



MODBUS REGISTER MAP

EMT430 · EMT431 · EMT432

Three-phase power analyzers · 4 DIN modules

English · Revision 0



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1 INTRODUCTION

This document lists the Modbus registers of the EMT430, EMT431, EMT432 analyzers, accessible via Modbus RTU on the RS485 port and via Modbus TCP on Ethernet and Wi-Fi. The map is common to all models of the family and is generated from the reference sheet also used to generate the firmware.

1.1 BASE and FULL versions

The Ver. column shows the registers available in all versions (All) and those of the FULL version only (harmonic analysis, power quality, waveforms, logging and MQTT).

1.2 Register series

Series of values of the same type (for example the 64 harmonic amplitudes of a phase or the 128 samples of a waveform) are given in a single row, with the first and last register of the series: element n is located at the start register plus n times the number of registers of the type.

1.3 Read and write roles

The Read and Write columns show the minimum access level required via Modbus: ALWAYS = always, NEVER = never, WITH PASS = only after unlocking with the indicated password.

2 DATA TYPES

Registers are given with the classic Modbus holding register numbering (40001 onwards). In the Modbus request the address to be sent is the register number minus 40001 (for example register 40001 corresponds to address 0).

Data types		
Type	Registers	Values
char	1	-128 ... 255
signed short	1	-32768 ... 32767
unsigned short	1	0 ... 65535
signed long	2	-2147483648 ... 2147483647
unsigned long	2	0 ... 4294967295
float	2	-3.4028235e+38 ... 3.4028235e+38
signed long long	4	-9.223372e+18 ... 9.223372e+18
unsigned long long	4	0 ... 1.8446744e+19
double	4	-1.7976931348623157e+308 ... 1.7976931348623157e+308

3 REGISTER MAP

3.1 Device information

Device information								
Register	Type	Name	Description	Default	Read	Write	Min – Max	Ver.
40001 – 40008	char × 8	machine_id_1 ... machine_id_8	Machine ID, set by Chronos. 1 char per register ... Machine ID, set by Chronos. 1 char per register		ALWAYS	WITH PASS C	0 – 255	All
40009	unsigned short	hw_version	Hardware version, set by Chronos.	1	ALWAYS	WITH PASS C	0 – 65535	All
40010	unsigned short	fw_version	Firmware version, set by Chronos.	1	ALWAYS	WITH PASS C	0 – 65535	All
40011	unsigned short	mounted_version	0 -> 5A 1 -> Rogowski, 333 mV	0	ALWAYS	WITH PASS C	0 – 1	All
40012	unsigned short	year_month	calibration year and month	2510	ALWAYS	WITH PASS C	0 – 65535	All
40013	unsigned short	day_Hour	calibration day and hour	610	ALWAYS	WITH PASS C	0 – 65535	All
40014	unsigned short	minute_second	calibration minute and second	835	ALWAYS	WITH PASS C	0 – 65535	All
40015	unsigned short	feature_version	0 -> Base version 1 -> Full version	0	NEVER	WITH PASS C	0 – 65535	All
40016	unsigned short	Mac_address_Wifi_ST A_1	Mac address Wifi Station MSB	11	ALWAYS	WITH PASS C	0 – 65535	All
40017	unsigned short	Mac_address_Wifi_ST A_2	Mac address Wifi Station	22	ALWAYS	WITH PASS C	0 – 65535	All
40018	unsigned short	Mac_address_Wifi_ST A_3	Mac address Wifi Station	33	ALWAYS	WITH PASS C	0 – 65535	All
40019	unsigned short	Mac_address_Wifi_ST A_4	Mac address Wifi Station	44	ALWAYS	WITH PASS C	0 – 65535	All
40020	unsigned short	Mac_address_Wifi_ST A_5	Mac address Wifi Station	55	ALWAYS	WITH PASS C	0 – 65535	All
40021	unsigned short	Mac_address_Wifi_ST A_6	Mac address Wifi Station LSB	66	ALWAYS	WITH PASS C	0 – 65535	All
40022	unsigned short	Mac_address_Wifi_S OFT_AP_1	Mac address Wifi software enabled access point MSB	11	ALWAYS	WITH PASS C	0 – 65535	All
40023	unsigned short	Mac_address_Wifi_S OFT_AP_2	Mac address Wifi software enabled access point	22	ALWAYS	WITH PASS C	0 – 65535	All
40024	unsigned short	Mac_address_Wifi_S OFT_AP_3	Mac address Wifi software enabled access point	33	ALWAYS	WITH PASS C	0 – 65535	All
40025	unsigned short	Mac_address_Wifi_S OFT_AP_4	Mac address Wifi software enabled access point	44	ALWAYS	WITH PASS C	0 – 65535	All
40026	unsigned short	Mac_address_Wifi_S OFT_AP_5	Mac address Wifi software enabled access point	55	ALWAYS	WITH PASS C	0 – 65535	All
40027	unsigned short	Mac_address_Wifi_S OFT_AP_6	Mac address Wifi software enabled access point LSB	66	ALWAYS	WITH PASS C	0 – 65535	All
40028	unsigned short	Mac_address_Ethern et_1	Mac address Ethernet MSB	31	ALWAYS	WITH PASS C	0 – 65535	All

