

PTA-M-3PH-05A-ET

Three-phase network analyzer
Analizzatore di rete trifase



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Introduction

The PTA-M-3PH-05A-T is a three-phase network analyzer with power supply 10 - 36 VDC or 19 - 26 VAC, 5 (6) A or 333mV/Rogowski, 320x240 pixel color graphic display, RS485 port, Ethernet, USB, SD card Wifi, NFC, pulse output, RTC.

Here below summarized the device's main characteristics:

- Equivalent to class 0.2S (kWh) of EN 62053-22
- Equivalent to class 0.2S (kVARh) of EN 62053-24
- Accuracy $\pm 0.2\%$ of reading (RDG)
- Bidirectional energy meter
- TRMS measurement of distorted waveforms (voltage/current)
- Calculation of neutral current
- One output (opto-MOS) for alarms or pulses
- Wi-Fi station and access point (Modbus TCP)
- Ethernet (Modbus TCP)
- RS485 serial output (Modbus RTU)
- NFC
- Logging via USB or SD card (or internal memory) with timestamps
- 2.2" 16-bit colour display, 320x240 pixels, with capacitive touchscreen
- Sampling rate: 6,400 samples @ 50 Hz
- Dimensions: 4 DIN modules
- Full harmonic analysis (amplitudes and phases)
- Built-in integrator for Rogowski coils

1 Safety guidelines

Before using the device, please read the instructions and safety precautions contained in this manual carefully.

Disconnect the power supply before carrying out any work on electrical connections or hardware settings, in order to prevent the risk of electric shock, fire or malfunction.

Do not install or operate the device in environments containing flammable substances, gases or explosive materials.

This tool has been designed and manufactured for standard use in industrial environments and for applications requiring safety conditions that comply with national and international regulations on personal protection and workplace safety.

Any application that poses a serious risk to personal safety or involves life-saving medical devices must be avoided. The instrument is not designed or manufactured for installation in nuclear power stations, weaponry, air traffic control or flight safety systems, or mass transit systems.

The product must only be used and maintained by qualified personnel, and in strict accordance with the technical specifications set out in this manual.

Do not dismantle, modify or repair the product, nor touch any of its internal parts.

The instrument must be installed and used exclusively within the specified environmental conditions. Overheating may pose a fire hazard and reduce the service life of the electronic components.

1.1 Organization of safety notice

Safety notices in this manual are organized as follows:

Safety notice	Description
Danger!	Disregarding these safety guidelines and notices can be life-threatening.
Warning!	Disregarding these safety guidelines and notices can result in severe injury or substantial damage to property.
Information!	This information is important for preventing errors.

1.2 Safety Precautions

	CAUTION - Risk of Fire and Electric Shock
Danger!	This product is UL listed as open type process Control Equipment. It must be mounted in an enclosure that does not allow fire to escape externally.
	If the output relays are used past their life expectancy, contact fusing or burning may occasionally occur.
Danger!	Always consider the application conditions and use the output relays within their rated load and electrical life expectancy. The life expectancy of output relays varies considerably with the output load and switching conditions.
Warning!	Devices shall be supplied with limited energy according to UL 61010-1 3rd Ed, section 9.4 or LPS in conformance with UL 60950-1 or SELV in conformance with UL 60950-1 or Class 2 in compliance with UL 1310 or UL 1585.
Warning!	Loose screws may occasionally result in fire. For screw terminals, tighten screws to tightening torque is 0.22 Nm
Warning!	A malfunction in the Digital Controller may occasionally make control operations impossible or prevent alarm outputs, resulting in property damage. To maintain safety in the event of malfunction of the Digital Controller, take appropriate safety measures, such as installing a monitoring device on a separate line.

1.3 Precautions for safe use

Be sure to observe the following precautions to prevent operation failure, malfunction, or adverse affects on the performance and functions of the product. Not doing so may occasionally result in unexpected events. Do not handle the Digital Controller in ways that exceed the ratings.

- The product is designed for indoor use only. Do not use or store the product outdoors or in any of the following places.

- Places directly subject to heat radiated from heating equipment.
- Places subject to splashing liquid or oil atmosphere.
- Places subject to direct sunlight.
- Places subject to dust or corrosive gas (in particular, sulfide gas and ammonia gas).
- Places subject to intense temperature change.
- Places subject to icing and condensation.
- Places subject to vibration and large shocks.

- Installing two or more controllers in close proximity might lead to increased internal temperature and this might shorten the life cycle of electronic components. It is strongly recommended to install cooling fans or other air-conditioning devices inside the control cabinet.

- Always check the terminal names and polarity and be sure to wire properly. Do not wire the terminals that are not used.

- To avoid inductive noise, keep the controller wiring away from power cables that carry high voltages or large currents. Also, do not wire power lines together with or parallel to Digital Controller wiring. Using shielded cables and using separate conduits or ducts is recommended. Attach a surge suppressor or noise filter to peripheral devices that generate noise (in particular motors, transformers, solenoids, magnetic coils or other equipment that have an inductance component).

When a noise filter is used at the power supply, first check the voltage or current, and attach the noise filter as close as possible to the Digital Controller. Allow as much space as possible between the Digital Controller and devices that generate powerful high frequencies (high-frequency welders, high-frequency sewing machines, etc.) or surge.

- A switch or circuit breaker must be provided close to device. The switch or circuit breaker must be within easy reach of the operator, and must be marked as a disconnecting means for the controller.
- Wipe off any dirt from the Digital Controller with a soft dry cloth. Never use thinners, benzene, alcohol, or any cleaners that contain these or other organic solvents. Deformation or discoloration may occur.
- The number of non-volatile memory write operations is limited. Therefore, use EEprom write mode when frequently overwriting data, e.g.: through serial port communications.

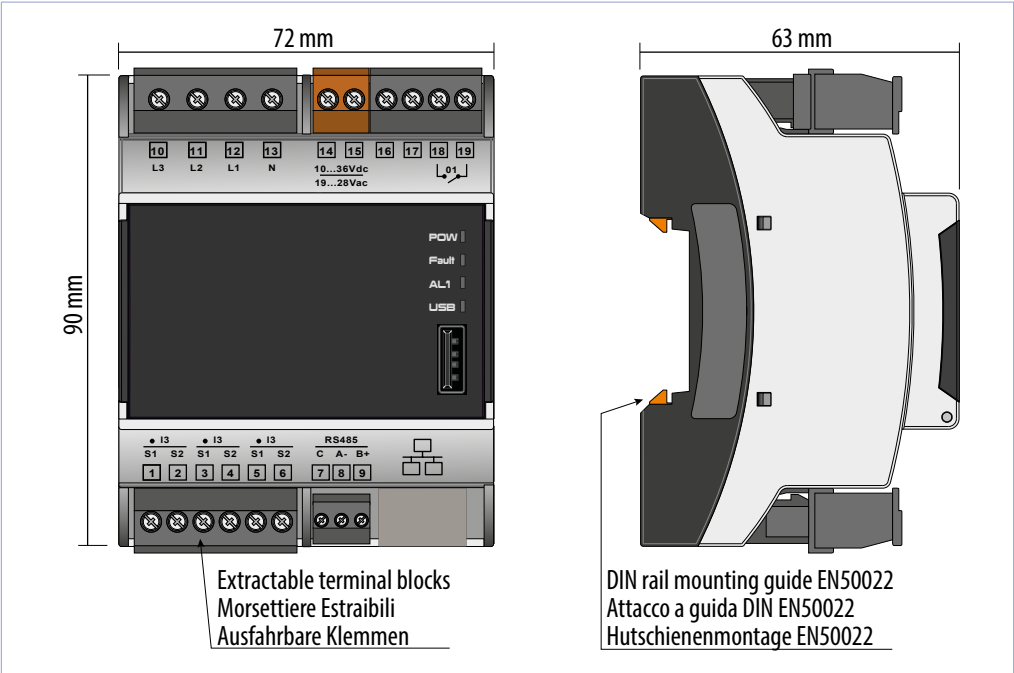
1.4 Environmental policy / WEEE

Do not dispose electric tools together with household waste material.
According to European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

2 Model identification

PTA-M-3PH-050-ET	NETWORK ANALYZER 3PH 4DIN MODBUS TCP ALIM.10..36Vdc, TA 5A
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3 Dimension and installation



4 Technical data
4.1 General characteristics

Type	Auxiliar low voltage supply
Power supply type	Single-phase from the red terminal
AC/DC voltage	10-36 VDC / 19-26 VAC
Consumption	< 3,5W
Operating conditions	-25°C..65°C, HR 10..90% non-condensing, < 2000m o.s.l.
Connections	1x screw terminal block, 3.81 mm pitch, 3 poles 1x screw terminal block, 7.5 mm pitch, 4 poles 2x screw terminal block 5 mm pitch 6 poles 1x RJ45 Ethernet connector 1x USB 2.0 Type A for datalogging (optional)
Dimensions	93 x 69 x 17 mm
Material and Protection rating	PBT - IP20
Display	2.2" 16 bit 320x240px colour display, capacitive touch

4.2 Input specifications

Rated voltage range L-N	85 - 265 Vac
Rated voltage range L-L	150 - 450 Vac
CT with current output	
Starting current (Ist)	5 mA
Minimum current (In)	50 mA
Rated current (In)	5 AAC
Maximum current (IMAX)	6 AAC
Crest factor	< 4 (20 APK MAX)
Burden	< 1 VA per phase
Overload for 500 ms	40 AAC

4.3 Accuracy

Accuracy (@25 ± 5°C; frequenza = 50 Hz)		Refresh time
Frequency	± 0,01 Hz (45..65 Hz)	100ms
Voltage	± 0,1% rdg	Configurable from 1 to 65535 periods (from 20 ms to 21,8 minutes if frequency = 50Hz)
Current	± 0,1% rdg	
Active and apparent power (PF = 0.5L ..0.5C)	± 0,1% rdg (In o Vn from 5% to 100%)	
Reactive power (sinφ = 0.5L .. 0.5C)	± 0,2% rdg (In o Vn from 1% to 5%)	
	± 0,1% rdg (In o Vn from 5% to 100%)	
Active power	class C according EN50470-1/3 class 0,2 S according EN62053-22	not applicable
Reactive energy (when measured, see below)	class 0,5 S according EN62053-24	
Power factor	± (0,001 +1%(1.00-PF))	
Bandwidth (-3dB)	> 2KHz	
Thermal drift	<100 ppm/°C	
THD	±0.3%	100ms
Harmonics	±1% amplitude up to the 16th harmonic ±2% amplitude from the 17th harmonic to the 63rd harmonic ±5° phase shift up to the 16th harmonic ±10° phase shift from the 17th harmonic to the 63rd harmonic	

4.4 RS485 port

Protocol	Modbus RTU
Number of addresses	Up to 247 (Default 1)
Baudrate	From 1200 to 115200 Baud (Default 9600)
Configuration parameters	Address Baudrate Parity Stop bit
Connection	Via 3-poles terminal block 3.81mm pitch

4.5 Ethernet port

Protocol	Modbus TCP HTTP MQTT SNTP
Number of clients	Up to 10
Speed	10/100 Mbit/s
Associated features	Webserver Firmware update Communication
Configuration parameters	IP address Subnet mask Gateway address TCP port DHCP MQTT Transmission power

4.6 Wifi port

Protocol	Modbus TCP HTTP MQTT
Number of clients	Up to 10
Speed	2.4 Ghz 802.11 b/g/n
Associated features	Webserver Firmware update Communication Logging
Configuration parameters	IP address Subnet mask Gateway address TCP port DHCP MQTT

4.7 Digital output

Use	Alarm or pulses/kWh
Number	1
Type	Solid state (opto-mos)
Rating	< 40V, < 100mA
Connection	Via 5 mm pitch screw terminal

5

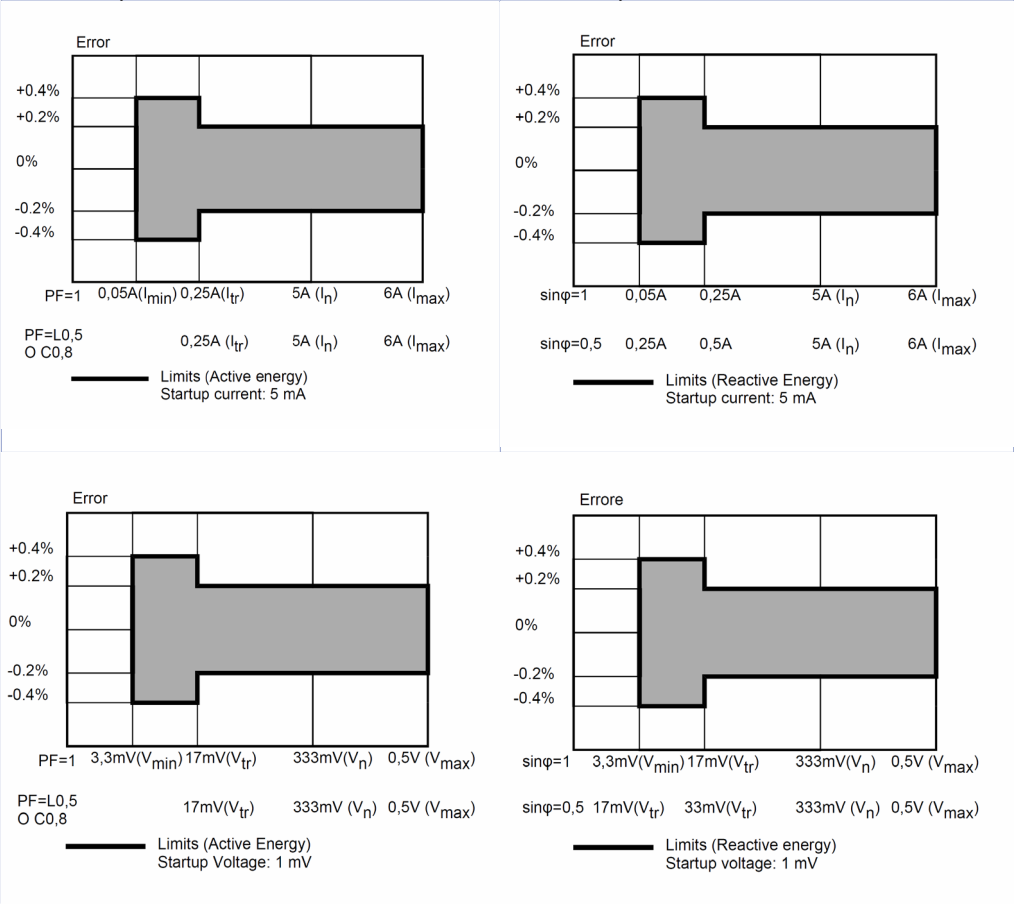
5.1

Supplementary information

Accuracy

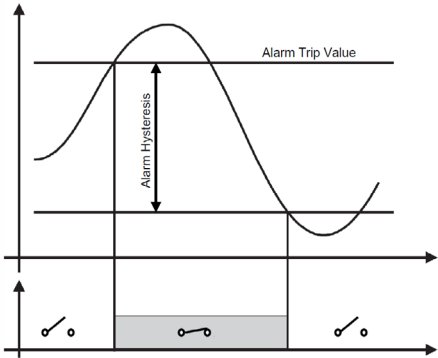
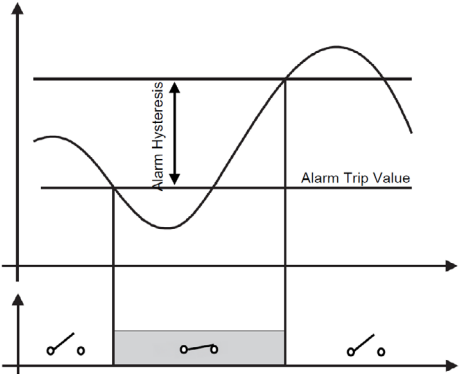
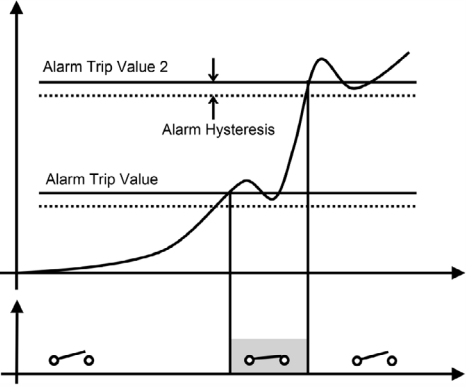
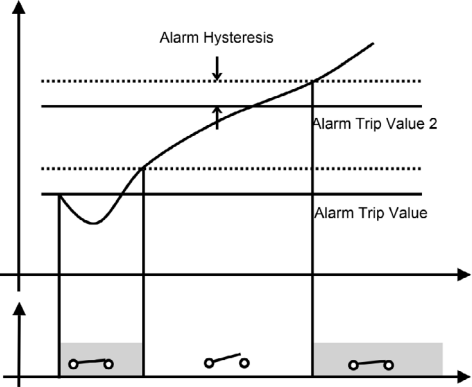
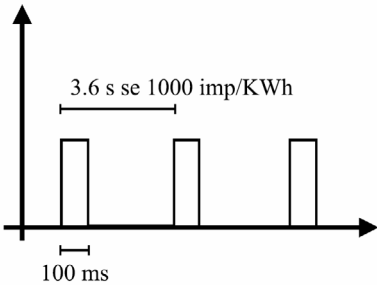
Wh, accuracy as a function of load (CT with current output)

VARh, accuracy as a function of load (CT with current output)



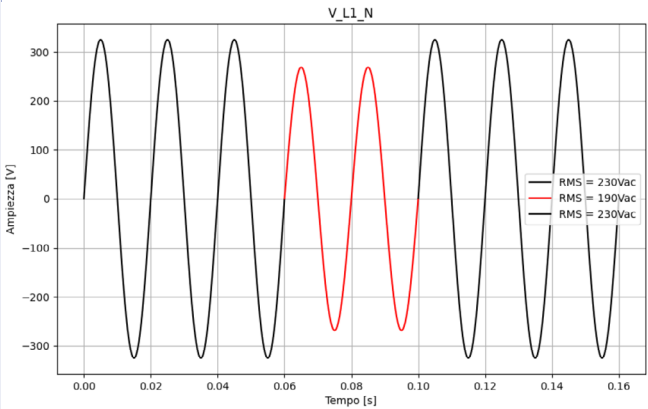
5.2 Digital output

The digital output can be set to operate as an alarm or pulse output.
A buzzer can be associated with alarms to provide an audible alarm

ALARMS	
Rising edge: Normally open contact	Falling edge: Normally closed contact
	
Window: contact closed between thresholds	Window: contact closed outside thresholds
	
PULSE OUTPUT	
	Pulse output as an alternative to digital output for alarms.

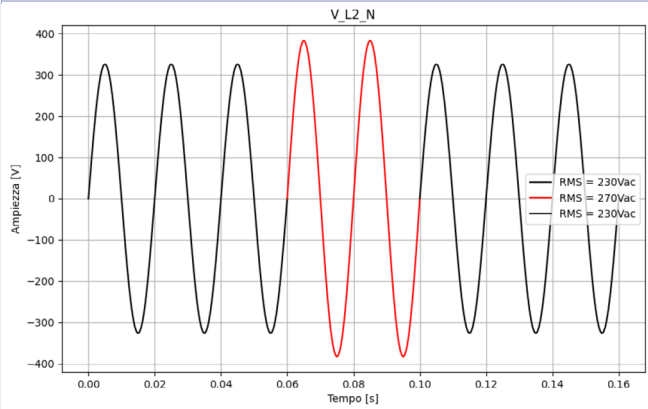
5.3 Power quality

SAG



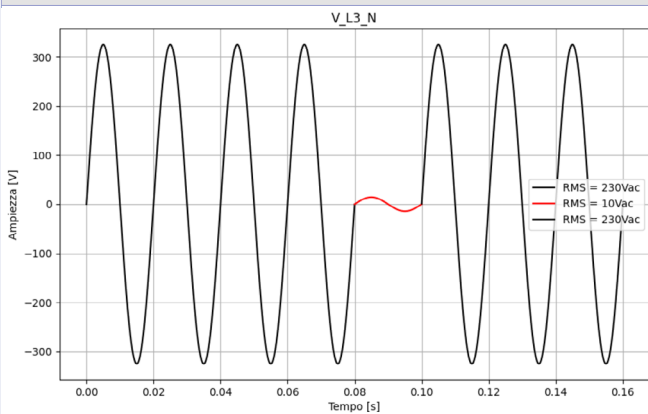
- Type: Sag
- Value: 190 V
- Query: 1 (V_L2_N)
- Duration: 40 ms

SWELL

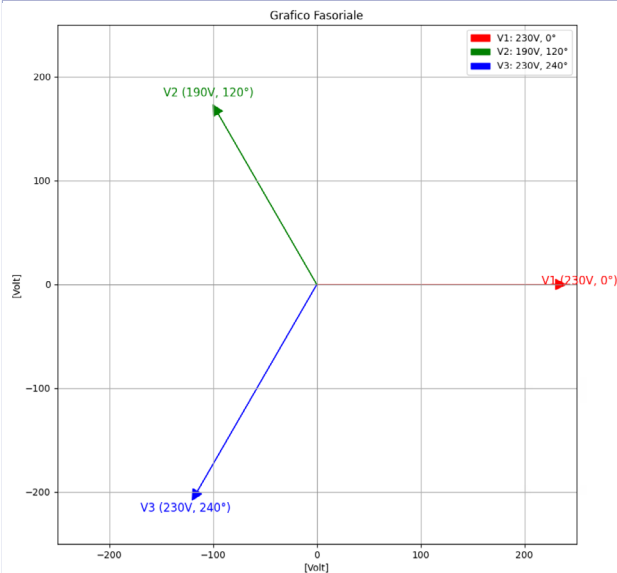


- Type: Swell
- Value: 270 V
- Query: 2 (V_L2_N)
- Duration: 40 ms

INTERRUPTION



- Type: Interruption
- Value: 10 V
- Query: 3 (V_L3_N)
- Duration: 20 ms



• Unbalance: 6.15%

5.4 Realtime waveforms

The analyzer can record up to 10 waveforms (3 star-connected voltage channels, 3 line-to-line voltages, 4 line currents).

128 waveform periods are sampled for each period. Sampling is performed at 6400 sps @ 50 Hz.

They can be displayed directly via the webserver. It is also possible to access values via Modbus registers, either through RS485 (Modbus RTU) or through WiFi (Modbus TCP, recommended due to higher speed).

6 First connection

To connect to the instrument via WiFi, follow these steps:

1. Connect to the exposed AP (default EMT432_SerialNumber) using a smartphone. Password: "123456789"
2. Disable mobile data connection
3. Open a browser such as Chrome and enter the address 192.168.4.1
4. Enter username and password: "admin", "admin"
5. Inside the integrated webserver, in the WiFi connections page, enter the target SSID and target Password of the WiFi network being used.
6. Restart the instrument, which will be directly visible on the local network. Proper operation can be verified by accessing the internal webserver, where the main electrical quantities can be monitored, which should match the expected values.

7 Electrical connections

Warning! Since the device is Class II, according to standard "EN 61140:2004-05 Protection against electric shock - Common aspects for installations and equipment - Equipotential bonding", grounding the device is not recommended, as it could reduce installation safety. Any grounding must ensure that no current flows between terminal 7 (N) and PE earth. Device intended exclusively for indoor installation in an electrical panel (protection rating ensured by the panel).

For installation in industrial environments it is advisable to take the precautions below:

- Distinguish the power supply line from the power lines.
- Avoid proximity with contactor units, electromagnetic contactors, high power motors and use filters in any event.
- Avoid proximity with power units, particularly if with phase control.
- The use of network filters is recommended on the power supply of the machine in which the instrument will be installed, particular in case of 230Vac power supply.

The regulator is devised to be assembled with other machines. Therefore, the EC marking of the regulator does not exempt the manufacturer of the system from the safety and conformity obligations imposed for the machine as a whole.

- **Wiring of 3.81 mm terminal block:** use crimped tube terminals or flexible/rigid copper wire with diameter up to 1.5 mm² / 16 AWG. Cable stripping length max 7 mm. Operating temperature: -40°C ÷ +130°C.
- **Wiring of 5 mm terminal block:** use crimped tube terminals or flexible/rigid copper wire with diameter up to 2.5 mm² / 14 AWG. Cable stripping length max 9 mm. Operating temperature: -40°C ÷ +130°C.
- It is possible to connect on a single terminal two wires with same diameter comprised between 0.14 and 0.75mm².

