

Analizador de Red trifásico

ENERGY.3-DIS-RS

Manual de uso



Network Analyser User Manual



DPF
sensors
www.dpfsensors.com

Index

■ Safety warnings	Page	24
■ Technical specifications	Page	24
■ Instrument description	Page	25
■ Keys	Page	25
■ Parameter settings	Page	26
■ Measurement page display	Page	29
■ Measurement / calculation methods	Page	35
■ Serial communications	Page	36
■ Reference standards	Page	41
■ Dimensions and connection diagrams	Page	42

SAFETY WARNINGS

During the installation and operation of the instrument, proceed in accordance with the instructions below:

- 1) The instrument should be installed by competent personnel
- 2) Follow the installation diagrams carefully
- 3) When connecting the instrument, always use TA x/5 A
- 4) The appliance should be installed in a panel from which no access can be gained to the terminals after installation
- 5) The terminals of the voltage and current circuits may be connected with a maximum rated voltage to earth of 300 V eff
- 6) The panel should be wired in accordance with the EN standards that apply
- 7) Do not power or connect the instrument if any part of it is damaged.

■ NOTE:

- **Network analyser is designed to be used in locations with over-voltage category III and pollution level 2, in accordance with the EN 61010-1 standard**
 - **The electrical system of the building in which the instrument is to be installed should have a switch or isolator fitted in the vicinity of the instrument in a place to which the operator has easy access.**
- A protective device against over-currents should be fitted.**

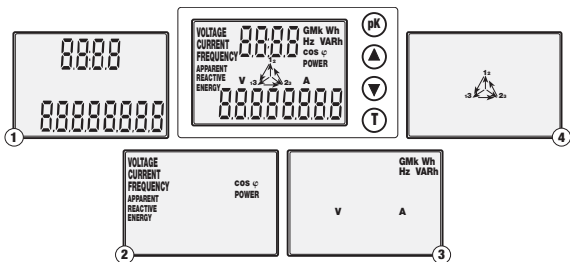
TECHNICAL SPECIFICATIONS

- Power supply: 230 VAC (-15%/+10%)
- Frequency: 50/60 Hz
- Maximum power consumption: 4 VA
- Indications: customised, rear lit LCD display
- Voltmeter inputs: max 550 V rms, 47÷63 Hz
- Ammetric inputs: max 6 A rms, 47÷63 Hz
- Scales: 1 voltage scale with max reading 550 V rms
2 current scales with maximum readings of 2 A rms and 6 A rms
- Precision:
 - Voltage 0.5% of the end of scale value (for measurements between 10% and 100% of the end of scale)
 - Minimum signal measured 10 V
 - Current 0.5% of the end of scale value (for measurements between 10% and 100% of the end of scale)
 - Minimum signal measured 20 mA
 - Power 1% of the end of scale value
 - Frequency ± 0.1 Hz (47÷63 Hz)
 - Active energy class 2 to standard EN 62052-21
 - Reactive energy class 3 to standard EN 62053-23

- TV selected: primary 1÷9999 V, secondary 230 V
- TA selected: primary 1÷9999 A, secondary 5 A
- Serial output: insulated RS-485 with MODBUS RTU protocol (max 9600 Baud)
- Operating temperature: 0 °C ÷ +50 °C
- Relative humidity: 10%÷90% non-condensing
- Container material in class V-0 in line with the UL 94 standard, 4 module DIN, colour RAL-7035 grey

INSTRUMENT DESCRIPTION

Display and messages



- ① Numerical fields for the display of the values measured
- ② Type of measurement taking place
- ③ Measurement unit
- ④ Phase symbols

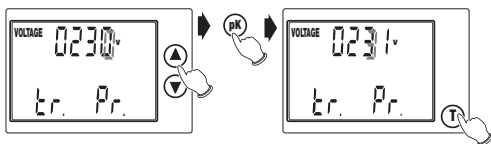
KEYS

- ▲ Scroll to the next page and set parameters
- ▼ Scroll to the previous page and set parameters
- T Display of the system values
- pK Display of the peak value and selection of parameters during programming

PARAMETER SETTING

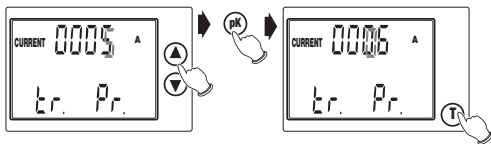
- Access to the programming menus takes place when the instrument is switched on by holding down the “up” (▲) and “down” (▼) keys at the same time.
- The following parameters can be programmed by the user in the order shown:
 - Primary TV (fixed secondary 230 V)
 - Primary TA (fixed secondary 5 A)
 - Serial port configuration (3 screen displays) (not available in the spot version)
 - Zeroing of active energy meter
 - Zeroing of reactive energy meter
 - Rear lighting handling
- For a new parameter setting, the power to the instrument has to be cut off and restored by pressing the “up” (▲) and “down” (▼) keys at the same time.

TV setting



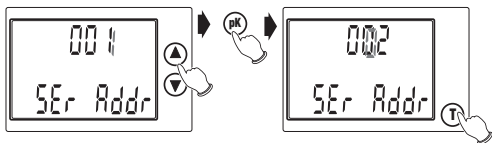
- Press the “up” (▲) or “down” (▼) keys to select the required value of the flashing figure
- To move to the next figure, press the “pk” key
- To confirm the value set and move to the next window, press “T”

TA setting

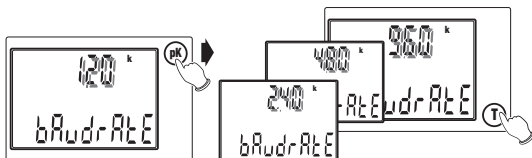


- The same as the TV setting procedure.
Note: for the TV and TA primaries, any value from 0001 to 9999 can be set. If the value 0000 is set, the instrument will force this to 0001. The secondaries are set to 230 V and 5 A respectively.

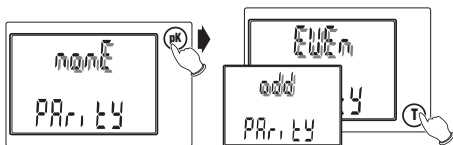
Serial port configuration



- **Setting the serial port address:** the same as the TV setting procedure

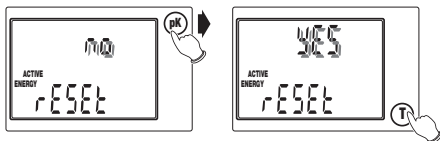


- **Setting the serial port speed:** press “**PK**” to select one of the 4 possible speeds (1200, 2400, 4800 o 9600 Baud).
- To confirm the value set and move to the next window, press “**T**”.



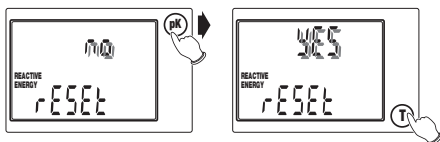
- **Setting the parity bit:** press “**PK**” to select one of the options “**NONE**”, “**ODD**” or “**EVEN**”, in order.
- To confirm the value set and move to the next window, press “**T**”.

Zeroing the active energy meter



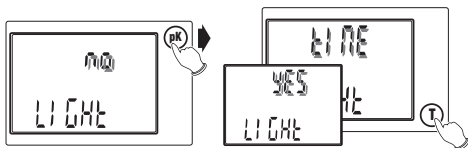
- Press **"pK"** to select the option **"YES"** or **"NO"**.
- To confirm the value set and move to the next window, press **"T"**.

Zeroing the reactive energy meter



- Same procedure as the zeroing of the active energy meter.

Rear lighting handling



- Press **"pK"** to select from the options **"NO"** (rear lighting off), **"YES"** (on) or **"TIME"** (on for approximately 60 seconds after a key is pressed).
- To confirm the value set and terminate the parameter setting procedure, press **"T"**.

■ When **"T"** is pressed, all the symbols in the display will come on for approximately 3 seconds, followed by the display of the main page.

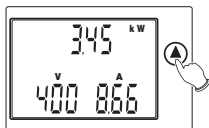
■ **Note: if the power is cut off during the programming procedure, the instrument will memorise all the settings in place at the instant when this occurs.**

DISPLAYING THE MEASUREMENT PAGE

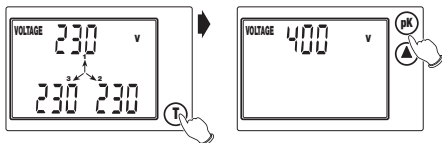
- When the instrument is switched on (or after the programming procedure) the main page is displayed after approximately 3 seconds when the display is fully operational.
- When “**up**” (▲) is pressed from the main page, the following are displayed: all the other measurement pages in sequence.
When “**up**” (▲) is pressed from the last page, the system returns to the main page.
- If **V** is >999 or **I** is >999, the relevant measurement will flash to indicate that the unit is not complete (prefix **K** or **M** missing).

1) Main page

- The **system voltage, current, and active power** are displayed.

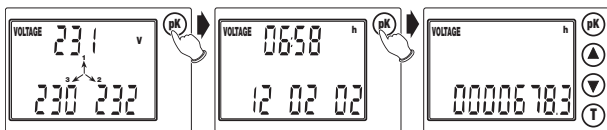


2) Phase voltage page



- The **phase voltages** are displayed. If the three phase system has no neutral, the voltages refer to a fictitious star delta centre.
- The “**T**” key is used to display the **system voltage** page.

2a) Peak phase voltage value page

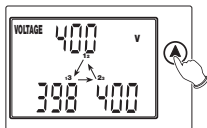


- If “**pk**” is pressed repeatedly from one of the two phase voltage pages, the following are displayed in order:
 - the peak voltage values (phase of system), with the “**V**” measurement unit flashing
 - the instant when the peak occurred (time and date)

- the number of hours lapsing between the start-up of the instrument and the occurrence of the peak (expressed in hours and tenths of an hour)

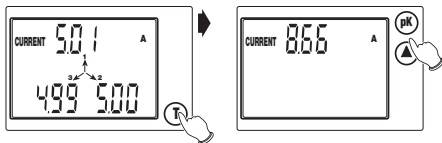
- To zero the peak values, simply press “**pK**” and “**T**” at the same time
- The “**up**” (**▲**) key can be pressed at any time to move to the next page.

3) Concatenating voltage page



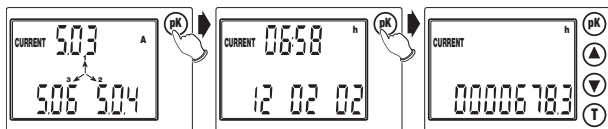
- The **concatenating voltages** between the phases are displayed.

4) Phase current page



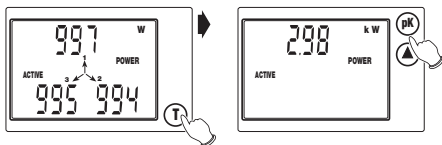
- The **phase currents** are displayed.
- The “**T**” key is used to display the **system current**.

4a) Peak phase current value page



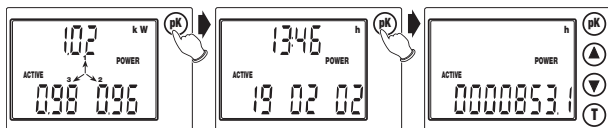
- The same procedure as that for the display of the peak phase voltage values.

5) Active phase power page



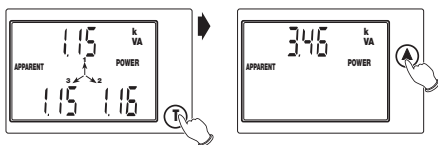
- The **active phase powers** are displayed.
- The **"T"** key is used to display the **active system power**.

5a) Peak active power value pages



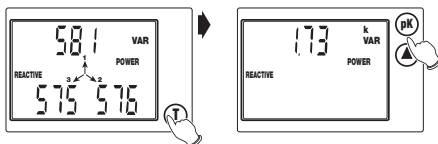
- The same procedure as that for the display of the peak phase voltage values.

6) Apparent phase power page



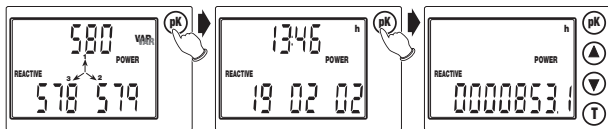
- The **apparent phase powers** are displayed.
- The **"T"** key is used to display the **apparent system power**.

7) Reactive phase power page



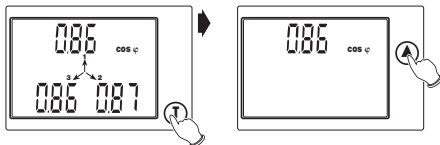
- The **reactive phase powers** are displayed.
- The “**T**” key is used to display the **reactive system power**.

7a) Reactive power peak value pages



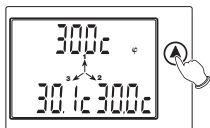
- The same procedure as that for the display of the peak phase voltage values.

8) Phase power factor page



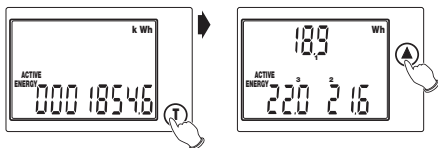
- The **phase power factors** are displayed.
- The “**T**” key is used to display the **system power factor**.

9) Voltage-current phase shift page



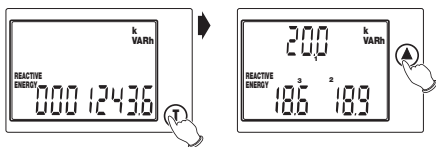
- The **voltage-current phase shifts** are displayed in sexagesimal degrees (the letter “**C**” indicates a capacitive phase shift, and “**L**” indicates an inductive phase shift).

10) Total active energy page



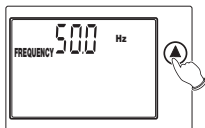
- The **total active energy** is displayed.
- The "T" key is used to display the **partial active energy** of the single phases (these energy readings are zeroed each time the total active energy is increased).

11) Total reactive energy page



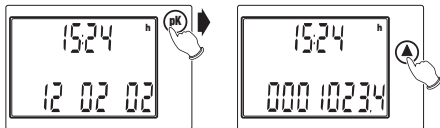
- The **total reactive energy** is displayed.
- The "T" key is used to display the **partial reactive energy** readings for the single phases (these energy readings are zeroed each time the total reactive energy is increased).

12) Frequency page



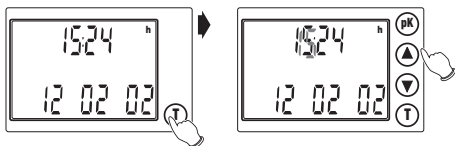
- The V1 voltage frequency is displayed.

13) Time and date page



- The time and date are displayed in dd-mm-yy format.
- The “pK” key is used to move from the display of the time and date lapsed since the instrument was switched on (expressed in hours and tenths of an hour).
- The “up” (▲) key is used to return to the starting page.

13a) Setting the time and date



- When “T” is pressed from one of the time display pages, the time and date can be set
- Press the “up” (▲) or “down” (▼) keys to select the required value of the flashing number
- Press “pK” to move to the next number
- The “T” key can be pressed at any time to return to the time display page, with the memorisation of the modifications entered.

**Note: up to the entry of the first setting, the time and date will flash.
The time and date will also flash in the peak value pages.**

MEASUREMENT / CALCULATION METHOD

- The voltage and current measurements take place in (True RMS) by means of sampling and analogue-digital conversion.
- To calculate the system values, the following formulas are used:

System voltage
$$\mathbf{V} = \frac{V_1 + V_2 + V_3}{\sqrt{3}}$$

System current
$$\mathbf{I} = \frac{I_1 + I_2 + I_3}{\sqrt{3}}$$

Active system power
$$\mathbf{P} = P_1 + P_2 + P_3$$

Reactive system power
$$\mathbf{Q} = Q_1 + Q_2 + Q_3 \quad (\text{addition})$$

Apparent system power
$$\mathbf{A} = \sqrt{\mathbf{P}^2 + \mathbf{Q}^2}$$

System power factor
$$\mathbf{PF} = \frac{\mathbf{P}}{\mathbf{A}}$$

Total active energy
$$\mathbf{E} = E_1 + E_2 + E_3$$

SERIAL COMMUNICATION

- The reference document for all the aspects of the Modbus, as well as the only official specification of the protocol in question, is that found in the web site www.modbus.org. The data communication system based on the Modbus protocol makes it possible to connect up to 247 instruments to a common RS485 line. The communication takes place in half duplex, and only the master (PC/PLC) is able to initiate the question and answer type dialogue with the slaves (address 0) without obtaining any reply.