40029	unsigned short	Mac_address_Ethernet_2	Mac address Ethernet	32	ALWAYS	WITH PASS C	0 – 65535	All
40030	unsigned short	Mac_address_Ethernet_3	Mac address Ethernet	33	ALWAYS	WITH PASS C	0 – 65535	All
40031	unsigned short	Mac_address_Ethernet_4	Mac address Ethernet	34	ALWAYS	WITH PASS C	0 – 65535	All
40032	unsigned short	Mac_address_Ethernet_5	Mac address Ethernet	35	ALWAYS	WITH PASS C	0 – 65535	All
40033	unsigned short	Mac_address_Ethernet_6	Mac address Ethernet LSB	36	ALWAYS	WITH PASS C	0 – 65535	All
40034	unsigned short	Mac_address_Bluetooth_1	Mac address Bluetooth MSB	96	ALWAYS	WITH PASS C	0 – 65535	All
40035	unsigned short	Mac_address_Bluetooth_2	Mac address Bluetooth	95	ALWAYS	WITH PASS C	0 – 65535	All
40036	unsigned short	Mac_address_Bluetooth_3	Mac address Bluetooth	94	ALWAYS	WITH PASS C	0 – 65535	All
40037	unsigned short	Mac_address_Bluetooth_4	Mac address Bluetooth	93	ALWAYS	WITH PASS C	0 – 65535	All
40038	unsigned short	Mac_address_Bluetooth_5	Mac address Bluetooth	92	ALWAYS	WITH PASS C	0 – 65535	All
40039	unsigned short	Mac_address_Bluetooth_6	Mac address Bluetooth LSB	91	ALWAYS	WITH PASS C	0 – 65535	All

3.2 Settings

Settings								
Register	Type	Name	Description	Default	Read	Write	Min – Max	Ver.
40227	unsigned short	modbus_RTU_addresses	Modbus address	1	ALWAYS	ALWAYS	0 – 65535	All
40228	unsigned short	modbus_RTU_delay	Delay Modbus answer (in ms)	0	ALWAYS	ALWAYS	0 – 65535	All
40229	unsigned short	modbus_RTU_baudrate	Baudrate 0 → 1200 1 → 2400 2 → 4800 3 → 9600 4 → 19200 5 → 38400 6 → 57600 7 → 115200	3	ALWAYS	ALWAYS	0 – 65535	All
40230	unsigned short	modbus_RTU_parity	0 → NONE 1 → EVEN 2 → ODD	0	ALWAYS	ALWAYS	0 – 65535	All
40231	unsigned short	modbus_RTU_Stop_bit	0 → 1 Bit 1 → 1,5 Bit 2 → 2 Bit	0	ALWAYS	ALWAYS	0 – 65535	All

40232	unsigned short	Measurement_Configuration_Register	Bit 0: Don't care Bit 1..2: Connection 0 → Single phase 1 → Three phase: 3 wires, 2 TA (Aron) 2 → Three phase: 3 wires, 3 TA 3 → Three phase: 4 wires, 3 TA (with neutral) Bit 3: FFT representation 0 → Absolute 1 → Relative to the I ₁ value Bit 4: HPF filter 0 → Enabled 1 → Disabled Bit 5: Reactive power calculation method 0 → Triangle method 1 → Budeanu Bit 6: Digital output behaviour 0 → Alarm 1 → Pulsed output for KWh Bit 7: Frequency detection Channel 0 → Voltage 1 → Current Bit 9: Energy saving 0 → Disabled 1 → Enabled Bit 10..11: Output switch condition 0 → Normally Opened condition 1 → Normally Closed condition 2 → Within Threshold 3 → Outside Threshold Bit 13: Integrator condition 0 → Integrator disabled 1 → Integrator enabled (Rogowski input) Bit 15: Filtered measurement 0 → Filtering disabled 1 → Filtering enabled	518	ALWAYS	ALWAYS	0 – 65535	All
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40233	unsigned short	Machine_Configuration_Register	Bit 0: Not Used 0 → Disabled 1 → Enabled Bit 1: Buzzer in touch pad 0 → Disabled 1 → Enabled Bit 2: Buzzer during alarm condition 0 → Disabled 1 → Enabled Bit 3: Wifi STA 0 → Disabled 1 → Enabled Bit 4: Wifi AP 0 → Disabled 1 → Enabled Bit 5: MQTT 0 → Disabled 1 → Enabled	59	ALWAYS	ALWAYS	0 – 65535	All
40234	unsigned short	TA_Chronos_register	0 → Let user choose what Ratio and delay to choose 1 → Assigned to Chronos 100/5 2 → Assigned to ...	0	ALWAYS	ALWAYS	0 – 65535	FULL
40235	float	TA_Transducer_ratio	If Input 1A/5A, 20mA/100 mA → Current transformer ratio M/N - Default 1.0 (Ex: 600:5 → transducer_ratio = 120) If Input Rogowski → Sensitivity [V/A]	1	ALWAYS	ALWAYS	- 3.40282 35e+38 – 3.40282 35e+38	All
40237	float	TA_Transducer_delay	Current transformer delay in [°] @ 50 Hz for accurate power calculation	0	ALWAYS	ALWAYS	- 3.40282 35e+38 – 3.40282 35e+38	All
40239	float	TV_Transducer_ratio	Voltage transformer ratio M/N - Default 1.0 (Ex: 1000:100 → transducer_ratio = 10)	1	ALWAYS	ALWAYS	- 3.40282 35e+38 – 3.40282 35e+38	All
40241	float	TV_Transducer_delay	Voltage transformer delay in [°] @ 50 Hz for accurate power calculation	0	ALWAYS	ALWAYS	- 3.40282 35e+38 – 3.40282 35e+38	All
40243	float	minimum_voltage_ripple	Minimum threshold under which the instrument reads 0 independent from the input value	0	ALWAYS	ALWAYS	- 3.40282 35e+38 – 3.40282 35e+38	All
40245	float	minimum_current_ripple	Minimum threshold under which the instrument reads 0 independent from the input value	0	ALWAYS	ALWAYS	- 3.40282 35e+38 – 3.40282 35e+38	All