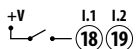
7.1 Wiring diagrams

7.1.a

Power supply

	Alimentazione 12..24Vdc ±15% • 1: +Vdc • 2: -Vdc
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7.1.b Relais

	cippalippa 18:Ingresso 1 19:Ingresso 2
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7.1.c Modbus RTU

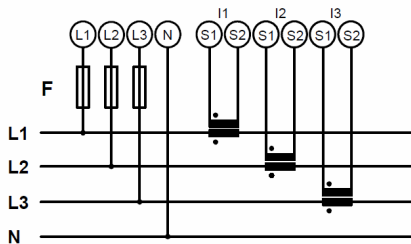
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7.1.d Modbus TCP

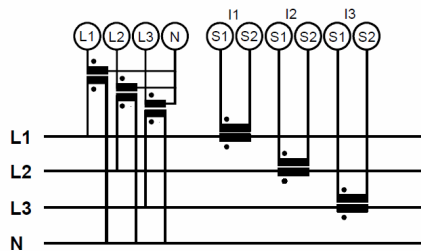
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7.1.e **Wiring examples**

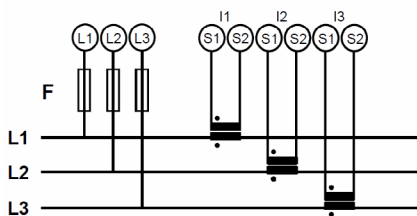
Three-phase, 4-wire, connection with 3 CTs



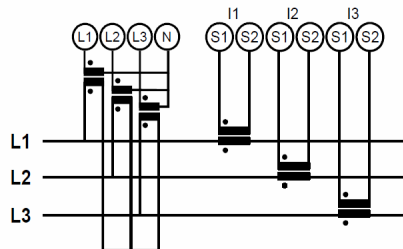
Three-phase, 4-wire, conn. with 3 CTs and 3 VTs



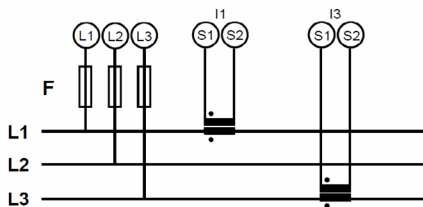
Three-phase, 3-wire, connection with 3 CTs



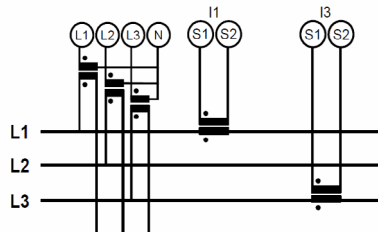
Three-phase, 3-wire, conn. with 3 CTs and 3 VTs



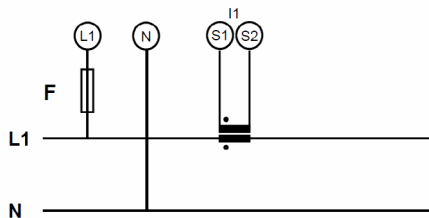
Three-phase, 3-wire, conn. with 2 CTs (Aron)



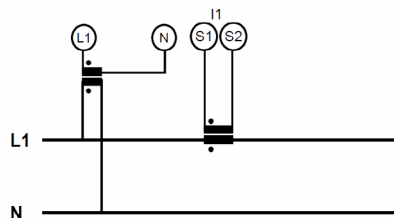
Three-phase, 3-wire, conn. with 2CTs + 3VTs (Aron)



Single-phase, 2-wire, connection with 1 CT

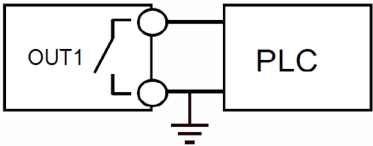
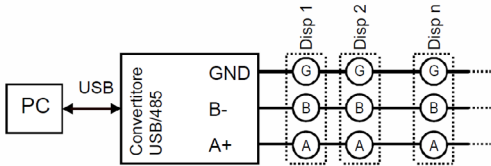


Single-phase, 2-wire, connection with 1 CT + 1 VT



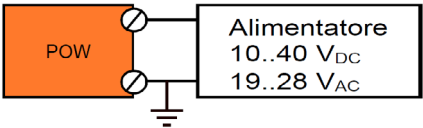
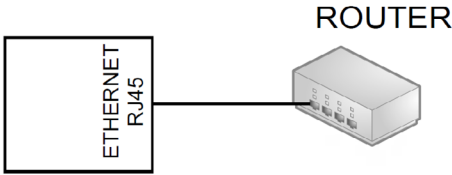
Communication via RS485

Digital output over removable block



Ethernet connection

Power supply



When connected correctly, the green LED (LINK) is steadily on, and the yellow LED (ACTIVITY) blinks intermittently.

8 Modbus registers mapping

8.1 Device Information

Modbus address	Register name Description	R/W	Default
40001	machine_id_1 Machine ID. 1 char per register	RO	E
40002	machine_id_2 Machine ID. 1 char per register	RO	M
40003	machine_id_3 Machine ID. 1 char per register	RO	T
40004	machine_id_4 Machine ID. 1 char per register	RO	4
40005	machine_id_5 Machine ID. 1 char per register	RO	3
40006	machine_id_6 Machine ID. 1 char per register	RO	0
40007	machine_id_7 Machine ID. 1 char per register	RO	\0
40008	machine_id_8 Machine ID. 1 char per register	RO	\0
40009	hw_version Hardware version.	RO	1
40010	fw_version Firmware version.	RO	1

Modbus address	Register name Description	R/W	Default
40011	mounted_version 0 -> 5A 1 -> Rogowski, 333 mV	RO	0
40012	year_month calibration year and month	RO	2510
40013	day_Hour calibration day and hour	RO	610
40014	minute_second calibration minute and second	RO	835
40015	feature_version 0 -> Base version 1 -> Full version	RO	0
40016	Mac_address_Wifi_STA_1 Mac address Wifi Station MSB	RO	11
40017	Mac_address_Wifi_STA_2 Mac address Wifi Station	RO	22
40018	Mac_address_Wifi_STA_3 Mac address Wifi Station	RO	33
40019	Mac_address_Wifi_STA_4 Mac address Wifi Station	RO	44
40020	Mac_address_Wifi_STA_5 Mac address Wifi Station	RO	55
40021	Mac_address_Wifi_STA_6 Mac address Wifi Station LSB	RO	66
40022	Mac_address_Wifi_SOFT_AP_1 Mac address Wifi software enabled access point MSB	RO	11
40023	Mac_address_Wifi_SOFT_AP_2 Mac address Wifi software enabled access point	RO	22
40024	Mac_address_Wifi_SOFT_AP_3 Mac address Wifi software enabled access point	RO	33
40025	Mac_address_Wifi_SOFT_AP_4 Mac address Wifi software enabled access point	RO	44
40026	Mac_address_Wifi_SOFT_AP_5 Mac address Wifi software enabled access point	RO	55
40027	Mac_address_Wifi_SOFT_AP_6 Mac address Wifi software enabled access point LSB	RO	66
40028	Mac_address_Ethernet_1 Mac address Ethernet MSB	RO	31
40029	Mac_address_Ethernet_2 Mac address Ethernet	RO	32
40030	Mac_address_Ethernet_3 Mac address Ethernet	RO	33
40031	Mac_address_Ethernet_4 Mac address Ethernet	RO	34
40032	Mac_address_Ethernet_5 Mac address Ethernet	RO	35
40033	Mac_address_Ethernet_6 Mac address Ethernet LSB	RO	36
40034	Mac_address_Bluetooth_1 Mac address Bluetooth MSB	RO	96
40035	Mac_address_Bluetooth_2 Mac address Bluetooth	RO	95

Modbus address	Register name Description	R/W	Default
40036	Mac_address_Bluetooth_3 Mac address Bluetooth	RO	94
40037	Mac_address_Bluetooth_4 Mac address Bluetooth	RO	93
40038	Mac_address_Bluetooth_5 Mac address Bluetooth	RO	92
40039	Mac_address_Bluetooth_6 Mac address Bluetooth LSB	RO	91
40041	plugin_board 0: nessun plugin 1: Digital input plugin 2: Lora plugin	RO	0

8.2 Device Settings

Modbus address	Register name Description	R/W	Default
40227	modbus_RTU_address Modbus address	R/W	1
40228	modbus_RTU_delay Delay Modbus answer (in ms)	R/W	0
40229	modbus_RTU_baudrate Baudrate 0 = 1200 1 = 2400 2 = 4800 3 = 9600 4 = 19200 5 = 38400 6 = 57600 7 = 115200	R/W	3
40230	modbus_RTU_parity 0 = NONE 1 = EVEN	R/W	0
40231	modbus_RTU_Stop_bit 0 = 1 Bit 1 = 1,5 Bit 2 = 2 Bit	R/W	0

Modbus address	Register name Description	R/W	Default
40232	Measurement_Configuration_Register Bit 0: Don't care Bit 1..2: Connection 0 = Single phase 1 = Three phase: 3 wires, 2 TA (Aron) 2 = Three phase: 3 wires, 3 TA 3 = Three phase: 4 wires, 3 TA (with neutral) Bit 3: FFT representation 0 = Absolute 1 = Relative to the I_1 value Bit 4: HPF filter 0 = Enabled 1 = Disabled Bit 5: Reactive power calculation method 0 = Triangle method 1 = Budeanu Bit 6: Digital output behaviour 0 = Alarm 1 = Pulsed output for KWh Bit 7: Frequency detection Channel 0 = Voltage 1 = Current Bit 9: Energy saving 0 = Disabled 1 = Enabled Bit 10..11: Output switch condition 0 = Normally Opened condition 1 = Normally Closed condition 2 = Within Threshold 3 = Outside Threshold Bit 13: Integrator condition 0 = Integrator disabled 1 = Integrator enabled (Rogowski input) Bit 15: Filtered measurement 0 = Filtering disabled 1 = Filtering enabled	R/W	518

Modbus address	Register name Description	R/W	Default
40233	Machine_Configuration_Register Bit 0: Not Used 0 = Disabled 1 = Enabled Bit 1: Buzzer in touch pad 0 = Disabled 1 = Enabled Bit 2: Buzzer during alarm condition 0 = Disabled 1 = Enabled Bit 3: Wifi STA 0 = Disabled 1 = Enabled Bit 4: Wifi AP 0 = Disabled 1 = Enabled Bit 5: MQTT 0 = Disabled 1 = Enabled	R/W	59
40235	TA_Transducer_ratio If Input 1A/5A, 20mA/100 mA = Current transformer ratio M/N - Default 1.0 (Ex: 600:5 = transducer_ratio = 120) If Input Rogowski = Sensitivity [V/A]	R/W	1
40237	TA_Transducer_delay Current transformer delay in [°] @ 50 Hz for accurate power calculation	R/W	0
40239	TV_Transducer_ratio Voltage transformer ratio M/N - Default 1.0 (Ex: 1000:100 = transducer_ratio = 10)	R/W	1
40241	TV_Transducer_delay Voltage transformer delay in [°] @ 50 Hz for accurate power calculation	R/W	0
40243	minimum_voltage_ripple Minimum threshold under which the instrument reads 0 independent from the input value	R/W	0
40245	minimum_current_ripple Minimum threshold under which the instrument reads 0 independent from the input value	R/W	0
40247	minimum_power_ripple Minimum threshold under which the instrument reads 0 independent from the input value (P, Q, and S)	R/W	0
40249	DC_Filter Update rate when no Zero crossing is detected [tenth of second]; lower => faster; higher => more accurate	R/W	10
40250	AC_Filter Update rate when Zero crossing is detected [number of periods]; lower => faster; higher => more accurate	R/W	50
40251	minute_for_Max_and_AVG_demand Minute for Max demand and Average power calculation (0..45)	R/W	15
40253	seconds_for_mean_RMS Register in seconds (0..60) for RMS average	R/W	15
40254	seconds_for_MAX_RMS Seconds 1..60 for MAX RMS value. If the register is 0, then the absolute MAX RMS is given	R/W	15

Modbus address	Register name Description	R/W	Default
40255	seconds_for_min_RMS Seconds 1..60 for min RMS value. If the register is 0, then the absolute min RMS is given	R/W	15
40256	Energy_unit_factor Variable for changing Energy measurement unit: 0 -> [Wh/10] 1 -> [Wh] .. 4 -> [KWh] 7 -> [MWh] 10 -> [GWh]	R/W	4
40258	MQTT_broker 0 -> Chronos Broker 1 -> Custom Broker	R/W	0
40261	MQTT_port porta broker MQTT	R/W	8883
40271	Alarm_Register_start_address DIGITAL OUTPUT 1: Modbus address address for alarm (starting from the modbus address of V_L1_N, V_L2_N, V_L3_N, ecc)	R/W	40000
40272	Alarm_delay DIGITAL OUTPUT 1: Delay in ms for Alarm trigger	R/W	0
40273	Alarm_trip_value DIGITAL OUTPUT 1: Alarm Threshold for closed and open condition OR first alarm Threshold for Within threshold and Outside threshold	R/W	0
40275	Alarm_hysteresis DIGITAL OUTPUT 1: Alarm Hysteresis	R/W	0
40277	Alarm_trip_value_2 DIGITAL OUTPUT 1: Second alarm Threshold for within threshold and Outside threshold condition	R/W	0
40281	Nominal_Star_Voltage Nominal Star Voltage for Sag, Swell, Interruption monitoring [V]	R/W	230
40283	Sag_percentage_level Percentage over Nominal_Star_Voltage under which a Sag event is generated (default 0.9 = 90 %); must be over Interruption_percentage_level	R/W	0,8
40285	Swell_percentage_level Percentage over Nominal_Star_Voltage over which a Swell event is generated (default 1.1 = 110 %)	R/W	1,2
40287	Interruption_percentage_level Percentage over Nominal_Star_Voltage under which an Interruption event is generated (default 0.1 = 10 %)	R/W	0,1
40291	Minimum_duration_cutoff Sag, Swell or Interruption events must be above this cutoff to be displayed and saved [ms]	R/W	0
40292	Modbus_TCP_port Porta server modbus TCP	R/W	502
40293	Wifi_STA_SSID_target_0 WI-FI STA Access point SSID 0	R/W	F
40294	Wifi_STA_SSID_target_1 WI-FI STA Access point SSID 1	R/W	R
40295	Wifi_STA_SSID_target_2 WI-FI STA Access point SSID 2	R/W	I

Modbus address	Register name Description	R/W	Default
40296	Wifi_STA_SSID_target_3 WI-FI STA Access point SSID 3	R/W	T
40297	Wifi_STA_SSID_target_4 WI-FI STA Access point SSID 4	R/W	Z
40298	Wifi_STA_SSID_target_5 WI-FI STA Access point SSID 5	R/W	!
40299	Wifi_STA_SSID_target_6 WI-FI STA Access point SSID 6	R/W	B
40300	Wifi_STA_SSID_target_7 WI-FI STA Access point SSID 7	R/W	o
40301	Wifi_STA_SSID_target_8 WI-FI STA Access point SSID 8	R/W	x
40302	Wifi_STA_SSID_target_9 WI-FI STA Access point SSID 9	R/W	
40303	Wifi_STA_SSID_target_10 WI-FI STA Access point SSID 10	R/W	7
40304	Wifi_STA_SSID_target_11 WI-FI STA Access point SSID 11	R/W	5
40305	Wifi_STA_SSID_target_12 WI-FI STA Access point SSID 12	R/W	3
40306	Wifi_STA_SSID_target_13 WI-FI STA Access point SSID 13	R/W	0
40307	Wifi_STA_SSID_target_14 WI-FI STA Access point SSID 14	R/W	
40308	Wifi_STA_SSID_target_15 WI-FI STA Access point SSID 15	R/W	P
40309	Wifi_STA_SSID_target_16 WI-FI STA Access point SSID 16	R/W	U
40310	Wifi_STA_SSID_target_17 WI-FI STA Access point SSID 17	R/W	\0
40311	Wifi_STA_SSID_target_18 WI-FI STA Access point SSID 18	R/W	\0
40312	Wifi_STA_SSID_target_19 WI-FI STA Access point SSID 19	R/W	\0
40313	Wifi_STA_SSID_target_20 WI-FI STA Access point SSID 20	R/W	\0
40314	Wifi_STA_SSID_target_21 WI-FI STA Access point SSID 21	R/W	\0
40315	Wifi_STA_SSID_target_22 WI-FI STA Access point SSID 22	R/W	\0
40316	Wifi_STA_SSID_target_23 WI-FI STA Access point SSID 23	R/W	\0
40317	Wifi_STA_SSID_target_24 WI-FI STA Access point SSID 24	R/W	\0
40318	Wifi_STA_SSID_target_25 WI-FI STA Access point SSID 25	R/W	\0
40319	Wifi_STA_SSID_target_26 WI-FI STA Access point SSID 26	R/W	\0
40320	Wifi_STA_SSID_target_27 WI-FI STA Access point SSID 27	R/W	\0
40322	Wifi_STA_SSID_target_29 WI-FI STA Access point SSID 29	R/W	\0

Modbus address	Register name Description	R/W	Default
40323	Wifi_STA_SSID_target_30 WI-FI STA Access point SSID 30	R/W	\0
40324	Wifi_STA_SSID_target_31 WI-FI STA Access point SSID 31	R/W	\0
40325	Wifi_STA_PASSWORD_target_0 WI-FI STA Access point Password 0	WO	3
40326	Wifi_STA_PASSWORD_target_1 WI-FI STA Access point Password 1	WO	4
40327	Wifi_STA_PASSWORD_target_2 WI-FI STA Access point Password 2	WO	7
40328	Wifi_STA_PASSWORD_target_3 WI-FI STA Access point Password 3	WO	7
40329	Wifi_STA_PASSWORD_target_4 WI-FI STA Access point Password 4	WO	1
40330	Wifi_STA_PASSWORD_target_5 WI-FI STA Access point Password 5	WO	2
40331	Wifi_STA_PASSWORD_target_6 WI-FI STA Access point Password 6	WO	1
40332	Wifi_STA_PASSWORD_target_7 WI-FI STA Access point Password 7	WO	9
40333	Wifi_STA_PASSWORD_target_8 WI-FI STA Access point Password 8	WO	3
40334	Wifi_STA_PASSWORD_target_9 WI-FI STA Access point Password 9	WO	0
40335	Wifi_STA_PASSWORD_target_10 WI-FI STA Access point Password 10	WO	6
40336	Wifi_STA_PASSWORD_target_11 WI-FI STA Access point Password 11	WO	5
40337	Wifi_STA_PASSWORD_target_12 WI-FI STA Access point Password 12	WO	6
40338	Wifi_STA_PASSWORD_target_13 WI-FI STA Access point Password 13	WO	4
40339	Wifi_STA_PASSWORD_target_14 WI-FI STA Access point Password 14	WO	7
40340	Wifi_STA_PASSWORD_target_15 WI-FI STA Access point Password 15	WO	7
40341	Wifi_STA_PASSWORD_target_16 WI-FI STA Access point Password 16	WO	6
40342	Wifi_STA_PASSWORD_target_17 WI-FI STA Access point Password 17	WO	0
40343	Wifi_STA_PASSWORD_target_18 WI-FI STA Access point Password 18	WO	0
40344	Wifi_STA_PASSWORD_target_19 WI-FI STA Access point Password 19	WO	3
40345	Wifi_STA_PASSWORD_target_20 WI-FI STA Access point Password 20	WO	\0
40346	Wifi_STA_PASSWORD_target_21 WI-FI STA Access point Password 21	WO	\0
40347	Wifi_STA_PASSWORD_target_22 WI-FI STA Access point Password 22	WO	\0
40348	Wifi_STA_PASSWORD_target_23 WI-FI STA Access point Password 23	WO	\0

Modbus address	Register name Description	R/W	Default
40349	Wifi_STA_PASSWORD_target_24 WI-FI STA Access point Password 24	WO	\0
40350	Wifi_STA_PASSWORD_target_25 WI-FI STA Access point Password 25	WO	\0
40351	Wifi_STA_PASSWORD_target_26 WI-FI STA Access point Password 26	WO	\0
40352	Wifi_STA_PASSWORD_target_27 WI-FI STA Access point Password 27	WO	\0
40353	Wifi_STA_PASSWORD_target_28 WI-FI STA Access point Password 28	WO	\0
40354	Wifi_STA_PASSWORD_target_29 WI-FI STA Access point Password 29	WO	\0
40355	Wifi_STA_PASSWORD_target_30 WI-FI STA Access point Password 30	WO	\0
40356	Wifi_STA_PASSWORD_target_31 WI-FI STA Access point Password 31	WO	\0
40357	Wifi_STA_HOSTNAME_0 WI-FI STA HOSTNAME set 0	R/W	E
40358	Wifi_STA_HOSTNAME_1 WI-FI STA HOSTNAME set 1	R/W	M
40359	Wifi_STA_HOSTNAME_2 WI-FI STA HOSTNAME set 2	R/W	T
40360	Wifi_STA_HOSTNAME_3 WI-FI STA HOSTNAME set 3	R/W	4
40361	Wifi_STA_HOSTNAME_4 WI-FI STA HOSTNAME set 4	R/W	3
40362	Wifi_STA_HOSTNAME_5 WI-FI STA HOSTNAME set 5	R/W	0
40363	Wifi_STA_HOSTNAME_6 WI-FI STA HOSTNAME set 6	R/W	—
40364	Wifi_STA_HOSTNAME_7 WI-FI STA HOSTNAME set 7	R/W	W
40365	Wifi_STA_HOSTNAME_8 WI-FI STA HOSTNAME set 8	R/W	I
40366	Wifi_STA_HOSTNAME_9 WI-FI STA HOSTNAME set 9	R/W	F
40367	Wifi_STA_HOSTNAME_10 WI-FI STA HOSTNAME set 10	R/W	I
40368	Wifi_STA_HOSTNAME_11 WI-FI STA HOSTNAME set 11	R/W	—
40369	Wifi_STA_HOSTNAME_12 WI-FI STA HOSTNAME set 12	R/W	S
40370	Wifi_STA_HOSTNAME_13 WI-FI STA HOSTNAME set 13	R/W	T
40371	Wifi_STA_HOSTNAME_14 WI-FI STA HOSTNAME set 14	R/W	A
40372	Wifi_STA_HOSTNAME_15 WI-FI STA HOSTNAME set 15	R/W	—
40373	Wifi_STA_HOSTNAME_16 WI-FI STA HOSTNAME set 16	R/W	\0
40374	Wifi_STA_HOSTNAME_17 WI-FI STA HOSTNAME set 17	R/W	\0

Modbus address	Register name Description	R/W	Default
40375	Wifi_STA_HOSTNAME_18 WI-FI STA HOSTNAME set 18	R/W	\0
40376	Wifi_STA_HOSTNAME_19 WI-FI STA HOSTNAME set 19	R/W	\0
40377	Wifi_STA_HOSTNAME_20 WI-FI STA HOSTNAME set 20	R/W	\0
40378	Wifi_STA_HOSTNAME_21 WI-FI STA HOSTNAME set 21	R/W	\0
40379	Wifi_STA_HOSTNAME_22 WI-FI STA HOSTNAME set 22	R/W	\0
40380	Wifi_STA_HOSTNAME_23 WI-FI STA HOSTNAME set 23	R/W	\0
40381	Wifi_STA_HOSTNAME_24 WI-FI STA HOSTNAME set 24	R/W	\0
40382	Wifi_STA_HOSTNAME_25 WI-FI STA HOSTNAME set 25	R/W	\0
40383	Wifi_STA_HOSTNAME_26 WI-FI STA HOSTNAME set 26	R/W	\0
40384	Wifi_STA_HOSTNAME_27 WI-FI STA HOSTNAME set 27	R/W	\0
40385	Wifi_STA_HOSTNAME_28 WI-FI STA HOSTNAME set 28	R/W	\0
40386	Wifi_STA_HOSTNAME_29 WI-FI STA HOSTNAME set 29	R/W	\0
40387	Wifi_STA_HOSTNAME_30 WI-FI STA HOSTNAME set 30	R/W	\0
40388	Wifi_STA_HOSTNAME_31 WI-FI STA HOSTNAME set 31	R/W	\0
40389	Wifi_STA_IP_0 WI-FI STA IP static (DHCP off) 0	R/W	192
40390	Wifi_STA_IP_1 WI-FI STA IP static (DHCP off) 1	R/W	168
40391	Wifi_STA_IP_2 WI-FI STA IP static (DHCP off) 2	R/W	178
40392	Wifi_STA_IP_3 WI-FI STA IP static (DHCP off) 3	R/W	200
40393	Wifi_STA_Netmask_0 WI-FI STA NETMASK static (DHCP off) 0	R/W	255
40394	Wifi_STA_Netmask_1 WI-FI STA NETMASK static (DHCP off) 1	R/W	255
40395	Wifi_STA_Netmask_2 WI-FI STA NETMASK static (DHCP off) 2	R/W	255
40396	Wifi_STA_Netmask_3 WI-FI STA NETMASK static (DHCP off) 3	R/W	0
40397	Wifi_STA_Gateway_0 WI-FI STA GATEWAY static (DHCP off) 0	R/W	192
40398	Wifi_STA_Gateway_1 WI-FI STA GATEWAY static (DHCP off) 1	R/W	168
40399	Wifi_STA_Gateway_2 WI-FI STA GATEWAY static (DHCP off) 2	R/W	178
40400	Wifi_STA_Gateway_3 WI-FI STA GATEWAY static (DHCP off) 3	R/W	200

Modbus address	Register name Description	R/W	Default
40401	Wifi_STA_IP_assigned_by_dhcp_0 WI-FI STA IP SET (DHCP on) 0	R/W	0
40402	Wifi_STA_IP_assigned_by_dhcp_1 WI-FI STA IP SET (DHCP on) 1	R/W	0
40403	Wifi_STA_IP_assigned_by_dhcp_2 WI-FI STA IP SET (DHCP on) 2	R/W	0
40404	Wifi_STA_IP_assigned_by_dhcp_3 WI-FI STA IP SET (DHCP on) 3	R/W	0
40405	Wifi_STA_Netmask_assigned_by_dhcp_0 WI-FI STA NETMASK SET (DHCP on) 0	R/W	0
40406	Wifi_STA_Netmask_assigned_by_dhcp_1 WI-FI STA NETMASK SET (DHCP on) 1	R/W	0
40407	Wifi_STA_Netmask_assigned_by_dhcp_2 WI-FI STA NETMASK SET (DHCP on) 2	R/W	0
40408	Wifi_STA_Netmask_assigned_by_dhcp_3 WI-FI STA NETMASK SET (DHCP on) 3	R/W	0
40409	Wifi_STA_Gateway_assigned_by_dhcp_0 WI-FI STA GATEWAY SET (DHCP on) 0	R/W	0
40410	Wifi_STA_Gateway_assigned_by_dhcp_1 WI-FI STA GATEWAY SET (DHCP on) 1	R/W	0
40411	Wifi_STA_Gateway_assigned_by_dhcp_2 WI-FI STA GATEWAY SET (DHCP on) 2	R/W	0
40412	Wifi_STA_Gateway_assigned_by_dhcp_3 WI-FI STA GATEWAY SET (DHCP on) 3	R/W	0
40413	Wifi_AP_SSID_0 WI-FI AP SSID 0	R/W	M
40414	Wifi_AP_SSID_1 WI-FI AP SSID 1	R/W	Y
40415	Wifi_AP_SSID_2 WI-FI AP SSID 2	R/W	—
40416	Wifi_AP_SSID_3 WI-FI AP SSID 3	R/W	E
40417	Wifi_AP_SSID_4 WI-FI AP SSID 4	R/W	M
40418	Wifi_AP_SSID_5 WI-FI AP SSID 5	R/W	T
40419	Wifi_AP_SSID_6 WI-FI AP SSID 6	R/W	—
40420	Wifi_AP_SSID_7 WI-FI AP SSID 7	R/W	4
40421	Wifi_AP_SSID_8 WI-FI AP SSID 8	R/W	3
40422	Wifi_AP_SSID_9 WI-FI AP SSID 9	R/W	0
40423	Wifi_AP_SSID_10 WI-FI AP SSID 10	R/W	\0
40424	Wifi_AP_SSID_11 WI-FI AP SSID 11	R/W	\0
40425	Wifi_AP_SSID_12 WI-FI AP SSID 12	R/W	\0
40426	Wifi_AP_SSID_13 WI-FI AP SSID 13	R/W	\0