Characteristics of the Modbus protocol

- Type of Modbus coding: RTU (Remote Terminal Unit)
- Transmission speed (Baud rate): 9600, 4800, 2400, 1200 bps (selectable by the user)
- Byte format transmitted: 1 start bit, 8 data bits, parity bit: none odd, even (as selected), 1 stop bit.

Message structure

The message is structured in various fields (start, address, function, data, CRC check, end), made up of 1 or more characters each; the characters permitted for each field are the hexadecimal 0...9, A...F; the entire message has to be sent with no interruptions, and if there is a pause lasting more than a transmission time of 1.5 characters the receiver has to recognise the incomplete message condition and assume that the following byte is the start of a new message. The start and end of the message can be recognised by a silent interval of at least 3.5 characters. The message can be summed up as follows:

START	ADDRESS	FUNCTION	DATA	CRC CHECK	END
T1-T2-T3-T4	8 BITS	8 BITS	#X 8 BITS	16 BITS	T1-T2-T3-T4

Error check calculation procedure

The Cyclical Redundancy Check (CRC) field is made up of two bytes and contains a 16 bit binary value. This value is calculated by the transmitter device, which inserts the CRC in the message. The receiver device recalculates the CRC during the reception of the message and compares the value calculated with that received in the message. If the two values do not coincide, an error condition is generated.

Funzioni Modbus implementate

Read holding register	(03)
Read input register	(04)
Force multiple coil	(15)*
Preset multiple register	(16)*

* messaggi indirizzabili a tutti gli slave (slave address = 0)

• Read holding register (03)

Function for the reading of the registers used to memorise the programmable parameters of the instrument. The registers are programmed by means of the 'preset multiple register' (16) function.

The two bytes to indicate the register are obtained by removing the indicative and subtracting one from the register number. Es.: 40004 → 0004 → (0004-1) = 0003

List of holding registers (in hexadecimal format):

40001: primary ammeter transformer (in Ampere)
 40002 primary voltmeter transformer (in Volt)
 40003 calendar: month – day
 40004 calendar: year – hours
 40005 calendar: minutes – seconds

Read input register (04):

Function for the reading of the registers in which the measurements are memorised. The instrument allows to obtain the value of all available measurements (33) with a single request.

The measurements available are:

V = system voltage
 I = system current
 P = active system power
 Q = reactive system power
 A = apparent system power
 PF = system power factor
 Ea = total active energy
 Er = total reactive energy
 f = frequency (phase 1)
 V12, V23, V31 = concatenated voltage
 Vn = phase voltage (n = 1, 2, 3)
 In = phase current (n = 1, 2, 3)
 Pn = active phase power (n = 1, 2, 3)
 An = apparent phase power (n = 1, 2, 3)
 Qn = reactive phase power (n = 1, 2, 3)
 PFn = phase power factor (n = 1, 2, 3)
 φn = phase shift between voltage and corresponding current (n = 1, 2, 3)
 Vmax = maximum system voltage value
 Imax = maximum system current value
 Pmax = maximum system active power value
 Qmax = maximum system reactive power value
 TVmax = instant of maximum system voltage value
 TImax = instant of maximum system current value
 TPmax = instant of maximum system active power value

- TQmax** = instant of maximum system reactive power value
Vnmax = phase voltage value corresponding to the instant of TVmax (n = 1, 2, 3)
Inmax = phase current value corresponding to the instant of TImax (n = 1, 2, 3)
Pnmax = active phase power value corresponding to the instant of TPmax
 (n = 1, 2, 3)
Qnmax = reactive phase power value corresponding to the instant of TQmax
 (n = 1, 2, 3)

The two bytes to indicate the register are obtained by removing the indicative and subtracting one from the register number.

For example: 30009 → 0009 → (0009-1) = 0008

List of register inputs: each pair of registers contains the value of an electrical dimension measured, expressed in IEEE floating point format. The two energy meters are expressed by means of an internal number in 32 bits.

Address	N. words	Dimension	Unit
30001	2	V	[V]
30003	2	I	[A]
30005	2	P	[W]
30007	2	A	[VA]
30009	2	Q	[var]
30011	2	PF	---
30013	2	f	[Hz]
30015	2	V12	[V]
30017	2	V23	[V]
30019	2	V31	[V]
30021	2	V1	[V]
30023	2	V2	[V]
30025	2	V3	[V]
30027	2	I1	[A]
30029	2	I2	[A]
30031	2	I3	[A]
30033	2	P1	[W]

Address	N. words	Dimension	Unit
30035	2	P2	[W]
30037	2	P3	[W]
30039	2	A1	[VA]
30041	2	A2	[VA]
30043	2	A3	[VA]
30045	2	Q1	[var]
30047	2	Q2	[var]
30049	2	Q3	[var]
30051	2	PF1	---
30053	2	PF2	---
30055	2	PF3	---
30057	2	φ1	°
30059	2	φ2	°
30061	2	φ3	°
30063	2	Ea	[kW/10]
30065	2	Er	[kvar/10]

Apart from the input register at address 0067, there are also the peak values memorised and their times.

Address	N. words	Dimension	Unit
30067	2	Vmax	[V]
30069	2	Imax	[A]
30071	2	Pmax	[W]
30073	2	Qmax	[var]
30075	3	TVmax	(*)
30078	3	TImax	(*)
30081	3	TPmax	(*)
30084	3	TQmax	(*)
30087	2	V1max	[V]
30089	2	V2max	[V]

Address	N. words	Dimension	Unit
30091	2	V3 max	[V]
30093	2	I1 max	[A]
30095	2	I2 max	[A]
30097	2	I3 max	[A]
30099	2	P1 max	[W]
30101	2	P2 max	[W]
30103	2	P3 max	[W]
30105	2	Q1 max	[var]
30107	2	Q2 max	[var]
30109	2	Q3 max	[var]

(*) The times are expressed in the month-day-year-hour-minutes-seconds format (1 byte for each field).

All the measurements contained in the input registers (with the exception of energy meters) are expressed in standard floating point numerical format IEEE-754, which encodes a floating point number of 32 bits, made up of: 1 sign bit, 8 exponent bits and 23 mantissa bits, arranged as follows:

Sign	Exponent	Mantissa
1 Bit	8 Bit	23 Bit
MSB		LSB

The value is encoded as:

$$-1^s * (1 + m) * 2^{(e-127)}$$

s: sign bit. If the value is negative, this is equal to 1, if positive it is equal to 0.

e: exponent encoded at 8 bits, calculated with an offset of +127.

m: mantissa encoded at 23 bits, calculated by subtracting 1, in such a way as to obtain numbers always between 1 and 1.999999881 ($2-(2^{-23})$), which can be encoded in negative powers of 2.

Force multiple coil (15 = Fhex)

This function is used to carry out commands on the instrument. The commands are regarded as output coils.

List of coils (address):

COIL1: reset energy meters (0)

COIL2: reset peak values (1)

Preset multiple register (16 = 10hex)

Function used to programme a number of "holding" registers.

See list of holding registers in "Read holding register (3)" section.

Communication errors detected

"No response". Data format error, CRC error, etc (it is therefore not possible to be certain that the message is correctly addressed).

"Exception response". The possible error codes are:

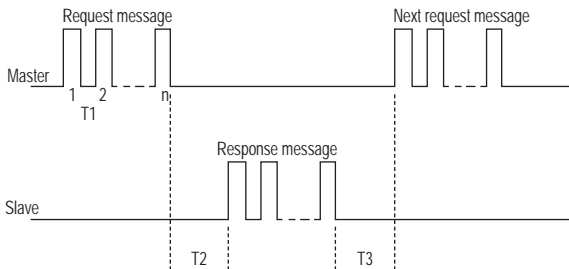
01 – illegal function

02 – illegal data address

03 – illegal data value

Serial communication times

The communication protocol has no restrictions with regard to the response time of a slave device interrogated by a master (time T2), or with regard to time T3, that is, the time lapsing between the end of a response and the start of a new interrogation by the master.



However, these parameters take on particular importance in the setting up of a network made up of a large number of instruments, in fact if T2 and T3 are not restricted by determined maximum values, the time needed by the master (PC) to interrogate the entire rate may be excessive. It is also necessary to set the minimum values to avoid problems of conflict between different devices. The accepted values are listed inside this table:

Time	Description	Min/Typ/Max values
T1	Inter-character timeout: 1.5 (one character duration)	Max =12ms (a 1200bps) Max =6ms (a 2400bps) Max =3ms (a 4800bps) Max =1.5ms (a 9600bps)
T2	Slave response time	Min = 25ms Typ = 30ms Max =100ms
T3	Minimum time between two request messages from the Master	Min = 100ms Typ > 1s

REFERENCE STANDARDS

Conformity to EC directives

2006/95/EC (LVD)

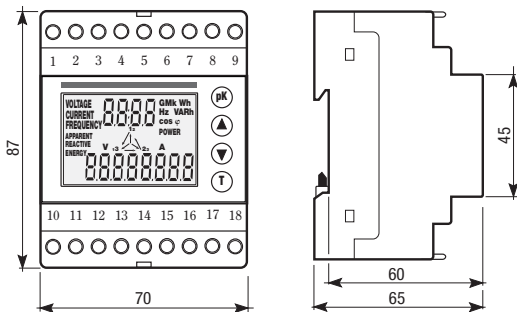
2004/108/EC (EMC)

is declared with reference to the following harmonised standards:

- **Safety:** EN 61010-1
- **Electromagnetic compatibility:** EN 61000-6-2 and EN 61000-6-4
- **Metering requirements:** EN 62052-21 and EN 62053-23

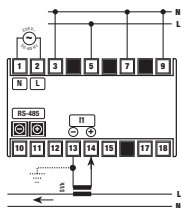


DIMENSIONS

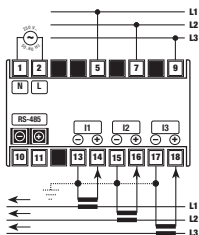


CONNECTION DIAGRAMS

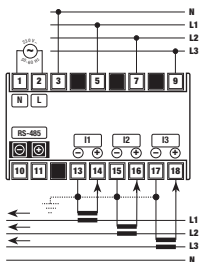
Single phase



Three phase



Three phase+N



Analizador de Red trifásico

ENERGY.3-DIS-RS

ANEXO RS485

	All Versions
	Only in Plus and Professional Versions
	Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
Machine Id	Machine ID	unsigned short	R	23 , 28 or 32 (STD, PLUS, PRO)	40001
HW_FW_versione	Hardware (MSB) and Firmware (LSB) Revision	unsigned short	R		40002
address	modbus address	unsigned short	R/W		1 40003
delay	answer delay expressed as cycles	unsigned short	R/W		1 40004
Baudrate	0 → 1200 1 → 2400 2 → 4800 3 → 9600 4 → 19200 5 → 38400 6 → 57600 7 → 115200	unsigned short	R/W	3	40005
Parity	0 → NONE 1 → ODD 2 → EVEN	unsigned short	R/W	0	40006
Configuration_Flag	Bit 0: Current Measurement type 0 → Input: 1A/5A 1 → Input: 333 mV/ Rogowski 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 5: Reactive power calculation method 0 → Triangle method 1 → Budeanu Bit 6: RS-485 as Switch 0 → RS-485 1 → Switch Bit 7: Frequency detection Channel 0 → Voltage 1 → Current Bit 9: Energy saving 0 → Disabled 1 → Enabled Bit 11, 12: Measurement type 0 → Float 1 → Float Swapped 2 → Hundredth (Float * 100) 3 → Hundredth swapped (Float * 100 SW) Bit 13: Integrator condition 0 → Integrator disabled 1 → Integrator enabled (Rogowski input) Bit 14: Output switch initial condition 0 → Closed initial condition 1 → Open initial condition Bit 15: Filtered measurement 0 → Filtering disabled 1 → Filtering enabled	unsigned short	R/W	550: INPUT_1A_5A THREE_PHASE_4W_3CT BUDEANU RS485_BEHAVIOUR FREQUENCY_DETECTION_ON_VOLTAGE ENERGY_SAVING_ENABLED FLOAT_TYPE INTEGRATOR_DISABLED OPEN_INIT_COND FILTERED_OUTPUT_DISABLED	40007
Led_settings	Set Fail LED Bit: 0 → Fail Eeprom (settings, calibration or Energy) 1 → don't care 2 → I1 Over-range 3 → I1 Under-range 4 → I2 Over-range 5 → I2 Under-range 6 → I3 Over-range 7 → I3 Under-range 8 → V1 Over-range 9 → V1 Under-range 10 → V2 Over-range 11 → V2 Under-range 12 → V3 Over-range 13 → V3 Under-range * /	unsigned short	R/W	1: Fail Eeprom	40008
TA_Transducer_ratio	If Input 1A/5A → Current transformer ratio M/N (Ex: 600:5 → transducer_ratio = 120) If Input Rogowski / 333mV → Sensitivity [A/V] (Ex: 100mV/1KA → transducer_ratio = 10000, 333mV/5A → transducer_ratio = 15)	float	R/W		1 40009
TA_Transducer_delay	Current transformer delay in [°] @ 50 Hz for accurate power calculation	float	R/W		0 40011
TV_Transducer_ratio	Voltage transformer ratio M/N - Default 1.0 (Ex: 1000:100 → transducer_ratio = 10)	float	R/W		1 40013
TV_Transducer_delay	Voltage transformer delay in [°] @ 50 Hz for accurate power calculation	float	R/W		0 40015
minimum_voltage_ripple	Minimum threshold under which the instrument reads 0 independent from the input value	float	R/W		0 40017
minimum_current_ripple	Minimum threshold under which the instrument reads 0 independent from the input value	float	R/W		0 40019
minimum_power_ripple	Minimum threshold under which the instrument reads 0 independent from the input value (P, Q, and S)	float	R/W		0 40021
DC_Filter	Number of tenth seconds for I RMS value in DC	unsigned short	R/W		10 40023
AC_Filter	Number of zero crossings for I RMS value in AC	unsigned short	R/W		50 40024
minute_for_max_demand	Minute for Max demand calculation (0..60)	unsigned short	R/W		15 40025
dummy_conf		unsigned short	R/W		0 40026
seconds_for_mean_RMS	Register in seconds (0..30) for RMS average	unsigned short	R/W		0 40027
seconds_for_MAX_RMS	Seconds 1..30 for MAX RMS value. If the register is 0, then the absolute MAX RMS is given	unsigned short	R/W		0 40028
seconds_for_min_RMS	Seconds 1..30 for min RMS value. If the register is 0, then the absolute min RMS is given	unsigned short	R/W		0 40029
seconds_for_mean_DC	Register in seconds (0..30) for DC average	unsigned short	R/W		0 40030
seconds_for_MAX_DC	Seconds 1..30 for MAX DC value. If the register is 0, then the absolute MAX DC is given	unsigned short	R/W		0 40031
seconds_for_min_DC	Seconds 1..30 for min DC value. If the register is 0, then the absolute min DC is given	unsigned short	R/W		0 40032
seconds_for_mean_AC	Register in seconds (0..30) for AC average	unsigned short	R/W		0 40033
seconds_for_MAX_AC	Seconds 1..30 for MAX AC value. If the register is 0, then the absolute MAX AC is given	unsigned short	R/W		0 40034
seconds_for_min_AC	Seconds 1..30 for min AC value. If the register is 0, then the absolute min AC is given	unsigned short	R/W		0 40035
Alarm Register start address	Float value Starting address for alarm (40359 V, L1, N, 40361 V, L2, N, 40363 V, L3, N, ecc)	unsigned short	R/W	40359	40036
Alarm_trip_value	Alarm Threshold	float	R/W		0 40037
Alarm_hysteresis	Alarm Hysteresis	float	R/W		1 40039