40247	float	minimum_power_ripple	Minimum threshold under which the instrument reads 0 independent from the input value (P, Q, and S)	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40249	unsigned short	DC_Filter	Update rate when no Zero crossing is detected [tenth of second]; lower => faster; higher => more accurate	10	ALWAYS	ALWAYS	0 – 65535	All
40250	unsigned short	AC_Filter	Update rate when Zero crossing is detected [number of periods]; lower => faster; higher => more accurate	50	ALWAYS	ALWAYS	0 – 65535	All
40251	unsigned short	minute_for_Max_and_AVG_demand	Minute for Max demand and Average power calculation (0..45)	15	ALWAYS	ALWAYS	0 – 45	All
40253	unsigned short	seconds_for_mean_RMS	Register in seconds (0..60) for RMS average	15	ALWAYS	ALWAYS	0 – 60	All
40254	unsigned short	seconds_for_MAX_RMS	Seconds 1..60 for MAX RMS value. If the register is 0, then the absolute MAX RMS is given	15	ALWAYS	ALWAYS	0 – 60	All
40255	unsigned short	seconds_for_min_RMS	Seconds 1..60 for min RMS value. If the register is 0, then the absolute min RMS is given	15	ALWAYS	ALWAYS	0 – 60	All
40256	unsigned short	Energy_unit_factor	Variable for changing Energy measurement unit: 0 -> [Wh/10] 1 -> [Wh] .. 4 -> [KWh] 7 -> [MWh] 10 -> [GWh]	4	ALWAYS	ALWAYS	0 – 65535	All
40259	float	Voltage_unbalance_setpoint	Setpoint for Voltage Unbalance Alarm	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	FULL
40271	unsigned short	Alarm_Register_start_address	DIGITAL OUTPUT 1: Modbus address address for alarm (starting from the modbus address of V_L1_N, V_L2_N, V_L3_N, ecc)	40000	ALWAYS	ALWAYS	0 – 65535	All
40272	unsigned short	Alarm_delay	DIGITAL OUTPUT 1: Delay in ms for Alarm trigger	0	ALWAYS	ALWAYS	0 – 65535	All
40273	float	Alarm_trip_value	DIGITAL OUTPUT 1: Alarm Threshold for "closed" and "open" condition OR first alarm Threshold for "within threshold" and "Outside threshold" condition	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All

40275	float	Alarm_hysteresis	DIGITAL OUTPUT 1: Alarm Hysteresis	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40277	float	Alarm_trip_value_2	DIGITAL OUTPUT 1: Second alarm Threshold for "within threshold" and "Outside threshold" condition	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40281	float	Nominal_Star_Voltage	Nominal Star Voltage for Sag, Swell, Interruption monitoring [V]	230	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40283	float	Sag_percentage_level	Percentage over Nominal_Star_Voltage under which a Sag event is generated (default 0.9 = 90 %); must be over Interruption_percentage_level	0.8	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40285	float	Swell_percentage_level	Percentage over Nominal_Star_Voltage over which a Swell event is generated (default 1.1 = 110 %)	1.2	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40287	float	Interruption_percentage_level	Percentage over Nominal_Star_Voltage under which an Interruption event is generated (default 0.1 = 10 %)	0.1	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40291	unsigned short	Minimum_duration_cutoff	Sag, Swell or Interruption events must be above this cutoff to be displayed and saved [ms]	0	ALWAYS	ALWAYS	0 – 65535	All
40292	unsigned short	Modbus_TCP_port	Porta server modbus TCP	502	ALWAYS	ALWAYS	0 – 65535	All
40293 – 40324	char × 32	Wifi_STA_SSID_target_0 ... Wifi_STA_SSID_target_31	WI-FI STA Access point SSID 0 ... WI-FI STA Access point SSID 31		ALWAYS	ALWAYS	-128 – 255	All
40325 – 40356	char × 32	Wifi_STA_PASSWORD_target_0 ... Wifi_STA_PASSWORD_target_31	WI-FI STA Access point Password 0 ... WI-FI STA Access point Password 31		NEVER	ALWAYS	-128 – 255	All
40357 – 40388	char × 32	Wifi_STA_HOSTNAME_0 ... Wifi_STA_HOSTNAME_31	WI-FI STA HOSTNAME set 0 ... WI-FI STA HOSTNAME set 31		ALWAYS	ALWAYS	-128 – 255	All