Modbus address	Register name Description	R/W	Default
40427	Wifi_AP_SSID_14 WI-FI AP SSID 14	R/W	\0
40428	Wifi_AP_SSID_15 WI-FI AP SSID 15	R/W	\0
40429	Wifi_AP_SSID_16 WI-FI AP SSID 16	R/W	\0
40430	Wifi_AP_SSID_17 WI-FI AP SSID 17	R/W	\0
40431	Wifi_AP_SSID_18 WI-FI AP SSID 18	R/W	\0
40432	Wifi_AP_SSID_19 WI-FI AP SSID 19	R/W	\0
40433	Wifi_AP_SSID_20 WI-FI AP SSID 20	R/W	\0
40435	Wifi_AP_SSID_22 WI-FI AP SSID 22	R/W	\0
40436	Wifi_AP_SSID_23 WI-FI AP SSID 23	R/W	\0
40437	Wifi_AP_SSID_24 WI-FI AP SSID 24	R/W	\0
40438	Wifi_AP_SSID_25 WI-FI AP SSID 25	R/W	\0
40439	Wifi_AP_SSID_26 WI-FI AP SSID 26	R/W	\0
40440	Wifi_AP_SSID_27 WI-FI AP SSID 27	R/W	\0
40441	Wifi_AP_SSID_28 WI-FI AP SSID 28	R/W	\0
40442	Wifi_AP_SSID_29 WI-FI AP SSID 29	R/W	\0
40443	Wifi_AP_SSID_30 WI-FI AP SSID 30	R/W	\0
40444	Wifi_AP_SSID_31 WI-FI AP SSID 31	R/W	\0
40445	Wifi_AP_PASSWORD_0 WI-FI AP PASSWORD 0	WO	1
40446	Wifi_AP_PASSWORD_1 WI-FI AP PASSWORD 1	WO	2
40447	Wifi_AP_PASSWORD_2 WI-FI AP PASSWORD 2	WO	3
40448	Wifi_AP_PASSWORD_3 WI-FI AP PASSWORD 3	WO	4
40449	Wifi_AP_PASSWORD_4 WI-FI AP PASSWORD 4	WO	5
40450	Wifi_AP_PASSWORD_5 WI-FI AP PASSWORD 5	WO	6
40451	Wifi_AP_PASSWORD_6 WI-FI AP PASSWORD 6	WO	7
40452	Wifi_AP_PASSWORD_7 WI-FI AP PASSWORD 7	WO	8
40453	Wifi_AP_PASSWORD_8 WI-FI AP PASSWORD 8	WO	9

Modbus address	Register name Description	R/W	Default
40454	Wifi_AP_PASSWORD_9 WI-FI AP PASSWORD 9	WO	\0
40455	Wifi_AP_PASSWORD_10 WI-FI AP PASSWORD 10	WO	\0
40456	Wifi_AP_PASSWORD_11 WI-FI AP PASSWORD 11	WO	\0
40457	Wifi_AP_PASSWORD_12 WI-FI AP PASSWORD 12	WO	\0
40458	Wifi_AP_PASSWORD_13 WI-FI AP PASSWORD 13	WO	\0
40459	Wifi_AP_PASSWORD_14 WI-FI AP PASSWORD 14	WO	\0
40460	Wifi_AP_PASSWORD_15 WI-FI AP PASSWORD 15	WO	\0
40461	Wifi_AP_PASSWORD_16 WI-FI AP PASSWORD 16	WO	\0
40462	Wifi_AP_PASSWORD_17 WI-FI AP PASSWORD 17	WO	\0
40463	Wifi_AP_PASSWORD_18 WI-FI AP PASSWORD 18	WO	\0
40464	Wifi_AP_PASSWORD_19 WI-FI AP PASSWORD 19	WO	\0
40465	Wifi_AP_PASSWORD_20 WI-FI AP PASSWORD 20	WO	\0
40466	Wifi_AP_PASSWORD_21 WI-FI AP PASSWORD 21	WO	\0
40467	Wifi_AP_PASSWORD_22 WI-FI AP PASSWORD 22	WO	\0
40468	Wifi_AP_PASSWORD_23 WI-FI AP PASSWORD 23	WO	\0
40469	Wifi_AP_PASSWORD_24 WI-FI AP PASSWORD 24	WO	\0
40470	Wifi_AP_PASSWORD_25 WI-FI AP PASSWORD 25	WO	\0
40471	Wifi_AP_PASSWORD_26 WI-FI AP PASSWORD 26	WO	\0
40472	Wifi_AP_PASSWORD_27 WI-FI AP PASSWORD 27	WO	\0
40473	Wifi_AP_PASSWORD_28 WI-FI AP PASSWORD 28	WO	\0
40474	Wifi_AP_PASSWORD_29 WI-FI AP PASSWORD 29	WO	\0
40475	Wifi_AP_PASSWORD_30 WI-FI AP PASSWORD 30	WO	\0
40476	Wifi_AP_PASSWORD_31 WI-FI AP PASSWORD 31	WO	\0
40477	Wifi_AP_HOSTNAME_0 WI-FI AP HOSTNAME set 0	R/W	E
40478	Wifi_AP_HOSTNAME_1 WI-FI AP HOSTNAME set 1	R/W	M
40479	Wifi_AP_HOSTNAME_2 WI-FI AP HOSTNAME set 2	R/W	T

Modbus address	Register name Description	R/W	Default
40480	Wifi_AP_HOSTNAME_3 WI-FI AP HOSTNAME set 3	R/W	4
40481	Wifi_AP_HOSTNAME_4 WI-FI AP HOSTNAME set 4	R/W	3
40482	Wifi_AP_HOSTNAME_5 WI-FI AP HOSTNAME set 5	R/W	0
40483	Wifi_AP_HOSTNAME_6 WI-FI AP HOSTNAME set 6	R/W	—
40484	Wifi_AP_HOSTNAME_7 WI-FI AP HOSTNAME set 7	R/W	W
40485	Wifi_AP_HOSTNAME_8 WI-FI AP HOSTNAME set 8	R/W	I
40486	Wifi_AP_HOSTNAME_9 WI-FI AP HOSTNAME set 9	R/W	F
40487	Wifi_AP_HOSTNAME_10 WI-FI AP HOSTNAME set 10	R/W	I
40488	Wifi_AP_HOSTNAME_11 WI-FI AP HOSTNAME set 11	R/W	—
40489	Wifi_AP_HOSTNAME_12 WI-FI AP HOSTNAME set 12	R/W	A
40490	Wifi_AP_HOSTNAME_13 WI-FI AP HOSTNAME set 13	R/W	P
40491	Wifi_AP_HOSTNAME_14 WI-FI AP HOSTNAME set 14	R/W	—
40492	Wifi_AP_HOSTNAME_15 WI-FI AP HOSTNAME set 15	R/W	\0
40493	Wifi_AP_HOSTNAME_16 WI-FI AP HOSTNAME set 16	R/W	\0
40494	Wifi_AP_HOSTNAME_17 WI-FI AP HOSTNAME set 17	R/W	\0
40495	Wifi_AP_HOSTNAME_18 WI-FI AP HOSTNAME set 18	R/W	\0
40496	Wifi_AP_HOSTNAME_19 WI-FI AP HOSTNAME set 19	R/W	\0
40497	Wifi_AP_HOSTNAME_20 WI-FI AP HOSTNAME set 20	R/W	\0
40498	Wifi_AP_HOSTNAME_21 WI-FI AP HOSTNAME set 21	R/W	\0
40499	Wifi_AP_HOSTNAME_22 WI-FI AP HOSTNAME set 22	R/W	\0
40500	Wifi_AP_HOSTNAME_23 WI-FI AP HOSTNAME set 23	R/W	\0
40501	Wifi_AP_HOSTNAME_24 WI-FI AP HOSTNAME set 24	R/W	\0
40502	Wifi_AP_HOSTNAME_25 WI-FI AP HOSTNAME set 25	R/W	\0
40503	Wifi_AP_HOSTNAME_26 WI-FI AP HOSTNAME set 26	R/W	\0
40504	Wifi_AP_HOSTNAME_27 WI-FI AP HOSTNAME set 27	R/W	\0
40505	Wifi_AP_HOSTNAME_28 WI-FI AP HOSTNAME set 28	R/W	\0

Modbus address	Register name Description	R/W	Default
40506	Wifi_AP_HOSTNAME_29 WI-FI AP HOSTNAME set 29	R/W	\0
40507	Wifi_AP_HOSTNAME_30 WI-FI AP HOSTNAME set 30	R/W	\0
40508	Wifi_AP_HOSTNAME_31 WI-FI AP HOSTNAME set 31	R/W	\0
40509	Wifi_AP_IP_0 WI-FI AP IP 0	R/W	192
40510	Wifi_AP_IP_1 WI-FI AP IP 1	R/W	168
40511	Wifi_AP_IP_2 WI-FI AP IP 2	R/W	4
40512	Wifi_AP_IP_3 WI-FI AP IP 3	R/W	1
40513	Wifi_AP_Netmask_0 WI-FI AP NETMASK 0	R/W	255
40514	Wifi_AP_Netmask_1 WI-FI AP NETMASK 1	R/W	255
40515	Wifi_AP_Netmask_2 WI-FI AP NETMASK 2	R/W	255
40516	Wifi_AP_Netmask_3 WI-FI AP NETMASK 3	R/W	0
40517	Wifi_AP_Gateway_0 WI-FI AP GATEWAY 0	R/W	192
40518	Wifi_AP_Gateway_1 WI-FI AP GATEWAY 1	R/W	168
40519	Wifi_AP_Gateway_2 WI-FI AP GATEWAY 2	R/W	4
40520	Wifi_AP_Gateway_3 WI-FI AP GATEWAY 3	R/W	1
40521	Ethernet_HOSTNAME_0 Ethernet_HOSTNAME_0 set 0	R/W	E
40522	Ethernet_HOSTNAME_1 Ethernet_HOSTNAME_0 set 1	R/W	M
40523	Ethernet_HOSTNAME_2 Ethernet_HOSTNAME_0 set 2	R/W	T
40524	Ethernet_HOSTNAME_3 Ethernet_HOSTNAME_0 set 3	R/W	4
40525	Ethernet_HOSTNAME_4 Ethernet_HOSTNAME_0 set 4	R/W	3
40526	Ethernet_HOSTNAME_5 Ethernet_HOSTNAME_0 set 5	R/W	0
40527	Ethernet_HOSTNAME_6 Ethernet_HOSTNAME_0 set 6	R/W	–
40528	Ethernet_HOSTNAME_7 Ethernet_HOSTNAME_0 set 7	R/W	E
40529	Ethernet_HOSTNAME_8 Ethernet_HOSTNAME_0 set 8	R/W	T
40530	Ethernet_HOSTNAME_9 Ethernet_HOSTNAME_0 set 9	R/W	H
40531	Ethernet_HOSTNAME_10 Ethernet_HOSTNAME_0 set 10	R/W	E

Modbus address	Register name Description	R/W	Default
40532	Ethernet_HOSTNAME_11 Ethernet_HOSTNAME_0 set 11	R/W	R
40533	Ethernet_HOSTNAME_12 Ethernet_HOSTNAME_0 set 12	R/W	N
40534	Ethernet_HOSTNAME_13 Ethernet_HOSTNAME_0 set 13	R/W	E
40535	Ethernet_HOSTNAME_14 Ethernet_HOSTNAME_0 set 14	R/W	T
40536	Ethernet_HOSTNAME_15 Ethernet_HOSTNAME_0 set 15	R/W	—
40537	Ethernet_HOSTNAME_16 Ethernet_HOSTNAME_0 set 16	R/W	\0
40538	Ethernet_HOSTNAME_17 Ethernet_HOSTNAME_0 set 17	R/W	\0
40539	Ethernet_HOSTNAME_18 Ethernet_HOSTNAME_0 set 18	R/W	\0
40540	Ethernet_HOSTNAME_19 Ethernet_HOSTNAME_0 set 19	R/W	\0
40541	Ethernet_HOSTNAME_20 Ethernet_HOSTNAME_0 set 20	R/W	\0
40542	Ethernet_HOSTNAME_21 Ethernet_HOSTNAME_0 set 21	R/W	\0
40543	Ethernet_HOSTNAME_22 Ethernet_HOSTNAME_0 set 22	R/W	\0
40544	Ethernet_HOSTNAME_23 Ethernet_HOSTNAME_0 set 23	R/W	\0
40545	Ethernet_HOSTNAME_24 Ethernet_HOSTNAME_0 set 24	R/W	\0
40546	Ethernet_HOSTNAME_25 Ethernet_HOSTNAME_0 set 25	R/W	\0
40547	Ethernet_HOSTNAME_26 Ethernet_HOSTNAME_0 set 26	R/W	\0
40548	Ethernet_HOSTNAME_27 Ethernet_HOSTNAME_0 set 27	R/W	\0
40549	Ethernet_HOSTNAME_28 Ethernet_HOSTNAME_0 set 28	R/W	\0
40550	Ethernet_HOSTNAME_29 Ethernet_HOSTNAME_0 set 29	R/W	\0
40551	Ethernet_HOSTNAME_30 Ethernet_HOSTNAME_0 set 30	R/W	\0
40552	Ethernet_HOSTNAME_31 Ethernet_HOSTNAME_0 set 31	R/W	\0
40553	Ethernet_IP_0 ETHERNET IP static (DHCP off) 0	R/W	192
40554	Ethernet_IP_1 ETHERNET IP static (DHCP off) 1	R/W	168
40556	Ethernet_IP_3 ETHERNET IP static (DHCP off) 3	R/W	250
40557	Ethernet_Netmask_0 ETHERNET NETMASK static (DHCP off) 0	R/W	255
40558	Ethernet_Netmask_1 ETHERNET NETMASK static (DHCP off) 1	R/W	255

Modbus address	Register name Description	R/W	Default
40559	Ethernet_Netmask_2 ETHERNET NETMASK static (DHCP off) 2	R/W	255
40560	Ethernet_Netmask_3 ETHERNET NETMASK static (DHCP off) 3	R/W	0
40561	Ethernet_Gateway_0 ETHERNET GATEWAY static (DHCP off) 0	R/W	192
40562	Ethernet_Gateway_1 ETHERNET GATEWAY static (DHCP off) 1	R/W	168
40563	Ethernet_Gateway_2 ETHERNET GATEWAY static (DHCP off) 2	R/W	178
40564	Ethernet_Gateway_3 ETHERNET GATEWAY static (DHCP off) 3	R/W	250
40565	Ethernet_IP_assigned_by_dhcp_0 ETHERNET IP ASSEGNATO (DHCP on) 0	R/W	0
40566	Ethernet_IP_assigned_by_dhcp_1 ETHERNET IP ASSEGNATO (DHCP on) 1	R/W	0
40567	Ethernet_IP_assigned_by_dhcp_2 ETHERNET IP ASSEGNATO (DHCP on) 2	R/W	0
40568	Ethernet_IP_assigned_by_dhcp_3 ETHERNET IP ASSEGNATO (DHCP on) 3	R/W	0
40569	Ethernet_Netmask_assigned_by_dhcp_0 ETHERNET NETMASK ASSEGNATO (DHCP on) 0	R/W	0
40570	Ethernet_Netmask_assigned_by_dhcp_1 ETHERNET NETMASK ASSEGNATO (DHCP on) 1	R/W	0
40571	Ethernet_Netmask_assigned_by_dhcp_2 ETHERNET NETMASK ASSEGNATO (DHCP on) 2	R/W	0
40572	Ethernet_Netmask_assigned_by_dhcp_3 ETHERNET NETMASK ASSEGNATO (DHCP on) 3	R/W	0
40573	Ethernet_Gateway_assigned_by_dhcp_0 ETHERNET GATEWAY ASSEGNATO (DHCP on) 0	R/W	0
40574	Ethernet_Gateway_assigned_by_dhcp_1 ETHERNET GATEWAY ASSEGNATO (DHCP on) 1	R/W	0
40575	Ethernet_Gateway_assigned_by_dhcp_2 ETHERNET GATEWAY ASSEGNATO (DHCP on) 2	R/W	0
40576	Ethernet_Gateway_assigned_by_dhcp_3 ETHERNET GATEWAY ASSEGNATO (DHCP on) 3	R/W	0
40577	Communications_settings Bit 0: Ethernet DHCP 0 = Disabled (static address from registers) 1 = Enabled (default) Bit 1: Wi-Fi STA DHCP 0 = Disabled (static address from registers) 1 = Enabled (default)	R/W	3
40579	UTC_Time_zone_value The value of this register sets the Time Zone out of a list of 461 elements. The entire list is in the documentation, the default value is 390 which is for 'Europe/Rome'	R/W	390
40674	webserver_user_psw_0 webserver authentication user password char 0	WO	a
40675	webserver_user_psw_1 webserver authentication user password char 1	WO	d

Modbus address	Register name Description	R/W	Default
40676	webserver_user_psw_2 webserver authentication user password char 2	WO	m
40677	webserver_user_psw_3 webserver authentication user password char 3	WO	i
40678	webserver_user_psw_4 webserver authentication user password char 4	WO	n
40679	webserver_user_psw_5 webserver authentication user password char 5	WO	\0
40680	webserver_user_psw_6 webserver authentication user password char 6	WO	\0
40681	webserver_user_psw_7 webserver authentication user password char 7	WO	\0
40682	webserver_user_psw_8 webserver authentication user password char 8	WO	\0
40683	webserver_user_psw_9 webserver authentication user password char 9	WO	\0
40684	webserver_user_psw_10 webserver authentication user password char 10	WO	\0
40685	webserver_user_psw_11 webserver authentication user password char 11	WO	\0
40686	webserver_user_psw_12 webserver authentication user password char 12	WO	\0
40687	webserver_user_psw_13 webserver authentication user password char 13	WO	\0
40688	webserver_user_psw_14 webserver authentication user password char 14	WO	\0
40689	webserver_user_psw_15 webserver authentication user password char 15	WO	\0
40690	webserver_inst_psw_0 webserver authentication installer password char 0	WO	a
40691	webserver_inst_psw_1 webserver authentication installer password char 1	WO	d
40692	webserver_inst_psw_2 webserver authentication installer password char 2	WO	m
40693	webserver_inst_psw_3 webserver authentication installer password char 3	WO	i
40694	webserver_inst_psw_4 webserver authentication installer password char 4	WO	n
40695	webserver_inst_psw_5 webserver authentication installer password char 5	WO	\0
40696	webserver_inst_psw_6 webserver authentication installer password char 6	WO	\0
40697	webserver_inst_psw_7 webserver authentication installer password char 7	WO	\0
40698	webserver_inst_psw_8 webserver authentication installer password char 8	WO	\0
40699	webserver_inst_psw_9 webserver authentication installer password char 9	WO	\0
40700	webserver_inst_psw_10 webserver authentication installer password char 10	WO	\0
40701	webserver_inst_psw_11 webserver authentication installer password char 11	WO	\0

Modbus address	Register name Description	R/W	Default
40702	webserver_inst_psw_12 webserver authentication installer password char 12	WO	\0
40703	webserver_inst_psw_13 webserver authentication installer password char 13	WO	\0
40704	webserver_inst_psw_14 webserver authentication installer password char 14	WO	\0
40705	webserver_inst_psw_15 webserver authentication installer password char 15	WO	\0
40709	totalizer_mode bit 0: 0 -> Digital in rising 1 -> Digital in falling bit 1: 0 -> Totalizer incremental 1 -> Totalizer decremental	R/W	0
40710	Filter_Din Number of samples of the filter (every 157us)	R/W	0
40715	wifi_tx_power Wifi Strength of our antenna in dBm	R/W	20
40716	Pulses_per_kWh Pulses per kWh impulsive digital output	R/W	1000

8.3 Energies

Modbus address	Register name Description	R/W	Default
40721	KWh1 Active energy line 1 [Wh tenth]	R/W	0
40725	KWh2 Active energy line 2 [Wh tenth]	R/W	0
40729	KWh3 Active energy line 3 [Wh tenth]	R/W	0
40733	KWh_SUM Active energy three phase [Wh tenth]	R/W	0
40737	KWh1_Plus Positive Active energy line 1 [Wh tenth]	R/W	0
40741	KWh2_Plus Positive Active energy line 2 [Wh tenth]	R/W	0
40745	KWh3_Plus Positive Active energy line 3 [Wh tenth]	R/W	0
40749	KWh_SUM_Plus Positive Active energy three phase [Wh tenth]	R/W	0
40753	KWh1_Neg Negative Active energy line 1 [Wh tenth]	R/W	0
40757	KWh2_Neg Negative Active energy line 2 [Wh tenth]	R/W	0
40761	KWh3_Neg Negative Active energy line 3 [Wh tenth]	R/W	0
40769	KVARh1 Reactive energy line 1 [VARh tenth]	R/W	0
40773	KVARh2 Reactive energy line 2 [VARh tenth]	R/W	0

Modbus address	Register name Description	R/W	Default
40777	KVARh3 Reactive energy line 3 [VARh tenth]	R/W	0
40781	KVARh_SUM Reactive energy three phase [VARh tenth]	R/W	0
40785	KVARh1_Inductive_positive Inductive (positive P) Reactive energy line 1 [VARh tenth]	R/W	0
40789	KVARh2_Inductive_positive Inductive (positive P) Reactive energy line 2 [VARh tenth]	R/W	0
40793	KVARh3_Inductive_positive Inductive (positive P) Reactive energy line 3 [VARh tenth]	R/W	0
40797	KVARh_SUM_Inductive_positive Inductive (positive P) Reactive energy three phase [VARh tenth]	R/W	0
40801	KVARh1_Inductive_negative Inductive (negative P) Reactive energy line 1 [VARh tenth]	R/W	0
40805	KVARh2_Inductive_negative Inductive (negative P) Reactive energy line 2 [VARh tenth]	R/W	0
40809	KVARh3_Inductive_negative Inductive (negative P) Reactive energy line 3 [VARh tenth]	R/W	0
40813	KVARh_SUM_Inductive_negative Inductive (negative P) Reactive energy three phase [VARh tenth]	R/W	0
40817	KVARh1_Capacitive_positive Capacitive (positive P) Reactive energy line 1 [VARh tenth]	R/W	0
40821	KVARh2_Capacitive_positive Capacitive (positive P) Reactive energy line 2 [VARh tenth]	R/W	0
40825	KVARh3_Capacitive_positive Capacitive (positive P) Reactive energy line 3 [VARh tenth]	R/W	0
40829	KVARh_SUM_Capacitive_positive Capacitive (positive P) Reactive energy three phase [VARh tenth]	R/W	0
40833	KVARh1_Capacitive_negative Capacitive (negative P) Reactive energy line 1 [VARh tenth]	R/W	0
40837	KVARh2_Capacitive_negative Capacitive (negative P) Reactive energy line 2 [VARh tenth]	R/W	0
40841	KVARh3_Capacitive_negative Capacitive (negative P) Reactive energy line 3 [VARh tenth]	R/W	0
40845	KVARh_SUM_Capacitive_negative Capacitive (negative P) Reactive energy three phase [VARh tenth]	R/W	0
40849	KVAh1 Apparent energy line 1 [VAh tenth]	R/W	0
40853	KVAh2 Apparent energy line 2 [VAh tenth]	R/W	0
40857	KVAh3 Apparent energy line 3 [VAh tenth]	R/W	0
40861	KVAh_SUM Apparent energy three phase [VAh tenth]	R/W	0
40865	Wh_storage_count Number of Wh flash savings (every 1 minute)	RO	0
40869	Working_time Working time of the device [mins]	RO	0

Modbus address	Register name Description	R/W	Default
40891	Communication_status Bit 0: Wifi Sta Connected 0 = Not Connected (default) 1 = Connected Bit 1: Ethernet Connected 0 = Not Connected (default) 1 = Connected Bit 2: Connected cloud service 0 = Not Connected (default) 1 = Connected Bit 3: SD Card Connected 0 = Not Connected (default) 1 = Connected Bit 4: USB Connected 0 = Not Connected (default) 1 = Connected Bit 5: SD Card Mounted 0 = Yes 1 = No Bit 6: USB Mounted 0 = Yes 1 = No	RO	0
40894	status_digital_input Status for digital input. Bit 0: Input 1 0 = Closed 1 = Open Bit 1: Input 2 0 = Closed 1 = Open Bit 2: Input 3 0 = Closed 1 = Open	RO	0

8.4 Realtime measurement

Modbus address	Register name Description	R/W	Default
40897	Status_1 //STATUS_1 bit #define FLASH_SETTINGS_ERROR 0x00000001 #define FLASH_CALIBRATION_ERROR 0x00000002 #define I1_OVER_RANGE 0x00000004 #define I1_UNDER_RANGE 0x00000008 #define I2_OVER_RANGE 0x00000010 #define I2_UNDER_RANGE 0x00000020 #define I3_OVER_RANGE 0x00000040 #define I3_UNDER_RANGE 0x00000080 #define V1_OVER_RANGE 0x00000100 #define V1_UNDER_RANGE 0x00000200 #define V2_OVER_RANGE 0x00000400 #define V2_UNDER_RANGE 0x00000800 #define V3_OVER_RANGE 0x00001000 #define V3_UNDER_RANGE 0x00002000 #define ZX_DETECTING 0x00004000 #define SWITCH_OPEN 0x00008000 #define WH_STORING_ERROR 0x00010000 #define BUZZER_ON 0x00020000 #define RTC_CLOCK_NOT_UPDATED 0x00040000 #define ALARM_TRIGGER_REQUEST 0x00080000 #define TOTALIZER_STORING_ERROR 0x00100000 #define ZX_SIGNAL_ACQUIRED 0x00200000 #define LOW_IL1_MEASUREMENT 0x00400000 #define LOW_IL2_MEASUREMENT 0x00800000 #define LOW_IL3_MEASUREMENT 0x01000000 #define PF1_INDUCTIVE 0x10000000 #define PF2_INDUCTIVE 0x20000000 #define PF3_INDUCTIVE 0x40000000	RO	0