	All Versions
	Only in Plus and Professional Versions
	Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
Status_1	bit 0: flash settings error; bit 1: flash calibration error; bit 2: Current I1 Over Range; bit 3: Current I1 Under Range; bit 4: Current I2 Over Range; bit 5: Current I2 Under Range; bit 6: Current I3 Over Range; bit 7: Current I3 Under Range; bit 8: Current V1 Over Range; bit 9: Current V1 Under Range; bit 10: Current V2 Over Range; bit 11: Current V2 Under Range; bit 12: Current V3 Over Range; bit 13: Current V3 Under Range; bit 14: Zero crossing detecting; bit 15: Switch open; bit 16: Wh storing error; bit 17..18: don't care; bit 19: Alarm detection; bit 20..27: don't care; bit 28: Leading Power factor PF1; bit 29: Leading Power factor PF2; bit 30: Leading Power factor PF3;	unsigned long	R		40239
Command	Flash settings save command = 0xC1C0; Reset command = 0xC1A0; Save energy command = 0xBABA Close Switch command = 0xDAAA (only if Digital Output is enabled) Open Switch command = 0xDAAB (only if Digital Output is enabled)	unsigned short	R/W		40244
KWh1	Active energy line 1 [Wh tenth]	signed long long	R/W		40245
KWh2	Active energy line 2 [Wh tenth]	signed long long	R/W		40249
KWh3	Active energy line 3 [Wh tenth]	signed long long	R/W		40253
KWh SUM	Active energy three phase [Wh tenth]	signed long long	R/W		40257
KWh1 Plus	Positive Active energy line 1 [Wh tenth]	signed long long	R/W		40261
KWh2 Plus	Positive Active energy line 2 [Wh tenth]	signed long long	R/W		40265
KWh3 Plus	Positive Active energy line 3 [Wh tenth]	signed long long	R/W		40269
KWh SUM Plus	Positive Active energy three phase [Wh tenth]	signed long long	R/W		40273
KWh1 Neg	Negative Active energy line 1 [Wh tenth]	signed long long	R/W		40277
KWh2 Neg	Negative Active energy line 2 [Wh tenth]	signed long long	R/W		40281
KWh3 Neg	Negative Active energy line 3 [Wh tenth]	signed long long	R/W		40285
KWh SUM Neg	Negative Active energy three phase [Wh tenth]	signed long long	R/W		40289
KVARh1	Reactive energy line 1 [VARh tenth]	signed long long	R/W		40293
KVARh2	Reactive energy line 2 [VARh tenth]	signed long long	R/W		40297
KVARh3	Reactive energy line 3 [VARh tenth]	signed long long	R/W		40301
KVARh SUM	Reactive energy three phase [VARh tenth]	signed long long	R/W		40305
KVARh1 Inductive	Inductive Reactive energy line 1 [VARh tenth]	signed long long	R/W		40309
KVARh2 Inductive	Inductive Reactive energy line 2 [VARh tenth]	signed long long	R/W		40313
KVARh3 Inductive	Inductive Reactive energy line 3 [VARh tenth]	signed long long	R/W		40317
KVARh SUM Inductive	Inductive Reactive energy three phase [VARh tenth]	signed long long	R/W		40321
KVARh1 Capacitive	Capacitive Reactive energy line 1 [VARh tenth]	signed long long	R/W		40325
KVARh2 Capacitive	Capacitive Reactive energy line 2 [VARh tenth]	signed long long	R/W		40329
KVARh3 Capacitive	Capacitive Reactive energy line 3 [VARh tenth]	signed long long	R/W		40333
KVARh SUM Capacitive	Capacitive Reactive energy three phase [VARh tenth]	signed long long	R/W		40337
KVAh1	Apparent energy line 1 [VAh tenth]	signed long long	R/W		40341
KVAh2	Apparent energy line 2 [VAh tenth]	signed long long	R/W		40345
KVAh3	Apparent energy line 3 [VAh tenth]	signed long long	R/W		40349
KVAh SUM	Apparent energy three phase [VAh tenth]	signed long long	R/W		40353
Wh storage count	Number of Wh flash savings (every 20 seconds)	unsigned long	R		40357
V_L1_N	RMS star voltage L1-N [V]	float	R		40359
V_L2_N	RMS star voltage L2-N [V]	float	R		40361
V_L3_N	RMS star voltage L3-N [V]	float	R		40363
V_STAR_AVG	RMS star avg value voltage [V]	float	R		40365
V_L1_L2	RMS line voltage L1-L2 [V]	float	R		40367
V_L2_L3	RMS line voltage L2-L3 [V]	float	R		40369
V_L3_L1	RMS line voltage L3-L1 [V]	float	R		40371
V_LINE_AVG	RMS line avg value voltage [V]	float	R		40373
I_L1	RMS line current L1 [A]	float	R		40375
I_L2	RMS line current L2 [A]	float	R		40377
I_L3	RMS line current L3 [A]	float	R		40379
I_N	RMS line current N [A] (if 1 or 2 TA connection, I_N = 0)	float	R		40381
I_AVG	RMS avg value current [A] (excluding neutral current I_N)	float	R		40383
P1	RMS active power line 1 [W]	float	R		40385
P2	RMS active power line 2 [W]	float	R		40387
P3	RMS active power line 3 [W]	float	R		40389
P SUM	RMS sum active power [W]	float	R		40391
Q1	RMS reactive power line 1 [VAR]	float	R		40393
Q2	RMS reactive power line 2 [VAR]	float	R		40395
Q3	RMS reactive power line 3 [VAR]	float	R		40397
Q SUM	RMS sum reactive power [VAR]	float	R		40399
S1	RMS apparent power line 1 [VAR]	float	R		40401
S2	RMS apparent power line 2 [VAR]	float	R		40403
S3	RMS apparent power line 3 [VAR]	float	R		40405
S SUM	RMS sum apparent power [VAR]	float	R		40407
PF1	Power Factor line 1	float	R		40409
PF2	Power Factor line 2	float	R		40411
PF3	Power Factor line 3	float	R		40413
PF_3PH	Three Phase Power Factor	float	R		40415
CF1	Crest Factor line 1	float	R		40417
CF2	Crest Factor line 2	float	R		40419
CF3	Crest Factor line 3	float	R		40421
CF_N	Crest Factor Neutral	float	R		40423
Frequency	Frequency [Hz]	float	R		40425
V_L1_N_peak	Star voltage L1-N peak [V]	float	R/W		40427
V_L2_N_peak	Star voltage L2-N peak [V]	float	R/W		40429
V_L3_N_peak	Star voltage L3-N peak [V]	float	R/W		40431
V_L1_L2_peak	Line voltage L1-L2 peak [V]	float	R/W		40433
V_L2_L3_peak	Line voltage L2-L3 peak [V]	float	R/W		40435
V_L3_L1_peak	Line voltage L3-L1 peak [V]	float	R/W		40437
I_L1_peak	L1 current peak [A]	float	R/W		40439
I_L2_peak	L2 current peak [A]	float	R/W		40441
I_L3_peak	L3 current peak [A]	float	R/W		40443
I_N_peak	N current peak [A]	float	R/W		40445
DPF1	Distortion Power Factor line 1 (+ inductive, - capacitive)	float	R		40467
DPF2	Distortion Power Factor line 2 (+ inductive, - capacitive)	float	R		40469
DPF3	Distortion Power Factor line 3 (+ inductive, - capacitive)	float	R		40471
DPF_AVG	Average Distortion Power Factor (+ inductive, - capacitive)	float	R		40473
TAN_FI_1	Tangentθline 1 (+ inductive, - capacitive)	float	R		40475
TAN_FI_2	Tangentθline 2 (+ inductive, - capacitive)	float	R		40477
TAN_FI_3	Tangentθline 3 (+ inductive, - capacitive)	float	R		40479
TAN_FI_AVG	Average Tangentθ(+ inductive, - capacitive)	float	R		40481
Phase_Order	L1, L2, L3 = 0; L1, L3, L2 = 1	float	R		40483



All Versions

DO000160_QE-POWER-T_Lista Indirizzi

Only in Plus and Professional Versions

Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
Internal temperature	Internal Temperature [°C]	float	R		40485
V L1 N RMS AVG	Star voltage L1 N RMS average [V] over "seconds for mean RMS"	float	R		40487
V L1 N RMS MAX	Star voltage L1 N MAX RMS [V] over last "seconds for MAX RMS"	float	R		40489
V L1 N RMS min	Star voltage L1 N Min RMS [V] over last "seconds for min RMS"	float	R		40491
V L2 N RMS AVG	Star voltage L2 N RMS average [V] over "seconds for mean RMS"	float	R		40493
V L2 N RMS MAX	Star voltage L2 N MAX RMS [V] over last "seconds for MAX RMS"	float	R		40495
V L2 N RMS min	Star voltage L2 N Min RMS [V] over last "seconds for min RMS"	float	R		40497
V L3 N RMS AVG	Star voltage L3 N RMS average [V] over "seconds for mean RMS"	float	R		40499
V L3 N RMS MAX	Star voltage L3 N MAX RMS [V] over last "seconds for MAX RMS"	float	R		40501
V L3 N RMS min	Star voltage L3 N Min RMS [V] over last "seconds for min RMS"	float	R		40503
V L1 L2 RMS AVG	Line voltage L1-Line voltage L2-Line voltage L3-L1 RMS average [V] over "seconds for mean RMS"	float	R		40505
V L1 L2 RMS MAX	Line voltage L1-Line voltage L2-Line voltage L3-L1 MAX RMS [V] over last "seconds for MAX RMS"	float	R		40507
V L1 L2 RMS min	Line voltage L1-Line voltage L2-Line voltage L3-L1 Min RMS [V] over last "seconds for min RMS"	float	R		40509
V L2 L3 RMS AVG	Line voltage L2-Line voltage L3-L1 RMS average [V] over "seconds for mean RMS"	float	R		40511
V L2 L3 RMS MAX	Line voltage L2-Line voltage L3-L1 MAX RMS [V] over last "seconds for MAX RMS"	float	R		40513
V L2 L3 RMS min	Line voltage L2-Line voltage L3-L1 Min RMS [V] over last "seconds for min RMS"	float	R		40515
V L3 L1 RMS AVG	Line voltage L3-L1 RMS average [V] over "seconds for mean RMS"	float	R		40517
V L3 L1 RMS MAX	Line voltage L3-L1 MAX RMS [V] over last "seconds for MAX RMS"	float	R		40519
V L3 L1 RMS min	Line voltage L3-L1 Min RMS [V] over last "seconds for min RMS"	float	R		40521
I L1 RMS AVG	L1 RMS average [A] over "seconds for mean RMS"	float	R		40523
I L1 RMS MAX	L1 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40525
I L1 RMS min	L1 Min RMS [A] over last "seconds for min RMS"	float	R		40527
I L2 RMS AVG	L2 RMS average [A] over "seconds for mean RMS"	float	R		40529
I L2 RMS MAX	L2 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40531
I L2 RMS min	L2 Min RMS [A] over last "seconds for min RMS"	float	R		40533
I L3 RMS AVG	L3 RMS average [A] over "seconds for mean RMS"	float	R		40535
I L3 RMS MAX	L3 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40537
I L3 RMS min	L3 Min RMS [A] over last "seconds for min RMS"	float	R		40539
I N RMS AVG	N RMS average [A] over "seconds for mean RMS"	float	R		40541
I N RMS MAX	N MAX RMS [A] over last "seconds for MAX RMS"	float	R		40543
I N RMS min	N Min RMS [A] over last "seconds for min RMS"	float	R		40545
I AVG RMS AVG	I AVG RMS average [A] over "seconds for mean RMS"	float	R		40547
I AVG RMS MAX	I AVG MAX RMS [A] over last "seconds for MAX RMS"	float	R		40549
I AVG RMS min	I AVG Min RMS [A] over last "seconds for min RMS"	float	R		40551
P1 RMS AVG	P1 RMS average [A] over "seconds for mean RMS"	float	R		40553
P1 RMS MAX	P1 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40555
P1 RMS min	P1 Min RMS [A] over last "seconds for min RMS"	float	R		40557
P2 RMS AVG	P2 RMS average [A] over "seconds for mean RMS"	float	R		40559
P2 RMS MAX	P2 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40561
P2 RMS min	P2 Min RMS [A] over last "seconds for min RMS"	float	R		40563
P3 RMS AVG	P3 RMS average [A] over "seconds for mean RMS"	float	R		40565
P3 RMS MAX	P3 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40567
P3 RMS min	P3 Min RMS [A] over last "seconds for min RMS"	float	R		40569
P SUM RMS AVG	P SUM RMS average [A] over "seconds for mean RMS"	float	R		40571
P SUM RMS MAX	P SUM MAX RMS [A] over last "seconds for MAX RMS"	float	R		40573
P SUM RMS min	P SUM Min RMS [A] over last "seconds for min RMS"	float	R		40575
Q1 RMS AVG	Q1 RMS average [A] over "seconds for mean RMS"	float	R		40577
Q1 RMS MAX	Q1 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40579
Q1 RMS min	Q1 Min RMS [A] over last "seconds for min RMS"	float	R		40581
Q2 RMS AVG	Q2 RMS average [A] over "seconds for mean RMS"	float	R		40583
Q2 RMS MAX	Q2 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40585
Q2 RMS min	Q2 Min RMS [A] over last "seconds for min RMS"	float	R		40587
Q3 RMS AVG	Q3 RMS average [A] over "seconds for mean RMS"	float	R		40589
Q3 RMS MAX	Q3 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40591
Q3 RMS min	Q3 Min RMS [A] over last "seconds for min RMS"	float	R		40593
Q SUM RMS AVG	Q SUM RMS average [A] over "seconds for mean RMS"	float	R		40595
Q SUM RMS MAX	Q SUM MAX RMS [A] over last "seconds for MAX RMS"	float	R		40597
Q SUM RMS min	Q SUM Min RMS [A] over last "seconds for min RMS"	float	R		40599
S1 RMS AVG	S1 RMS average [A] over "seconds for mean RMS"	float	R		40601
S1 RMS MAX	S1 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40603
S1 RMS min	S1 Min RMS [A] over last "seconds for min RMS"	float	R		40605
S2 RMS AVG	S2 RMS average [A] over "seconds for mean RMS"	float	R		40607
S2 RMS MAX	S2 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40609
S2 RMS min	S2 Min RMS [A] over last "seconds for min RMS"	float	R		40611
S3 RMS AVG	S3 RMS average [A] over "seconds for mean RMS"	float	R		40613
S3 RMS MAX	S3 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40615
S3 RMS min	S3 Min RMS [A] over last "seconds for min RMS"	float	R		40617
S SUM RMS AVG	S SUM RMS average [A] over "seconds for mean RMS"	float	R		40619
S SUM RMS MAX	S SUM MAX RMS [A] over last "seconds for MAX RMS"	float	R		40621
S SUM RMS min	S SUM Min RMS [A] over last "seconds for min RMS"	float	R		40623
PF1 RMS AVG	PF1 RMS average [A] over "seconds for mean RMS"	float	R		40625
PF1 RMS MAX	PF1 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40627
PF1 RMS min	PF1 Min RMS [A] over last "seconds for min RMS"	float	R		40629
PF2 RMS AVG	PF2 RMS average [A] over "seconds for mean RMS"	float	R		40631
PF2 RMS MAX	PF2 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40633
PF2 RMS min	PF2 Min RMS [A] over last "seconds for min RMS"	float	R		40635
PF3 RMS AVG	PF3 RMS average [A] over "seconds for mean RMS"	float	R		40637
PF3 RMS MAX	PF3 MAX RMS [A] over last "seconds for MAX RMS"	float	R		40639
PF3 RMS min	PF3 Min RMS [A] over last "seconds for min RMS"	float	R		40641
PF SUM RMS AVG	PF SUM RMS average [A] over "seconds for mean RMS"	float	R		40643
PF SUM RMS MAX	PF SUM MAX RMS [A] over last "seconds for MAX RMS"	float	R		40645
PF SUM RMS min	PF SUM Min RMS [A] over last "seconds for min RMS"	float	R		40647
P1 Time over threshold	Time above threshold specified in "..." for Active Power P1 [min]	float	R		40649
P2 Time over threshold	Time above threshold specified in "..." for Active Power P2 [min]	float	R		40651
P3 Time over threshold	Time above threshold specified in "..." for Active Power P3 [min]	float	R		40653
P SUM Time over threshold	Time above threshold specified in "..." for Active Power P SUM [min]	float	R		40655
P1 MaxDemand	Max Demand over 15minutes for P1 for current month	float	R		40657
P2 MaxDemand	Max Demand over 15minutes for P2 for current month	float	R		40659
P3 MaxDemand	Max Demand over 15minutes for P3 for current month	float	R		40661
P SUM MaxDemand	Max Demand over 15minutes for P three phase for current month	float	R		40663
Time of P1 MaxDemand	Time at which arises Max Demand over 15minutes for P1 for current month (month day hour minutes)	unsigned long	R		40665
Time of P2 MaxDemand	Time at which arises Max Demand over 15minutes for P2 for current month (month day hour minutes)	unsigned long	R		40667
Time of P3 MaxDemand	Time at which arises Max Demand over 15minutes for P3 for current month (month day hour minutes)	unsigned long	R		40669
Time of P SUM MaxDemand	Time at which arises Max Demand over 15minutes for P three phase for current month (month day hour minutes)	unsigned long	R		40671
K factor	K-factor, see IEEE Standard 1100-1992	float	R		40673
Year	RTC : year (2000-2099)	unsigned short	R/W		40675
Month	RTC : month (1-12)	unsigned short	R/W		40676
Day	RTC : day month (1-31)	unsigned short	R/W		40677
Hour	RTC : hour (0-23)	unsigned short	R/W		40678
Minute	RTC : minute (0-59)	unsigned short	R/W		40679
Seconds	RTC : second (0-59)	unsigned short	R/W		40680
THD V L1	THD Star Voltage L1	float	R		40681
THD V L2	THD Star Voltage L2	float	R		40683
THD V L3	THD Star Voltage L3	float	R		40685
THD V L12	THD Line Voltage L1-L2	float	R		40687
THD V L23	THD Line Voltage L2-L3	float	R		40689
THD V L31	THD Line Voltage L3-L1	float	R		40691
THD I L1	THD Line Current L1	float	R		40693
THD I L2	THD Line Current L2	float	R		40695
THD I L3	THD Line Current L3	float	R		40697
THD I N	THD Neutral Current	float	R		40699