40389	unsigned short	Wifi_STA_IP_0	WI-FI STA IP static (DHCP off) 0	192	ALWAYS	ALWAYS	0 – 65535	All
40390	unsigned short	Wifi_STA_IP_1	WI-FI STA IP static (DHCP off) 1	168	ALWAYS	ALWAYS	0 – 65535	All
40391	unsigned short	Wifi_STA_IP_2	WI-FI STA IP static (DHCP off) 2	178	ALWAYS	ALWAYS	0 – 65535	All
40392	unsigned short	Wifi_STA_IP_3	WI-FI STA IP static (DHCP off) 3	200	ALWAYS	ALWAYS	0 – 65535	All
40393	unsigned short	Wifi_STA_Netmask_0	WI-FI STA NETMASK static (DHCP off) 0	255	ALWAYS	ALWAYS	0 – 65535	All
40394	unsigned short	Wifi_STA_Netmask_1	WI-FI STA NETMASK static (DHCP off) 1	255	ALWAYS	ALWAYS	0 – 65535	All
40395	unsigned short	Wifi_STA_Netmask_2	WI-FI STA NETMASK static (DHCP off) 2	255	ALWAYS	ALWAYS	0 – 65535	All
40396	unsigned short	Wifi_STA_Netmask_3	WI-FI STA NETMASK static (DHCP off) 3	0	ALWAYS	ALWAYS	0 – 65535	All
40397	unsigned short	Wifi_STA_Gateway_0	WI-FI STA GATEWAY static (DHCP off) 0	192	ALWAYS	ALWAYS	0 – 65535	All
40398	unsigned short	Wifi_STA_Gateway_1	WI-FI STA GATEWAY static (DHCP off) 1	168	ALWAYS	ALWAYS	0 – 65535	All
40399	unsigned short	Wifi_STA_Gateway_2	WI-FI STA GATEWAY static (DHCP off) 2	178	ALWAYS	ALWAYS	0 – 65535	All
40400	unsigned short	Wifi_STA_Gateway_3	WI-FI STA GATEWAY static (DHCP off) 3	200	ALWAYS	ALWAYS	0 – 65535	All
40401	unsigned short	Wifi_STA_IP_assigned_by_dhcp_0	WI-FI STA IP SET (DHCP on) 0	0	ALWAYS	ALWAYS	0 – 65535	All
40402	unsigned short	Wifi_STA_IP_assigned_by_dhcp_1	WI-FI STA IP SET (DHCP on) 1	0	ALWAYS	ALWAYS	0 – 65535	All
40403	unsigned short	Wifi_STA_IP_assigned_by_dhcp_2	WI-FI STA IP SET (DHCP on) 2	0	ALWAYS	ALWAYS	0 – 65535	All
40404	unsigned short	Wifi_STA_IP_assigned_by_dhcp_3	WI-FI STA IP SET (DHCP on) 3	0	ALWAYS	ALWAYS	0 – 65535	All
40405	unsigned short	Wifi_STA_Netmask_assigned_by_dhcp_0	WI-FI STA NETMASK SET (DHCP on) 0	0	ALWAYS	ALWAYS	0 – 65535	All
40406	unsigned short	Wifi_STA_Netmask_assigned_by_dhcp_1	WI-FI STA NETMASK SET (DHCP on) 1	0	ALWAYS	ALWAYS	0 – 65535	All
40407	unsigned short	Wifi_STA_Netmask_assigned_by_dhcp_2	WI-FI STA NETMASK SET (DHCP on) 2	0	ALWAYS	ALWAYS	0 – 65535	All
40408	unsigned short	Wifi_STA_Netmask_assigned_by_dhcp_3	WI-FI STA NETMASK SET (DHCP on) 3	0	ALWAYS	ALWAYS	0 – 65535	All
40409	unsigned short	Wifi_STA_Gateway_assigned_by_dhcp_0	WI-FI STA GATEWAY SET (DHCP on) 0	0	ALWAYS	ALWAYS	0 – 65535	All
40410	unsigned short	Wifi_STA_Gateway_assigned_by_dhcp_1	WI-FI STA GATEWAY SET (DHCP on) 1	0	ALWAYS	ALWAYS	0 – 65535	All
40411	unsigned short	Wifi_STA_Gateway_assigned_by_dhcp_2	WI-FI STA GATEWAY SET (DHCP on) 2	0	ALWAYS	ALWAYS	0 – 65535	All
40412	unsigned short	Wifi_STA_Gateway_assigned_by_dhcp_3	WI-FI STA GATEWAY SET (DHCP on) 3	0	ALWAYS	ALWAYS	0 – 65535	All
40413 – 40444	char × 32	Wifi_AP_SSID_0 ... Wifi_AP_SSID_31	WI-FI AP SSID 0 ... WI-FI AP SSID 31		ALWAYS	ALWAYS	-128 – 255	All

40445 – 40476	char × 32	Wifi_AP_PASSWORD_0 ... Wifi_AP_PASSWORD_31	WI-FI AP PASSWORD 0 ... WI-FI AP PASSWORD 31		NEVER	ALWAYS	-128 – 255	All
40477 – 40508	char × 32	Wifi_AP_HOSTNAME_0 ... Wifi_AP_HOSTNAME_31	WI-FI AP HOSTNAME set 0 ... WI-FI AP HOSTNAME set 31		ALWAYS	ALWAYS	-128 – 255	All
40509	unsigned short	Wifi_AP_IP_0	WI-FI AP IP 0	192	ALWAYS	ALWAYS	0 – 65535	All
40510	unsigned short	Wifi_AP_IP_1	WI-FI AP IP 1	168	ALWAYS	ALWAYS	0 – 65535	All
40511	unsigned short	Wifi_AP_IP_2	WI-FI AP IP 2	4	ALWAYS	ALWAYS	0 – 65535	All
40512	unsigned short	Wifi_AP_IP_3	WI-FI AP IP 3	1	ALWAYS	ALWAYS	0 – 65535	All
40513	unsigned short	Wifi_AP_Netmask_0	WI-FI AP NETMASK 0	255	ALWAYS	ALWAYS	0 – 65535	All
40514	unsigned short	Wifi_AP_Netmask_1	WI-FI AP NETMASK 1	255	ALWAYS	ALWAYS	0 – 65535	All
40515	unsigned short	Wifi_AP_Netmask_2	WI-FI AP NETMASK 2	255	ALWAYS	ALWAYS	0 – 65535	All
40516	unsigned short	Wifi_AP_Netmask_3	WI-FI AP NETMASK 3	0	ALWAYS	ALWAYS	0 – 65535	All
40517	unsigned short	Wifi_AP_Gateway_0	WI-FI AP GATEWAY 0	192	ALWAYS	ALWAYS	0 – 65535	All
40518	unsigned short	Wifi_AP_Gateway_1	WI-FI AP GATEWAY 1	168	ALWAYS	ALWAYS	0 – 65535	All
40519	unsigned short	Wifi_AP_Gateway_2	WI-FI AP GATEWAY 2	4	ALWAYS	ALWAYS	0 – 65535	All
40520	unsigned short	Wifi_AP_Gateway_3	WI-FI AP GATEWAY 3	1	ALWAYS	ALWAYS	0 – 65535	All
40521 – 40552	char × 32	Ethernet_HOSTNAME_0 ... Ethernet_HOSTNAME_31	Ethernet_HOSTNAME_0 set 0 ... Ethernet_HOSTNAME_0 set 31		ALWAYS	ALWAYS	-128 – 255	All
40553	unsigned short	Ethernet_IP_0	ETHERNET IP static (DHCP off) 0	192	ALWAYS	ALWAYS	0 – 65535	All
40554	unsigned short	Ethernet_IP_1	ETHERNET IP static (DHCP off) 1	168	ALWAYS	ALWAYS	0 – 65535	All
40555	unsigned short	Ethernet_IP_2	ETHERNET IP static (DHCP off) 2	178	ALWAYS	ALWAYS	0 – 65535	All
40556	unsigned short	Ethernet_IP_3	ETHERNET IP static (DHCP off) 3	250	ALWAYS	ALWAYS	0 – 65535	All
40557	unsigned short	Ethernet_Netmask_0	ETHERNET NETMASK static (DHCP off) 0	255	ALWAYS	ALWAYS	0 – 65535	All
40558	unsigned short	Ethernet_Netmask_1	ETHERNET NETMASK static (DHCP off) 1	255	ALWAYS	ALWAYS	0 – 65535	All
40559	unsigned short	Ethernet_Netmask_2	ETHERNET NETMASK static (DHCP off) 2	255	ALWAYS	ALWAYS	0 – 65535	All
40560	unsigned short	Ethernet_Netmask_3	ETHERNET NETMASK static (DHCP off) 3	0	ALWAYS	ALWAYS	0 – 65535	All