Modbus address	Register name Description	R/W	Default
40899	Status_2 //STATUS_2 bit #define EVENT_MONITORING_READY_L1N 0x00000020 #define EVENT_MONITORING_READY_L2N 0x00000040 #define EVENT_MONITORING_READY_L3N 0x00000080 #define EVENT_PRESENT 0x00000800 #define FREQ_COPIED 0x00001000 #define NTP_SET 0x00002000 #define SWITCH_OPEN_L1 0x00008000 #define SWITCH_OPEN_L2 0x00010000 #define SWITCH_OPEN_L3 0x00020000 #define TOUCH_BOTTON_PRESSED 0x00040000 #define ERROR_TEMP_SENSOR 0x00080000 #define ERROR_TOUCH_SENSOR 0x00100000 #define REQUEST_RESET_SETTINGS 0x00200000 #define RTC_WRITING_IN_PROGRESS 0x00400000 #define REQUEST_RSSI 0x00800000 #define MAX_DEMAND_STORING_ERROR 0x01000000 #define POWER_QUALITY_BLANKING 0x02000000 #define POWER_QUALITY_FLASH_ERROR 0x04000000 #define REQUEST_CHANGE_ENERGY_UNIT 0x08000000 #define CERTS_ERROR 0x10000000 #define PQ_BLANKING_LOW_DURATION 0x20000000 #define SWITCH_2_OPEN 0x40000000	RO	0
40904	pass_installer password for 'installer' read & write role	R/W	0
40906	Command //comandi da scrivere sul registro COMMAND #define COMANDO_SALVATAGGIO_FLASH_SETTAGGI_E_NFC 0xC1C0U #define COMANDO_RESET 0xC1A0U #define COMANDO_SAVE_ENERGY 0xBABAU #define COMANDO_CLOSE_SWITCH 0xDAAAU #define COMANDO_OPEN_SWITCH 0xDAABU #define COMANDO_LEGGI_EVENTI_SAG 0xE000U #define COMANDO_LEGGI_EVENTI_SWELL 0xE100U #define COMANDO_LEGGI_EVENTI_INTERRUPTIION 0xE200U #define COMANDO_RESET_EVENTI_SAG 0xE300U #define COMANDO_RESET_EVENTI_SWELL 0xE400U #define COMANDO_RESET_EVENTI_INTERRUPTIION 0xE500U #define COMANDO_RESET_MAX_DEMAND 0xF000U #define COMANDO_RESET_ENERGIE 0xAAAAU	R/W	0
40907	V_L1_N RMS star voltage L1-N [V]	RO	0
40909	V_L2_N RMS star voltage L2-N [V]	RO	0
40911	V_L3_N RMS star voltage L3-N [V]	RO	0
40913	V_STAR_AVG RMS star avg value voltage [V]	RO	0
40915	V_L1_L2 RMS line voltage L1-L2 [V]	RO	0

Modbus address	Register name Description	R/W	Default
40917	V_L2_L3 RMS line voltage L2-L3 [V]	RO	0
40919	V_L3_L1 RMS line voltage L3-L1 [V]	RO	0
40921	V_LINE_AVG RMS line avg value voltage [V]	RO	0
40923	I_L1 RMS line current L1	RO	0
40925	I_L2 RMS line current L2	RO	0
40927	I_L3 RMS line current L3	RO	0
40929	I_N RMS line current N (if 1 or 2 TA connection, I_N = 0)	RO	0
40931	I_AVG RMS avg value current (excluding neutral current I_N)	RO	0
40933	P1 RMS active power line 1 [W]	RO	0
40935	P2 RMS active power line 2 [W]	RO	0
40937	P3 RMS active power line 3 [W]	RO	0
40939	P_SUM RMS sum active power [W]	RO	0
40941	Q1 RMS reactive power line 1 [VAR]	RO	0
40943	Q2 RMS reactive power line 2 [VAR]	RO	0
40945	Q3 RMS reactive power line 3 [VAR]	RO	0
40947	Q_SUM RMS sum reactive power [VAR]	RO	0
40949	S1 RMS apparent power line 1 [VAR]	RO	0
40951	S2 RMS apparent power line 2 [VAR]	RO	0
40953	S3 RMS apparent power line 3 [VAR]	RO	0
40955	S_SUM RMS sum apparent power [VAR]	RO	0
40957	PF1 Power Factor line 1	RO	0
40959	PF2 Power Factor line 2	RO	0
40961	PF3 Power Factor line 3	RO	0
40963	PF_3PH Three Phase Power Factor	RO	0
40965	CF1 Crest Factor line 1	RO	0
40967	CF2 Crest Factor line 2	RO	0

Modbus address	Register name Description	R/W	Default
40969	CF3 Crest Factor line 3	RO	0
40971	CF_N Crest Factor Neutral	RO	0
40973	Frequency Frequency [Hz]	RO	0
40975	V_L1_N_peak Star voltage L1-N peak [V]	R/W	0
40977	V_L2_N_peak Star voltage L2-N peak [V]	R/W	0
40979	V_L3_N_peak Star voltage L3-N peak [V]	R/W	0
40981	V_L1_L2_peak Line voltage L1-L2 peak [V]	R/W	0
40983	V_L2_L3_peak Line voltage L2-L3 peak [V]	R/W	0
40985	V_L3_L1_peak Line voltage L3-L1 peak [V]	R/W	0
40987	I_L1_peak L1 current peak	R/W	0
40989	I_L2_peak L2 current peak	R/W	0
40991	I_L3_peak L3 current peak	R/W	0
40993	I_N_peak N current peak	R/W	0
41045	totalizer_1 Totalizer stored value for expansion board dig in 1	R/W	0
41049	totalizer_3 Totalizer stored value for expansion board dig in 3	R/W	0
41057	TAN_FI_1 Tangentθline 1 (+ inductive, - capacitive)	RO	0
41059	TAN_FI_2 Tangentθline 2 (+ inductive, - capacitive)	RO	0
41061	TAN_FI_3 Tangentθline 3 (+ inductive, - capacitive)	RO	0
41063	TAN_FI_AVG Average Tangentθ(+ inductive, - capacitive)	RO	0
41065	Phase_Order L1, L2, L3 = 0; L1, L3, L2 = 1	RO	0
41067	Internal_temperature Internal Temperature [°C]	RO	0

8.5 Average, maximum and minimum value

Modbus address	Register name Description	R/W	Default
41069	V_L1_N_RMS_AVG Star voltage L1_N RMS average [V] over seconds_for_mean_RMS	RO	0
41071	V_L1_N_RMS_MAX Star voltage L1_N MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41073	V_L1_N_RMS_min Star voltage L1_N Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41075	V_L2_N_RMS_AVG Star voltage L2_N RMS average [V] over seconds_for_mean_RMS	RO	0
41077	V_L2_N_RMS_MAX Star voltage L2_N MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41079	V_L2_N_RMS_min Star voltage L2_N Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41081	V_L3_N_RMS_AVG Star voltage L3_N RMS average [V] over seconds_for_mean_RMS	RO	0
41083	V_L3_N_RMS_MAX Star voltage L3_N MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41085	V_L3_N_RMS_min Star voltage L3_N Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41087	V_STAR_AVG_RMS_AVG Star voltage AVG RMS average [V] over seconds_for_mean_RMS	RO	0
41089	V_STAR_AVG_RMS_MAX Star voltage AVG MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41091	V_STAR_AVG_RMS_min Star voltage AVG Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41093	V_L1_L2_RMS_AVG Line voltage L1-Line voltage L2-Line voltage L3-L1 RMS average [V] over seconds_for_mean_RMS	RO	0
41095	V_L1_L2_RMS_MAX Line voltage L1-Line voltage L2-Line voltage L3-L1 MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41097	V_L1_L2_RMS_min Line voltage L1-Line voltage L2-Line voltage L3-L1 Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41099	V_L2_L3_RMS_AVG Line voltage L2-Line voltage L3-L1 RMS average [V] over seconds_for_mean_RMS	RO	0
41101	V_L2_L3_RMS_MAX Line voltage L2-Line voltage L3-L1 MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41103	V_L2_L3_RMS_min Line voltage L2-Line voltage L3-L1 Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41105	V_L3_L1_RMS_AVG Line voltage L3-L1 RMS average [V] over seconds_for_mean_RMS	RO	0
41107	V_L3_L1_RMS_MAX Line voltage L3-L1 MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41109	V_L3_L1_RMS_min Line voltage L3-L1 Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41111	V_LINE_AVG_RMS_AVG Line voltage AVG RMS average [V] over seconds_for_mean_RMS	RO	0

Modbus address	Register name Description	R/W	Default
41113	V_LINE_AVG_RMS_MAX Line voltage AVG MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41115	V_LINE_AVG_RMS_min Line voltage AVG Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41117	I_L1_RMS_AVG L1 RMS average over seconds_for_mean_RMS	RO	0
41119	I_L1_RMS_MAX L1 MAX RMS over last seconds_for_MAX_RMS	RO	0
41121	I_L1_RMS_min L1 Min RMS over lastseconds_for_min_RMS	RO	100000
41123	I_L2_RMS_AVG L2 RMS average over seconds_for_mean_RMS	RO	0
41125	I_L2_RMS_MAX L2 MAX RMS over last seconds_for_MAX_RMS	RO	0
41127	I_L2_RMS_min L2 Min RMS over lastseconds_for_min_RMS	RO	100000
41129	I_L3_RMS_AVG L3 RMS average over seconds_for_mean_RMS	RO	0
41131	I_L3_RMS_MAX L3 MAX RMS over last seconds_for_MAX_RMS	RO	0
41133	I_L3_RMS_min L3 Min RMS over lastseconds_for_min_RMS	RO	100000
41135	I_N_RMS_AVG N RMS average over seconds_for_mean_RMS	RO	0
41137	I_N_RMS_MAX N MAX RMS over last seconds_for_MAX_RMS	RO	0
41139	I_N_RMS_min N Min RMS over lastseconds_for_min_RMS	RO	100000
41141	I_AVG_RMS_AVG I_AVG RMS average over seconds_for_mean_RMS	RO	0
41143	I_AVG_RMS_MAX I_AVG MAX RMS over last seconds_for_MAX_RMS	RO	0
41145	I_AVG_RMS_min I_AVG Min RMS over lastseconds_for_min_RMS	RO	100000
41147	P1_RMS_AVG P1 RMS average [W] over seconds_for_mean_RMS	RO	0
41149	P1_RMS_MAX P1 MAX RMS [W] over last seconds_for_MAX_RMS	RO	0
41151	P1_RMS_min P1 Min RMS [W] over lastseconds_for_min_RMS	RO	100000
41153	P2_RMS_AVG P2 RMS average [W] over seconds_for_mean_RMS	RO	0
41155	P2_RMS_MAX P2 MAX RMS [W] over last seconds_for_MAX_RMS	RO	0
41157	P2_RMS_min P2 Min RMS [W] over lastseconds_for_min_RMS	RO	100000
41159	P3_RMS_AVG P3 RMS average [W] over seconds_for_mean_RMS	RO	0
41161	P3_RMS_MAX P3 MAX RMS [W] over last seconds_for_MAX_RMS	RO	0
41163	P3_RMS_min P3 Min RMS [W] over lastseconds_for_min_RMS	RO	100000

Modbus address	Register name Description	R/W	Default
41165	P_SUM_RMS_AVG P_SUM RMS average [W] over seconds_for_mean_RMS	RO	0
41167	P_SUM_RMS_MAX P_SUM MAX RMS [W] over last seconds_for_MAX_RMS	RO	0
41169	P_SUM_RMS_min P_SUM Min RMS [W] over lastseconds_for_min_RMS	RO	100000
41173	Q1_RMS_MAX Q1 MAX RMS [VAR] over last seconds_for_MAX_RMS	RO	0
41175	Q1_RMS_min Q1 Min RMS [VAR] over lastseconds_for_min_RMS	RO	100000
41177	Q2_RMS_AVG Q2 RMS average [VAR] over seconds_for_mean_RMS	RO	0
41179	Q2_RMS_MAX Q2 MAX RMS [VAR] over last seconds_for_MAX_RMS	RO	0
41181	Q2_RMS_min Q2 Min RMS [VAR] over lastseconds_for_min_RMS	RO	100000
41183	Q3_RMS_AVG Q3 RMS average [VAR] over seconds_for_mean_RMS	RO	0
41185	Q3_RMS_MAX Q3 MAX RMS [VAR] over last seconds_for_MAX_RMS	RO	0
41187	Q3_RMS_min Q3 Min RMS [VAR] over lastseconds_for_min_RMS	RO	100000
41189	Q_SUM_RMS_AVG Q_SUM RMS average [VAR] over seconds_for_mean_RMS	RO	0
41191	Q_SUM_RMS_MAX Q_SUM MAX RMS [VAR] over last seconds_for_MAX_RMS	RO	0
41193	Q_SUM_RMS_min Q_SUM Min RMS [VAR] over lastseconds_for_min_RMS	RO	100000
41195	S1_RMS_AVG S1 RMS average [VA] over seconds_for_mean_RMS	RO	0
41197	S1_RMS_MAX S1 MAX RMS [VA] over last seconds_for_MAX_RMS	RO	0
41199	S1_RMS_min S1 Min RMS [VA] over lastseconds_for_min_RMS	RO	100000
41201	S2_RMS_AVG S2 RMS average [VA] over seconds_for_mean_RMS	RO	0
41203	S2_RMS_MAX S2 MAX RMS [VA] over last seconds_for_MAX_RMS	RO	0
41205	S2_RMS_min S2 Min RMS [VA] over lastseconds_for_min_RMS	RO	100000
41207	S3_RMS_AVG S3 RMS average [VA] over seconds_for_mean_RMS	RO	0
41209	S3_RMS_MAX S3 MAX RMS [VA] over last seconds_for_MAX_RMS	RO	0
41211	S3_RMS_min S3 Min RMS [VA] over lastseconds_for_min_RMS	RO	100000
41213	S_SUM_RMS_AVG S_SUM RMS average [VA] over seconds_for_mean_RMS	RO	0
41215	S_SUM_RMS_MAX S_SUM MAX RMS [VA] over last seconds_for_MAX_RMS	RO	0
41217	S_SUM_RMS_min S_SUM Min RMS [VA] over lastseconds_for_min_RMS	RO	100000

Modbus address	Register name Description	R/W	Default
41219	PF1_RMS_AVG PF1 RMS average over seconds_for_mean_RMS	RO	0
41221	PF1_RMS_MAX PF1 MAX RMS over last seconds_for_MAX_RMS	RO	0
41223	PF1_RMS_min PF1 Min RMS over lastseconds_for_min_RMS	RO	100000
41225	PF2_RMS_AVG PF2 RMS average over seconds_for_mean_RMS	RO	0
41227	PF2_RMS_MAX PF2 MAX RMS over last seconds_for_MAX_RMS	RO	0
41229	PF2_RMS_min PF2 Min RMS over lastseconds_for_min_RMS	RO	100000
41231	PF3_RMS_AVG PF3 RMS average over seconds_for_mean_RMS	RO	0
41233	PF3_RMS_MAX PF3 MAX RMS over last seconds_for_MAX_RMS	RO	0
41235	PF3_RMS_min PF3 Min RMS over lastseconds_for_min_RMS	RO	100000
41237	PF_SUM_RMS_AVG PF_SUM RMS average over seconds_for_mean_RMS	RO	0
41239	PF_SUM_RMS_MAX PF_SUM MAX RMS over last seconds_for_MAX_RMS	RO	0
41241	PF_SUM_RMS_min PF_SUM Min RMS over lastseconds_for_min_RMS	RO	100000
41243	CF1_RMS_AVG CF1 RMS average over seconds_for_mean_RMS	RO	0
41245	CF1_RMS_MAX CF1 MAX RMS over last seconds_for_MAX_RMS	RO	0
41247	CF1_RMS_min CF1 Min RMS over lastseconds_for_min_RMS	RO	100000
41249	CF2_RMS_AVG CF2 RMS average over seconds_for_mean_RMS	RO	0
41251	CF2_RMS_MAX CF2 MAX RMS over last seconds_for_MAX_RMS	RO	0
41253	CF2_RMS_min CF2 Min RMS over lastseconds_for_min_RMS	RO	100000
41255	CF3_RMS_AVG CF3 RMS average over seconds_for_mean_RMS	RO	0
41257	CF3_RMS_MAX CF3 MAX RMS over last seconds_for_MAX_RMS	RO	0
41259	CF3_RMS_min CF3 Min RMS over lastseconds_for_min_RMS	RO	100000
41261	CF_N_RMS_AVG CF_N RMS average over seconds_for_mean_RMS	RO	0
41263	CF_N_RMS_MAX CF_N MAX RMS over last seconds_for_MAX_RMS	RO	0
41265	CF_N_RMS_min CF_N Min RMS over lastseconds_for_min_RMS	RO	100000
41267	Frequency_RMS_AVG Frequency average over seconds_for_mean_RMS	RO	0
41269	Frequency_RMS_MAX Frequency MAX over last seconds_for_MAX_RMS	RO	0

Modbus address	Register name Description	R/W	Default
41271	Frequency_RMS_min Frequency Min over lastseconds_for_min_RMS	RO	100000
41281	P1_Tot_AVG Average total Power over minute_for_Max_and_AVG_demand for P1	RO	0
41283	P2_Tot_AVG Average total Power over minute_for_Max_and_AVG_demand for P2	RO	0
41285	P3_Tot_AVG Average total Power over minute_for_Max_and_AVG_demand for P3	RO	0
41287	P_SUM_Tot_AVG Average total Power over minute_for_Max_and_AVG_demand for P three phase	RO	0
41289	P1_Plus_AVG Average positive Power over minute_for_Max_and_AVG_demand for P1	RO	0
41291	P2_Plus_AVG Average positive Power over minute_for_Max_and_AVG_demand for P2	RO	0
41293	P3_Plus_AVG Average positive Power over minute_for_Max_and_AVG_demand for P3	RO	0
41295	P_SUM_Plus_AVG Average positive Power over minute_for_Max_and_AVG_demand for P three phase	RO	0
41297	P1_Neg_AVG Average Negative Power over minute_for_Max_and_AVG_demand for P1	RO	0
41299	P2_Neg_AVG Average Negative Power over minute_for_Max_and_AVG_demand for P2	RO	0
41301	P3_Neg_AVG Average Negative Power over minute_for_Max_and_AVG_demand for P3	RO	0
41303	P_SUM_Neg_AVG Average Negative Power over minute_for_Max_and_AVG_demand for P three phase	RO	0
41305	Q1_Plus_AVG_ind Average Reactive Inductive Power with positive active power over minute_for_Max_and_AVG_demand for Q1	RO	0
41307	Q2_Plus_AVG_ind Average Reactive Inductive Power with positive active power over minute_for_Max_and_AVG_demand for Q2	RO	0
41309	Q3_Plus_AVG_ind Average Reactive Inductive Power with positive active power over minute_for_Max_and_AVG_demand for Q3	RO	0
41311	Q_SUM_Plus_AVG_ind Average Reactive Inductive Power with positive active power over minute_for_Max_and_AVG_demand for Q three phase	RO	0
41313	Q1_Neg_AVG_ind Average Reactive Inductive Power with negative active power over minute_for_Max_and_AVG_demand for Q1	RO	0
41315	Q2_Neg_AVG_ind Average Reactive Inductive Power with negative active power over minute_for_Max_and_AVG_demand for Q2	RO	0
41317	Q3_Neg_AVG_ind Average Reactive Inductive Power with negative active power over minute_for_Max_and_AVG_demand for Q3	RO	0

Modbus address	Register name Description	R/W	Default
41319	Q_SUM_Neg_AVG_ind Average Reactive Inductive Power with negative active power over minute_for_Max_and_AVG_demand for Q three phase	RO	0
41321	Q1_Plus_AVG_cap Average Reactive Capacitive Power with positive active power over minute_for_Max_and_AVG_demand for Q1	RO	0
41323	Q2_Plus_AVG_cap Average Reactive Capacitive Power with positive active power over minute_for_Max_and_AVG_demand for Q2	RO	0
41325	Q3_Plus_AVG_cap Average Reactive Capacitive Power with positive active power over minute_for_Max_and_AVG_demand for Q3	RO	0
41327	Q_SUM_Plus_AVG_cap Average Reactive Capacitive Power with positive active power over minute_for_Max_and_AVG_demand for Q three phase	RO	0
41329	Q1_Neg_AVG_cap Average Reactive Capacitive Power with negative active power over minute_for_Max_and_AVG_demand for Q1	RO	0
41331	Q2_Neg_AVG_cap Average Reactive Capacitive Power with negative active power over minute_for_Max_and_AVG_demand for Q2	RO	0
41333	Q3_Neg_AVG_cap Average Reactive Capacitive Power with negative active power over minute_for_Max_and_AVG_demand for Q3	RO	0
41335	Q_SUM_Neg_AVG_cap Average Reactive Capacitive Power with negative active power over minute_for_Max_and_AVG_demand for Q three phase	RO	0
41337	P1_MaxDemand MAX Demand over minute_for_Max_and_AVG_demand for P1	RO	0
41339	P2_MaxDemand MAX Demand over minute_for_Max_and_AVG_demand for P2	RO	0
41341	P3_MaxDemand MAX Demand over minute_for_Max_and_AVG_demand for P3	RO	0
41343	P_SUM_MaxDemand MAX Demand over minute_for_Max_and_AVG_demand for P three phase	RO	0
41345	Month_of_P1_MaxDemand Month at which arises Max Demand over minute_for_Max_and_AVG_demand for P1 for current month	RO	0
41346	Day_of_P1_MaxDemand Day at which arises Max Demand over minute_for_Max_and_AVG_demand for P1 for current month	RO	0
41347	Hour_of_P1_MaxDemand Hour at which arises Max Demand over minute_for_Max_and_AVG_demand for P1 for current month	RO	0
41348	Minute_of_P1_MaxDemand Minute at which arises Max Demand over minute_for_Max_and_AVG_demand for P1 for current month	RO	0
41349	Month_of_P2_MaxDemand Month at which arises Max Demand over minute_for_Max_and_AVG_demand for P2 for current month	RO	0

Modbus address	Register name Description	R/W	Default
41350	Day_of_P2_MaxDemand Day at which arises Max Demand over minute_for_Max_and_AVG_demand for P2 for current month	RO	0
41351	Hour_of_P2_MaxDemand Hour at which arises Max Demand over minute_for_Max_and_AVG_demand for P2 for current month	RO	0
41352	Minute_of_P2_MaxDemand Minute at which arises Max Demand over minute_for_Max_and_AVG_demand for P2 for current month	RO	0
41353	Month_of_P3_MaxDemand Month at which arises Max Demand over minute_for_Max_and_AVG_demand for P3 for current month	RO	0
41354	Day_of_P3_MaxDemand Day at which arises Max Demand over minute_for_Max_and_AVG_demand for P3 for current month	RO	0
41355	Hour_of_P3_MaxDemand Hour at which arises Max Demand over minute_for_Max_and_AVG_demand for P3 for current month	RO	0
41356	Minute_of_P3_MaxDemand Minute at which arises Max Demand over minute_for_Max_and_AVG_demand for P3 for current month	RO	0
41357	Month_of_P_SUM_MaxDemand Month at which arises Max Demand over minute_for_Max_and_AVG_demand for P_SUM for current month	RO	0
41358	Day_of_P_SUM_MaxDemand Day at which arises Max Demand over minute_for_Max_and_AVG_demand for P_SUM for current month	RO	0
41359	Hour_of_P_SUM_MaxDemand Hour at which arises Max Demand over minute_for_Max_and_AVG_demand for P_SUM for current month	RO	0
41360	Minute_of_P_SUM_MaxDemand Minute at which arises Max Demand over minute_for_Max_and_AVG_demand for P_SUM for current month	RO	0
41361	Year RTC : year (2000-2099)	R/W	2025
41362	Month RTC : month (1-12)	R/W	10
41363	Day RTC : day month (1-31)	R/W	6
41364	Hour RTC : hour (0-23)	R/W	11
41365	Minute RTC : minute (0-59)	R/W	7
41366	Seconds RTC : second (0-59)	R/W	45
41367	RSSI Wifi Strength (of the connected AP)	RO	0

9 Support Portals and Technical Documentation

To obtain detailed information, technical assistance and up-to-date resources related to Pixsys products, users are invited to consult the following official portals:

	Forum Pixsys - available at: https://forum.pixsys.net a platform dedicated to user interaction, useful for resolving technical issues and sharing application experiences.
	Technical documentation Pixsys - available at https://docs.pixsys.com the official repository containing operational guides and continuously updated reference materials.

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This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, leaving small margins at the top and bottom. There is no handwriting or other markings on the paper.

Introduzione

I modelli PTA-M-3PH-05A-ET sono analizzatori di rete trifase con alimentazione 10 - 36 VDC o 19 - 26 VAC, 5 (6) A. Display grafico a colori 320x240 pixel, porta RS485, Ethernet, USB, SD card Wifi, NFC, uscita impulsiva, RTC.

Di seguito le caratteristiche principali del prodotto:

- Equivalente alla classe 0,2S (KWh) della EN62053-22
- Equivalente alla classe 0,2S (KVARh) della EN62053-24
- Precisione $\pm 0,2\%$ RDG
- Contatore di energia bidirezionale
- Misura in TRMS di forme d'onda distorte (tensione/corrente)
- Calcolo della corrente di Neutro
- Una uscita (opto-mos) per allarmi o impulsive
- Wifi Station and Access point (Modbus TCP)
- Ethernet (Modbus TCP)
- Uscita seriale RS485 (Modbus RTU)
- NFC
- Logging via USB o SD card (o memoria interna) con timestamp
- Display a colori 2.2" 16 bit 320x240 pixel con schermo capacitivo
- Frequenza di campionamento: 6400 campioni @ 50 Hz
- Dimensione 4 moduli DIN
- Analisi armonica completa (ampiezze e fasi)
- Integratore interno per sonde di Rogowski

1 Norme di sicurezza

Prima di utilizzare il dispositivo, leggere con attenzione le istruzioni e le misure di sicurezza contenute in questo manuale.

Disconnettere l'alimentazione prima di qualsiasi intervento sulle connessioni elettriche o sui settaggi hardware, al fine di prevenire il rischio di scosse elettriche, incendi o malfunzionamenti.

Non installare e non mettere in funzione lo strumento in ambienti con sostanze infiammabili, gas o materiali esplosivi.

Questo strumento è stato progettato e realizzato per l'utilizzo convenzionale in ambienti industriali e per applicazioni che prevedano condizioni di sicurezza conformi alla normativa nazionale e internazionale sulla tutela delle persone e sulla sicurezza dei luoghi di lavoro.

Deve essere evitata qualsiasi applicazione che comporti gravi rischi per l'incolumità delle persone o che sia correlata a dispositivi medici salvavita. Lo strumento non è progettato né realizzato per l'installazione in centrali nucleari, armamenti, sistemi di controllo del traffico aereo o della sicurezza in volo e sistemi di trasporto di massa.