All Versions

DO000160_QE-POWER-T_Lista Indirizzi

Only in Plus and Professional Versions

Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
TDD V L1	TDD Star Voltage L1	float	R		40701
TDD V L2	TDD Star Voltage L2	float	R		40703
TDD V L3	TDD Star Voltage L3	float	R		40705
TDD V L12	TDD Line Voltage L1-L2	float	R		40707
TDD V L23	TDD Line Voltage L2-L3	float	R		40709
TDD V L31	TDD Line Voltage L3-L1	float	R		40711
TDD I L1	TDD Line Current L1	float	R		40713
TDD I L2	TDD Line Current L2	float	R		40715
TDD I L3	TDD Line Current L3	float	R		40717
TDD I N	TDD Neutral Current	float	R		40719
V L1N H 0	Star Voltage L1-N Harmonic #0	float	R		40741
V L1N H 1	Star Voltage L1-N Harmonic #1	float	R		40743
V L1N H 2	Star Voltage L1-N Harmonic #2	float	R		40745
V L1N H 3	Star Voltage L1-N Harmonic #3	float	R		40747
V L1N H 4	Star Voltage L1-N Harmonic #4	float	R		40749
V L1N H 5	Star Voltage L1-N Harmonic #5	float	R		40751
V L1N H 6	Star Voltage L1-N Harmonic #6	float	R		40753
V L1N H 7	Star Voltage L1-N Harmonic #7	float	R		40755
V L1N H 8	Star Voltage L1-N Harmonic #8	float	R		40757
V L1N H 9	Star Voltage L1-N Harmonic #9	float	R		40759
V L1N H 10	Star Voltage L1-N Harmonic #10	float	R		40761
V L1N H 11	Star Voltage L1-N Harmonic #11	float	R		40763
V L1N H 12	Star Voltage L1-N Harmonic #12	float	R		40765
V L1N H 13	Star Voltage L1-N Harmonic #13	float	R		40767
V L1N H 14	Star Voltage L1-N Harmonic #14	float	R		40769
V L1N H 15	Star Voltage L1-N Harmonic #15	float	R		40771
V L1N H 16	Star Voltage L1-N Harmonic #16	float	R		40773
V L1N H 17	Star Voltage L1-N Harmonic #17	float	R		40775
V L1N H 18	Star Voltage L1-N Harmonic #18	float	R		40777
V L1N H 19	Star Voltage L1-N Harmonic #19	float	R		40779
V L1N H 20	Star Voltage L1-N Harmonic #20	float	R		40781
V L1N H 21	Star Voltage L1-N Harmonic #21	float	R		40783
V L1N H 22	Star Voltage L1-N Harmonic #22	float	R		40785
V L1N H 23	Star Voltage L1-N Harmonic #23	float	R		40787
V L1N H 24	Star Voltage L1-N Harmonic #24	float	R		40789
V L1N H 25	Star Voltage L1-N Harmonic #25	float	R		40791
V L1N H 26	Star Voltage L1-N Harmonic #26	float	R		40793
V L1N H 27	Star Voltage L1-N Harmonic #27	float	R		40795
V L1N H 28	Star Voltage L1-N Harmonic #28	float	R		40797
V L1N H 29	Star Voltage L1-N Harmonic #29	float	R		40799
V L1N H 30	Star Voltage L1-N Harmonic #30	float	R		40801
V L1N H 31	Star Voltage L1-N Harmonic #31	float	R		40803
V L1N H 32	Star Voltage L1-N Harmonic #32	float	R		40805
V L1N H 33	Star Voltage L1-N Harmonic #33	float	R		40807
V L1N H 34	Star Voltage L1-N Harmonic #34	float	R		40809
V L1N H 35	Star Voltage L1-N Harmonic #35	float	R		40811
V L1N H 36	Star Voltage L1-N Harmonic #36	float	R		40813
V L1N H 37	Star Voltage L1-N Harmonic #37	float	R		40815
V L1N H 38	Star Voltage L1-N Harmonic #38	float	R		40817
V L1N H 39	Star Voltage L1-N Harmonic #39	float	R		40819
V L1N H 40	Star Voltage L1-N Harmonic #40	float	R		40821
V L1N H 41	Star Voltage L1-N Harmonic #41	float	R		40823
V L1N H 42	Star Voltage L1-N Harmonic #42	float	R		40825
V L1N H 43	Star Voltage L1-N Harmonic #43	float	R		40827
V L1N H 44	Star Voltage L1-N Harmonic #44	float	R		40829
V L1N H 45	Star Voltage L1-N Harmonic #45	float	R		40831
V L1N H 46	Star Voltage L1-N Harmonic #46	float	R		40833
V L1N H 47	Star Voltage L1-N Harmonic #47	float	R		40835
V L1N H 48	Star Voltage L1-N Harmonic #48	float	R		40837
V L1N H 49	Star Voltage L1-N Harmonic #49	float	R		40839
V L1N H 50	Star Voltage L1-N Harmonic #50	float	R		40841
V L1N H 51	Star Voltage L1-N Harmonic #51	float	R		40843
V L1N H 52	Star Voltage L1-N Harmonic #52	float	R		40845
V L1N H 53	Star Voltage L1-N Harmonic #53	float	R		40847
V L1N H 54	Star Voltage L1-N Harmonic #54	float	R		40849
V L1N H 55	Star Voltage L1-N Harmonic #55	float	R		40851
V L1N H 56	Star Voltage L1-N Harmonic #56	float	R		40853
V L1N H 57	Star Voltage L1-N Harmonic #57	float	R		40855
V L1N H 58	Star Voltage L1-N Harmonic #58	float	R		40857
V L1N H 59	Star Voltage L1-N Harmonic #59	float	R		40859
V L1N H 60	Star Voltage L1-N Harmonic #60	float	R		40861
V L1N H 61	Star Voltage L1-N Harmonic #61	float	R		40863
V L1N H 62	Star Voltage L1-N Harmonic #62	float	R		40865
V L1N H 63	Star Voltage L1-N Harmonic #63	float	R		40867
V L2N H 0	Star Voltage L2-N Harmonic #0	float	R		40869
V L2N H 1	Star Voltage L2-N Harmonic #1	float	R		40871
V L2N H 2	Star Voltage L2-N Harmonic #2	float	R		40873
V L2N H 3	Star Voltage L2-N Harmonic #3	float	R		40875
V L2N H 4	Star Voltage L2-N Harmonic #4	float	R		40877
V L2N H 5	Star Voltage L2-N Harmonic #5	float	R		40879
V L2N H 6	Star Voltage L2-N Harmonic #6	float	R		40881
V L2N H 7	Star Voltage L2-N Harmonic #7	float	R		40883
V L2N H 8	Star Voltage L2-N Harmonic #8	float	R		40885
V L2N H 9	Star Voltage L2-N Harmonic #9	float	R		40887
V L2N H 10	Star Voltage L2-N Harmonic #10	float	R		40889
V L2N H 11	Star Voltage L2-N Harmonic #11	float	R		40891
V L2N H 12	Star Voltage L2-N Harmonic #12	float	R		40893
V L2N H 13	Star Voltage L2-N Harmonic #13	float	R		40895
V L2N H 14	Star Voltage L2-N Harmonic #14	float	R		40897
V L2N H 15	Star Voltage L2-N Harmonic #15	float	R		40899
V L2N H 16	Star Voltage L2-N Harmonic #16	float	R		40901
V L2N H 17	Star Voltage L2-N Harmonic #17	float	R		40903
V L2N H 18	Star Voltage L2-N Harmonic #18	float	R		40905
V L2N H 19	Star Voltage L2-N Harmonic #19	float	R		40907
V L2N H 20	Star Voltage L2-N Harmonic #20	float	R		40909
V L2N H 21	Star Voltage L2-N Harmonic #21	float	R		40911
V L2N H 22	Star Voltage L2-N Harmonic #22	float	R		40913
V L2N H 23	Star Voltage L2-N Harmonic #23	float	R		40915
V L2N H 24	Star Voltage L2-N Harmonic #24	float	R		40917
V L2N H 25	Star Voltage L2-N Harmonic #25	float	R		40919
V L2N H 26	Star Voltage L2-N Harmonic #26	float	R		40921
V L2N H 27	Star Voltage L2-N Harmonic #27	float	R		40923
V L2N H 28	Star Voltage L2-N Harmonic #28	float	R		40925
V L2N H 29	Star Voltage L2-N Harmonic #29	float	R		40927
V L2N H 30	Star Voltage L2-N Harmonic #30	float	R		40929
V L2N H 31	Star Voltage L2-N Harmonic #31	float	R		40931
V L2N H 32	Star Voltage L2-N Harmonic #32	float	R		40933
V L2N H 33	Star Voltage L2-N Harmonic #33	float	R		40935
V L2N H 34	Star Voltage L2-N Harmonic #34	float	R		40937
V L2N H 35	Star Voltage L2-N Harmonic #35	float	R		40939
V L2N H 36	Star Voltage L2-N Harmonic #36	float	R		40941



All Versions

Only in Plus and Professional Versions

Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
V L2N H 37	Star Voltage L2-N Harmonic #37	float	R		40943
V L2N H 38	Star Voltage L2-N Harmonic #38	float	R		40945
V L2N H 39	Star Voltage L2-N Harmonic #39	float	R		40947
V L2N H 40	Star Voltage L2-N Harmonic #40	float	R		40949
V L2N H 41	Star Voltage L2-N Harmonic #41	float	R		40951
V L2N H 42	Star Voltage L2-N Harmonic #42	float	R		40953
V L2N H 43	Star Voltage L2-N Harmonic #43	float	R		40955
V L2N H 44	Star Voltage L2-N Harmonic #44	float	R		40957
V L2N H 45	Star Voltage L2-N Harmonic #45	float	R		40959
V L2N H 46	Star Voltage L2-N Harmonic #46	float	R		40961
V L2N H 47	Star Voltage L2-N Harmonic #47	float	R		40963
V L2N H 48	Star Voltage L2-N Harmonic #48	float	R		40965
V L2N H 49	Star Voltage L2-N Harmonic #49	float	R		40967
V L2N H 50	Star Voltage L2-N Harmonic #50	float	R		40969
V L2N H 51	Star Voltage L2-N Harmonic #51	float	R		40971
V L2N H 52	Star Voltage L2-N Harmonic #52	float	R		40973
V L2N H 53	Star Voltage L2-N Harmonic #53	float	R		40975
V L2N H 54	Star Voltage L2-N Harmonic #54	float	R		40977
V L2N H 55	Star Voltage L2-N Harmonic #55	float	R		40979
V L2N H 56	Star Voltage L2-N Harmonic #56	float	R		40981
V L2N H 57	Star Voltage L2-N Harmonic #57	float	R		40983
V L2N H 58	Star Voltage L2-N Harmonic #58	float	R		40985
V L2N H 59	Star Voltage L2-N Harmonic #59	float	R		40987
V L2N H 60	Star Voltage L2-N Harmonic #60	float	R		40989
V L2N H 61	Star Voltage L2-N Harmonic #61	float	R		40991
V L2N H 62	Star Voltage L2-N Harmonic #62	float	R		40993
V L2N H 63	Star Voltage L2-N Harmonic #63	float	R		40995
V L3N H 0	Star Voltage L3-N Harmonic #0	float	R		40997
V L3N H 1	Star Voltage L3-N Harmonic #1	float	R		40999
V L3N H 2	Star Voltage L3-N Harmonic #2	float	R		41001
V L3N H 3	Star Voltage L3-N Harmonic #3	float	R		41003
V L3N H 4	Star Voltage L3-N Harmonic #4	float	R		41005
V L3N H 5	Star Voltage L3-N Harmonic #5	float	R		41007
V L3N H 6	Star Voltage L3-N Harmonic #6	float	R		41009
V L3N H 7	Star Voltage L3-N Harmonic #7	float	R		41011
V L3N H 8	Star Voltage L3-N Harmonic #8	float	R		41013
V L3N H 9	Star Voltage L3-N Harmonic #9	float	R		41015
V L3N H 10	Star Voltage L3-N Harmonic #10	float	R		41017
V L3N H 11	Star Voltage L3-N Harmonic #11	float	R		41019
V L3N H 12	Star Voltage L3-N Harmonic #12	float	R		41021
V L3N H 13	Star Voltage L3-N Harmonic #13	float	R		41023
V L3N H 14	Star Voltage L3-N Harmonic #14	float	R		41025
V L3N H 15	Star Voltage L3-N Harmonic #15	float	R		41027
V L3N H 16	Star Voltage L3-N Harmonic #16	float	R		41029
V L3N H 17	Star Voltage L3-N Harmonic #17	float	R		41031
V L3N H 18	Star Voltage L3-N Harmonic #18	float	R		41033
V L3N H 19	Star Voltage L3-N Harmonic #19	float	R		41035
V L3N H 20	Star Voltage L3-N Harmonic #20	float	R		41037
V L3N H 21	Star Voltage L3-N Harmonic #21	float	R		41039
V L3N H 22	Star Voltage L3-N Harmonic #22	float	R		41041
V L3N H 23	Star Voltage L3-N Harmonic #23	float	R		41043
V L3N H 24	Star Voltage L3-N Harmonic #24	float	R		41045
V L3N H 25	Star Voltage L3-N Harmonic #25	float	R		41047
V L3N H 26	Star Voltage L3-N Harmonic #26	float	R		41049
V L3N H 27	Star Voltage L3-N Harmonic #27	float	R		41051
V L3N H 28	Star Voltage L3-N Harmonic #28	float	R		41053
V L3N H 29	Star Voltage L3-N Harmonic #29	float	R		41055
V L3N H 30	Star Voltage L3-N Harmonic #30	float	R		41057
V L3N H 31	Star Voltage L3-N Harmonic #31	float	R		41059
V L3N H 32	Star Voltage L3-N Harmonic #32	float	R		41061
V L3N H 33	Star Voltage L3-N Harmonic #33	float	R		41063
V L3N H 34	Star Voltage L3-N Harmonic #34	float	R		41065
V L3N H 35	Star Voltage L3-N Harmonic #35	float	R		41067
V L3N H 36	Star Voltage L3-N Harmonic #36	float	R		41069
V L3N H 37	Star Voltage L3-N Harmonic #37	float	R		41071
V L3N H 38	Star Voltage L3-N Harmonic #38	float	R		41073
V L3N H 39	Star Voltage L3-N Harmonic #39	float	R		41075
V L3N H 40	Star Voltage L3-N Harmonic #40	float	R		41077
V L3N H 41	Star Voltage L3-N Harmonic #41	float	R		41079
V L3N H 42	Star Voltage L3-N Harmonic #42	float	R		41081
V L3N H 43	Star Voltage L3-N Harmonic #43	float	R		41083
V L3N H 44	Star Voltage L3-N Harmonic #44	float	R		41085
V L3N H 45	Star Voltage L3-N Harmonic #45	float	R		41087
V L3N H 46	Star Voltage L3-N Harmonic #46	float	R		41089
V L3N H 47	Star Voltage L3-N Harmonic #47	float	R		41091
V L3N H 48	Star Voltage L3-N Harmonic #48	float	R		41093
V L3N H 49	Star Voltage L3-N Harmonic #49	float	R		41095
V L3N H 50	Star Voltage L3-N Harmonic #50	float	R		41097
V L3N H 51	Star Voltage L3-N Harmonic #51	float	R		41099
V L3N H 52	Star Voltage L3-N Harmonic #52	float	R		41101
V L3N H 53	Star Voltage L3-N Harmonic #53	float	R		41103
V L3N H 54	Star Voltage L3-N Harmonic #54	float	R		41105
V L3N H 55	Star Voltage L3-N Harmonic #55	float	R		41107
V L3N H 56	Star Voltage L3-N Harmonic #56	float	R		41109
V L3N H 57	Star Voltage L3-N Harmonic #57	float	R		41111
V L3N H 58	Star Voltage L3-N Harmonic #58	float	R		41113
V L3N H 59	Star Voltage L3-N Harmonic #59	float	R		41115
V L3N H 60	Star Voltage L3-N Harmonic #60	float	R		41117
V L3N H 61	Star Voltage L3-N Harmonic #61	float	R		41119
V L3N H 62	Star Voltage L3-N Harmonic #62	float	R		41121
V L3N H 63	Star Voltage L3-N Harmonic #63	float	R		41123
V L12 H 0	Line Voltage L1-L2 Harmonic #0	float	R		41125
V L12 H 1	Line Voltage L1-L2 Harmonic #1	float	R		41127
V L12 H 2	Line Voltage L1-L2 Harmonic #2	float	R		41129
V L12 H 3	Line Voltage L1-L2 Harmonic #3	float	R		41131
V L12 H 4	Line Voltage L1-L2 Harmonic #4	float	R		41133
V L12 H 5	Line Voltage L1-L2 Harmonic #5	float	R		41135
V L12 H 6	Line Voltage L1-L2 Harmonic #6	float	R		41137
V L12 H 7	Line Voltage L1-L2 Harmonic #7	float	R		41139
V L12 H 8	Line Voltage L1-L2 Harmonic #8	float	R		41141
V L12 H 9	Line Voltage L1-L2 Harmonic #9	float	R		41143
V L12 H 10	Line Voltage L1-L2 Harmonic #10	float	R		41145
V L12 H 11	Line Voltage L1-L2 Harmonic #11	float	R		41147
V L12 H 12	Line Voltage L1-L2 Harmonic #12	float	R		41149
V L12 H 13	Line Voltage L1-L2 Harmonic #13	float	R		41151
V L12 H 14	Line Voltage L1-L2 Harmonic #14	float	R		41153
V L12 H 15	Line Voltage L1-L2 Harmonic #15	float	R		41155
V L12 H 16	Line Voltage L1-L2 Harmonic #16	float	R		41157
V L12 H 17	Line Voltage L1-L2 Harmonic #17	float	R		41159
V L12 H 18	Line Voltage L1-L2 Harmonic #18	float	R		41161
V L12 H 19	Line Voltage L1-L2 Harmonic #19	float	R		41163