40561	unsigned short	Ethernet_Gateway_0	ETHERNET GATEWAY static (DHCP off) 0	192	ALWAYS	ALWAYS	0 – 65535	All
40562	unsigned short	Ethernet_Gateway_1	ETHERNET GATEWAY static (DHCP off) 1	168	ALWAYS	ALWAYS	0 – 65535	All
40563	unsigned short	Ethernet_Gateway_2	ETHERNET GATEWAY static (DHCP off) 2	178	ALWAYS	ALWAYS	0 – 65535	All
40564	unsigned short	Ethernet_Gateway_3	ETHERNET GATEWAY static (DHCP off) 3	250	ALWAYS	ALWAYS	0 – 65535	All
40565	unsigned short	Ethernet_IP_assigned_by_dhcp_0	ETHERNET IP ASSIGNED (DHCP on) 0	0	ALWAYS	ALWAYS	0 – 65535	All
40566	unsigned short	Ethernet_IP_assigned_by_dhcp_1	ETHERNET IP ASSIGNED (DHCP on) 1	0	ALWAYS	ALWAYS	0 – 65535	All
40567	unsigned short	Ethernet_IP_assigned_by_dhcp_2	ETHERNET IP ASSIGNED (DHCP on) 2	0	ALWAYS	ALWAYS	0 – 65535	All
40568	unsigned short	Ethernet_IP_assigned_by_dhcp_3	ETHERNET IP ASSIGNED (DHCP on) 3	0	ALWAYS	ALWAYS	0 – 65535	All
40569	unsigned short	Ethernet_Netmask_assigned_by_dhcp_0	ETHERNET NETMASK ASSIGNED (DHCP on) 0	0	ALWAYS	ALWAYS	0 – 65535	All
40570	unsigned short	Ethernet_Netmask_assigned_by_dhcp_1	ETHERNET NETMASK ASSIGNED (DHCP on) 1	0	ALWAYS	ALWAYS	0 – 65535	All
40571	unsigned short	Ethernet_Netmask_assigned_by_dhcp_2	ETHERNET NETMASK ASSIGNED (DHCP on) 2	0	ALWAYS	ALWAYS	0 – 65535	All
40572	unsigned short	Ethernet_Netmask_assigned_by_dhcp_3	ETHERNET NETMASK ASSIGNED (DHCP on) 3	0	ALWAYS	ALWAYS	0 – 65535	All
40573	unsigned short	Ethernet_Gateway_assigned_by_dhcp_0	ETHERNET GATEWAY ASSIGNED (DHCP on) 0	0	ALWAYS	ALWAYS	0 – 65535	All
40574	unsigned short	Ethernet_Gateway_assigned_by_dhcp_1	ETHERNET GATEWAY ASSIGNED (DHCP on) 1	0	ALWAYS	ALWAYS	0 – 65535	All
40575	unsigned short	Ethernet_Gateway_assigned_by_dhcp_2	ETHERNET GATEWAY ASSIGNED (DHCP on) 2	0	ALWAYS	ALWAYS	0 – 65535	All
40576	unsigned short	Ethernet_Gateway_assigned_by_dhcp_3	ETHERNET GATEWAY ASSIGNED (DHCP on) 3	0	ALWAYS	ALWAYS	0 – 65535	All
40577	unsigned long	Communications_settings	Bit 0: Ethernet DHCP 0 → Disabled (static address from registers) 1 → Enabled (default) Bit 1: Wi-Fi STA DHCP 0 → Disabled (static address from registers) 1 → Enabled (default)	3	ALWAYS	ALWAYS	0 – 4294967295	All
40579	signed long	UTC_Time_zone_value	The value of this register sets the Time Zone out of a list of 461 elements. The entire list is in the documentation, the default value is 390 which is for 'Europe/Rome'	390	ALWAYS	ALWAYS	- 2147483648 – 2147483647	All
40631 – 40650	unsigned short × 20	logging_register_address_1 ... logging_register_address_20	Modbus Address to do logging in position 1 ... Modbus Address to do logging in position 20		ALWAYS	ALWAYS	40000 – 49653	FULL
40651	unsigned short	logging_period_s_flash	logging period in seconds for internal flash	5	ALWAYS	ALWAYS	5 – 65535	FULL

40652 – 40671	unsigned short × 20	mqtt_logging_register_address_1 ... mqtt_logging_register_address_20	Modbus Address used to log data with MQTT 1 ... Modbus Address used to log data with MQTT 20		ALWAYS	ALWAYS	40000 – 49653	FULL
40672	unsigned short	mqtt_logging_period_s	mqtt publish period	20	ALWAYS	ALWAYS	20 – 65535	FULL
40674 – 40689	char × 16	webserver_username_0 ... webserver_username_15	webserver authentication username char 0 ... webserver authentication username char 15		ALWAYS	ALWAYS	-128 – 255	All
40690 – 40705	char × 16	webserver_password_0 ... webserver_password_15	webserver authentication password char 0 ... webserver authentication password char 15		NEVER	ALWAYS	-128 – 255	All
40715	signed short	wifi_tx_power	Wifi Strength of our antenna in dBm	20	ALWAYS	ALWAYS	-32768 – 32767	All
40716	unsigned short	Pulses_per_kWh	Pulses per kWh impulsive digital output	1000	ALWAYS	ALWAYS	0 – 65535	All