L'utilizzo e la manutenzione sono riservati a personale qualificato e devono avvenire unicamente nel rispetto delle specifiche tecniche dichiarate in questo manuale.

Non smontare, modificare o riparare il prodotto, né toccare alcuna delle parti interne.

Lo strumento va installato e utilizzato esclusivamente entro i limiti delle condizioni ambientali dichiarate. Un eventuale surriscaldamento può comportare rischi di incendio e ridurre il ciclo di vita dei componenti elettronici.

1.1 Organizzazione delle note di sicurezza

Le note sulla sicurezza in questo manuale sono organizzate come segue:

Note di sicurezza	Descrizione
Danger!	La mancata osservanza di queste linee guida e avvisi di sicurezza può essere potenzialmente mortale.
Warning!	La mancata osservanza di queste linee guida e avvisi di sicurezza può comportare lesioni gravi o danni sostanziali alla proprietà.
Information!	Tali informazioni sono importanti per prevenire errori.

1.2 Note di sicurezza

Danger!	ATTENZIONE - Rischio di incendio e scosse elettriche. Questo prodotto è classificato come apparecchiatura di controllo del processo di tipo a barra DIN. Deve essere montato in un involucro che non permetta al fuoco di fuoriuscire esternamente.
Danger!	Se i relè di uscita vengono utilizzati oltre la loro aspettativa di vita, possono verificarsi occasionalmente fusioni o bruciature dei contatti. Considerare sempre le condizioni di applicazione e utilizzare i relè di uscita entro il loro carico nominale e l'aspettativa di vita elettrica. L'aspettativa di vita dei relè di uscita varia notevolmente con il carico in uscita e le condizioni di commutazione.
Warning!	I dispositivi devono essere alimentati a energia limitata secondo UL 61010-1 3rd Ed, sezione 9.4 o LPS in conformità con UL 60950-1 o SELV in conformità con UL 60950-1 o Classe 2 in conformità con UL 1310 o UL 1585.
Warning!	Occasionalmente le viti troppo allentate possono provocare un incendio. Per i morsetti a vite, serrare le viti alla coppia di serraggio di 0,22 Nm
Warning!	Un malfunzionamento nel controllore digitale può occasionalmente rendere impossibili le operazioni di controllo o bloccare le uscite di allarme, con conseguenti danni materiali. Per mantenere la sicurezza, in caso di malfunzionamento, adottare misure di sicurezza appropriate; ad esempio con l'installazione di un dispositivo di monitoraggio indipendente e su una linea separata.

1.3 Precauzioni per l'uso sicuro

Assicurarsi di osservare le seguenti precauzioni per evitare errori, malfunzionamenti o effetti negativi sulle prestazioni e le funzioni del prodotto. In caso contrario, occasionalmente potrebbero verificarsi eventi imprevisti. Non utilizzare il controller digitale oltre i valori nominali.

- Il prodotto è progettato solo per uso interno. Non utilizzare o conservare il prodotto all'aperto o in nessuno dei seguenti posti:
 - Luoghi direttamente soggetti a calore irradiato da apparecchiature di riscaldamento.
 - Luoghi soggetti a spruzzi di liquido o atmosfera di petrolio.
 - Luoghi soggetti alla luce solare diretta.
 - Luoghi soggetti a polvere o gas corrosivi (in particolare gas di solfuro e gas di ammoniaca).
 - Luoghi soggetti a forti sbalzi di temperatura.
 - Luoghi soggetti a formazione di ghiaccio e condensa.
 - Luoghi soggetti a vibrazioni e forti urti.
- L'utilizzo di due o più controller affiancati o uno sopra l'altro possono causare un incremento di calore interno che ne riduce il ciclo di vita. In questo caso si raccomanda l'uso di ventole per il raffreddamento forzato o altri dispositivi di condizionamento della temperatura interno quadro.
- Controllare sempre i nomi dei terminali e la polarità e assicurarsi di effettuare una cablatura corretta. Non collegare i terminali non utilizzati.
- Per evitare disturbi induttivi, mantenere il cablaggio dello strumento lontano da cavi di potenza con tensioni o correnti elevate. Inoltre, non collegare linee di potenza insieme o in parallelo al cablaggio del controller digitale. Si consiglia l'uso di cavi schermati e condotti separati. Collegare un limitatore di sovratensione o un filtro antirumore ai dispositivi che generano rumore (in particolare motori, trasformatori, solenoidi, bobine o altre apparecchiature con componenti induttivi). Quando si utilizzano filtri antidisturbo sull'alimentazione, controllare tensione e corrente e collegare il filtro il più vicino possibile allo strumento. Lasciare più spazio possibile tra il controller e dispositivi di potenza che generano alte frequenze (saldatrici ad alta frequenza, macchine per cucire ad alta frequenza, ecc.) o sovratensioni.
- Un interruttore o un sezionatore deve essere posizionato vicino al regolatore. L'interruttore o il sezionatore deve essere facilmente raggiungibile dall'operatore e deve essere contrassegnato come mezzo di disconnessione per il controller.
- Rimuovere lo sporco dallo strumento con un panno morbido e asciutto. Non usare mai diluenti, benzina, alcool o detergenti che contengano questi o altri solventi organici. Possono verificarsi

deformazioni o scolorimento.

- Il numero di operazioni di scrittura della memoria non volatile è limitato. Tenere conto di questo quando si utilizza la modalità di scrittura in EEprom ad esempio nella variazione dei dati durante le comunicazioni seriali.

1.4 Tutela ambientale e smaltimento dei rifiuti / Direttiva WEEE

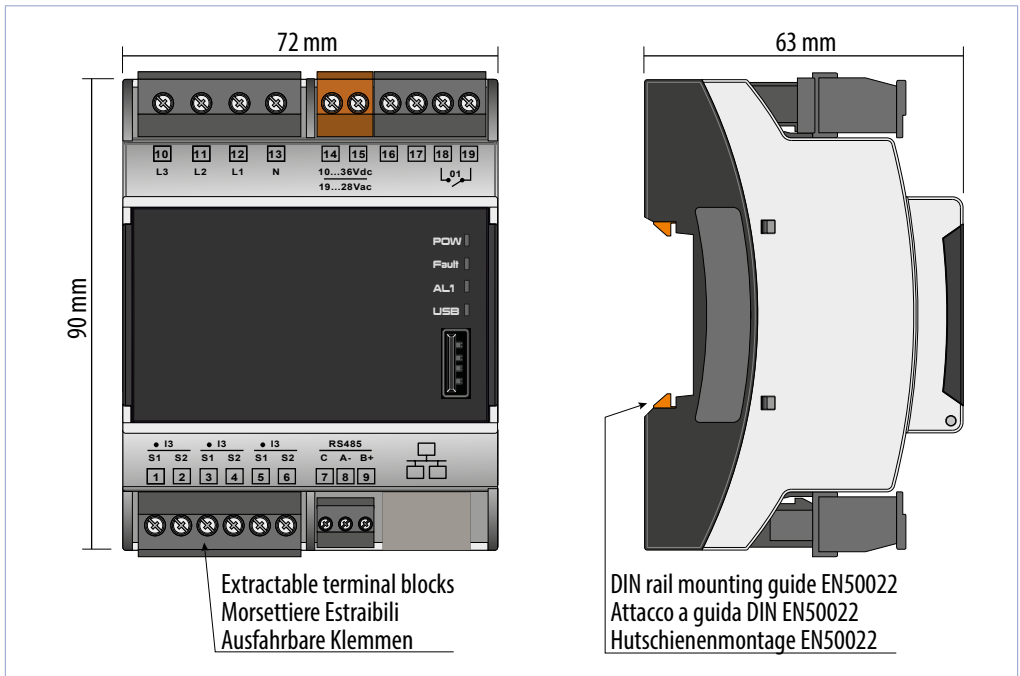
Non smaltire le apparecchiature elettriche ed elettroniche tra i rifiuti domestici.

Secondo la Direttiva Europea 2012/19/EU le apparecchiature esauste devono essere raccolte separatamente al fine di essere reimpiegate o riciclate in modo eco-compatibile.

2 Identificazione del modello

PTA-M-3PH-050-ET	ANALIZZATORE DI RETE 3PH 4DIN MODBUS TCP ALIM.10...36Vdc, TA 5A
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3 Dimensioni e installazione



4

4.1

Dati tecnici

Caratteristiche generali

Tipo	Alimentazione SELV
Tipo di alimentazione	Monofase dal morsetto rosso
Tensione AC/DC	10-36 VDC / 19-26 VAC
Consumo	< 3,5W
Condizioni operative	-25°C..65°C, HR 10..90% senza condensa, < 2000m s.l.m.
Conessioni	1x terminale a vite passo 3,5 mm 3 poli 1x terminale a vite passo 7,5 mm 4 poli 2x terminali a vite passo 5 mm 6 poli 1x connettore RJ45 per Ethernet 1x USB 2.0 Type A per datalogging (opzionale)
Dimensioni	93 x 69 x 17 mm
Materiale e Grado di protezione	PBT - IP20
Display	Display a colori 2.2" 16 bit 320x240px, touch capacitivo

4.2

Specifiche ingressi

Range di tensione nominale L-N	85 - 265 Vac
Range di tensione nominale L-L	150 - 450 Vac
TA con uscita in corrente	
Corrente di avviamento (Ist)	5 mA
Corrente minima (In)	50 mA
Corrente nominale (In)	5 AAC
Corrente Massima (IMAX)	6 AAC
Fattore di cresta	< 4 (20 APK MAX)
Impedenza	< 1 VA per fase
Sovraccarico Per 500 ms	40 AAC

4.3

Precisioni

Precisioni (@25 ± 5°C; frequenza = 50 Hz)		Tempi di aggiornamento
Frequenza	± 0,01 Hz (45..65 Hz)	100ms
Tensione	± 0,1% rdg	Configurabile da 1 a 65535 periodi (da 20 ms a 21,8 minuti se frequenza = 50Hz)
Corrente	± 0,1% rdg	
Potenza attiva e apparente (PF = 0.5L ..0.5C)	± 0,1% rdg (In o Vn da 5% a 100%) ± 0,2% rdg (In o Vn da 1% a 5%)	
Potenza reattiva (sinφ = 0.5L .. 0.5C)	± 0,1% rdg (In o Vn da 5% a 100%) ± 0,2% rdg (In o Vn da 1% a 5%)	
Energia attiva	classe C secondo EN50470-1/3 classe 0,2 S secondo EN62053-22	
Energia reattiva (quando misurata, vedi oltre)	classe 0,5 S secondo EN62053-24	
Fattore di potenza	± (0,001 +1% (1.00-PF))	
Banda passante (-3dB)	> 2KHz	non applicabile
Deriva termica	<100 ppm/°C	
THD	±0.3%	100ms
Armoniche	±1% ampiezza fino alla 16 armonica ±2% ampiezza dalla 17 armonica alla 63 armonica ±5° sfasamento fino alla 16 armonica ±10° sfasamento dalla 17 armonica alla 63 armonica	

4.4 Porta RS485

Protocollo	Modbus RTU
Numero indirizzi	Fino a 247 (Default 1)
Baudrate	Da 1200 a 115200 Baud (Default 9600)
Parametri di configurazione	Indirizzo Baudrate Parità stop bit
Connessione	Tramite morsetto 3 poli 3.5mm passo

4.5 Porta Ethernet

Protocollo	Modbus TCP HTTP MQTT SNTP
Numero client	Fino a 10
Velocità	10/100 Mbit/s
Funzionalità associate	Webserver Aggiornamento firmware Comunicazione
Parametri di configurazione	Indirizzo IP subnet mask Indirizzo gateway Porta TCP DHCP MQTT Potenza di trasmissione

4.6 Porta Wifi

Protocollo	Modbus TCP HTTP MQTT
Numero client	Fino a 10
Velocità	2.4 Ghz 802.11 b/g/n
Funzionalità associate	Webserver Aggiornamento firmware Comunicazione Logging
Parametri di configurazione	Indirizzo IP subnet mask Indirizzo gateway Porta TCP DHCP MQTT

4.7 Uscita digitale

Impiego	Allarme o impulsi/kWh
Numero	1
Tipo	A stato solido (opto-mos)
Portata	< 40V, < 100mA
Connessione	Tramite terminale a vite passo 5mm

5

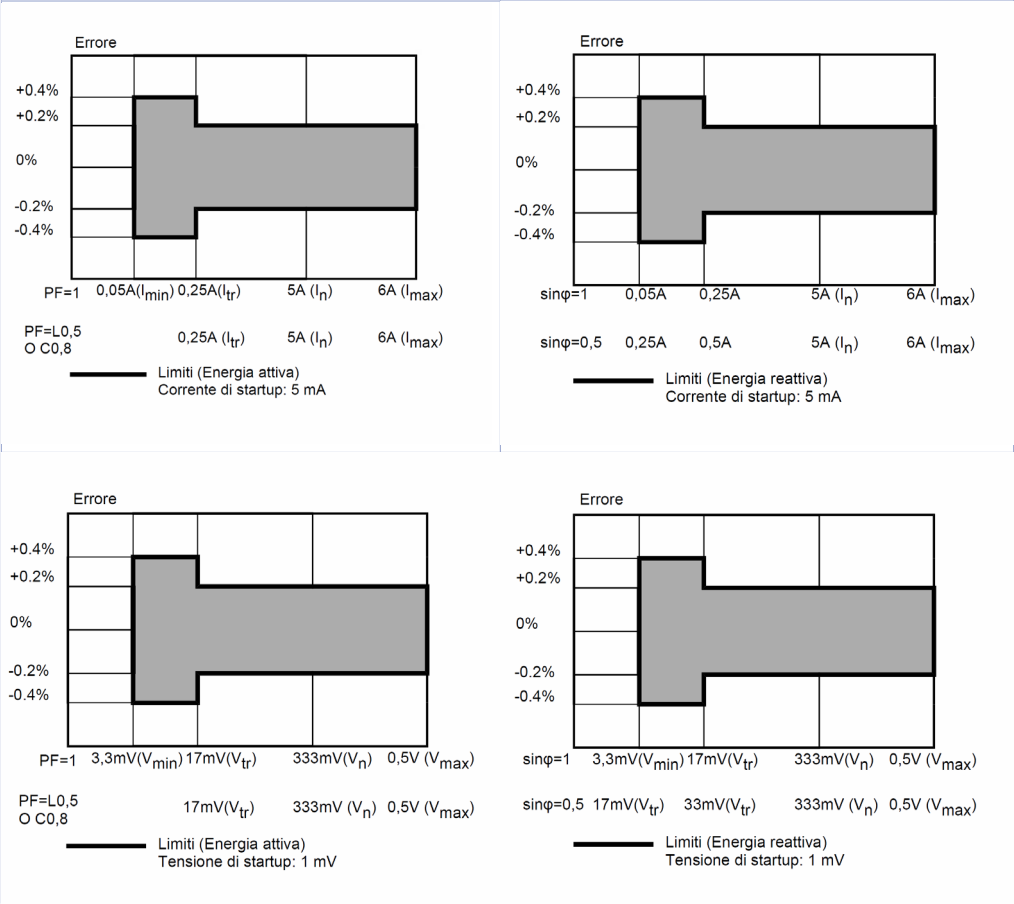
5.1

Informazioni supplementari

Precisione

Wh, precisione in funzione del carico (TA con uscita in corrente)

VARh, precisione in funzione del carico (TA con uscita in corrente)

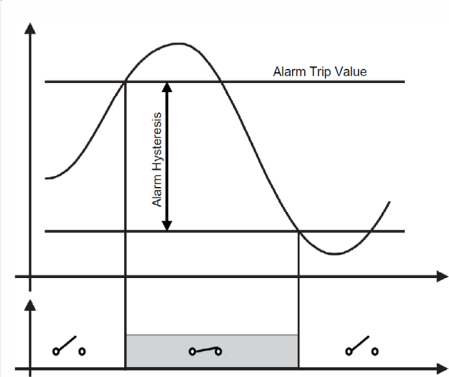


5.2 Uscita digitale

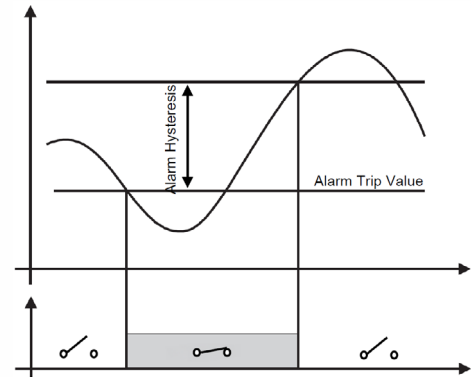
Si può settare l'uscita digitale per funzionare come allarme o uscita impulsiva.
Agli allarmi è possibile associare il buzzer per avere una segnalazione acustica dell'allarme.

ALLARMI

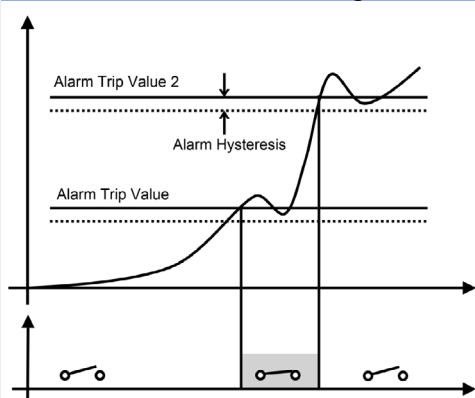
In salita: contatto Normalmente aperto



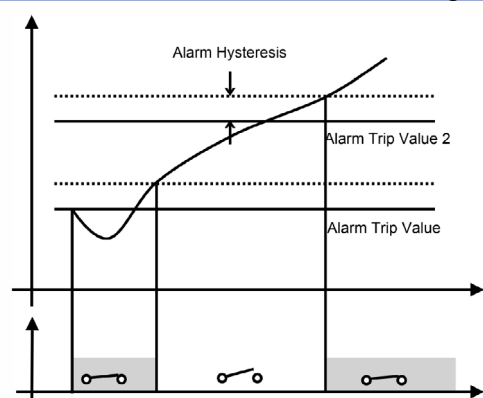
In discesa: contatto Normalmente chiuso



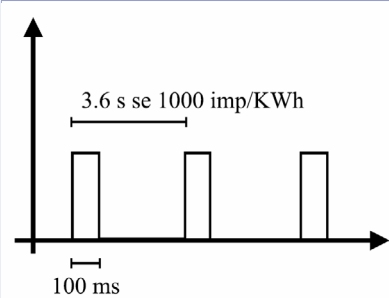
A finestra: contatto chiuso tra le soglie



A finestra: contatto chiuso al di fuori delle soglie



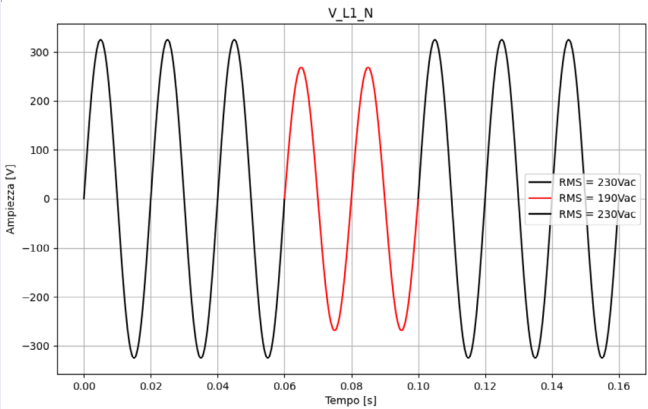
USCITA IMPULSIVA



Uscita impulsiva in alternativa a uscita digitale per allarmi.

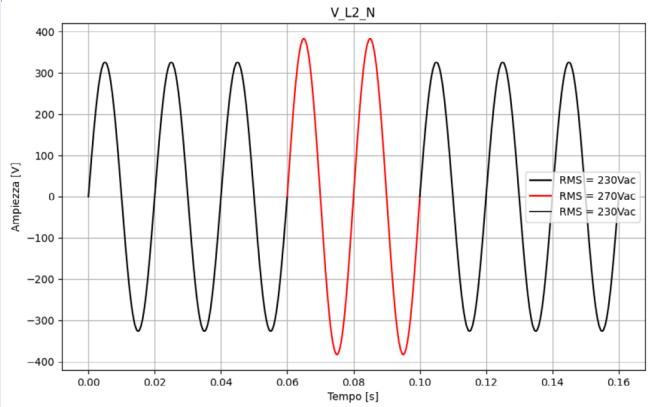
5.3 Power quality

SAG



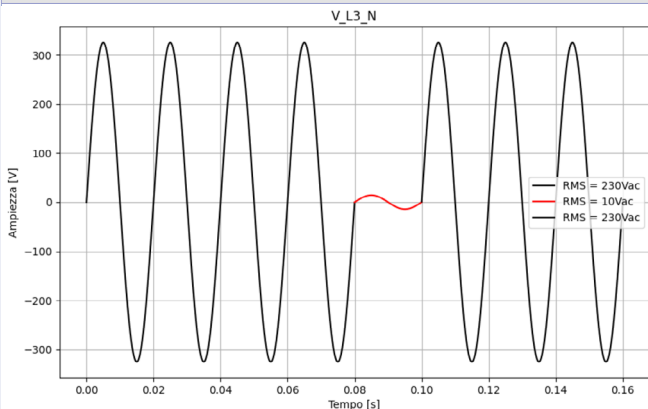
- Type: Sag
- Value: 190 V
- Query: 1 (V_L2_N)
- Duration: 40 ms

SWELL

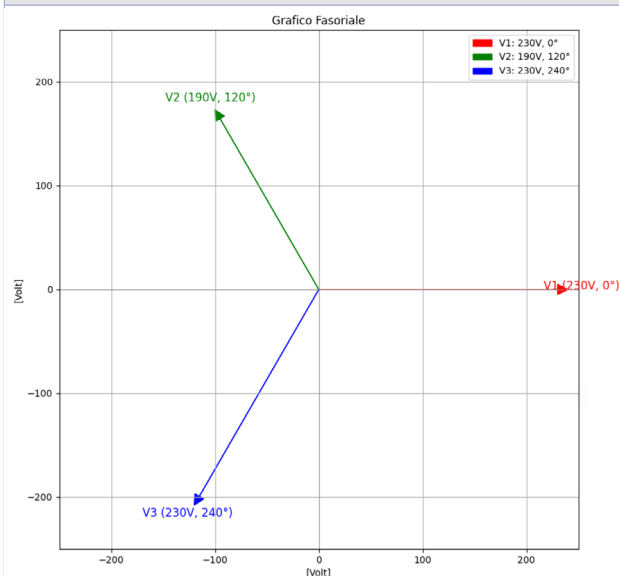


- Type: Swell
- Value: 270 V
- Query: 2 (V_L2_N)
- Duration: 40 ms

INTERRUPTION



- Type: Interruption
- Value: 10 V
- Query: 3 (V_L3_N)
- Duration: 20 ms



- Unbalance: 6.15%

5.4 Forme d'onda realtime

L'analizzatore può registrare fino a 10 forme d'onda (3 canali di tensione stellati, 3 concatenati, 4 correnti di linea).

Vengono acquisiti 128 campioni per ogni periodo. Il campionamento avviene a 6400 sps @ 50 Hz. Attraverso il webserver è visualizzabile direttamente. E' inoltre possibile accedere ai valori tramite registri Modbus, sia attraverso la RS485 (Modbus RTU), sia attraverso il Wifi o l'Ethernet (Modbus TCP, consigliato).

6 Prima connessione

Per connettersi allo strumento in Wifi, seguire i seguenti passi:

1. Connettersi all'AP esposto (di default EMT432_SerialNumber) con uno smartphone. Password: 123456789
2. Disabilitare la connessione dati
3. Aprire un browser tipo Chrome e inserire l'indirizzo 192.168.4.1
4. Inserisci nome utente e password: admin, admin
5. All'interno del webserver integrato, nella pagina relativa alle connessioni wifi inserire SSID target e Password target della rete Wifi usata.
6. Riavviare lo strumento, che sarà visibile direttamente dalla rete locale. Se la connessione è andata a buon fine, sul frontale dello strumento si vedrà l'icona del WiFi bianca.

7 Collegamenti elettrici

Warning! Poiché l'oggetto appartiene alla classe II, come da norma EN 61140:2004-05 Protezione contro i contatti elettrici - Aspetti comuni per gli impianti e le apparecchiature - Collegamento equipotenziale, è **vietata la messa a terra dello strumento**, onde evitare di danneggiare il dispositivo e ridurre la sicurezza dell'impianto.

Per l'installazione in ambienti industriali è buona norma seguire la seguenti precauzioni:

- Distinguere la linea di alimentazioni da quelle di potenza.
- Evitare la vicinanza di gruppi di teleruttori, contattori elettromagnetici, motori di grossa potenza e comunque usare appositi filtri.
- Evitare la vicinanza di gruppi di potenza, in particolare se a controllo di fase.
- Si raccomanda l'impiego di filtri di rete sull'alimentazione della macchina in cui lo strumento verrà installato, in particolare nel caso di alimentazione 230Vac.

Si evidenzia che il regolatore è concepito per essere assemblato ad altre macchine e dunque la marcatura CE del regolatore non esime il costruttore dell'impianto dagli obblighi di sicurezza e conformità previsti per la macchina nel suo complesso.

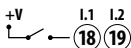
- **Cablaggio della morsettiera da 3,81 mm:** utilizzare puntalini a tubetto crimpati o filo di rame flessibile o rigido con diametro fino a 1.5 mm^2 / 16 AWG. La lunghezza di spelatura è 7 mm. Condizioni operative: $-40^\circ\text{C}..+130^\circ\text{C}$.
- **Cablaggio della morsettiera da 5 mm:** utilizzare puntalini a tubetto crimpati o filo di rame flessibile o rigido con diametro fino a 2.5 mm^2 / 14 AWG. La lunghezza di spelatura è 9 mm. Condizioni operative: $-40^\circ\text{C}..+130^\circ\text{C}$.
- E' possibile collegare su un unico morsetto, due conduttori di uguale diametro compreso tra 0.14 e 0.75 mm^2 .