All Versions

Only in Plus and Professional Versions

Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
V L12 H 20	Line Voltage L1-L2 Harmonic #20	float	R		41165
V L12 H 21	Line Voltage L1-L2 Harmonic #21	float	R		41167
V L12 H 22	Line Voltage L1-L2 Harmonic #22	float	R		41169
V L12 H 23	Line Voltage L1-L2 Harmonic #23	float	R		41171
V L12 H 24	Line Voltage L1-L2 Harmonic #24	float	R		41173
V L12 H 25	Line Voltage L1-L2 Harmonic #25	float	R		41175
V L12 H 26	Line Voltage L1-L2 Harmonic #26	float	R		41177
V L12 H 27	Line Voltage L1-L2 Harmonic #27	float	R		41179
V L12 H 28	Line Voltage L1-L2 Harmonic #28	float	R		41181
V L12 H 29	Line Voltage L1-L2 Harmonic #29	float	R		41183
V L12 H 30	Line Voltage L1-L2 Harmonic #30	float	R		41185
V L12 H 31	Line Voltage L1-L2 Harmonic #31	float	R		41187
V L12 H 32	Line Voltage L1-L2 Harmonic #32	float	R		41189
V L12 H 33	Line Voltage L1-L2 Harmonic #33	float	R		41191
V L12 H 34	Line Voltage L1-L2 Harmonic #34	float	R		41193
V L12 H 35	Line Voltage L1-L2 Harmonic #35	float	R		41195
V L12 H 36	Line Voltage L1-L2 Harmonic #36	float	R		41197
V L12 H 37	Line Voltage L1-L2 Harmonic #37	float	R		41199
V L12 H 38	Line Voltage L1-L2 Harmonic #38	float	R		41201
V L12 H 39	Line Voltage L1-L2 Harmonic #39	float	R		41203
V L12 H 40	Line Voltage L1-L2 Harmonic #40	float	R		41205
V L12 H 41	Line Voltage L1-L2 Harmonic #41	float	R		41207
V L12 H 42	Line Voltage L1-L2 Harmonic #42	float	R		41209
V L12 H 43	Line Voltage L1-L2 Harmonic #43	float	R		41211
V L12 H 44	Line Voltage L1-L2 Harmonic #44	float	R		41213
V L12 H 45	Line Voltage L1-L2 Harmonic #45	float	R		41215
V L12 H 46	Line Voltage L1-L2 Harmonic #46	float	R		41217
V L12 H 47	Line Voltage L1-L2 Harmonic #47	float	R		41219
V L12 H 48	Line Voltage L1-L2 Harmonic #48	float	R		41221
V L12 H 49	Line Voltage L1-L2 Harmonic #49	float	R		41223
V L12 H 50	Line Voltage L1-L2 Harmonic #50	float	R		41225
V L12 H 51	Line Voltage L1-L2 Harmonic #51	float	R		41227
V L12 H 52	Line Voltage L1-L2 Harmonic #52	float	R		41229
V L12 H 53	Line Voltage L1-L2 Harmonic #53	float	R		41231
V L12 H 54	Line Voltage L1-L2 Harmonic #54	float	R		41233
V L12 H 55	Line Voltage L1-L2 Harmonic #55	float	R		41235
V L12 H 56	Line Voltage L1-L2 Harmonic #56	float	R		41237
V L12 H 57	Line Voltage L1-L2 Harmonic #57	float	R		41239
V L12 H 58	Line Voltage L1-L2 Harmonic #58	float	R		41241
V L12 H 59	Line Voltage L1-L2 Harmonic #59	float	R		41243
V L12 H 60	Line Voltage L1-L2 Harmonic #60	float	R		41245
V L12 H 61	Line Voltage L1-L2 Harmonic #61	float	R		41247
V L12 H 62	Line Voltage L1-L2 Harmonic #62	float	R		41249
V L12 H 63	Line Voltage L1-L2 Harmonic #63	float	R		41251
V L23 H 0	Line Voltage L2-L3 Harmonic #0	float	R		41253
V L23 H 1	Line Voltage L2-L3 Harmonic #1	float	R		41255
V L23 H 2	Line Voltage L2-L3 Harmonic #2	float	R		41257
V L23 H 3	Line Voltage L2-L3 Harmonic #3	float	R		41259
V L23 H 4	Line Voltage L2-L3 Harmonic #4	float	R		41261
V L23 H 5	Line Voltage L2-L3 Harmonic #5	float	R		41263
V L23 H 6	Line Voltage L2-L3 Harmonic #6	float	R		41265
V L23 H 7	Line Voltage L2-L3 Harmonic #7	float	R		41267
V L23 H 8	Line Voltage L2-L3 Harmonic #8	float	R		41269
V L23 H 9	Line Voltage L2-L3 Harmonic #9	float	R		41271
V L23 H 10	Line Voltage L2-L3 Harmonic #10	float	R		41273
V L23 H 11	Line Voltage L2-L3 Harmonic #11	float	R		41275
V L23 H 12	Line Voltage L2-L3 Harmonic #12	float	R		41277
V L23 H 13	Line Voltage L2-L3 Harmonic #13	float	R		41279
V L23 H 14	Line Voltage L2-L3 Harmonic #14	float	R		41281
V L23 H 15	Line Voltage L2-L3 Harmonic #15	float	R		41283
V L23 H 16	Line Voltage L2-L3 Harmonic #16	float	R		41285
V L23 H 17	Line Voltage L2-L3 Harmonic #17	float	R		41287
V L23 H 18	Line Voltage L2-L3 Harmonic #18	float	R		41289
V L23 H 19	Line Voltage L2-L3 Harmonic #19	float	R		41291
V L23 H 20	Line Voltage L2-L3 Harmonic #20	float	R		41293
V L23 H 21	Line Voltage L2-L3 Harmonic #21	float	R		41295
V L23 H 22	Line Voltage L2-L3 Harmonic #22	float	R		41297
V L23 H 23	Line Voltage L2-L3 Harmonic #23	float	R		41299
V L23 H 24	Line Voltage L2-L3 Harmonic #24	float	R		41301
V L23 H 25	Line Voltage L2-L3 Harmonic #25	float	R		41303
V L23 H 26	Line Voltage L2-L3 Harmonic #26	float	R		41305
V L23 H 27	Line Voltage L2-L3 Harmonic #27	float	R		41307
V L23 H 28	Line Voltage L2-L3 Harmonic #28	float	R		41309
V L23 H 29	Line Voltage L2-L3 Harmonic #29	float	R		41311
V L23 H 30	Line Voltage L2-L3 Harmonic #30	float	R		41313
V L23 H 31	Line Voltage L2-L3 Harmonic #31	float	R		41315
V L23 H 32	Line Voltage L2-L3 Harmonic #32	float	R		41317
V L23 H 33	Line Voltage L2-L3 Harmonic #33	float	R		41319
V L23 H 34	Line Voltage L2-L3 Harmonic #34	float	R		41321
V L23 H 35	Line Voltage L2-L3 Harmonic #35	float	R		41323
V L23 H 36	Line Voltage L2-L3 Harmonic #36	float	R		41325
V L23 H 37	Line Voltage L2-L3 Harmonic #37	float	R		41327
V L23 H 38	Line Voltage L2-L3 Harmonic #38	float	R		41329
V L23 H 39	Line Voltage L2-L3 Harmonic #39	float	R		41331
V L23 H 40	Line Voltage L2-L3 Harmonic #40	float	R		41333
V L23 H 41	Line Voltage L2-L3 Harmonic #41	float	R		41335
V L23 H 42	Line Voltage L2-L3 Harmonic #42	float	R		41337
V L23 H 43	Line Voltage L2-L3 Harmonic #43	float	R		41339
V L23 H 44	Line Voltage L2-L3 Harmonic #44	float	R		41341
V L23 H 45	Line Voltage L2-L3 Harmonic #45	float	R		41343
V L23 H 46	Line Voltage L2-L3 Harmonic #46	float	R		41345
V L23 H 47	Line Voltage L2-L3 Harmonic #47	float	R		41347
V L23 H 48	Line Voltage L2-L3 Harmonic #48	float	R		41349
V L23 H 49	Line Voltage L2-L3 Harmonic #49	float	R		41351
V L23 H 50	Line Voltage L2-L3 Harmonic #50	float	R		41353
V L23 H 51	Line Voltage L2-L3 Harmonic #51	float	R		41355
V L23 H 52	Line Voltage L2-L3 Harmonic #52	float	R		41357
V L23 H 53	Line Voltage L2-L3 Harmonic #53	float	R		41359
V L23 H 54	Line Voltage L2-L3 Harmonic #54	float	R		41361
V L23 H 55	Line Voltage L2-L3 Harmonic #55	float	R		41363
V L23 H 56	Line Voltage L2-L3 Harmonic #56	float	R		41365
V L23 H 57	Line Voltage L2-L3 Harmonic #57	float	R		41367
V L23 H 58	Line Voltage L2-L3 Harmonic #58	float	R		41369
V L23 H 59	Line Voltage L2-L3 Harmonic #59	float	R		41371
V L23 H 60	Line Voltage L2-L3 Harmonic #60	float	R		41373
V L23 H 61	Line Voltage L2-L3 Harmonic #61	float	R		41375
V L23 H 62	Line Voltage L2-L3 Harmonic #62	float	R		41377
V L23 H 63	Line Voltage L2-L3 Harmonic #63	float	R		41379
V L31 H 0	Line Voltage L3-L1 Harmonic #0	float	R		41381
V L31 H 1	Line Voltage L3-L1 Harmonic #1	float	R		41383
V L31 H 2	Line Voltage L3-L1 Harmonic #2	float	R		41385