3.3 Energies

Energies								
Register	Type	Name	Description	Default	Read	Write	Min – Max	Ver.
40721	signed long long	KWh1	Active energy line 1 [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40725	signed long long	KWh2	Active energy line 2 [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40729	signed long long	KWh3	Active energy line 3 [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40733	signed long long	KWh_SUM	Active energy three phase [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40737	signed long long	KWh1_Plus	Positive Active energy line 1 [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All

40741	signed long long	KWh2_Plus	Positive Active energy line 2 [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40745	signed long long	KWh3_Plus	Positive Active energy line 3 [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40749	signed long long	KWh_SUM_Plus	Positive Active energy three phase [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40753	signed long long	KWh1_Neg	Negative Active energy line 1 [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40757	signed long long	KWh2_Neg	Negative Active energy line 2 [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40761	signed long long	KWh3_Neg	Negative Active energy line 3 [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40765	signed long long	KWh_SUM_Neg	Negative Active energy three phase [Wh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40769	signed long long	KVARh1	Reactive energy line 1 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40773	signed long long	KVARh2	Reactive energy line 2 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40777	signed long long	KVARh3	Reactive energy line 3 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40781	signed long long	KVARh_SUM	Reactive energy three phase [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All

40785	signed long long	KVARh1_Inductive_positive	Inductive (positive P) Reactive energy line 1 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40789	signed long long	KVARh2_Inductive_positive	Inductive (positive P) Reactive energy line 2 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40793	signed long long	KVARh3_Inductive_positive	Inductive (positive P) Reactive energy line 3 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40797	signed long long	KVARh_SUM_Inductive_positive	Inductive (positive P) Reactive energy three phase [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40801	signed long long	KVARh1_Inductive_negative	Inductive (negative P) Reactive energy line 1 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40805	signed long long	KVARh2_Inductive_negative	Inductive (negative P) Reactive energy line 2 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40809	signed long long	KVARh3_Inductive_negative	Inductive (negative P) Reactive energy line 3 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40813	signed long long	KVARh_SUM_Inductive_negative	Inductive (negative P) Reactive energy three phase [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40817	signed long long	KVARh1_Capacitive_positive	Capacitive (positive P) Reactive energy line 1 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40821	signed long long	KVARh2_Capacitive_positive	Capacitive (positive P) Reactive energy line 2 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40825	signed long long	KVARh3_Capacitive_positive	Capacitive (positive P) Reactive energy line 3 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All

40829	signed long long	KVARh_SUM_Capacitive_positive	Capacitive (positive P) Reactive energy three phase [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40833	signed long long	KVARh1_Capacitive_negative	Capacitive (negative P) Reactive energy line 1 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40837	signed long long	KVARh2_Capacitive_negative	Capacitive (negative P) Reactive energy line 2 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40841	signed long long	KVARh3_Capacitive_negative	Capacitive (negative P) Reactive energy line 3 [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40845	signed long long	KVARh_SUM_Capacitive_negative	Capacitive (negative P) Reactive energy three phase [VARh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40849	signed long long	KVAh1	Apparent energy line 1 [VAh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40853	signed long long	KVAh2	Apparent energy line 2 [VAh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40857	signed long long	KVAh3	Apparent energy line 3 [VAh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40861	signed long long	KVAh_SUM	Apparent energy three phase [VAh tenth]	0	ALWAYS	ALWAYS	- 9.22337 2e+18 – 9.22337 2e+18	All
40865	signed long long	Wh_storage_count	Number of Wh flash savings (every 1 minute)	0	ALWAYS	NEVER	- 9.22337 2e+18 – 9.22337 2e+18	All
40869	unsigned long	Working_time	Working time of the device [mins]	0	ALWAYS	WITH PASS C	0 – 429496 7295	All

40891	unsigned long	Communication_status	Bit 0: Wifi Sta Connected 0 → Not Connected (default) 1 → Connected Bit 1: Ethernet Connected 0 → Not Connected (default) 1 → Connected Bit 2: Connected cloud service 0 → Not Connected (default) 1 → Connected Bit 3: SD Card Connected 0 → Not Connected (default) 1 → Connected Bit 4: USB Connected 0 → Not Connected (default) 1 → Connected Bit 5: SD Card Mounted 0 → Yes 1 → No Bit 6: USB Mounted 0 → Yes 1 → No	0	ALWAYS	NEVER	0 – 4294967295	All
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3.4 Real-time measurements

Real-time measurements								
Register	Type	Name	Description	Default	Read	Write	Min – Max	Ver.

