN-rail	55 mm / 2.165 inch
Depth	90 mm / 3.543 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	118 g
Environmental Requirements	
Surrounding air temperature (operation)	-40 ... +70 °C
Surrounding air temperature (storage)	-40 ... +85 °C
Relative humidity	5 ... 95 % (non-condensing)
Standards and Specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3
Standards/specifications	EN 61010-1