All Versions

Only in Plus and Professional Versions

Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
V_L31_H_3	Line Voltage L3-L1 Harmonic #3	float	R		41387
V_L31_H_4	Line Voltage L3-L1 Harmonic #4	float	R		41389
V_L31_H_5	Line Voltage L3-L1 Harmonic #5	float	R		41391
V_L31_H_6	Line Voltage L3-L1 Harmonic #6	float	R		41393
V_L31_H_7	Line Voltage L3-L1 Harmonic #7	float	R		41395
V_L31_H_8	Line Voltage L3-L1 Harmonic #8	float	R		41397
V_L31_H_9	Line Voltage L3-L1 Harmonic #9	float	R		41399
V_L31_H_10	Line Voltage L3-L1 Harmonic #10	float	R		41401
V_L31_H_11	Line Voltage L3-L1 Harmonic #11	float	R		41403
V_L31_H_12	Line Voltage L3-L1 Harmonic #12	float	R		41405
V_L31_H_13	Line Voltage L3-L1 Harmonic #13	float	R		41407
V_L31_H_14	Line Voltage L3-L1 Harmonic #14	float	R		41409
V_L31_H_15	Line Voltage L3-L1 Harmonic #15	float	R		41411
V_L31_H_16	Line Voltage L3-L1 Harmonic #16	float	R		41413
V_L31_H_17	Line Voltage L3-L1 Harmonic #17	float	R		41415
V_L31_H_18	Line Voltage L3-L1 Harmonic #18	float	R		41417
V_L31_H_19	Line Voltage L3-L1 Harmonic #19	float	R		41419
V_L31_H_20	Line Voltage L3-L1 Harmonic #20	float	R		41421
V_L31_H_21	Line Voltage L3-L1 Harmonic #21	float	R		41423
V_L31_H_22	Line Voltage L3-L1 Harmonic #22	float	R		41425
V_L31_H_23	Line Voltage L3-L1 Harmonic #23	float	R		41427
V_L31_H_24	Line Voltage L3-L1 Harmonic #24	float	R		41429
V_L31_H_25	Line Voltage L3-L1 Harmonic #25	float	R		41431
V_L31_H_26	Line Voltage L3-L1 Harmonic #26	float	R		41433
V_L31_H_27	Line Voltage L3-L1 Harmonic #27	float	R		41435
V_L31_H_28	Line Voltage L3-L1 Harmonic #28	float	R		41437
V_L31_H_29	Line Voltage L3-L1 Harmonic #29	float	R		41439
V_L31_H_30	Line Voltage L3-L1 Harmonic #30	float	R		41441
V_L31_H_31	Line Voltage L3-L1 Harmonic #31	float	R		41443
V_L31_H_32	Line Voltage L3-L1 Harmonic #32	float	R		41445
V_L31_H_33	Line Voltage L3-L1 Harmonic #33	float	R		41447
V_L31_H_34	Line Voltage L3-L1 Harmonic #34	float	R		41449
V_L31_H_35	Line Voltage L3-L1 Harmonic #35	float	R		41451
V_L31_H_36	Line Voltage L3-L1 Harmonic #36	float	R		41453
V_L31_H_37	Line Voltage L3-L1 Harmonic #37	float	R		41455
V_L31_H_38	Line Voltage L3-L1 Harmonic #38	float	R		41457
V_L31_H_39	Line Voltage L3-L1 Harmonic #39	float	R		41459
V_L31_H_40	Line Voltage L3-L1 Harmonic #40	float	R		41461
V_L31_H_41	Line Voltage L3-L1 Harmonic #41	float	R		41463
V_L31_H_42	Line Voltage L3-L1 Harmonic #42	float	R		41465
V_L31_H_43	Line Voltage L3-L1 Harmonic #43	float	R		41467
V_L31_H_44	Line Voltage L3-L1 Harmonic #44	float	R		41469
V_L31_H_45	Line Voltage L3-L1 Harmonic #45	float	R		41471
V_L31_H_46	Line Voltage L3-L1 Harmonic #46	float	R		41473
V_L31_H_47	Line Voltage L3-L1 Harmonic #47	float	R		41475
V_L31_H_48	Line Voltage L3-L1 Harmonic #48	float	R		41477
V_L31_H_49	Line Voltage L3-L1 Harmonic #49	float	R		41479
V_L31_H_50	Line Voltage L3-L1 Harmonic #50	float	R		41481
V_L31_H_51	Line Voltage L3-L1 Harmonic #51	float	R		41483
V_L31_H_52	Line Voltage L3-L1 Harmonic #52	float	R		41485
V_L31_H_53	Line Voltage L3-L1 Harmonic #53	float	R		41487
V_L31_H_54	Line Voltage L3-L1 Harmonic #54	float	R		41489
V_L31_H_55	Line Voltage L3-L1 Harmonic #55	float	R		41491
V_L31_H_56	Line Voltage L3-L1 Harmonic #56	float	R		41493
V_L31_H_57	Line Voltage L3-L1 Harmonic #57	float	R		41495
V_L31_H_58	Line Voltage L3-L1 Harmonic #58	float	R		41497
V_L31_H_59	Line Voltage L3-L1 Harmonic #59	float	R		41499
V_L31_H_60	Line Voltage L3-L1 Harmonic #60	float	R		41501
V_L31_H_61	Line Voltage L3-L1 Harmonic #61	float	R		41503
V_L31_H_62	Line Voltage L3-L1 Harmonic #62	float	R		41505
V_L31_H_63	Line Voltage L3-L1 Harmonic #63	float	R		41507
I_L1_H_0	Line Current L1 Harmonic #0	float	R		41509
I_L1_H_1	Line Current L1 Harmonic #1	float	R		41511
I_L1_H_2	Line Current L1 Harmonic #2	float	R		41513
I_L1_H_3	Line Current L1 Harmonic #3	float	R		41515
I_L1_H_4	Line Current L1 Harmonic #4	float	R		41517
I_L1_H_5	Line Current L1 Harmonic #5	float	R		41519
I_L1_H_6	Line Current L1 Harmonic #6	float	R		41521
I_L1_H_7	Line Current L1 Harmonic #7	float	R		41523
I_L1_H_8	Line Current L1 Harmonic #8	float	R		41525
I_L1_H_9	Line Current L1 Harmonic #9	float	R		41527
I_L1_H_10	Line Current L1 Harmonic #10	float	R		41529
I_L1_H_11	Line Current L1 Harmonic #11	float	R		41531
I_L1_H_12	Line Current L1 Harmonic #12	float	R		41533
I_L1_H_13	Line Current L1 Harmonic #13	float	R		41535
I_L1_H_14	Line Current L1 Harmonic #14	float	R		41537
I_L1_H_15	Line Current L1 Harmonic #15	float	R		41539
I_L1_H_16	Line Current L1 Harmonic #16	float	R		41541
I_L1_H_17	Line Current L1 Harmonic #17	float	R		41543
I_L1_H_18	Line Current L1 Harmonic #18	float	R		41545
I_L1_H_19	Line Current L1 Harmonic #19	float	R		41547
I_L1_H_20	Line Current L1 Harmonic #20	float	R		41549
I_L1_H_21	Line Current L1 Harmonic #21	float	R		41551
I_L1_H_22	Line Current L1 Harmonic #22	float	R		41553
I_L1_H_23	Line Current L1 Harmonic #23	float	R		41555
I_L1_H_24	Line Current L1 Harmonic #24	float	R		41557
I_L1_H_25	Line Current L1 Harmonic #25	float	R		41559
I_L1_H_26	Line Current L1 Harmonic #26	float	R		41561
I_L1_H_27	Line Current L1 Harmonic #27	float	R		41563
I_L1_H_28	Line Current L1 Harmonic #28	float	R		41565
I_L1_H_29	Line Current L1 Harmonic #29	float	R		41567
I_L1_H_30	Line Current L1 Harmonic #30	float	R		41569
I_L1_H_31	Line Current L1 Harmonic #31	float	R		41571
I_L1_H_32	Line Current L1 Harmonic #32	float	R		41573
I_L1_H_33	Line Current L1 Harmonic #33	float	R		41575
I_L1_H_34	Line Current L1 Harmonic #34	float	R		41577
I_L1_H_35	Line Current L1 Harmonic #35	float	R		41579
I_L1_H_36	Line Current L1 Harmonic #36	float	R		41581
I_L1_H_37	Line Current L1 Harmonic #37	float	R		41583
I_L1_H_38	Line Current L1 Harmonic #38	float	R		41585
I_L1_H_39	Line Current L1 Harmonic #39	float	R		41587
I_L1_H_40	Line Current L1 Harmonic #40	float	R		41589
I_L1_H_41	Line Current L1 Harmonic #41	float	R		41591
I_L1_H_42	Line Current L1 Harmonic #42	float	R		41593
I_L1_H_43	Line Current L1 Harmonic #43	float	R		41595
I_L1_H_44	Line Current L1 Harmonic #44	float	R		41597
I_L1_H_45	Line Current L1 Harmonic #45	float	R		41599
I_L1_H_46	Line Current L1 Harmonic #46	float	R		41601
I_L1_H_47	Line Current L1 Harmonic #47	float	R		41603
I_L1_H_48	Line Current L1 Harmonic #48	float	R		41605
I_L1_H_49	Line Current L1 Harmonic #49	float	R		41607



All Versions

DO000160_QE-POWER-T_Lista Indirizzi

Only in Plus and Professional Versions

Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
I L1 H 50	Line Current L1 Harmonic #50	float	R		41609
I L1 H 51	Line Current L1 Harmonic #51	float	R		41611
I L1 H 52	Line Current L1 Harmonic #52	float	R		41613
I L1 H 53	Line Current L1 Harmonic #53	float	R		41615
I L1 H 54	Line Current L1 Harmonic #54	float	R		41617
I L1 H 55	Line Current L1 Harmonic #55	float	R		41619
I L1 H 56	Line Current L1 Harmonic #56	float	R		41621
I L1 H 57	Line Current L1 Harmonic #57	float	R		41623
I L1 H 58	Line Current L1 Harmonic #58	float	R		41625
I L1 H 59	Line Current L1 Harmonic #59	float	R		41627
I L1 H 60	Line Current L1 Harmonic #60	float	R		41629
I L1 H 61	Line Current L1 Harmonic #61	float	R		41631
I L1 H 62	Line Current L1 Harmonic #62	float	R		41633
I L1 H 63	Line Current L1 Harmonic #63	float	R		41635
I L2 H 0	Line Current L2 Harmonic #0	float	R		41637
I L2 H 1	Line Current L2 Harmonic #1	float	R		41639
I L2 H 2	Line Current L2 Harmonic #2	float	R		41641
I L2 H 3	Line Current L2 Harmonic #3	float	R		41643
I L2 H 4	Line Current L2 Harmonic #4	float	R		41645
I L2 H 5	Line Current L2 Harmonic #5	float	R		41647
I L2 H 6	Line Current L2 Harmonic #6	float	R		41649
I L2 H 7	Line Current L2 Harmonic #7	float	R		41651
I L2 H 8	Line Current L2 Harmonic #8	float	R		41653
I L2 H 9	Line Current L2 Harmonic #9	float	R		41655
I L2 H 10	Line Current L2 Harmonic #10	float	R		41657
I L2 H 11	Line Current L2 Harmonic #11	float	R		41659
I L2 H 12	Line Current L2 Harmonic #12	float	R		41661
I L2 H 13	Line Current L2 Harmonic #13	float	R		41663
I L2 H 14	Line Current L2 Harmonic #14	float	R		41665
I L2 H 15	Line Current L2 Harmonic #15	float	R		41667
I L2 H 16	Line Current L2 Harmonic #16	float	R		41669
I L2 H 17	Line Current L2 Harmonic #17	float	R		41671
I L2 H 18	Line Current L2 Harmonic #18	float	R		41673
I L2 H 19	Line Current L2 Harmonic #19	float	R		41675
I L2 H 20	Line Current L2 Harmonic #20	float	R		41677
I L2 H 21	Line Current L2 Harmonic #21	float	R		41679
I L2 H 22	Line Current L2 Harmonic #22	float	R		41681
I L2 H 23	Line Current L2 Harmonic #23	float	R		41683
I L2 H 24	Line Current L2 Harmonic #24	float	R		41685
I L2 H 25	Line Current L2 Harmonic #25	float	R		41687
I L2 H 26	Line Current L2 Harmonic #26	float	R		41689
I L2 H 27	Line Current L2 Harmonic #27	float	R		41691
I L2 H 28	Line Current L2 Harmonic #28	float	R		41693
I L2 H 29	Line Current L2 Harmonic #29	float	R		41695
I L2 H 30	Line Current L2 Harmonic #30	float	R		41697
I L2 H 31	Line Current L2 Harmonic #31	float	R		41699
I L2 H 32	Line Current L2 Harmonic #32	float	R		41701
I L2 H 33	Line Current L2 Harmonic #33	float	R		41703
I L2 H 34	Line Current L2 Harmonic #34	float	R		41705
I L2 H 35	Line Current L2 Harmonic #35	float	R		41707
I L2 H 36	Line Current L2 Harmonic #36	float	R		41709
I L2 H 37	Line Current L2 Harmonic #37	float	R		41711
I L2 H 38	Line Current L2 Harmonic #38	float	R		41713
I L2 H 39	Line Current L2 Harmonic #39	float	R		41715
I L2 H 40	Line Current L2 Harmonic #40	float	R		41717
I L2 H 41	Line Current L2 Harmonic #41	float	R		41719
I L2 H 42	Line Current L2 Harmonic #42	float	R		41721
I L2 H 43	Line Current L2 Harmonic #43	float	R		41723
I L2 H 44	Line Current L2 Harmonic #44	float	R		41725
I L2 H 45	Line Current L2 Harmonic #45	float	R		41727
I L2 H 46	Line Current L2 Harmonic #46	float	R		41729
I L2 H 47	Line Current L2 Harmonic #47	float	R		41731
I L2 H 48	Line Current L2 Harmonic #48	float	R		41733
I L2 H 49	Line Current L2 Harmonic #49	float	R		41735
I L2 H 50	Line Current L2 Harmonic #50	float	R		41737
I L2 H 51	Line Current L2 Harmonic #51	float	R		41739
I L2 H 52	Line Current L2 Harmonic #52	float	R		41741
I L2 H 53	Line Current L2 Harmonic #53	float	R		41743
I L2 H 54	Line Current L2 Harmonic #54	float	R		41745
I L2 H 55	Line Current L2 Harmonic #55	float	R		41747
I L2 H 56	Line Current L2 Harmonic #56	float	R		41749
I L2 H 57	Line Current L2 Harmonic #57	float	R		41751
I L2 H 58	Line Current L2 Harmonic #58	float	R		41753
I L2 H 59	Line Current L2 Harmonic #59	float	R		41755
I L2 H 60	Line Current L2 Harmonic #60	float	R		41757
I L2 H 61	Line Current L2 Harmonic #61	float	R		41759
I L2 H 62	Line Current L2 Harmonic #62	float	R		41761
I L2 H 63	Line Current L2 Harmonic #63	float	R		41763
I L3 H 0	Line Current L3 Harmonic #0	float	R		41765
I L3 H 1	Line Current L3 Harmonic #1	float	R		41767
I L3 H 2	Line Current L3 Harmonic #2	float	R		41769
I L3 H 3	Line Current L3 Harmonic #3	float	R		41771
I L3 H 4	Line Current L3 Harmonic #4	float	R		41773
I L3 H 5	Line Current L3 Harmonic #5	float	R		41775
I L3 H 6	Line Current L3 Harmonic #6	float	R		41777
I L3 H 7	Line Current L3 Harmonic #7	float	R		41779
I L3 H 8	Line Current L3 Harmonic #8	float	R		41781
I L3 H 9	Line Current L3 Harmonic #9	float	R		41783
I L3 H 10	Line Current L3 Harmonic #10	float	R		41785
I L3 H 11	Line Current L3 Harmonic #11	float	R		41787
I L3 H 12	Line Current L3 Harmonic #12	float	R		41789
I L3 H 13	Line Current L3 Harmonic #13	float	R		41791
I L3 H 14	Line Current L3 Harmonic #14	float	R		41793
I L3 H 15	Line Current L3 Harmonic #15	float	R		41795
I L3 H 16	Line Current L3 Harmonic #16	float	R		41797
I L3 H 17	Line Current L3 Harmonic #17	float	R		41799
I L3 H 18	Line Current L3 Harmonic #18	float	R		41801
I L3 H 19	Line Current L3 Harmonic #19	float	R		41803
I L3 H 20	Line Current L3 Harmonic #20	float	R		41805
I L3 H 21	Line Current L3 Harmonic #21	float	R		41807
I L3 H 22	Line Current L3 Harmonic #22	float	R		41809
I L3 H 23	Line Current L3 Harmonic #23	float	R		41811
I L3 H 24	Line Current L3 Harmonic #24	float	R		41813
I L3 H 25	Line Current L3 Harmonic #25	float	R		41815
I L3 H 26	Line Current L3 Harmonic #26	float	R		41817
I L3 H 27	Line Current L3 Harmonic #27	float	R		41819
I L3 H 28	Line Current L3 Harmonic #28	float	R		41821
I L3 H 29	Line Current L3 Harmonic #29	float	R		41823
I L3 H 30	Line Current L3 Harmonic #30	float	R		41825
I L3 H 31	Line Current L3 Harmonic #31	float	R		41827
I L3 H 32	Line Current L3 Harmonic #32	float	R		41829