40897	unsigned long	Status_1	<pre>//STATUS_1 bit #define FLASH_SETTINGS_ERROR 0x00000001 #define FLASH_CALIBRATION_ERRO R 0x00000002 #define I1_OVER_RANGE 0x00000004 #define I1_UNDER_RANGE 0x00000008 #define I2_OVER_RANGE 0x00000010 #define I2_UNDER_RANGE 0x00000020 #define I3_OVER_RANGE 0x00000040 #define I3_UNDER_RANGE 0x00000080 #define V1_OVER_RANGE 0x00000100 #define V1_UNDER_RANGE 0x00000200 #define V2_OVER_RANGE 0x00000400 #define V2_UNDER_RANGE 0x00000800 #define V3_OVER_RANGE 0x00001000 #define V3_UNDER_RANGE 0x00002000 #define ZX_DETECTING 0x00004000 #define SWITCH_OPEN 0x00008000 #define WH_STORING_ERROR 0x00010000 #define BUZZER_ON 0x00020000 #define RTC_CLOCK_NOT_UPDATE D 0x00040000 #define ALARM_TRIGGER_REQUEST 0x00080000 #define ZX_SIGNAL_ACQUIRED 0x00200000 #define LOW_IL1_MEASUREMENT 0x00400000 #define LOW_IL2_MEASUREMENT 0x00800000 #define LOW_IL3_MEASUREMENT 0x01000000 #define PF1_INDUCTIVE 0x10000000 #define PF2_INDUCTIVE 0x20000000 #define PF3_INDUCTIVE 0x40000000</pre>	0	ALWAYS	NEVER	0 – 429496 7295	All
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40899	unsigned long	Status_2	<pre>//STATUS_2 bit #define EVENT_MONITORING_READY_L1N 0x00000020 #define EVENT_MONITORING_READY_L2N 0x00000040 #define EVENT_MONITORING_READY_L3N 0x00000080 #define EVENT_PRESENT 0x00000800 #define FREQ_COPIED 0x00001000 #define NTP_SET 0x00002000 #define SWITCH_OPEN_L1 0x00008000 #define SWITCH_OPEN_L2 0x00010000 #define SWITCH_OPEN_L3 0x00020000 #define TOUCH_BOTTOM_PRESSED 0x00040000 #define ERROR_TEMP_SENSOR 0x00080000 #define ERROR_TOUCH_SENSOR 0x00100000 #define REQUEST_RESET_SETTINGS 0x00200000 #define RTC_WRITING_IN_PROGRESS 0x00400000 #define REQUEST_RSSI 0x00800000 #define MAX_DEMAND_STORING_ERROR 0x01000000 #define POWER_QUALITY_BLANKING 0x02000000 #define POWER_QUALITY_FLASH_ERROR 0x04000000 #define REQUEST_CHANGE_ENERGY_UNIT 0x08000000</pre>	0	ALWAYS	NEVER	0 – 4294967295	All
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40906	unsigned short	Command	<pre>//commands to be written to the COMMAND register #define COMANDO_SALVATAGGIO_ FLASH_TARATURE 0xC1B0U #define COMANDO_SALVATAGGIO_ FLASH_SOLO_SETTAGGI 0xF1C0U #define COMANDO_SALVATAGGIO_ FLASH_SETTAGGI_E_NFC 0xC1C0U #define COMANDO_RESET_SETTIN GS_DEFAULT 0XD1C0U #define COMANDO_LEGGI_DIP 0xD166U #define COMANDO_RESET 0xC1A0U #define COMANDO_SAVE_ENERGY 0xBABAU #define GET_ADC_MEDIA_VALUE 0xBABDU #define COMANDO_BOOTLOADER 0xB000U #define COMANDO_DISATTIVA_SS 0xC000U #define COMANDO_TARATURA_PW M 0xCACAU #define COMANDO_CLOSE_SWITCH 0xDAAAU #define COMANDO_OPEN_SWITCH 0xDAABU #define COMANDO_BUZZER_ON 0xDABAU #define COMANDO_BUZZER_OFF 0xDABBU #define COMANDO_LEGGI_EVENTI _SAG 0xE000U #define COMANDO_LEGGI_EVENTI _SWELL 0xE100U #define COMANDO_LEGGI_EVENTI _INTERRUPTION 0xE200U #define COMANDO_RESET_EVENTI _SAG 0xE300U #define COMANDO_RESET_EVENTI _SWELL 0xE400U #define COMANDO_RESET_EVENTI _INTERRUPTION 0xE500U #define COMANDO_RESET_MAX_D EMAND 0xF000U #define</pre>	0	ALWAYS	ALWAYS	0 – 65535	All
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40907	float	V_L1_N	RMS star voltage L1-N [V]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40909	float	V_L2_N	RMS star voltage L2-N [V]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40911	float	V_L3_N	RMS star voltage L3-N [V]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40913	float	V_STAR_AVG	RMS star avg value voltage [V]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40915	float	V_L1_L2	RMS line voltage L1-L2 [V]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40917	float	V_L2_L3	RMS line voltage L2-L3 [V]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40919	float	V_L3_L1	RMS line voltage L3-L1 [V]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40921	float	V_LINE_AVG	RMS line avg value voltage [V]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40923	float	I_L1	RMS line current L1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40925	float	I_L2	RMS line current L2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

40927	float	I_L3	RMS line current L3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40929	float	I_N	RMS line current N (if 1 or 2 TA connection, I_N = 0)	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40931	float	I_AVG	RMS avg value current (excluding neutral current I_N)	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40933	float	P1	RMS active power line 1 [W]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40935	float	P2	RMS active power line 2 [W]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40937	float	P3	RMS active power line 3 [W]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40939	float	P_SUM	RMS sum active power [W]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40941	float	Q1	RMS reactive power line 1 [VAR]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40943	float	Q2	RMS reactive power line 2 [VAR]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40945	float	Q3	RMS reactive power line 3 [VAR]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

40947	float	Q_SUM	RMS sum reactive power [VAR]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40949	float	S1	RMS apparent power line 1 [VAR]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40951	float	S2	RMS apparent power line 2 [VAR]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40953	float	S3	RMS apparent power line 3 [VAR]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40955	float	S_SUM	RMS sum apparent power [VAR]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40957	float	PF1	Power Factor line 1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40959	float	PF2	Power Factor line 2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40961	float	PF3	Power Factor line 3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40963	float	PF_3PH	Three Phase Power Factor	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40965	float	CF1	Crest Factor line 1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