7.1 Diagrammi di collegamento

7.1.a Alimentazione

	Alimentazione 12..24Vdc $\pm 15\%$ • 1: +Vdc • 2: -Vdc
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7.1.b Relè

	cippalippa 18:Ingresso 1 19:Ingresso 2
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7.1.c Modbus RTU

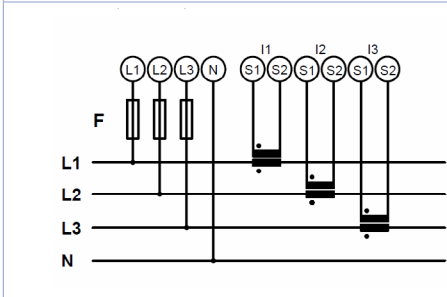
cicciopasticcio

7.1.d Modbus TCP

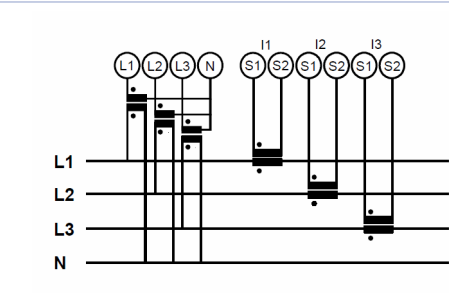
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7.1.e Esempi di collegamento

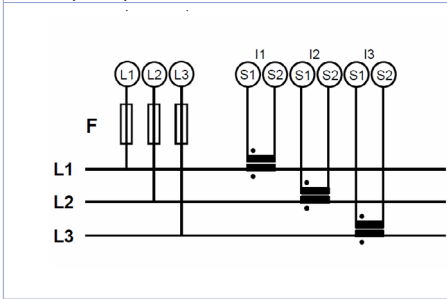
Trifase, 4 fili, connessione con 3 TA



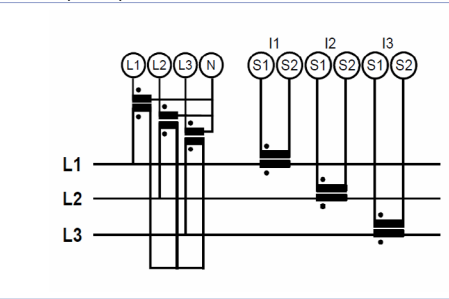
Trifase, 4 fili, connessione con 3 TA e 3 TV



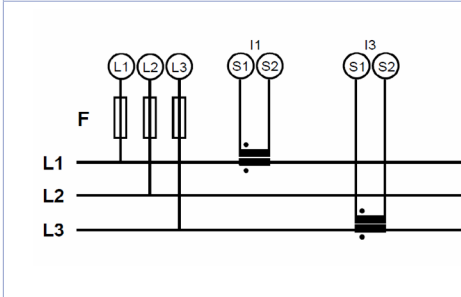
Trifase, 3 fili, connessione con 3 TA



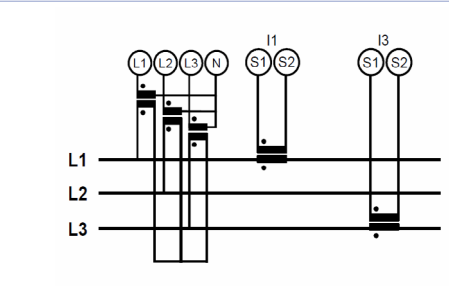
Trifase, 3 fili, connessione con 3 TA e 3 TV



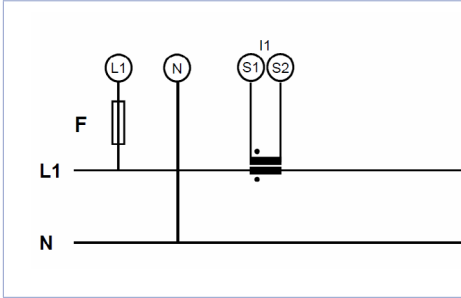
Trifase, 3 fili, connessione con 2 TA (Aron)



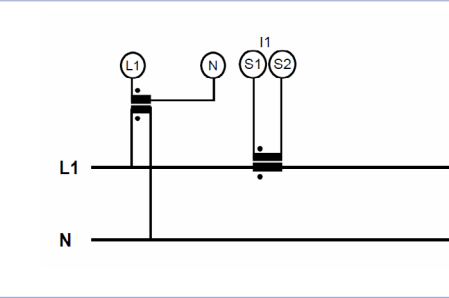
Trifase, 3 fili, connessione con 2 TA (Aron)



Monofase, 2 fili, connessione con 1 TA

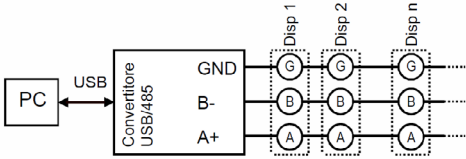
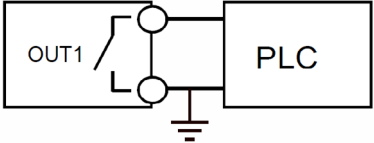
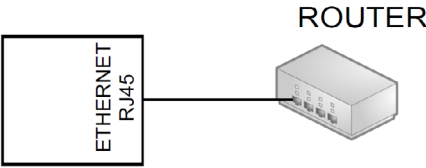
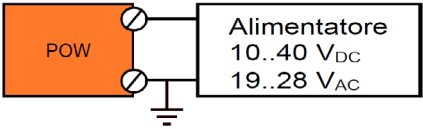


Monofase, 2 fili, connessione con 1 TA e 1 TV



Comunicazione su RS485

Uscita digitale su morsetto estraibile

	
Ethernet connection  Se connesso correttamente, il led verde (LINK) è acceso fisso, e il led giallo (ACTIVITY) lampeggia a intermittenza.	Alimentazione 

8 Mappatura registri Modbus

8.1 Device Information

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40001	machine_id_1 Machine ID. 1 char per register	RO	E
40002	machine_id_2 Machine ID. 1 char per register	RO	M
40003	machine_id_3 Machine ID. 1 char per register	RO	T
40004	machine_id_4 Machine ID. 1 char per register	RO	4
40005	machine_id_5 Machine ID. 1 char per register	RO	3
40006	machine_id_6 Machine ID. 1 char per register	RO	0
40007	machine_id_7 Machine ID. 1 char per register	RO	\0
40008	machine_id_8 Machine ID. 1 char per register	RO	\0
40009	hw_version Hardware version.	RO	1
40010	fw_version Firmware version.	RO	1

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40011	mounted_version 0 -> 5A 1 -> Rogowski, 333 mV	RO	0
40012	year_month calibration year and month	RO	2510
40013	day_Hour calibration day and hour	RO	610
40014	minute_second calibration minute and second	RO	835
40015	feature_version 0 -> Base version 1 -> Full version	RO	0
40016	Mac_address_Wifi_STA_1 Mac address Wifi Station MSB	RO	11
40017	Mac_address_Wifi_STA_2 Mac address Wifi Station	RO	22
40018	Mac_address_Wifi_STA_3 Mac address Wifi Station	RO	33
40019	Mac_address_Wifi_STA_4 Mac address Wifi Station	RO	44
40020	Mac_address_Wifi_STA_5 Mac address Wifi Station	RO	55
40021	Mac_address_Wifi_STA_6 Mac address Wifi Station LSB	RO	66
40022	Mac_address_Wifi_SOFT_AP_1 Mac address Wifi software enabled access point MSB	RO	11
40023	Mac_address_Wifi_SOFT_AP_2 Mac address Wifi software enabled access point	RO	22
40024	Mac_address_Wifi_SOFT_AP_3 Mac address Wifi software enabled access point	RO	33
40025	Mac_address_Wifi_SOFT_AP_4 Mac address Wifi software enabled access point	RO	44
40026	Mac_address_Wifi_SOFT_AP_5 Mac address Wifi software enabled access point	RO	55
40027	Mac_address_Wifi_SOFT_AP_6 Mac address Wifi software enabled access point LSB	RO	66
40028	Mac_address_Ethernet_1 Mac address Ethernet MSB	RO	31
40029	Mac_address_Ethernet_2 Mac address Ethernet	RO	32
40030	Mac_address_Ethernet_3 Mac address Ethernet	RO	33
40031	Mac_address_Ethernet_4 Mac address Ethernet	RO	34
40032	Mac_address_Ethernet_5 Mac address Ethernet	RO	35
40033	Mac_address_Ethernet_6 Mac address Ethernet LSB	RO	36
40034	Mac_address_Bluetooth_1 Mac address Bluetooth MSB	RO	96
40035	Mac_address_Bluetooth_2 Mac address Bluetooth	RO	95

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40036	Mac_address_Bluetooth_3 Mac address Bluetooth	RO	94
40037	Mac_address_Bluetooth_4 Mac address Bluetooth	RO	93
40038	Mac_address_Bluetooth_5 Mac address Bluetooth	RO	92
40039	Mac_address_Bluetooth_6 Mac address Bluetooth LSB	RO	91
40041	plugin_board 0: nessun plugin 1: Digital input plugin 2: Lora plugin	RO	0

8.2 Device Settings

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40227	modbus_RTU_address Modbus address	R/W	1
40228	modbus_RTU_delay Delay Modbus answer (in ms)	R/W	0
40229	modbus_RTU_baudrate Baudrate 0 = 1200 1 = 2400 2 = 4800 3 = 9600 4 = 19200 5 = 38400 6 = 57600 7 = 115200	R/W	3
40230	modbus_RTU_parity 0 = NONE 1 = EVEN	R/W	0
40231	modbus_RTU_Stop_bit 0 = 1 Bit 1 = 1,5 Bit 2 = 2 Bit	R/W	0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40232	Measurement_Configuration_Register Bit 0: Don't care Bit 1..2: Connection 0 = Single phase 1 = Three phase: 3 wires, 2 TA (Aron) 2 = Three phase: 3 wires, 3 TA 3 = Three phase: 4 wires, 3 TA (with neutral) Bit 3: FFT representation 0 = Absolute 1 = Relative to the I_1 value Bit 4: HPF filter 0 = Enabled 1 = Disabled Bit 5: Reactive power calculation method 0 = Triangle method 1 = Budeanu Bit 6: Digital output behaviour 0 = Alarm 1 = Pulsed output for KWh Bit 7: Frequency detection Channel 0 = Voltage 1 = Current Bit 9: Energy saving 0 = Disabled 1 = Enabled Bit 10..11: Output switch condition 0 = Normally Opened condition 1 = Normally Closed condition 2 = Within Threshold 3 = Outside Threshold Bit 13: Integrator condition 0 = Integrator disabled 1 = Integrator enabled (Rogowski input) Bit 15: Filtered measurement 0 = Filtering disabled 1 = Filtering enabled	R/W	518

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40233	Machine_Configuration_Register Bit 0: Not Used 0 = Disabled 1 = Enabled Bit 1: Buzzer in touch pad 0 = Disabled 1 = Enabled Bit 2: Buzzer during alarm condition 0 = Disabled 1 = Enabled Bit 3: Wifi STA 0 = Disabled 1 = Enabled Bit 4: Wifi AP 0 = Disabled 1 = Enabled Bit 5: MQTT 0 = Disabled 1 = Enabled	R/W	59
40235	TA_Transducer_ratio If Input 1A/5A, 20mA/100 mA = Current transformer ratio M/N - Default 1.0 (Ex: 600:5 = transducer_ratio = 120) If Input Rogowski = Sensitivity [V/A]	R/W	1
40237	TA_Transducer_delay Current transformer delay in [°] @ 50 Hz for accurate power calculation	R/W	0
40239	TV_Transducer_ratio Voltage transformer ratio M/N - Default 1.0 (Ex: 1000:100 = transducer_ratio = 10)	R/W	1
40241	TV_Transducer_delay Voltage transformer delay in [°] @ 50 Hz for accurate power calculation	R/W	0
40243	minimum_voltage_ripple Minimum threshold under which the instrument reads 0 independent from the input value	R/W	0
40245	minimum_current_ripple Minimum threshold under which the instrument reads 0 independent from the input value	R/W	0
40247	minimum_power_ripple Minimum threshold under which the instrument reads 0 independent from the input value (P, Q, and S)	R/W	0
40249	DC_Filter Update rate when no Zero crossing is detected [tenth of second]; lower => faster; higher => more accurate	R/W	10
40250	AC_Filter Update rate when Zero crossing is detected [number of periods]; lower => faster; higher => more accurate	R/W	50
40251	minute_for_Max_and_AVG_demand Minute for Max demand and Average power calculation (0..45)	R/W	15
40253	seconds_for_mean_RMS Register in seconds (0..60) for RMS average	R/W	15
40254	seconds_for_MAX_RMS Seconds 1..60 for MAX RMS value. If the register is 0, then the absolute MAX RMS is given	R/W	15

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40255	seconds_for_min_RMS Seconds 1..60 for min RMS value. If the register is 0, then the absolute min RMS is given	R/W	15
40256	Energy_unit_factor Variable for changing Energy measurement unit: 0 -> [Wh/10] 1 -> [Wh] .. 4 -> [KWh] 7 -> [MWh] 10 -> [GWh]	R/W	4
40258	MQTT_broker 0 -> Chronos Broker 1 -> Custom Broker	R/W	0
40261	MQTT_port porta broker MQTT	R/W	8883
40271	Alarm_Register_start_address DIGITAL OUTPUT 1: Modbus address address for alarm (starting from the modbus address of V_L1_N, V_L2_N, V_L3_N, ecc)	R/W	40000
40272	Alarm_delay DIGITAL OUTPUT 1: Delay in ms for Alarm trigger	R/W	0
40273	Alarm_trip_value DIGITAL OUTPUT 1: Alarm Threshold for closed and open condition OR first alarm Threshold for Within threshold and Outside threshold	R/W	0
40275	Alarm_hysteresis DIGITAL OUTPUT 1: Alarm Hysteresis	R/W	0
40277	Alarm_trip_value_2 DIGITAL OUTPUT 1: Second alarm Threshold for within threshold and Outside threshold condition	R/W	0
40281	Nominal_Star_Voltage Nominal Star Voltage for Sag, Swell, Interruption monitoring [V]	R/W	230
40283	Sag_percentage_level Percentage over Nominal_Star_Voltage under which a Sag event is generated (default 0.9 = 90 %); must be over Interruption_percentage_level	R/W	0,8
40285	Swell_percentage_level Percentage over Nominal_Star_Voltage over which a Swell event is generated (default 1.1 = 110 %)	R/W	1,2
40287	Interruption_percentage_level Percentage over Nominal_Star_Voltage under which an Interruption event is generated (default 0.1 = 10 %)	R/W	0,1
40291	Minimum_duration_cutoff Sag, Swell or Interruption events must be above this cutoff to be displayed and saved [ms]	R/W	0
40292	Modbus_TCP_port Porta server modbus TCP	R/W	502
40293	Wifi_STA_SSID_target_0 WI-FI STA Access point SSID 0	R/W	F
40294	Wifi_STA_SSID_target_1 WI-FI STA Access point SSID 1	R/W	R
40295	Wifi_STA_SSID_target_2 WI-FI STA Access point SSID 2	R/W	I

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40296	Wifi_STA_SSID_target_3 WI-FI STA Access point SSID 3	R/W	T
40297	Wifi_STA_SSID_target_4 WI-FI STA Access point SSID 4	R/W	Z
40298	Wifi_STA_SSID_target_5 WI-FI STA Access point SSID 5	R/W	!
40299	Wifi_STA_SSID_target_6 WI-FI STA Access point SSID 6	R/W	B
40300	Wifi_STA_SSID_target_7 WI-FI STA Access point SSID 7	R/W	o
40301	Wifi_STA_SSID_target_8 WI-FI STA Access point SSID 8	R/W	x
40302	Wifi_STA_SSID_target_9 WI-FI STA Access point SSID 9	R/W	
40303	Wifi_STA_SSID_target_10 WI-FI STA Access point SSID 10	R/W	7
40304	Wifi_STA_SSID_target_11 WI-FI STA Access point SSID 11	R/W	5
40305	Wifi_STA_SSID_target_12 WI-FI STA Access point SSID 12	R/W	3
40306	Wifi_STA_SSID_target_13 WI-FI STA Access point SSID 13	R/W	0
40307	Wifi_STA_SSID_target_14 WI-FI STA Access point SSID 14	R/W	
40308	Wifi_STA_SSID_target_15 WI-FI STA Access point SSID 15	R/W	P
40309	Wifi_STA_SSID_target_16 WI-FI STA Access point SSID 16	R/W	U
40310	Wifi_STA_SSID_target_17 WI-FI STA Access point SSID 17	R/W	\0
40311	Wifi_STA_SSID_target_18 WI-FI STA Access point SSID 18	R/W	\0
40312	Wifi_STA_SSID_target_19 WI-FI STA Access point SSID 19	R/W	\0
40313	Wifi_STA_SSID_target_20 WI-FI STA Access point SSID 20	R/W	\0
40314	Wifi_STA_SSID_target_21 WI-FI STA Access point SSID 21	R/W	\0
40315	Wifi_STA_SSID_target_22 WI-FI STA Access point SSID 22	R/W	\0
40316	Wifi_STA_SSID_target_23 WI-FI STA Access point SSID 23	R/W	\0
40317	Wifi_STA_SSID_target_24 WI-FI STA Access point SSID 24	R/W	\0
40318	Wifi_STA_SSID_target_25 WI-FI STA Access point SSID 25	R/W	\0
40319	Wifi_STA_SSID_target_26 WI-FI STA Access point SSID 26	R/W	\0
40320	Wifi_STA_SSID_target_27 WI-FI STA Access point SSID 27	R/W	\0
40322	Wifi_STA_SSID_target_29 WI-FI STA Access point SSID 29	R/W	\0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40323	Wifi_STA_SSID_target_30 WI-FI STA Access point SSID 30	R/W	\0
40324	Wifi_STA_SSID_target_31 WI-FI STA Access point SSID 31	R/W	\0
40325	Wifi_STA_PASSWORD_target_0 WI-FI STA Access point Password 0	WO	3
40326	Wifi_STA_PASSWORD_target_1 WI-FI STA Access point Password 1	WO	4
40327	Wifi_STA_PASSWORD_target_2 WI-FI STA Access point Password 2	WO	7
40328	Wifi_STA_PASSWORD_target_3 WI-FI STA Access point Password 3	WO	7
40329	Wifi_STA_PASSWORD_target_4 WI-FI STA Access point Password 4	WO	1
40330	Wifi_STA_PASSWORD_target_5 WI-FI STA Access point Password 5	WO	2
40331	Wifi_STA_PASSWORD_target_6 WI-FI STA Access point Password 6	WO	1
40332	Wifi_STA_PASSWORD_target_7 WI-FI STA Access point Password 7	WO	9
40333	Wifi_STA_PASSWORD_target_8 WI-FI STA Access point Password 8	WO	3
40334	Wifi_STA_PASSWORD_target_9 WI-FI STA Access point Password 9	WO	0
40335	Wifi_STA_PASSWORD_target_10 WI-FI STA Access point Password 10	WO	6
40336	Wifi_STA_PASSWORD_target_11 WI-FI STA Access point Password 11	WO	5
40337	Wifi_STA_PASSWORD_target_12 WI-FI STA Access point Password 12	WO	6
40338	Wifi_STA_PASSWORD_target_13 WI-FI STA Access point Password 13	WO	4
40339	Wifi_STA_PASSWORD_target_14 WI-FI STA Access point Password 14	WO	7
40340	Wifi_STA_PASSWORD_target_15 WI-FI STA Access point Password 15	WO	7
40341	Wifi_STA_PASSWORD_target_16 WI-FI STA Access point Password 16	WO	6
40342	Wifi_STA_PASSWORD_target_17 WI-FI STA Access point Password 17	WO	0
40343	Wifi_STA_PASSWORD_target_18 WI-FI STA Access point Password 18	WO	0
40344	Wifi_STA_PASSWORD_target_19 WI-FI STA Access point Password 19	WO	3
40345	Wifi_STA_PASSWORD_target_20 WI-FI STA Access point Password 20	WO	\0
40346	Wifi_STA_PASSWORD_target_21 WI-FI STA Access point Password 21	WO	\0
40347	Wifi_STA_PASSWORD_target_22 WI-FI STA Access point Password 22	WO	\0
40348	Wifi_STA_PASSWORD_target_23 WI-FI STA Access point Password 23	WO	\0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40349	Wifi_STA_PASSWORD_target_24 WI-FI STA Access point Password 24	WO	\0
40350	Wifi_STA_PASSWORD_target_25 WI-FI STA Access point Password 25	WO	\0
40351	Wifi_STA_PASSWORD_target_26 WI-FI STA Access point Password 26	WO	\0
40352	Wifi_STA_PASSWORD_target_27 WI-FI STA Access point Password 27	WO	\0
40353	Wifi_STA_PASSWORD_target_28 WI-FI STA Access point Password 28	WO	\0
40354	Wifi_STA_PASSWORD_target_29 WI-FI STA Access point Password 29	WO	\0
40355	Wifi_STA_PASSWORD_target_30 WI-FI STA Access point Password 30	WO	\0
40356	Wifi_STA_PASSWORD_target_31 WI-FI STA Access point Password 31	WO	\0
40357	Wifi_STA_HOSTNAME_0 WI-FI STA HOSTNAME set 0	R/W	E
40358	Wifi_STA_HOSTNAME_1 WI-FI STA HOSTNAME set 1	R/W	M
40359	Wifi_STA_HOSTNAME_2 WI-FI STA HOSTNAME set 2	R/W	T
40360	Wifi_STA_HOSTNAME_3 WI-FI STA HOSTNAME set 3	R/W	4
40361	Wifi_STA_HOSTNAME_4 WI-FI STA HOSTNAME set 4	R/W	3
40362	Wifi_STA_HOSTNAME_5 WI-FI STA HOSTNAME set 5	R/W	0
40363	Wifi_STA_HOSTNAME_6 WI-FI STA HOSTNAME set 6	R/W	—
40364	Wifi_STA_HOSTNAME_7 WI-FI STA HOSTNAME set 7	R/W	W
40365	Wifi_STA_HOSTNAME_8 WI-FI STA HOSTNAME set 8	R/W	I
40366	Wifi_STA_HOSTNAME_9 WI-FI STA HOSTNAME set 9	R/W	F
40367	Wifi_STA_HOSTNAME_10 WI-FI STA HOSTNAME set 10	R/W	I
40368	Wifi_STA_HOSTNAME_11 WI-FI STA HOSTNAME set 11	R/W	—
40369	Wifi_STA_HOSTNAME_12 WI-FI STA HOSTNAME set 12	R/W	S
40370	Wifi_STA_HOSTNAME_13 WI-FI STA HOSTNAME set 13	R/W	T
40371	Wifi_STA_HOSTNAME_14 WI-FI STA HOSTNAME set 14	R/W	A
40372	Wifi_STA_HOSTNAME_15 WI-FI STA HOSTNAME set 15	R/W	—
40373	Wifi_STA_HOSTNAME_16 WI-FI STA HOSTNAME set 16	R/W	\0
40374	Wifi_STA_HOSTNAME_17 WI-FI STA HOSTNAME set 17	R/W	\0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40375	Wifi_STA_HOSTNAME_18 WI-FI STA HOSTNAME set 18	R/W	\0
40376	Wifi_STA_HOSTNAME_19 WI-FI STA HOSTNAME set 19	R/W	\0
40377	Wifi_STA_HOSTNAME_20 WI-FI STA HOSTNAME set 20	R/W	\0
40378	Wifi_STA_HOSTNAME_21 WI-FI STA HOSTNAME set 21	R/W	\0
40379	Wifi_STA_HOSTNAME_22 WI-FI STA HOSTNAME set 22	R/W	\0
40380	Wifi_STA_HOSTNAME_23 WI-FI STA HOSTNAME set 23	R/W	\0
40381	Wifi_STA_HOSTNAME_24 WI-FI STA HOSTNAME set 24	R/W	\0
40382	Wifi_STA_HOSTNAME_25 WI-FI STA HOSTNAME set 25	R/W	\0
40383	Wifi_STA_HOSTNAME_26 WI-FI STA HOSTNAME set 26	R/W	\0
40384	Wifi_STA_HOSTNAME_27 WI-FI STA HOSTNAME set 27	R/W	\0
40385	Wifi_STA_HOSTNAME_28 WI-FI STA HOSTNAME set 28	R/W	\0
40386	Wifi_STA_HOSTNAME_29 WI-FI STA HOSTNAME set 29	R/W	\0
40387	Wifi_STA_HOSTNAME_30 WI-FI STA HOSTNAME set 30	R/W	\0
40388	Wifi_STA_HOSTNAME_31 WI-FI STA HOSTNAME set 31	R/W	\0
40389	Wifi_STA_IP_0 WI-FI STA IP static (DHCP off) 0	R/W	192
40390	Wifi_STA_IP_1 WI-FI STA IP static (DHCP off) 1	R/W	168
40391	Wifi_STA_IP_2 WI-FI STA IP static (DHCP off) 2	R/W	178
40392	Wifi_STA_IP_3 WI-FI STA IP static (DHCP off) 3	R/W	200
40393	Wifi_STA_Netmask_0 WI-FI STA NETMASK static (DHCP off) 0	R/W	255
40394	Wifi_STA_Netmask_1 WI-FI STA NETMASK static (DHCP off) 1	R/W	255
40395	Wifi_STA_Netmask_2 WI-FI STA NETMASK static (DHCP off) 2	R/W	255
40396	Wifi_STA_Netmask_3 WI-FI STA NETMASK static (DHCP off) 3	R/W	0
40397	Wifi_STA_Gateway_0 WI-FI STA GATEWAY static (DHCP off) 0	R/W	192
40398	Wifi_STA_Gateway_1 WI-FI STA GATEWAY static (DHCP off) 1	R/W	168
40399	Wifi_STA_Gateway_2 WI-FI STA GATEWAY static (DHCP off) 2	R/W	178
40400	Wifi_STA_Gateway_3 WI-FI STA GATEWAY static (DHCP off) 3	R/W	200