All Versions

Only in Plus and Professional Versions

Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
I L3 H 33	Line Current L3 Harmonic #33	float	R		41831
I L3 H 34	Line Current L3 Harmonic #34	float	R		41833
I L3 H 35	Line Current L3 Harmonic #35	float	R		41835
I L3 H 36	Line Current L3 Harmonic #36	float	R		41837
I L3 H 37	Line Current L3 Harmonic #37	float	R		41839
I L3 H 38	Line Current L3 Harmonic #38	float	R		41841
I L3 H 39	Line Current L3 Harmonic #39	float	R		41843
I L3 H 40	Line Current L3 Harmonic #40	float	R		41845
I L3 H 41	Line Current L3 Harmonic #41	float	R		41847
I L3 H 42	Line Current L3 Harmonic #42	float	R		41849
I L3 H 43	Line Current L3 Harmonic #43	float	R		41851
I L3 H 44	Line Current L3 Harmonic #44	float	R		41853
I L3 H 45	Line Current L3 Harmonic #45	float	R		41855
I L3 H 46	Line Current L3 Harmonic #46	float	R		41857
I L3 H 47	Line Current L3 Harmonic #47	float	R		41859
I L3 H 48	Line Current L3 Harmonic #48	float	R		41861
I L3 H 49	Line Current L3 Harmonic #49	float	R		41863
I L3 H 50	Line Current L3 Harmonic #50	float	R		41865
I L3 H 51	Line Current L3 Harmonic #51	float	R		41867
I L3 H 52	Line Current L3 Harmonic #52	float	R		41869
I L3 H 53	Line Current L3 Harmonic #53	float	R		41871
I L3 H 54	Line Current L3 Harmonic #54	float	R		41873
I L3 H 55	Line Current L3 Harmonic #55	float	R		41875
I L3 H 56	Line Current L3 Harmonic #56	float	R		41877
I L3 H 57	Line Current L3 Harmonic #57	float	R		41879
I L3 H 58	Line Current L3 Harmonic #58	float	R		41881
I L3 H 59	Line Current L3 Harmonic #59	float	R		41883
I L3 H 60	Line Current L3 Harmonic #60	float	R		41885
I L3 H 61	Line Current L3 Harmonic #61	float	R		41887
I L3 H 62	Line Current L3 Harmonic #62	float	R		41889
I L3 H 63	Line Current L3 Harmonic #63	float	R		41891
I N H 0	Line Current N Harmonic #0	float	R		41893
I N H 1	Line Current N Harmonic #1	float	R		41895
I N H 2	Line Current N Harmonic #2	float	R		41897
I N H 3	Line Current N Harmonic #3	float	R		41899
I N H 4	Line Current N Harmonic #4	float	R		41901
I N H 5	Line Current N Harmonic #5	float	R		41903
I N H 6	Line Current N Harmonic #6	float	R		41905
I N H 7	Line Current N Harmonic #7	float	R		41907
I N H 8	Line Current N Harmonic #8	float	R		41909
I N H 9	Line Current N Harmonic #9	float	R		41911
I N H 10	Line Current N Harmonic #10	float	R		41913
I N H 11	Line Current N Harmonic #11	float	R		41915
I N H 12	Line Current N Harmonic #12	float	R		41917
I N H 13	Line Current N Harmonic #13	float	R		41919
I N H 14	Line Current N Harmonic #14	float	R		41921
I N H 15	Line Current N Harmonic #15	float	R		41923
I N H 16	Line Current N Harmonic #16	float	R		41925
I N H 17	Line Current N Harmonic #17	float	R		41927
I N H 18	Line Current N Harmonic #18	float	R		41929
I N H 19	Line Current N Harmonic #19	float	R		41931
I N H 20	Line Current N Harmonic #20	float	R		41933
I N H 21	Line Current N Harmonic #21	float	R		41935
I N H 22	Line Current N Harmonic #22	float	R		41937
I N H 23	Line Current N Harmonic #23	float	R		41939
I N H 24	Line Current N Harmonic #24	float	R		41941
I N H 25	Line Current N Harmonic #25	float	R		41943
I N H 26	Line Current N Harmonic #26	float	R		41945
I N H 27	Line Current N Harmonic #27	float	R		41947
I N H 28	Line Current N Harmonic #28	float	R		41949
I N H 29	Line Current N Harmonic #29	float	R		41951
I N H 30	Line Current N Harmonic #30	float	R		41953
I N H 31	Line Current N Harmonic #31	float	R		41955
I N H 32	Line Current N Harmonic #32	float	R		41957
I N H 33	Line Current N Harmonic #33	float	R		41959
I N H 34	Line Current N Harmonic #34	float	R		41961
I N H 35	Line Current N Harmonic #35	float	R		41963
I N H 36	Line Current N Harmonic #36	float	R		41965
I N H 37	Line Current N Harmonic #37	float	R		41967
I N H 38	Line Current N Harmonic #38	float	R		41969
I N H 39	Line Current N Harmonic #39	float	R		41971
I N H 40	Line Current N Harmonic #40	float	R		41973
I N H 41	Line Current N Harmonic #41	float	R		41975
I N H 42	Line Current N Harmonic #42	float	R		41977
I N H 43	Line Current N Harmonic #43	float	R		41979
I N H 44	Line Current N Harmonic #44	float	R		41981
I N H 45	Line Current N Harmonic #45	float	R		41983
I N H 46	Line Current N Harmonic #46	float	R		41985
I N H 47	Line Current N Harmonic #47	float	R		41987
I N H 48	Line Current N Harmonic #48	float	R		41989
I N H 49	Line Current N Harmonic #49	float	R		41991
I N H 50	Line Current N Harmonic #50	float	R		41993
I N H 51	Line Current N Harmonic #51	float	R		41995
I N H 52	Line Current N Harmonic #52	float	R		41997
I N H 53	Line Current N Harmonic #53	float	R		41999
I N H 54	Line Current N Harmonic #54	float	R		42001
I N H 55	Line Current N Harmonic #55	float	R		42003
I N H 56	Line Current N Harmonic #56	float	R		42005
I N H 57	Line Current N Harmonic #57	float	R		42007
I N H 58	Line Current N Harmonic #58	float	R		42009
I N H 59	Line Current N Harmonic #59	float	R		42011
I N H 60	Line Current N Harmonic #60	float	R		42013
I N H 61	Line Current N Harmonic #61	float	R		42015
I N H 62	Line Current N Harmonic #62	float	R		42017
I N H 63	Line Current N Harmonic #63	float	R		42019
V L1N IH 0	Star Voltage L1-N InterHarmonic #0	float	R		42021
V L1N IH 1	Star Voltage L1-N InterHarmonic #1	float	R		42023
V L1N IH 2	Star Voltage L1-N InterHarmonic #2	float	R		42025
V L1N IH 3	Star Voltage L1-N InterHarmonic #3	float	R		42027
V L1N IH 4	Star Voltage L1-N InterHarmonic #4	float	R		42029
V L1N IH 5	Star Voltage L1-N InterHarmonic #5	float	R		42031
V L1N IH 6	Star Voltage L1-N InterHarmonic #6	float	R		42033
V L1N IH 7	Star Voltage L1-N InterHarmonic #7	float	R		42035
V L1N IH 8	Star Voltage L1-N InterHarmonic #8	float	R		42037
V L1N IH 9	Star Voltage L1-N InterHarmonic #9	float	R		42039
V L1N IH 10	Star Voltage L1-N InterHarmonic #10	float	R		42041
V L1N IH 11	Star Voltage L1-N InterHarmonic #11	float	R		42043
V L1N IH 12	Star Voltage L1-N InterHarmonic #12	float	R		42045
V L1N IH 13	Star Voltage L1-N InterHarmonic #13	float	R		42047
V L1N IH 14	Star Voltage L1-N InterHarmonic #14	float	R		42049
V L1N IH 15	Star Voltage L1-N InterHarmonic #15	float	R		42051

	All Versions
	Only in Plus and Professional Versions
	Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
V_L31_IH_29	Line Voltage L3-L1 InterHarmonic #29	float	R		42719
V_L31_IH_30	Line Voltage L3-L1 InterHarmonic #30	float	R		42721
V_L31_IH_31	Line Voltage L3-L1 InterHarmonic #31	float	R		42723
V_L31_IH_32	Line Voltage L3-L1 InterHarmonic #32	float	R		42725
V_L31_IH_33	Line Voltage L3-L1 InterHarmonic #33	float	R		42727
V_L31_IH_34	Line Voltage L3-L1 InterHarmonic #34	float	R		42729
V_L31_IH_35	Line Voltage L3-L1 InterHarmonic #35	float	R		42731
V_L31_IH_36	Line Voltage L3-L1 InterHarmonic #36	float	R		42733
V_L31_IH_37	Line Voltage L3-L1 InterHarmonic #37	float	R		42735
V_L31_IH_38	Line Voltage L3-L1 InterHarmonic #38	float	R		42737
V_L31_IH_39	Line Voltage L3-L1 InterHarmonic #39	float	R		42739
V_L31_IH_40	Line Voltage L3-L1 InterHarmonic #40	float	R		42741
V_L31_IH_41	Line Voltage L3-L1 InterHarmonic #41	float	R		42743
V_L31_IH_42	Line Voltage L3-L1 InterHarmonic #42	float	R		42745
V_L31_IH_43	Line Voltage L3-L1 InterHarmonic #43	float	R		42747
V_L31_IH_44	Line Voltage L3-L1 InterHarmonic #44	float	R		42749
V_L31_IH_45	Line Voltage L3-L1 InterHarmonic #45	float	R		42751
V_L31_IH_46	Line Voltage L3-L1 InterHarmonic #46	float	R		42753
V_L31_IH_47	Line Voltage L3-L1 InterHarmonic #47	float	R		42755
V_L31_IH_48	Line Voltage L3-L1 InterHarmonic #48	float	R		42757
V_L31_IH_49	Line Voltage L3-L1 InterHarmonic #49	float	R		42759
V_L31_IH_50	Line Voltage L3-L1 InterHarmonic #50	float	R		42761
V_L31_IH_51	Line Voltage L3-L1 InterHarmonic #51	float	R		42763
V_L31_IH_52	Line Voltage L3-L1 InterHarmonic #52	float	R		42765
V_L31_IH_53	Line Voltage L3-L1 InterHarmonic #53	float	R		42767
V_L31_IH_54	Line Voltage L3-L1 InterHarmonic #54	float	R		42769
V_L31_IH_55	Line Voltage L3-L1 InterHarmonic #55	float	R		42771
V_L31_IH_56	Line Voltage L3-L1 InterHarmonic #56	float	R		42773
V_L31_IH_57	Line Voltage L3-L1 InterHarmonic #57	float	R		42775
V_L31_IH_58	Line Voltage L3-L1 InterHarmonic #58	float	R		42777
V_L31_IH_59	Line Voltage L3-L1 InterHarmonic #59	float	R		42779
V_L31_IH_60	Line Voltage L3-L1 InterHarmonic #60	float	R		42781
V_L31_IH_61	Line Voltage L3-L1 InterHarmonic #61	float	R		42783
V_L31_IH_62	Line Voltage L3-L1 InterHarmonic #62	float	R		42785
V_L31_IH_63	Line Voltage L3-L1 InterHarmonic #63	float	R		42787
I_L1_IH_0	Line Current L1 InterHarmonic #0	float	R		42789
I_L1_IH_1	Line Current L1 InterHarmonic #1	float	R		42791
I_L1_IH_2	Line Current L1 InterHarmonic #2	float	R		42793
I_L1_IH_3	Line Current L1 InterHarmonic #3	float	R		42795
I_L1_IH_4	Line Current L1 InterHarmonic #4	float	R		42797
I_L1_IH_5	Line Current L1 InterHarmonic #5	float	R		42799
I_L1_IH_6	Line Current L1 InterHarmonic #6	float	R		42801
I_L1_IH_7	Line Current L1 InterHarmonic #7	float	R		42803
I_L1_IH_8	Line Current L1 InterHarmonic #8	float	R		42805
I_L1_IH_9	Line Current L1 InterHarmonic #9	float	R		42807
I_L1_IH_10	Line Current L1 InterHarmonic #10	float	R		42809
I_L1_IH_11	Line Current L1 InterHarmonic #11	float	R		42811
I_L1_IH_12	Line Current L1 InterHarmonic #12	float	R		42813
I_L1_IH_13	Line Current L1 InterHarmonic #13	float	R		42815
I_L1_IH_14	Line Current L1 InterHarmonic #14	float	R		42817
I_L1_IH_15	Line Current L1 InterHarmonic #15	float	R		42819
I_L1_IH_16	Line Current L1 InterHarmonic #16	float	R		42821
I_L1_IH_17	Line Current L1 InterHarmonic #17	float	R		42823
I_L1_IH_18	Line Current L1 InterHarmonic #18	float	R		42825
I_L1_IH_19	Line Current L1 InterHarmonic #19	float	R		42827
I_L1_IH_20	Line Current L1 InterHarmonic #20	float	R		42829
I_L1_IH_21	Line Current L1 InterHarmonic #21	float	R		42831
I_L1_IH_22	Line Current L1 InterHarmonic #22	float	R		42833
I_L1_IH_23	Line Current L1 InterHarmonic #23	float	R		42835
I_L1_IH_24	Line Current L1 InterHarmonic #24	float	R		42837
I_L1_IH_25	Line Current L1 InterHarmonic #25	float	R		42839
I_L1_IH_26	Line Current L1 InterHarmonic #26	float	R		42841
I_L1_IH_27	Line Current L1 InterHarmonic #27	float	R		42843
I_L1_IH_28	Line Current L1 InterHarmonic #28	float	R		42845
I_L1_IH_29	Line Current L1 InterHarmonic #29	float	R		42847
I_L1_IH_30	Line Current L1 InterHarmonic #30	float	R		42849
I_L1_IH_31	Line Current L1 InterHarmonic #31	float	R		42851
I_L1_IH_32	Line Current L1 InterHarmonic #32	float	R		42853
I_L1_IH_33	Line Current L1 InterHarmonic #33	float	R		42855
I_L1_IH_34	Line Current L1 InterHarmonic #34	float	R		42857
I_L1_IH_35	Line Current L1 InterHarmonic #35	float	R		42859
I_L1_IH_36	Line Current L1 InterHarmonic #36	float	R		42861
I_L1_IH_37	Line Current L1 InterHarmonic #37	float	R		42863
I_L1_IH_38	Line Current L1 InterHarmonic #38	float	R		42865
I_L1_IH_39	Line Current L1 InterHarmonic #39	float	R		42867
I_L1_IH_40	Line Current L1 InterHarmonic #40	float	R		42869
I_L1_IH_41	Line Current L1 InterHarmonic #41	float	R		42871
I_L1_IH_42	Line Current L1 InterHarmonic #42	float	R		42873
I_L1_IH_43	Line Current L1 InterHarmonic #43	float	R		42875
I_L1_IH_44	Line Current L1 InterHarmonic #44	float	R		42877
I_L1_IH_45	Line Current L1 InterHarmonic #45	float	R		42879
I_L1_IH_46	Line Current L1 InterHarmonic #46	float	R		42881
I_L1_IH_47	Line Current L1 InterHarmonic #47	float	R		42883
I_L1_IH_48	Line Current L1 InterHarmonic #48	float	R		42885
I_L1_IH_49	Line Current L1 InterHarmonic #49	float	R		42887
I_L1_IH_50	Line Current L1 InterHarmonic #50	float	R		42889
I_L1_IH_51	Line Current L1 InterHarmonic #51	float	R		42891
I_L1_IH_52	Line Current L1 InterHarmonic #52	float	R		42893
I_L1_IH_53	Line Current L1 InterHarmonic #53	float	R		42895
I_L1_IH_54	Line Current L1 InterHarmonic #54	float	R		42897
I_L1_IH_55	Line Current L1 InterHarmonic #55	float	R		42899
I_L1_IH_56	Line Current L1 InterHarmonic #56	float	R		42901
I_L1_IH_57	Line Current L1 InterHarmonic #57	float	R		42903
I_L1_IH_58	Line Current L1 InterHarmonic #58	float	R		42905
I_L1_IH_59	Line Current L1 InterHarmonic #59	float	R		42907
I_L1_IH_60	Line Current L1 InterHarmonic #60	float	R		42909
I_L1_IH_61	Line Current L1 InterHarmonic #61	float	R		42911
I_L1_IH_62	Line Current L1 InterHarmonic #62	float	R		42913
I_L1_IH_63	Line Current L1 InterHarmonic #63	float	R		42915
I_L2_IH_0	Line Current L2 InterHarmonic #0	float	R		42917
I_L2_IH_1	Line Current L2 InterHarmonic #1	float	R		42919
I_L2_IH_2	Line Current L2 InterHarmonic #2	float	R		42921
I_L2_IH_3	Line Current L2 InterHarmonic #3	float	R		42923
I_L2_IH_4	Line Current L2 InterHarmonic #4	float	R		42925
I_L2_IH_5	Line Current L2 InterHarmonic #5	float	R		42927
I_L2_IH_6	Line Current L2 InterHarmonic #6	float	R		42929
I_L2_IH_7	Line Current L2 InterHarmonic #7	float	R		42931
I_L2_IH_8	Line Current L2 InterHarmonic #8	float	R		42933
I_L2_IH_9	Line Current L2 InterHarmonic #9	float	R		42935
I_L2_IH_10	Line Current L2 InterHarmonic #10	float	R		42937
I_L2_IH_11	Line Current L2 InterHarmonic #11	float	R		42939

	All Versions
	Only in Plus and Professional Versions
	Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
I L3_IH_59	Line Current L3 InterHarmonic #59	float	R		43163
I L3_IH_60	Line Current L3 InterHarmonic #60	float	R		43165
I L3_IH_61	Line Current L3 InterHarmonic #61	float	R		43167
I L3_IH_62	Line Current L3 InterHarmonic #62	float	R		43169
I L3_IH_63	Line Current L3 InterHarmonic #63	float	R		43171
I N_IH_0	Line Current N InterHarmonic #0	float	R		43173
I N_IH_1	Line Current N InterHarmonic #1	float	R		43175
I N_IH_2	Line Current N InterHarmonic #2	float	R		43177
I N_IH_3	Line Current N InterHarmonic #3	float	R		43179
I N_IH_4	Line Current N InterHarmonic #4	float	R		43181
I N_IH_5	Line Current N InterHarmonic #5	float	R		43183
I N_IH_6	Line Current N InterHarmonic #6	float	R		43185
I N_IH_7	Line Current N InterHarmonic #7	float	R		43187
I N_IH_8	Line Current N InterHarmonic #8	float	R		43189
I N_IH_9	Line Current N InterHarmonic #9	float	R		43191
I N_IH_10	Line Current N InterHarmonic #10	float	R		43193
I N_IH_11	Line Current N InterHarmonic #11	float	R		43195
I N_IH_12	Line Current N InterHarmonic #12	float	R		43197
I N_IH_13	Line Current N InterHarmonic #13	float	R		43199
I N_IH_14	Line Current N InterHarmonic #14	float	R		43201
I N_IH_15	Line Current N InterHarmonic #15	float	R		43203
I N_IH_16	Line Current N InterHarmonic #16	float	R		43205
I N_IH_17	Line Current N InterHarmonic #17	float	R		43207
I N_IH_18	Line Current N InterHarmonic #18	float	R		43209
I N_IH_19	Line Current N InterHarmonic #19	float	R		43211
I N_IH_20	Line Current N InterHarmonic #20	float	R		43213
I N_IH_21	Line Current N InterHarmonic #21	float	R		43215
I N_IH_22	Line Current N InterHarmonic #22	float	R		43217
I N_IH_23	Line Current N InterHarmonic #23	float	R		43219
I N_IH_24	Line Current N InterHarmonic #24	float	R		43221
I N_IH_25	Line Current N InterHarmonic #25	float	R		43223
I N_IH_26	Line Current N InterHarmonic #26	float	R		43225
I N_IH_27	Line Current N InterHarmonic #27	float	R		43227
I N_IH_28	Line Current N InterHarmonic #28	float	R		43229
I N_IH_29	Line Current N InterHarmonic #29	float	R		43231
I N_IH_30	Line Current N InterHarmonic #30	float	R		43233
I N_IH_31	Line Current N InterHarmonic #31	float	R		43235
I N_IH_32	Line Current N InterHarmonic #32	float	R		43237
I N_IH_33	Line Current N InterHarmonic #33	float	R		43239
I N_IH_34	Line Current N InterHarmonic #34	float	R		43241
I N_IH_35	Line Current N InterHarmonic #35	float	R		43243
I N_IH_36	Line Current N InterHarmonic #36	float	R		43245
I N_IH_37	Line Current N InterHarmonic #37	float	R		43247
I N_IH_38	Line Current N InterHarmonic #38	float	R		43249
I N_IH_39	Line Current N InterHarmonic #39	float	R		43251
I N_IH_40	Line Current N InterHarmonic #40	float	R		43253
I N_IH_41	Line Current N InterHarmonic #41	float	R		43255
I N_IH_42	Line Current N InterHarmonic #42	float	R		43257
I N_IH_43	Line Current N InterHarmonic #43	float	R		43259
I N_IH_44	Line Current N InterHarmonic #44	float	R		43261
I N_IH_45	Line Current N InterHarmonic #45	float	R		43263
I N_IH_46	Line Current N InterHarmonic #46	float	R		43265
I N_IH_47	Line Current N InterHarmonic #47	float	R		43267
I N_IH_48	Line Current N InterHarmonic #48	float	R		43269
I N_IH_49	Line Current N InterHarmonic #49	float	R		43271
I N_IH_50	Line Current N InterHarmonic #50	float	R		43273
I N_IH_51	Line Current N InterHarmonic #51	float	R		43275
I N_IH_52	Line Current N InterHarmonic #52	float	R		43277
I N_IH_53	Line Current N InterHarmonic #53	float	R		43279
I N_IH_54	Line Current N InterHarmonic #54	float	R		43281
I N_IH_55	Line Current N InterHarmonic #55	float	R		43283
I N_IH_56	Line Current N InterHarmonic #56	float	R		43285
I N_IH_57	Line Current N InterHarmonic #57	float	R		43287
I N_IH_58	Line Current N InterHarmonic #58	float	R		43289
I N_IH_59	Line Current N InterHarmonic #59	float	R		43291
I N_IH_60	Line Current N InterHarmonic #60	float	R		43293
I N_IH_61	Line Current N InterHarmonic #61	float	R		43295
I N_IH_62	Line Current N InterHarmonic #62	float	R		43297
I N_IH_63	Line Current N InterHarmonic #63	float	R		43299
V L1N_INTERRUPT	Last star Voltage L1-N Interruption (VL1-N below 10% "Nominal Star Voltage")	float	R		43301
V L2N_INTERRUPT	Last star Voltage L2-N Interruption (VL2-N below 10% "Nominal Star Voltage")	float	R		43303
V L3N_INTERRUPT	Last star Voltage L3-N Interruption (VL3-N below 10% "Nominal Star Voltage")	float	R		43305
V L12_INTERRUPT	Last line Voltage L2-L3 Interruption (VL2-L3 below 10% "Nominal Line Voltage")	float	R		43307
V L23_INTERRUPT	Last line Voltage L3-L1 Interruption (VL3-L1 below 10% "Nominal Line Voltage")	float	R		43309
V L31_INTERRUPT	Last line Voltage L1-L2 Interruption (VL1-L2 below 10% "Nominal Line Voltage")	float	R		43311
V L1N_SAG	Last star Voltage L1-N Sag (VL1-N between 10% and 90% "Nominal Star Voltage")	float	R		43313
V L2N_SAG	Last star Voltage L2-N Sag (VL2-N between 10% and 90% "Nominal Star Voltage")	float	R		43315
V L3N_SAG	Last star Voltage L3-N Sag (VL3-N between 10% and 90% "Nominal Star Voltage")	float	R		43317
V L12_SAG	Last line Voltage L2-L3 Sag (VL2-L3 between 10% and 90% "Nominal Line Voltage")	float	R		43319
V L23_SAG	Last line Voltage L3-L1 Sag (VL3-L1 between 10% and 90% "Nominal Line Voltage")	float	R		43321
V L31_SAG	Last line Voltage L1-L2 Sag (VL1-L2 between 10% and 90% "Nominal Line Voltage")	float	R		43323
V L1N_SWELL	Last star Voltage L1-N Swell (VL1-N over 110% "Nominal Star Voltage")	float	R		43325
V L2N_SWELL	Last star Voltage L2-N Swell (VL2-N over 110% "Nominal Star Voltage")	float	R		43327
V L3N_SWELL	Last star Voltage L3-N Swell (VL3-N over 110% "Nominal Star Voltage")	float	R		43329
V L12_SWELL	Last line Voltage L2-L3 Swell (VL2-L3 over 110% "Nominal Line Voltage")	float	R		43331
V L23_SWELL	Last line Voltage L3-L1 Swell (VL3-L1 over 110% "Nominal Line Voltage")	float	R		43333
V L31_SWELL	Last line Voltage L1-L2 Swell (VL1-L2 over 110% "Nominal Line Voltage")	float	R		43335
V L1N_INTERRUPT_TIME	Last star Voltage L1-N Interruption Timestamp (VL1-N below 10% "Nominal Star Voltage")	float	R		43337
V L2N_INTERRUPT_TIME	Last star Voltage L2-N Interruption Timestamp (VL2-N below 10% "Nominal Star Voltage")	float	R		43339
V L3N_INTERRUPT_TIME	Last star Voltage L3-N Interruption Timestamp (VL3-N below 10% "Nominal Star Voltage")	float	R		43341
V L12_INTERRUPT_TIME	Last line Voltage L2-L3 Interruption Timestamp (VL2-L3 below 10% "Nominal Line Voltage")	float	R		43343
V L23_INTERRUPT_TIME	Last line Voltage L3-L1 Interruption Timestamp (VL3-L1 below 10% "Nominal Line Voltage")	float	R		43345
V L31_INTERRUPT_TIME	Last line Voltage L1-L2 Interruption Timestamp (VL1-L2 below 10% "Nominal Line Voltage")	float	R		43347
V L1N_SAG_TIMESTAMP	Last star Voltage L1-N Sag Timestamp (VL1-N between 10% and 90% "Nominal Star Voltage")	float	R		43349
V L2N_SAG_TIMESTAMP	Last star Voltage L2-N Sag Timestamp (VL2-N between 10% and 90% "Nominal Star Voltage")	float	R		43351
V L3N_SAG_TIMESTAMP	Last star Voltage L3-N Sag Timestamp (VL3-N between 10% and 90% "Nominal Star Voltage")	float	R		43353
V L12_SAG_TIMESTAMP	Last line Voltage L2-L3 Sag Timestamp (VL2-L3 between 10% and 90% "Nominal Line Voltage")	float	R		43355
V L23_SAG_TIMESTAMP	Last line Voltage L3-L1 Sag Timestamp (VL3-L1 between 10% and 90% "Nominal Line Voltage")	float	R		43357
V L31_SAG_TIMESTAMP	Last line Voltage L1-L2 Sag Timestamp (VL1-L2 between 10% and 90% "Nominal Line Voltage")	float	R		43359
V L1N_SWELL_TIMESTAMP	Last star Voltage L1-N Swell Timestamp (VL1-N over 110% "Nominal Star Voltage")	float	R		43361
V L2N_SWELL_TIMESTAMP	Last star Voltage L2-N Swell Timestamp (VL2-N over 110% "Nominal Star Voltage")	float	R		43363
V L3N_SWELL_TIMESTAMP	Last star Voltage L3-N Swell Timestamp (VL3-N over 110% "Nominal Star Voltage")	float	R		43365
V L12_SWELL_TIMESTAMP	Last line Voltage L2-L3 Swell Timestamp (VL2-L3 over 110% "Nominal Line Voltage")	float	R		43367
V L23_SWELL_TIMESTAMP	Last line Voltage L3-L1 Swell Timestamp (VL3-L1 over 110% "Nominal Line Voltage")	float	R		43369
V L31_SWELL_TIMESTAMP	Last line Voltage L1-L2 Swell Timestamp (VL1-L2 over 110% "Nominal Line Voltage")	float	R		43371
V L1N_Oscilloscope_0	Star Voltage L1-N Sample #0	float	R		43373
V L1N_Oscilloscope_1	Star Voltage L1-N Sample #1	float	R		43375
V L1N_Oscilloscope_2	Star Voltage L1-N Sample #2	float	R		43377
V L1N_Oscilloscope_3	Star Voltage L1-N Sample #3	float	R		43379
V L1N_Oscilloscope_4	Star Voltage L1-N Sample #4	float	R		43381
V L1N_Oscilloscope_5	Star Voltage L1-N Sample #5	float	R		43383

	All Versions
	Only in Plus and Professional Versions
	Only in Professional Version

Register Name	Description	Register Type	R/W	Default	Modbus Address
I N Oscilloscope 75	Line Current N Sample #75	float	R		45827
I N Oscilloscope 76	Line Current N Sample #76	float	R		45829
I N Oscilloscope 77	Line Current N Sample #77	float	R		45831
I N Oscilloscope 78	Line Current N Sample #78	float	R		45833
I N Oscilloscope 79	Line Current N Sample #79	float	R		45835
I N Oscilloscope 80	Line Current N Sample #80	float	R		45837
I N Oscilloscope 81	Line Current N Sample #81	float	R		45839
I N Oscilloscope 82	Line Current N Sample #82	float	R		45841
I N Oscilloscope 83	Line Current N Sample #83	float	R		45843
I N Oscilloscope 84	Line Current N Sample #84	float	R		45845
I N Oscilloscope 85	Line Current N Sample #85	float	R		45847
I N Oscilloscope 86	Line Current N Sample #86	float	R		45849
I N Oscilloscope 87	Line Current N Sample #87	float	R		45851
I N Oscilloscope 88	Line Current N Sample #88	float	R		45853
I N Oscilloscope 89	Line Current N Sample #89	float	R		45855
I N Oscilloscope 90	Line Current N Sample #90	float	R		45857
I N Oscilloscope 91	Line Current N Sample #91	float	R		45859
I N Oscilloscope 92	Line Current N Sample #92	float	R		45861
I N Oscilloscope 93	Line Current N Sample #93	float	R		45863
I N Oscilloscope 94	Line Current N Sample #94	float	R		45865
I N Oscilloscope 95	Line Current N Sample #95	float	R		45867
I N Oscilloscope 96	Line Current N Sample #96	float	R		45869
I N Oscilloscope 97	Line Current N Sample #97	float	R		45871
I N Oscilloscope 98	Line Current N Sample #98	float	R		45873
I N Oscilloscope 99	Line Current N Sample #99	float	R		45875
I N Oscilloscope 100	Line Current N Sample #100	float	R		45877
I N Oscilloscope 101	Line Current N Sample #101	float	R		45879
I N Oscilloscope 102	Line Current N Sample #102	float	R		45881
I N Oscilloscope 103	Line Current N Sample #103	float	R		45883
I N Oscilloscope 104	Line Current N Sample #104	float	R		45885
I N Oscilloscope 105	Line Current N Sample #105	float	R		45887
I N Oscilloscope 106	Line Current N Sample #106	float	R		45889
I N Oscilloscope 107	Line Current N Sample #107	float	R		45891
I N Oscilloscope 108	Line Current N Sample #108	float	R		45893
I N Oscilloscope 109	Line Current N Sample #109	float	R		45895
I N Oscilloscope 110	Line Current N Sample #110	float	R		45897
I N Oscilloscope 111	Line Current N Sample #111	float	R		45899
I N Oscilloscope 112	Line Current N Sample #112	float	R		45901
I N Oscilloscope 113	Line Current N Sample #113	float	R		45903
I N Oscilloscope 114	Line Current N Sample #114	float	R		45905
I N Oscilloscope 115	Line Current N Sample #115	float	R		45907
I N Oscilloscope 116	Line Current N Sample #116	float	R		45909
I N Oscilloscope 117	Line Current N Sample #117	float	R		45911
I N Oscilloscope 118	Line Current N Sample #118	float	R		45913
I N Oscilloscope 119	Line Current N Sample #119	float	R		45915
I N Oscilloscope 120	Line Current N Sample #120	float	R		45917
I N Oscilloscope 121	Line Current N Sample #121	float	R		45919
I N Oscilloscope 122	Line Current N Sample #122	float	R		45921
I N Oscilloscope 123	Line Current N Sample #123	float	R		45923
I N Oscilloscope 124	Line Current N Sample #124	float	R		45925
I N Oscilloscope 125	Line Current N Sample #125	float	R		45927
I N Oscilloscope 126	Line Current N Sample #126	float	R		45929
I N Oscilloscope 127	Line Current N Sample #127	float	R		45931
Efficiency	Gives the efficiency, if enabled by the Configuration flag register	float	R		45931