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40401	Wifi_STA_IP_assigned_by_dhcp_0 WI-FI STA IP SET (DHCP on) 0	R/W	0
40402	Wifi_STA_IP_assigned_by_dhcp_1 WI-FI STA IP SET (DHCP on) 1	R/W	0
40403	Wifi_STA_IP_assigned_by_dhcp_2 WI-FI STA IP SET (DHCP on) 2	R/W	0
40404	Wifi_STA_IP_assigned_by_dhcp_3 WI-FI STA IP SET (DHCP on) 3	R/W	0
40405	Wifi_STA_Netmask_assigned_by_dhcp_0 WI-FI STA NETMASK SET (DHCP on) 0	R/W	0
40406	Wifi_STA_Netmask_assigned_by_dhcp_1 WI-FI STA NETMASK SET (DHCP on) 1	R/W	0
40407	Wifi_STA_Netmask_assigned_by_dhcp_2 WI-FI STA NETMASK SET (DHCP on) 2	R/W	0
40408	Wifi_STA_Netmask_assigned_by_dhcp_3 WI-FI STA NETMASK SET (DHCP on) 3	R/W	0
40409	Wifi_STA_Gateway_assigned_by_dhcp_0 WI-FI STA GATEWAY SET (DHCP on) 0	R/W	0
40410	Wifi_STA_Gateway_assigned_by_dhcp_1 WI-FI STA GATEWAY SET (DHCP on) 1	R/W	0
40411	Wifi_STA_Gateway_assigned_by_dhcp_2 WI-FI STA GATEWAY SET (DHCP on) 2	R/W	0
40412	Wifi_STA_Gateway_assigned_by_dhcp_3 WI-FI STA GATEWAY SET (DHCP on) 3	R/W	0
40413	Wifi_AP_SSID_0 WI-FI AP SSID 0	R/W	M
40414	Wifi_AP_SSID_1 WI-FI AP SSID 1	R/W	Y
40415	Wifi_AP_SSID_2 WI-FI AP SSID 2	R/W	—
40416	Wifi_AP_SSID_3 WI-FI AP SSID 3	R/W	E
40417	Wifi_AP_SSID_4 WI-FI AP SSID 4	R/W	M
40418	Wifi_AP_SSID_5 WI-FI AP SSID 5	R/W	T
40419	Wifi_AP_SSID_6 WI-FI AP SSID 6	R/W	—
40420	Wifi_AP_SSID_7 WI-FI AP SSID 7	R/W	4
40421	Wifi_AP_SSID_8 WI-FI AP SSID 8	R/W	3
40422	Wifi_AP_SSID_9 WI-FI AP SSID 9	R/W	0
40423	Wifi_AP_SSID_10 WI-FI AP SSID 10	R/W	\0
40424	Wifi_AP_SSID_11 WI-FI AP SSID 11	R/W	\0
40425	Wifi_AP_SSID_12 WI-FI AP SSID 12	R/W	\0
40426	Wifi_AP_SSID_13 WI-FI AP SSID 13	R/W	\0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40427	Wifi_AP_SSID_14 WI-FI AP SSID 14	R/W	\0
40428	Wifi_AP_SSID_15 WI-FI AP SSID 15	R/W	\0
40429	Wifi_AP_SSID_16 WI-FI AP SSID 16	R/W	\0
40430	Wifi_AP_SSID_17 WI-FI AP SSID 17	R/W	\0
40431	Wifi_AP_SSID_18 WI-FI AP SSID 18	R/W	\0
40432	Wifi_AP_SSID_19 WI-FI AP SSID 19	R/W	\0
40433	Wifi_AP_SSID_20 WI-FI AP SSID 20	R/W	\0
40435	Wifi_AP_SSID_22 WI-FI AP SSID 22	R/W	\0
40436	Wifi_AP_SSID_23 WI-FI AP SSID 23	R/W	\0
40437	Wifi_AP_SSID_24 WI-FI AP SSID 24	R/W	\0
40438	Wifi_AP_SSID_25 WI-FI AP SSID 25	R/W	\0
40439	Wifi_AP_SSID_26 WI-FI AP SSID 26	R/W	\0
40440	Wifi_AP_SSID_27 WI-FI AP SSID 27	R/W	\0
40441	Wifi_AP_SSID_28 WI-FI AP SSID 28	R/W	\0
40442	Wifi_AP_SSID_29 WI-FI AP SSID 29	R/W	\0
40443	Wifi_AP_SSID_30 WI-FI AP SSID 30	R/W	\0
40444	Wifi_AP_SSID_31 WI-FI AP SSID 31	R/W	\0
40445	Wifi_AP_PASSWORD_0 WI-FI AP PASSWORD 0	WO	1
40446	Wifi_AP_PASSWORD_1 WI-FI AP PASSWORD 1	WO	2
40447	Wifi_AP_PASSWORD_2 WI-FI AP PASSWORD 2	WO	3
40448	Wifi_AP_PASSWORD_3 WI-FI AP PASSWORD 3	WO	4
40449	Wifi_AP_PASSWORD_4 WI-FI AP PASSWORD 4	WO	5
40450	Wifi_AP_PASSWORD_5 WI-FI AP PASSWORD 5	WO	6
40451	Wifi_AP_PASSWORD_6 WI-FI AP PASSWORD 6	WO	7
40452	Wifi_AP_PASSWORD_7 WI-FI AP PASSWORD 7	WO	8
40453	Wifi_AP_PASSWORD_8 WI-FI AP PASSWORD 8	WO	9

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40454	Wifi_AP_PASSWORD_9 WI-FI AP PASSWORD 9	WO	\0
40455	Wifi_AP_PASSWORD_10 WI-FI AP PASSWORD 10	WO	\0
40456	Wifi_AP_PASSWORD_11 WI-FI AP PASSWORD 11	WO	\0
40457	Wifi_AP_PASSWORD_12 WI-FI AP PASSWORD 12	WO	\0
40458	Wifi_AP_PASSWORD_13 WI-FI AP PASSWORD 13	WO	\0
40459	Wifi_AP_PASSWORD_14 WI-FI AP PASSWORD 14	WO	\0
40460	Wifi_AP_PASSWORD_15 WI-FI AP PASSWORD 15	WO	\0
40461	Wifi_AP_PASSWORD_16 WI-FI AP PASSWORD 16	WO	\0
40462	Wifi_AP_PASSWORD_17 WI-FI AP PASSWORD 17	WO	\0
40463	Wifi_AP_PASSWORD_18 WI-FI AP PASSWORD 18	WO	\0
40464	Wifi_AP_PASSWORD_19 WI-FI AP PASSWORD 19	WO	\0
40465	Wifi_AP_PASSWORD_20 WI-FI AP PASSWORD 20	WO	\0
40466	Wifi_AP_PASSWORD_21 WI-FI AP PASSWORD 21	WO	\0
40467	Wifi_AP_PASSWORD_22 WI-FI AP PASSWORD 22	WO	\0
40468	Wifi_AP_PASSWORD_23 WI-FI AP PASSWORD 23	WO	\0
40469	Wifi_AP_PASSWORD_24 WI-FI AP PASSWORD 24	WO	\0
40470	Wifi_AP_PASSWORD_25 WI-FI AP PASSWORD 25	WO	\0
40471	Wifi_AP_PASSWORD_26 WI-FI AP PASSWORD 26	WO	\0
40472	Wifi_AP_PASSWORD_27 WI-FI AP PASSWORD 27	WO	\0
40473	Wifi_AP_PASSWORD_28 WI-FI AP PASSWORD 28	WO	\0
40474	Wifi_AP_PASSWORD_29 WI-FI AP PASSWORD 29	WO	\0
40475	Wifi_AP_PASSWORD_30 WI-FI AP PASSWORD 30	WO	\0
40476	Wifi_AP_PASSWORD_31 WI-FI AP PASSWORD 31	WO	\0
40477	Wifi_AP_HOSTNAME_0 WI-FI AP HOSTNAME set 0	R/W	E
40478	Wifi_AP_HOSTNAME_1 WI-FI AP HOSTNAME set 1	R/W	M
40479	Wifi_AP_HOSTNAME_2 WI-FI AP HOSTNAME set 2	R/W	T

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40480	Wifi_AP_HOSTNAME_3 WI-FI AP HOSTNAME set 3	R/W	4
40481	Wifi_AP_HOSTNAME_4 WI-FI AP HOSTNAME set 4	R/W	3
40482	Wifi_AP_HOSTNAME_5 WI-FI AP HOSTNAME set 5	R/W	0
40483	Wifi_AP_HOSTNAME_6 WI-FI AP HOSTNAME set 6	R/W	–
40484	Wifi_AP_HOSTNAME_7 WI-FI AP HOSTNAME set 7	R/W	W
40485	Wifi_AP_HOSTNAME_8 WI-FI AP HOSTNAME set 8	R/W	I
40486	Wifi_AP_HOSTNAME_9 WI-FI AP HOSTNAME set 9	R/W	F
40487	Wifi_AP_HOSTNAME_10 WI-FI AP HOSTNAME set 10	R/W	I
40488	Wifi_AP_HOSTNAME_11 WI-FI AP HOSTNAME set 11	R/W	–
40489	Wifi_AP_HOSTNAME_12 WI-FI AP HOSTNAME set 12	R/W	A
40490	Wifi_AP_HOSTNAME_13 WI-FI AP HOSTNAME set 13	R/W	P
40491	Wifi_AP_HOSTNAME_14 WI-FI AP HOSTNAME set 14	R/W	–
40492	Wifi_AP_HOSTNAME_15 WI-FI AP HOSTNAME set 15	R/W	\0
40493	Wifi_AP_HOSTNAME_16 WI-FI AP HOSTNAME set 16	R/W	\0
40494	Wifi_AP_HOSTNAME_17 WI-FI AP HOSTNAME set 17	R/W	\0
40495	Wifi_AP_HOSTNAME_18 WI-FI AP HOSTNAME set 18	R/W	\0
40496	Wifi_AP_HOSTNAME_19 WI-FI AP HOSTNAME set 19	R/W	\0
40497	Wifi_AP_HOSTNAME_20 WI-FI AP HOSTNAME set 20	R/W	\0
40498	Wifi_AP_HOSTNAME_21 WI-FI AP HOSTNAME set 21	R/W	\0
40499	Wifi_AP_HOSTNAME_22 WI-FI AP HOSTNAME set 22	R/W	\0
40500	Wifi_AP_HOSTNAME_23 WI-FI AP HOSTNAME set 23	R/W	\0
40501	Wifi_AP_HOSTNAME_24 WI-FI AP HOSTNAME set 24	R/W	\0
40502	Wifi_AP_HOSTNAME_25 WI-FI AP HOSTNAME set 25	R/W	\0
40503	Wifi_AP_HOSTNAME_26 WI-FI AP HOSTNAME set 26	R/W	\0
40504	Wifi_AP_HOSTNAME_27 WI-FI AP HOSTNAME set 27	R/W	\0
40505	Wifi_AP_HOSTNAME_28 WI-FI AP HOSTNAME set 28	R/W	\0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40506	Wifi_AP_HOSTNAME_29 WI-FI AP HOSTNAME set 29	R/W	\0
40507	Wifi_AP_HOSTNAME_30 WI-FI AP HOSTNAME set 30	R/W	\0
40508	Wifi_AP_HOSTNAME_31 WI-FI AP HOSTNAME set 31	R/W	\0
40509	Wifi_AP_IP_0 WI-FI AP IP 0	R/W	192
40510	Wifi_AP_IP_1 WI-FI AP IP 1	R/W	168
40511	Wifi_AP_IP_2 WI-FI AP IP 2	R/W	4
40512	Wifi_AP_IP_3 WI-FI AP IP 3	R/W	1
40513	Wifi_AP_Netmask_0 WI-FI AP NETMASK 0	R/W	255
40514	Wifi_AP_Netmask_1 WI-FI AP NETMASK 1	R/W	255
40515	Wifi_AP_Netmask_2 WI-FI AP NETMASK 2	R/W	255
40516	Wifi_AP_Netmask_3 WI-FI AP NETMASK 3	R/W	0
40517	Wifi_AP_Gateway_0 WI-FI AP GATEWAY 0	R/W	192
40518	Wifi_AP_Gateway_1 WI-FI AP GATEWAY 1	R/W	168
40519	Wifi_AP_Gateway_2 WI-FI AP GATEWAY 2	R/W	4
40520	Wifi_AP_Gateway_3 WI-FI AP GATEWAY 3	R/W	1
40521	Ethernet_HOSTNAME_0 Ethernet_HOSTNAME_0 set 0	R/W	E
40522	Ethernet_HOSTNAME_1 Ethernet_HOSTNAME_0 set 1	R/W	M
40523	Ethernet_HOSTNAME_2 Ethernet_HOSTNAME_0 set 2	R/W	T
40524	Ethernet_HOSTNAME_3 Ethernet_HOSTNAME_0 set 3	R/W	4
40525	Ethernet_HOSTNAME_4 Ethernet_HOSTNAME_0 set 4	R/W	3
40526	Ethernet_HOSTNAME_5 Ethernet_HOSTNAME_0 set 5	R/W	0
40527	Ethernet_HOSTNAME_6 Ethernet_HOSTNAME_0 set 6	R/W	–
40528	Ethernet_HOSTNAME_7 Ethernet_HOSTNAME_0 set 7	R/W	E
40529	Ethernet_HOSTNAME_8 Ethernet_HOSTNAME_0 set 8	R/W	T
40530	Ethernet_HOSTNAME_9 Ethernet_HOSTNAME_0 set 9	R/W	H
40531	Ethernet_HOSTNAME_10 Ethernet_HOSTNAME_0 set 10	R/W	E

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40532	Ethernet_HOSTNAME_11 Ethernet_HOSTNAME_0 set 11	R/W	R
40533	Ethernet_HOSTNAME_12 Ethernet_HOSTNAME_0 set 12	R/W	N
40534	Ethernet_HOSTNAME_13 Ethernet_HOSTNAME_0 set 13	R/W	E
40535	Ethernet_HOSTNAME_14 Ethernet_HOSTNAME_0 set 14	R/W	T
40536	Ethernet_HOSTNAME_15 Ethernet_HOSTNAME_0 set 15	R/W	—
40537	Ethernet_HOSTNAME_16 Ethernet_HOSTNAME_0 set 16	R/W	\0
40538	Ethernet_HOSTNAME_17 Ethernet_HOSTNAME_0 set 17	R/W	\0
40539	Ethernet_HOSTNAME_18 Ethernet_HOSTNAME_0 set 18	R/W	\0
40540	Ethernet_HOSTNAME_19 Ethernet_HOSTNAME_0 set 19	R/W	\0
40541	Ethernet_HOSTNAME_20 Ethernet_HOSTNAME_0 set 20	R/W	\0
40542	Ethernet_HOSTNAME_21 Ethernet_HOSTNAME_0 set 21	R/W	\0
40543	Ethernet_HOSTNAME_22 Ethernet_HOSTNAME_0 set 22	R/W	\0
40544	Ethernet_HOSTNAME_23 Ethernet_HOSTNAME_0 set 23	R/W	\0
40545	Ethernet_HOSTNAME_24 Ethernet_HOSTNAME_0 set 24	R/W	\0
40546	Ethernet_HOSTNAME_25 Ethernet_HOSTNAME_0 set 25	R/W	\0
40547	Ethernet_HOSTNAME_26 Ethernet_HOSTNAME_0 set 26	R/W	\0
40548	Ethernet_HOSTNAME_27 Ethernet_HOSTNAME_0 set 27	R/W	\0
40549	Ethernet_HOSTNAME_28 Ethernet_HOSTNAME_0 set 28	R/W	\0
40550	Ethernet_HOSTNAME_29 Ethernet_HOSTNAME_0 set 29	R/W	\0
40551	Ethernet_HOSTNAME_30 Ethernet_HOSTNAME_0 set 30	R/W	\0
40552	Ethernet_HOSTNAME_31 Ethernet_HOSTNAME_0 set 31	R/W	\0
40553	Ethernet_IP_0 ETHERNET IP static (DHCP off) 0	R/W	192
40554	Ethernet_IP_1 ETHERNET IP static (DHCP off) 1	R/W	168
40556	Ethernet_IP_3 ETHERNET IP static (DHCP off) 3	R/W	250
40557	Ethernet_Netmask_0 ETHERNET NETMASK static (DHCP off) 0	R/W	255
40558	Ethernet_Netmask_1 ETHERNET NETMASK static (DHCP off) 1	R/W	255

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40559	Ethernet_Netmask_2 ETHERNET NETMASK static (DHCP off) 2	R/W	255
40560	Ethernet_Netmask_3 ETHERNET NETMASK static (DHCP off) 3	R/W	0
40561	Ethernet_Gateway_0 ETHERNET GATEWAY static (DHCP off) 0	R/W	192
40562	Ethernet_Gateway_1 ETHERNET GATEWAY static (DHCP off) 1	R/W	168
40563	Ethernet_Gateway_2 ETHERNET GATEWAY static (DHCP off) 2	R/W	178
40564	Ethernet_Gateway_3 ETHERNET GATEWAY static (DHCP off) 3	R/W	250
40565	Ethernet_IP_assigned_by_dhcp_0 ETHERNET IP ASSEGNATO (DHCP on) 0	R/W	0
40566	Ethernet_IP_assigned_by_dhcp_1 ETHERNET IP ASSEGNATO (DHCP on) 1	R/W	0
40567	Ethernet_IP_assigned_by_dhcp_2 ETHERNET IP ASSEGNATO (DHCP on) 2	R/W	0
40568	Ethernet_IP_assigned_by_dhcp_3 ETHERNET IP ASSEGNATO (DHCP on) 3	R/W	0
40569	Ethernet_Netmask_assigned_by_dhcp_0 ETHERNET NETMASK ASSEGNATO (DHCP on) 0	R/W	0
40570	Ethernet_Netmask_assigned_by_dhcp_1 ETHERNET NETMASK ASSEGNATO (DHCP on) 1	R/W	0
40571	Ethernet_Netmask_assigned_by_dhcp_2 ETHERNET NETMASK ASSEGNATO (DHCP on) 2	R/W	0
40572	Ethernet_Netmask_assigned_by_dhcp_3 ETHERNET NETMASK ASSEGNATO (DHCP on) 3	R/W	0
40573	Ethernet_Gateway_assigned_by_dhcp_0 ETHERNET GATEWAY ASSEGNATO (DHCP on) 0	R/W	0
40574	Ethernet_Gateway_assigned_by_dhcp_1 ETHERNET GATEWAY ASSEGNATO (DHCP on) 1	R/W	0
40575	Ethernet_Gateway_assigned_by_dhcp_2 ETHERNET GATEWAY ASSEGNATO (DHCP on) 2	R/W	0
40576	Ethernet_Gateway_assigned_by_dhcp_3 ETHERNET GATEWAY ASSEGNATO (DHCP on) 3	R/W	0
40577	Communications_settings Bit 0: Ethernet DHCP 0 = Disabled (static address from registers) 1 = Enabled (default) Bit 1: Wi-Fi STA DHCP 0 = Disabled (static address from registers) 1 = Enabled (default)	R/W	3
40579	UTC_Time_zone_value The value of this register sets the Time Zone out of a list of 461 elements. The entire list is in the documentation, the default value is 390 which is for 'Europe/Rome'	R/W	390
40674	webserver_user_psw_0 webserver authentication user password char 0	WO	a
40675	webserver_user_psw_1 webserver authentication user password char 1	WO	d

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40676	webserver_user_psw_2 webserver authentication user password char 2	WO	m
40677	webserver_user_psw_3 webserver authentication user password char 3	WO	i
40678	webserver_user_psw_4 webserver authentication user password char 4	WO	n
40679	webserver_user_psw_5 webserver authentication user password char 5	WO	\0
40680	webserver_user_psw_6 webserver authentication user password char 6	WO	\0
40681	webserver_user_psw_7 webserver authentication user password char 7	WO	\0
40682	webserver_user_psw_8 webserver authentication user password char 8	WO	\0
40683	webserver_user_psw_9 webserver authentication user password char 9	WO	\0
40684	webserver_user_psw_10 webserver authentication user password char 10	WO	\0
40685	webserver_user_psw_11 webserver authentication user password char 11	WO	\0
40686	webserver_user_psw_12 webserver authentication user password char 12	WO	\0
40687	webserver_user_psw_13 webserver authentication user password char 13	WO	\0
40688	webserver_user_psw_14 webserver authentication user password char 14	WO	\0
40689	webserver_user_psw_15 webserver authentication user password char 15	WO	\0
40690	webserver_inst_psw_0 webserver authentication installer password char 0	WO	a
40691	webserver_inst_psw_1 webserver authentication installer password char 1	WO	d
40692	webserver_inst_psw_2 webserver authentication installer password char 2	WO	m
40693	webserver_inst_psw_3 webserver authentication installer password char 3	WO	i
40694	webserver_inst_psw_4 webserver authentication installer password char 4	WO	n
40695	webserver_inst_psw_5 webserver authentication installer password char 5	WO	\0
40696	webserver_inst_psw_6 webserver authentication installer password char 6	WO	\0
40697	webserver_inst_psw_7 webserver authentication installer password char 7	WO	\0
40698	webserver_inst_psw_8 webserver authentication installer password char 8	WO	\0
40699	webserver_inst_psw_9 webserver authentication installer password char 9	WO	\0
40700	webserver_inst_psw_10 webserver authentication installer password char 10	WO	\0
40701	webserver_inst_psw_11 webserver authentication installer password char 11	WO	\0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40702	webserver_inst_psw_12 webserver authentication installer password char 12	WO	\0
40703	webserver_inst_psw_13 webserver authentication installer password char 13	WO	\0
40704	webserver_inst_psw_14 webserver authentication installer password char 14	WO	\0
40705	webserver_inst_psw_15 webserver authentication installer password char 15	WO	\0
40709	totalizer_mode bit 0: 0 -> Digital in rising 1 -> Digital in falling bit 1: 0 -> Totalizer incremental 1 -> Totalizer decremental	R/W	0
40710	Filter_Din Number of samples of the filter (every 157us)	R/W	0
40715	wifi_tx_power Wifi Strength of our antenna in dBm	R/W	20
40716	Pulses_per_kWh Pulses per kWh impulsive digital output	R/W	1000

8.3 Energies

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40721	KWh1 Active energy line 1 [Wh tenth]	R/W	0
40725	KWh2 Active energy line 2 [Wh tenth]	R/W	0
40729	KWh3 Active energy line 3 [Wh tenth]	R/W	0
40733	KWh_SUM Active energy three phase [Wh tenth]	R/W	0
40737	KWh1_Plus Positive Active energy line 1 [Wh tenth]	R/W	0
40741	KWh2_Plus Positive Active energy line 2 [Wh tenth]	R/W	0
40745	KWh3_Plus Positive Active energy line 3 [Wh tenth]	R/W	0
40749	KWh_SUM_Plus Positive Active energy three phase [Wh tenth]	R/W	0
40753	KWh1_Neg Negative Active energy line 1 [Wh tenth]	R/W	0
40757	KWh2_Neg Negative Active energy line 2 [Wh tenth]	R/W	0
40761	KWh3_Neg Negative Active energy line 3 [Wh tenth]	R/W	0
40769	KVARh1 Reactive energy line 1 [VARh tenth]	R/W	0
40773	KVARh2 Reactive energy line 2 [VARh tenth]	R/W	0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40777	KVARh3 Reactive energy line 3 [VARh tenth]	R/W	0
40781	KVARh_SUM Reactive energy three phase [VARh tenth]	R/W	0
40785	KVARh1_Inductive_positive Inductive (positive P) Reactive energy line 1 [VARh tenth]	R/W	0
40789	KVARh2_Inductive_positive Inductive (positive P) Reactive energy line 2 [VARh tenth]	R/W	0
40793	KVARh3_Inductive_positive Inductive (positive P) Reactive energy line 3 [VARh tenth]	R/W	0
40797	KVARh_SUM_Inductive_positive Inductive (positive P) Reactive energy three phase [VARh tenth]	R/W	0
40801	KVARh1_Inductive_negative Inductive (negative P) Reactive energy line 1 [VARh tenth]	R/W	0
40805	KVARh2_Inductive_negative Inductive (negative P) Reactive energy line 2 [VARh tenth]	R/W	0
40809	KVARh3_Inductive_negative Inductive (negative P) Reactive energy line 3 [VARh tenth]	R/W	0
40813	KVARh_SUM_Inductive_negative Inductive (negative P) Reactive energy three phase [VARh tenth]	R/W	0
40817	KVARh1_Capacitive_positive Capacitive (positive P) Reactive energy line 1 [VARh tenth]	R/W	0
40821	KVARh2_Capacitive_positive Capacitive (positive P) Reactive energy line 2 [VARh tenth]	R/W	0
40825	KVARh3_Capacitive_positive Capacitive (positive P) Reactive energy line 3 [VARh tenth]	R/W	0
40829	KVARh_SUM_Capacitive_positive Capacitive (positive P) Reactive energy three phase [VARh tenth]	R/W	0
40833	KVARh1_Capacitive_negative Capacitive (negative P) Reactive energy line 1 [VARh tenth]	R/W	0
40837	KVARh2_Capacitive_negative Capacitive (negative P) Reactive energy line 2 [VARh tenth]	R/W	0
40841	KVARh3_Capacitive_negative Capacitive (negative P) Reactive energy line 3 [VARh tenth]	R/W	0
40845	KVARh_SUM_Capacitive_negative Capacitive (negative P) Reactive energy three phase [VARh tenth]	R/W	0
40849	KVAh1 Apparent energy line 1 [VAh tenth]	R/W	0
40853	KVAh2 Apparent energy line 2 [VAh tenth]	R/W	0
40857	KVAh3 Apparent energy line 3 [VAh tenth]	R/W	0
40861	KVAh_SUM Apparent energy three phase [VAh tenth]	R/W	0
40865	Wh_storage_count Number of Wh flash savings (every 1 minute)	RO	0
40869	Working_time Working time of the device [mins]	RO	0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40891	Communication_status Bit 0: Wifi Sta Connected 0 = Not Connected (default) 1 = Connected Bit 1: Ethernet Connected 0 = Not Connected (default) 1 = Connected Bit 2: Connected cloud service 0 = Not Connected (default) 1 = Connected Bit 3: SD Card Connected 0 = Not Connected (default) 1 = Connected Bit 4: USB Connected 0 = Not Connected (default) 1 = Connected Bit 5: SD Card Mounted 0 = Yes 1 = No Bit 6: USB Mounted 0 = Yes 1 = No	RO	0
40894	status_digital_input Status for digital input. Bit 0: Input 1 0 = Closed 1 = Open Bit 1: Input 2 0 = Closed 1 = Open Bit 2: Input 3 0 = Closed 1 = Open	RO	0

8.4 Realtime measurement

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40897	Status_1 //STATUS_1 bit #define FLASH_SETTINGS_ERROR 0x00000001 #define FLASH_CALIBRATION_ERROR 0x00000002 #define I1_OVER_RANGE 0x00000004 #define I1_UNDER_RANGE 0x00000008 #define I2_OVER_RANGE 0x00000010 #define I2_UNDER_RANGE 0x00000020 #define I3_OVER_RANGE 0x00000040 #define I3_UNDER_RANGE 0x00000080 #define V1_OVER_RANGE 0x00000100 #define V1_UNDER_RANGE 0x00000200 #define V2_OVER_RANGE 0x00000400 #define V2_UNDER_RANGE 0x00000800 #define V3_OVER_RANGE 0x00001000 #define V3_UNDER_RANGE 0x00002000 #define ZX_DETECTING 0x00004000 #define SWITCH_OPEN 0x00008000 #define WH_STORING_ERROR 0x00010000 #define BUZZER_ON 0x00020000 #define RTC_CLOCK_NOT_UPDATED 0x00040000 #define ALARM_TRIGGER_REQUEST 0x00080000 #define TOTALIZER_STORING_ERROR 0x00100000 #define ZX_SIGNAL_ACQUIRED 0x00200000 #define LOW_IL1_MEASUREMENT 0x00400000 #define LOW_IL2_MEASUREMENT 0x00800000 #define LOW_IL3_MEASUREMENT 0x01000000 #define PF1_INDUCTIVE 0x10000000 #define PF2_INDUCTIVE 0x20000000 #define PF3_INDUCTIVE 0x40000000	RO	0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40899	Status_2 //STATUS_2 bit #define EVENT_MONITORING_READY_L1N 0x00000020 #define EVENT_MONITORING_READY_L2N 0x00000040 #define EVENT_MONITORING_READY_L3N 0x00000080 #define EVENT_PRESENT 0x00000800 #define FREQ_COPIED 0x00001000 #define NTP_SET 0x00002000 #define SWITCH_OPEN_L1 0x00008000 #define SWITCH_OPEN_L2 0x00010000 #define SWITCH_OPEN_L3 0x00020000 #define TOUCH_BOTTON_PRESSED 0x00040000 #define ERROR_TEMP_SENSOR 0x00080000 #define ERROR_TOUCH_SENSOR 0x00100000 #define REQUEST_RESET_SETTINGS 0x00200000 #define RTC_WRITING_IN_PROGRESS 0x00400000 #define REQUEST_RSSI 0x00800000 #define MAX_DEMAND_STORING_ERROR 0x01000000 #define POWER_QUALITY_BLANKING 0x02000000 #define POWER_QUALITY_FLASH_ERROR 0x04000000 #define REQUEST_CHANGE_ENERGY_UNIT 0x08000000 #define CERTS_ERROR 0x10000000 #define PQ_BLANKING_LOW_DURATION 0x20000000 #define SWITCH_2_OPEN 0x40000000	RO	0
40904	pass_installer password for 'installer' read & write role	R/W	0
40906	Command //comandi da scrivere sul registro COMMAND #define COMANDO_SALVATAGGIO_FLASH_SETTAGGI_E_NFC 0xC1C0U #define COMANDO_RESET 0xC1A0U #define COMANDO_SAVE_ENERGY 0xBABAU #define COMANDO_CLOSE_SWITCH 0xDAAAU #define COMANDO_OPEN_SWITCH 0xDAABU #define COMANDO_LEGGI_EVENTI_SAG 0xE000U #define COMANDO_LEGGI_EVENTI_SWELL 0xE100U #define COMANDO_LEGGI_EVENTI_INTERRUPTIION 0xE200U #define COMANDO_RESET_EVENTI_SAG 0xE300U #define COMANDO_RESET_EVENTI_SWELL 0xE400U #define COMANDO_RESET_EVENTI_INTERRUPTIION 0xE500U #define COMANDO_RESET_MAX_DEMAND 0xF000U #define COMANDO_RESET_ENERGIE 0xAAAAU	R/W	0
40907	V_L1_N RMS star voltage L1-N [V]	RO	0
40909	V_L2_N RMS star voltage L2-N [V]	RO	0
40911	V_L3_N RMS star voltage L3-N [V]	RO	0
40913	V_STAR_AVG RMS star avg value voltage [V]	RO	0
40915	V_L1_L2 RMS line voltage L1-L2 [V]	RO	0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40917	V_L2_L3 RMS line voltage L2-L3 [V]	RO	0
40919	V_L3_L1 RMS line voltage L3-L1 [V]	RO	0
40921	V_LINE_AVG RMS line avg value voltage [V]	RO	0
40923	I_L1 RMS line current L1	RO	0
40925	I_L2 RMS line current L2	RO	0
40927	I_L3 RMS line current L3	RO	0
40929	I_N RMS line current N (if 1 or 2 TA connection, I_N = 0)	RO	0
40931	I_AVG RMS avg value current (excluding neutral current I_N)	RO	0
40933	P1 RMS active power line 1 [W]	RO	0
40935	P2 RMS active power line 2 [W]	RO	0
40937	P3 RMS active power line 3 [W]	RO	0
40939	P_SUM RMS sum active power [W]	RO	0
40941	Q1 RMS reactive power line 1 [VAR]	RO	0
40943	Q2 RMS reactive power line 2 [VAR]	RO	0
40945	Q3 RMS reactive power line 3 [VAR]	RO	0
40947	Q_SUM RMS sum reactive power [VAR]	RO	0
40949	S1 RMS apparent power line 1 [VAR]	RO	0
40951	S2 RMS apparent power line 2 [VAR]	RO	0
40953	S3 RMS apparent power line 3 [VAR]	RO	0
40955	S_SUM RMS sum apparent power [VAR]	RO	0
40957	PF1 Power Factor line 1	RO	0
40959	PF2 Power Factor line 2	RO	0
40961	PF3 Power Factor line 3	RO	0
40963	PF_3PH Three Phase Power Factor	RO	0
40965	CF1 Crest Factor line 1	RO	0
40967	CF2 Crest Factor line 2	RO	0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
40969	CF3 Crest Factor line 3	RO	0
40971	CF_N Crest Factor Neutral	RO	0
40973	Frequency Frequency [Hz]	RO	0
40975	V_L1_N_peak Star voltage L1-N peak [V]	R/W	0
40977	V_L2_N_peak Star voltage L2-N peak [V]	R/W	0
40979	V_L3_N_peak Star voltage L3-N peak [V]	R/W	0
40981	V_L1_L2_peak Line voltage L1-L2 peak [V]	R/W	0
40983	V_L2_L3_peak Line voltage L2-L3 peak [V]	R/W	0
40985	V_L3_L1_peak Line voltage L3-L1 peak [V]	R/W	0
40987	I_L1_peak L1 current peak	R/W	0
40989	I_L2_peak L2 current peak	R/W	0
40991	I_L3_peak L3 current peak	R/W	0
40993	I_N_peak N current peak	R/W	0
41045	totalizer_1 Totalizer stored value for expansion board dig in 1	R/W	0
41049	totalizer_3 Totalizer stored value for expansion board dig in 3	R/W	0
41057	TAN_FI_1 Tangentθline 1 (+ inductive, - capacitive)	RO	0
41059	TAN_FI_2 Tangentθline 2 (+ inductive, - capacitive)	RO	0
41061	TAN_FI_3 Tangentθline 3 (+ inductive, - capacitive)	RO	0
41063	TAN_FI_AVG Average Tangentθ(+ inductive, - capacitive)	RO	0
41065	Phase_Order L1, L2, L3 = 0; L1, L3, L2 = 1	RO	0
41067	Internal_temperature Internal Temperature [°C]	RO	0

8.5 Average, maximum and minimum value

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
41069	V_L1_N_RMS_AVG Star voltage L1_N RMS average [V] over seconds_for_mean_RMS	RO	0
41071	V_L1_N_RMS_MAX Star voltage L1_N MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41073	V_L1_N_RMS_min Star voltage L1_N Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41075	V_L2_N_RMS_AVG Star voltage L2_N RMS average [V] over seconds_for_mean_RMS	RO	0
41077	V_L2_N_RMS_MAX Star voltage L2_N MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41079	V_L2_N_RMS_min Star voltage L2_N Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41081	V_L3_N_RMS_AVG Star voltage L3_N RMS average [V] over seconds_for_mean_RMS	RO	0
41083	V_L3_N_RMS_MAX Star voltage L3_N MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41085	V_L3_N_RMS_min Star voltage L3_N Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41087	V_STAR_AVG_RMS_AVG Star voltage AVG RMS average [V] over seconds_for_mean_RMS	RO	0
41089	V_STAR_AVG_RMS_MAX Star voltage AVG MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41091	V_STAR_AVG_RMS_min Star voltage AVG Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41093	V_L1_L2_RMS_AVG Line voltage L1-Line voltage L2-Line voltage L3-L1 RMS average [V] over seconds_for_mean_RMS	RO	0
41095	V_L1_L2_RMS_MAX Line voltage L1-Line voltage L2-Line voltage L3-L1 MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41097	V_L1_L2_RMS_min Line voltage L1-Line voltage L2-Line voltage L3-L1 Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41099	V_L2_L3_RMS_AVG Line voltage L2-Line voltage L3-L1 RMS average [V] over seconds_for_mean_RMS	RO	0
41101	V_L2_L3_RMS_MAX Line voltage L2-Line voltage L3-L1 MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41103	V_L2_L3_RMS_min Line voltage L2-Line voltage L3-L1 Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41105	V_L3_L1_RMS_AVG Line voltage L3-L1 RMS average [V] over seconds_for_mean_RMS	RO	0
41107	V_L3_L1_RMS_MAX Line voltage L3-L1 MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41109	V_L3_L1_RMS_min Line voltage L3-L1 Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41111	V_LINE_AVG_RMS_AVG Line voltage AVG RMS average [V] over seconds_for_mean_RMS	RO	0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
41113	V_LINE_AVG_RMS_MAX Line voltage AVG MAX RMS [V] over last seconds_for_MAX_RMS	RO	0
41115	V_LINE_AVG_RMS_min Line voltage AVG Min RMS [V] over lastseconds_for_min_RMS	RO	100000
41117	I_L1_RMS_AVG L1 RMS average over seconds_for_mean_RMS	RO	0
41119	I_L1_RMS_MAX L1 MAX RMS over last seconds_for_MAX_RMS	RO	0
41121	I_L1_RMS_min L1 Min RMS over lastseconds_for_min_RMS	RO	100000
41123	I_L2_RMS_AVG L2 RMS average over seconds_for_mean_RMS	RO	0
41125	I_L2_RMS_MAX L2 MAX RMS over last seconds_for_MAX_RMS	RO	0
41127	I_L2_RMS_min L2 Min RMS over lastseconds_for_min_RMS	RO	100000
41129	I_L3_RMS_AVG L3 RMS average over seconds_for_mean_RMS	RO	0
41131	I_L3_RMS_MAX L3 MAX RMS over last seconds_for_MAX_RMS	RO	0
41133	I_L3_RMS_min L3 Min RMS over lastseconds_for_min_RMS	RO	100000
41135	I_N_RMS_AVG N RMS average over seconds_for_mean_RMS	RO	0
41137	I_N_RMS_MAX N MAX RMS over last seconds_for_MAX_RMS	RO	0
41139	I_N_RMS_min N Min RMS over lastseconds_for_min_RMS	RO	100000
41141	I_AVG_RMS_AVG I_AVG RMS average over seconds_for_mean_RMS	RO	0
41143	I_AVG_RMS_MAX I_AVG MAX RMS over last seconds_for_MAX_RMS	RO	0
41145	I_AVG_RMS_min I_AVG Min RMS over lastseconds_for_min_RMS	RO	100000
41147	P1_RMS_AVG P1 RMS average [W] over seconds_for_mean_RMS	RO	0
41149	P1_RMS_MAX P1 MAX RMS [W] over last seconds_for_MAX_RMS	RO	0
41151	P1_RMS_min P1 Min RMS [W] over lastseconds_for_min_RMS	RO	100000
41153	P2_RMS_AVG P2 RMS average [W] over seconds_for_mean_RMS	RO	0
41155	P2_RMS_MAX P2 MAX RMS [W] over last seconds_for_MAX_RMS	RO	0
41157	P2_RMS_min P2 Min RMS [W] over lastseconds_for_min_RMS	RO	100000
41159	P3_RMS_AVG P3 RMS average [W] over seconds_for_mean_RMS	RO	0
41161	P3_RMS_MAX P3 MAX RMS [W] over last seconds_for_MAX_RMS	RO	0
41163	P3_RMS_min P3 Min RMS [W] over lastseconds_for_min_RMS	RO	100000

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
41165	P_SUM_RMS_AVG P_SUM RMS average [W] over seconds_for_mean_RMS	RO	0
41167	P_SUM_RMS_MAX P_SUM MAX RMS [W] over last seconds_for_MAX_RMS	RO	0
41169	P_SUM_RMS_min P_SUM Min RMS [W] over lastseconds_for_min_RMS	RO	100000
41173	Q1_RMS_MAX Q1 MAX RMS [VAR] over last seconds_for_MAX_RMS	RO	0
41175	Q1_RMS_min Q1 Min RMS [VAR] over lastseconds_for_min_RMS	RO	100000
41177	Q2_RMS_AVG Q2 RMS average [VAR] over seconds_for_mean_RMS	RO	0
41179	Q2_RMS_MAX Q2 MAX RMS [VAR] over last seconds_for_MAX_RMS	RO	0
41181	Q2_RMS_min Q2 Min RMS [VAR] over lastseconds_for_min_RMS	RO	100000
41183	Q3_RMS_AVG Q3 RMS average [VAR] over seconds_for_mean_RMS	RO	0
41185	Q3_RMS_MAX Q3 MAX RMS [VAR] over last seconds_for_MAX_RMS	RO	0
41187	Q3_RMS_min Q3 Min RMS [VAR] over lastseconds_for_min_RMS	RO	100000
41189	Q_SUM_RMS_AVG Q_SUM RMS average [VAR] over seconds_for_mean_RMS	RO	0
41191	Q_SUM_RMS_MAX Q_SUM MAX RMS [VAR] over last seconds_for_MAX_RMS	RO	0
41193	Q_SUM_RMS_min Q_SUM Min RMS [VAR] over lastseconds_for_min_RMS	RO	100000
41195	S1_RMS_AVG S1 RMS average [VA] over seconds_for_mean_RMS	RO	0
41197	S1_RMS_MAX S1 MAX RMS [VA] over last seconds_for_MAX_RMS	RO	0
41199	S1_RMS_min S1 Min RMS [VA] over lastseconds_for_min_RMS	RO	100000
41201	S2_RMS_AVG S2 RMS average [VA] over seconds_for_mean_RMS	RO	0
41203	S2_RMS_MAX S2 MAX RMS [VA] over last seconds_for_MAX_RMS	RO	0
41205	S2_RMS_min S2 Min RMS [VA] over lastseconds_for_min_RMS	RO	100000
41207	S3_RMS_AVG S3 RMS average [VA] over seconds_for_mean_RMS	RO	0
41209	S3_RMS_MAX S3 MAX RMS [VA] over last seconds_for_MAX_RMS	RO	0
41211	S3_RMS_min S3 Min RMS [VA] over lastseconds_for_min_RMS	RO	100000
41213	S_SUM_RMS_AVG S_SUM RMS average [VA] over seconds_for_mean_RMS	RO	0
41215	S_SUM_RMS_MAX S_SUM MAX RMS [VA] over last seconds_for_MAX_RMS	RO	0
41217	S_SUM_RMS_min S_SUM Min RMS [VA] over lastseconds_for_min_RMS	RO	100000

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
41219	PF1_RMS_AVG PF1 RMS average over seconds_for_mean_RMS	RO	0
41221	PF1_RMS_MAX PF1 MAX RMS over last seconds_for_MAX_RMS	RO	0
41223	PF1_RMS_min PF1 Min RMS over lastseconds_for_min_RMS	RO	100000
41225	PF2_RMS_AVG PF2 RMS average over seconds_for_mean_RMS	RO	0
41227	PF2_RMS_MAX PF2 MAX RMS over last seconds_for_MAX_RMS	RO	0
41229	PF2_RMS_min PF2 Min RMS over lastseconds_for_min_RMS	RO	100000
41231	PF3_RMS_AVG PF3 RMS average over seconds_for_mean_RMS	RO	0
41233	PF3_RMS_MAX PF3 MAX RMS over last seconds_for_MAX_RMS	RO	0
41235	PF3_RMS_min PF3 Min RMS over lastseconds_for_min_RMS	RO	100000
41237	PF_SUM_RMS_AVG PF_SUM RMS average over seconds_for_mean_RMS	RO	0
41239	PF_SUM_RMS_MAX PF_SUM MAX RMS over last seconds_for_MAX_RMS	RO	0
41241	PF_SUM_RMS_min PF_SUM Min RMS over lastseconds_for_min_RMS	RO	100000
41243	CF1_RMS_AVG CF1 RMS average over seconds_for_mean_RMS	RO	0
41245	CF1_RMS_MAX CF1 MAX RMS over last seconds_for_MAX_RMS	RO	0
41247	CF1_RMS_min CF1 Min RMS over lastseconds_for_min_RMS	RO	100000
41249	CF2_RMS_AVG CF2 RMS average over seconds_for_mean_RMS	RO	0
41251	CF2_RMS_MAX CF2 MAX RMS over last seconds_for_MAX_RMS	RO	0
41253	CF2_RMS_min CF2 Min RMS over lastseconds_for_min_RMS	RO	100000
41255	CF3_RMS_AVG CF3 RMS average over seconds_for_mean_RMS	RO	0
41257	CF3_RMS_MAX CF3 MAX RMS over last seconds_for_MAX_RMS	RO	0
41259	CF3_RMS_min CF3 Min RMS over lastseconds_for_min_RMS	RO	100000
41261	CF_N_RMS_AVG CF_N RMS average over seconds_for_mean_RMS	RO	0
41263	CF_N_RMS_MAX CF_N MAX RMS over last seconds_for_MAX_RMS	RO	0
41265	CF_N_RMS_min CF_N Min RMS over lastseconds_for_min_RMS	RO	100000
41267	Frequency_RMS_AVG Frequency average over seconds_for_mean_RMS	RO	0
41269	Frequency_RMS_MAX Frequency MAX over last seconds_for_MAX_RMS	RO	0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
41271	Frequency_RMS_min Frequency Min over lastseconds_for_min_RMS	RO	100000
41281	P1_Tot_AVG Average total Power over minute_for_Max_and_AVG_demand for P1	RO	0
41283	P2_Tot_AVG Average total Power over minute_for_Max_and_AVG_demand for P2	RO	0
41285	P3_Tot_AVG Average total Power over minute_for_Max_and_AVG_demand for P3	RO	0
41287	P_SUM_Tot_AVG Average total Power over minute_for_Max_and_AVG_demand for P three phase	RO	0
41289	P1_Plus_AVG Average positive Power over minute_for_Max_and_AVG_demand for P1	RO	0
41291	P2_Plus_AVG Average positive Power over minute_for_Max_and_AVG_demand for P2	RO	0
41293	P3_Plus_AVG Average positive Power over minute_for_Max_and_AVG_demand for P3	RO	0
41295	P_SUM_Plus_AVG Average positive Power over minute_for_Max_and_AVG_demand for P three phase	RO	0
41297	P1_Neg_AVG Average Negative Power over minute_for_Max_and_AVG_demand for P1	RO	0
41299	P2_Neg_AVG Average Negative Power over minute_for_Max_and_AVG_demand for P2	RO	0
41301	P3_Neg_AVG Average Negative Power over minute_for_Max_and_AVG_demand for P3	RO	0
41303	P_SUM_Neg_AVG Average Negative Power over minute_for_Max_and_AVG_demand for P three phase	RO	0
41305	Q1_Plus_AVG_ind Average Reactive Inductive Power with positive active power over minute_for_Max_and_AVG_demand for Q1	RO	0
41307	Q2_Plus_AVG_ind Average Reactive Inductive Power with positive active power over minute_for_Max_and_AVG_demand for Q2	RO	0
41309	Q3_Plus_AVG_ind Average Reactive Inductive Power with positive active power over minute_for_Max_and_AVG_demand for Q3	RO	0
41311	Q_SUM_Plus_AVG_ind Average Reactive Inductive Power with positive active power over minute_for_Max_and_AVG_demand for Q three phase	RO	0
41313	Q1_Neg_AVG_ind Average Reactive Inductive Power with negative active power over minute_for_Max_and_AVG_demand for Q1	RO	0
41315	Q2_Neg_AVG_ind Average Reactive Inductive Power with negative active power over minute_for_Max_and_AVG_demand for Q2	RO	0
41317	Q3_Neg_AVG_ind Average Reactive Inductive Power with negative active power over minute_for_Max_and_AVG_demand for Q3	RO	0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
41319	Q_SUM_Neg_AVG_ind Average Reactive Inductive Power with negative active power over minute_for_Max_and_AVG_demand for Q three phase	RO	0
41321	Q1_Plus_AVG_cap Average Reactive Capacitive Power with positive active power over minute_for_Max_and_AVG_demand for Q1	RO	0
41323	Q2_Plus_AVG_cap Average Reactive Capacitive Power with positive active power over minute_for_Max_and_AVG_demand for Q2	RO	0
41325	Q3_Plus_AVG_cap Average Reactive Capacitive Power with positive active power over minute_for_Max_and_AVG_demand for Q3	RO	0
41327	Q_SUM_Plus_AVG_cap Average Reactive Capacitive Power with positive active power over minute_for_Max_and_AVG_demand for Q three phase	RO	0
41329	Q1_Neg_AVG_cap Average Reactive Capacitive Power with negative active power over minute_for_Max_and_AVG_demand for Q1	RO	0
41331	Q2_Neg_AVG_cap Average Reactive Capacitive Power with negative active power over minute_for_Max_and_AVG_demand for Q2	RO	0
41333	Q3_Neg_AVG_cap Average Reactive Capacitive Power with negative active power over minute_for_Max_and_AVG_demand for Q3	RO	0
41335	Q_SUM_Neg_AVG_cap Average Reactive Capacitive Power with negative active power over minute_for_Max_and_AVG_demand for Q three phase	RO	0
41337	P1_MaxDemand MAX Demand over minute_for_Max_and_AVG_demand for P1	RO	0
41339	P2_MaxDemand MAX Demand over minute_for_Max_and_AVG_demand for P2	RO	0
41341	P3_MaxDemand MAX Demand over minute_for_Max_and_AVG_demand for P3	RO	0
41343	P_SUM_MaxDemand MAX Demand over minute_for_Max_and_AVG_demand for P three phase	RO	0
41345	Month_of_P1_MaxDemand Month at which arises Max Demand over minute_for_Max_and_AVG_demand for P1 for current month	RO	0
41346	Day_of_P1_MaxDemand Day at which arises Max Demand over minute_for_Max_and_AVG_demand for P1 for current month	RO	0
41347	Hour_of_P1_MaxDemand Hour at which arises Max Demand over minute_for_Max_and_AVG_demand for P1 for current month	RO	0
41348	Minute_of_P1_MaxDemand Minute at which arises Max Demand over minute_for_Max_and_AVG_demand for P1 for current month	RO	0
41349	Month_of_P2_MaxDemand Month at which arises Max Demand over minute_for_Max_and_AVG_demand for P2 for current month	RO	0

Indirizzo Modbus	Nome registro Descrizione	R/W	Default
41350	Day_of_P2_MaxDemand Day at which arises Max Demand over minute_for_Max_and_AVG_ demand for P2 for current month	RO	0
41351	Hour_of_P2_MaxDemand Hour at which arises Max Demand over minute_for_Max_and_AVG_ demand for P2 for current month	RO	0
41352	Minute_of_P2_MaxDemand Minute at which arises Max Demand over minute_for_Max_and_AVG_ demand for P2 for current month	RO	0
41353	Month_of_P3_MaxDemand Month at which arises Max Demand over minute_for_Max_and_AVG_ demand for P3 for current month	RO	0
41354	Day_of_P3_MaxDemand Day at which arises Max Demand over minute_for_Max_and_AVG_ demand for P3 for current month	RO	0
41355	Hour_of_P3_MaxDemand Hour at which arises Max Demand over minute_for_Max_and_AVG_ demand for P3 for current month	RO	0
41356	Minute_of_P3_MaxDemand Minute at which arises Max Demand over minute_for_Max_and_AVG_ demand for P3 for current month	RO	0
41357	Month_of_P_SUM_MaxDemand Month at which arises Max Demand over minute_for_Max_and_AVG_ demand for P_SUM for current month	RO	0
41358	Day_of_P_SUM_MaxDemand Day at which arises Max Demand over minute_for_Max_and_AVG_ demand for P_SUM for current month	RO	0
41359	Hour_of_P_SUM_MaxDemand Hour at which arises Max Demand over minute_for_Max_and_AVG_ demand for P_SUM for current month	RO	0
41360	Minute_of_P_SUM_MaxDemand Minute at which arises Max Demand over minute_for_Max_and_AVG_ demand for P_SUM for current month	RO	0
41361	Year RTC : year (2000-2099)	R/W	2025
41362	Month RTC : month (1-12)	R/W	10
41363	Day RTC : day month (1-31)	R/W	6
41364	Hour RTC : hour (0-23)	R/W	11
41365	Minute RTC : minute (0-59)	R/W	7
41366	Seconds RTC : second (0-59)	R/W	45
41367	RSSI Wifi Strength (of the connected AP)	RO	0

9 Portali di Supporto e Documentazione Tecnica

Per ottenere informazioni dettagliate, assistenza tecnica e risorse aggiornate relative ai prodotti Pixsys, si invita l'utente a consultare i seguenti portali ufficiali:



Forum Pixsys - disponibile all'indirizzo:

<https://forum.pixsys.net>

Piattaforma dedicata al confronto tra utenti, utile per la risoluzione di problematiche tecniche e lo scambio di esperienze applicative.



Documentazione tecnica Pixsys - disponibile all'indirizzo

<https://docs.pixsys.com>

Archivio ufficiale contenente guide operative e materiale di riferimento costantemente aggiornato.

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Note / Aggiornamenti

[illegible]

Read carefully the safety guidelines and programming instructions contained in this manual before using/connecting the device.

Prima di utilizzare il dispositivo leggere con attenzione le informazioni di sicurezza e settaggio contenute in questo manuale.



PIXSYS s.r.l.

www.pixsys.net

sales@pixsys.net - support@pixsys.net

online assistance: <http://forum.pixsys.net>

via Po, 16 I-30030
Mellaredo di Pianiga, VENEZIA (IT)
Tel +39 041 5190518



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