40967	float	CF2	Crest Factor line 2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40969	float	CF3	Crest Factor line 3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40971	float	CF_N	Crest Factor Neutral	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40973	float	Frequency	Frequency [Hz]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
40975	float	V_L1_N_peak	Star voltage L1-N peak [V]	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40977	float	V_L2_N_peak	Star voltage L2-N peak [V]	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40979	float	V_L3_N_peak	Star voltage L3-N peak [V]	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40981	float	V_L1_L2_peak	Line voltage L1-L2 peak [V]	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40983	float	V_L2_L3_peak	Line voltage L2-L3 peak [V]	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40985	float	V_L3_L1_peak	Line voltage L3-L1 peak [V]	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All

40987	float	I_L1_peak	L1 current peak	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40989	float	I_L2_peak	L2 current peak	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40991	float	I_L3_peak	L3 current peak	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
40993	float	I_N_peak	N current peak	0	ALWAYS	ALWAYS	- 3.40282 35e+38 - 3.40282 35e+38	All
41057	float	TAN_FI_1	Tangentθline 1 (+ inductive, - capacitive)	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41059	float	TAN_FI_2	Tangentθline 2 (+ inductive, - capacitive)	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41061	float	TAN_FI_3	Tangentθline 3 (+ inductive, - capacitive)	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41063	float	TAN_FI_AVG	Average Tangentθ(+ inductive, - capacitive)	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41065	float	Phase_Order	L1, L2, L3 = 0; L1, L3, L2 = 1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41067	float	Internal_temperature	Internal Temperature [°C]	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

3.5 Average, maximum and minimum values

Average, maximum and minimum values								
Register	Type	Name	Description	Default	Read	Write	Min – Max	Ver.
41069	float	V_L1_N_RMS_AVG	Star voltage L1_N RMS average [V] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	All
41071	float	V_L1_N_RMS_MAX	Star voltage L1_N MAX RMS [V] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	All
41073	float	V_L1_N_RMS_min	Star voltage L1_N Min RMS [V] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	All
41075	float	V_L2_N_RMS_AVG	Star voltage L2_N RMS average [V] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	All
41077	float	V_L2_N_RMS_MAX	Star voltage L2_N MAX RMS [V] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	All
41079	float	V_L2_N_RMS_min	Star voltage L2_N Min RMS [V] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	All
41081	float	V_L3_N_RMS_AVG	Star voltage L3_N RMS average [V] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	All
41083	float	V_L3_N_RMS_MAX	Star voltage L3_N MAX RMS [V] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	All

41085	float	V_L3_N_RMS_min	Star voltage L3_N Min RMS [V] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41087	float	V_STAR_AVG_RMS_AVG	Star voltage AVG RMS average [V] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41089	float	V_STAR_AVG_RMS_MAX	Star voltage AVG MAX RMS [V] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41091	float	V_STAR_AVG_RMS_min	Star voltage AVG Min RMS [V] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41093	float	V_L1_L2_RMS_AVG	Line voltage L1-Line voltage L2-Line voltage L3-L1 RMS average [V] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41095	float	V_L1_L2_RMS_MAX	Line voltage L1-Line voltage L2-Line voltage L3-L1 MAX RMS [V] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41097	float	V_L1_L2_RMS_min	Line voltage L1-Line voltage L2-Line voltage L3-L1 Min RMS [V] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41099	float	V_L2_L3_RMS_AVG	Line voltage L2-Line voltage L3-L1 RMS average [V] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41101	float	V_L2_L3_RMS_MAX	Line voltage L2-Line voltage L3-L1 MAX RMS [V] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41103	float	V_L2_L3_RMS_min	Line voltage L2-Line voltage L3-L1 Min RMS [V] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41105	float	V_L3_L1_RMS_AVG	Line voltage L3-L1 RMS average [V] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41107	float	V_L3_L1_RMS_MAX	Line voltage L3-L1 MAX RMS [V] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41109	float	V_L3_L1_RMS_min	Line voltage L3-L1 Min RMS [V] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41111	float	V_LINE_AVG_RMS_AVG	Line voltage AVG RMS average [V] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41113	float	V_LINE_AVG_RMS_MAX	Line voltage AVG MAX RMS [V] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41115	float	V_LINE_AVG_RMS_min	Line voltage AVG Min RMS [V] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41117	float	I_L1_RMS_AVG	L1 RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41119	float	I_L1_RMS_MAX	L1 MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41121	float	I_L1_RMS_min	L1 Min RMS over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41123	float	I_L2_RMS_AVG	L2 RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41125	float	I_L2_RMS_MAX	L2 MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41127	float	I_L2_RMS_min	L2 Min RMS over last"seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41129	float	I_L3_RMS_AVG	L3 RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41131	float	I_L3_RMS_MAX	L3 MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41133	float	I_L3_RMS_min	L3 Min RMS over last"seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41135	float	I_N_RMS_AVG	N RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41137	float	I_N_RMS_MAX	N MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41139	float	I_N_RMS_min	N Min RMS over last"seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41141	float	I_AVG_RMS_AVG	I_AVG RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41143	float	I_AVG_RMS_MAX	I_AVG MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41145	float	I_AVG_RMS_min	I_AVG Min RMS over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41147	float	P1_RMS_AVG	P1 RMS average [W] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41149	float	P1_RMS_MAX	P1 MAX RMS [W] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41151	float	P1_RMS_min	P1 Min RMS [W] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41153	float	P2_RMS_AVG	P2 RMS average [W] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41155	float	P2_RMS_MAX	P2 MAX RMS [W] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41157	float	P2_RMS_min	P2 Min RMS [W] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41159	float	P3_RMS_AVG	P3 RMS average [W] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41161	float	P3_RMS_MAX	P3 MAX RMS [W] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41163	float	P3_RMS_min	P3 Min RMS [W] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41165	float	P_SUM_RMS_AVG	P_SUM RMS average [W] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41167	float	P_SUM_RMS_MAX	P_SUM MAX RMS [W] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41169	float	P_SUM_RMS_min	P_SUM Min RMS [W] over last "seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41171	float	Q1_RMS_AVG	Q1 RMS average [VAR] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41173	float	Q1_RMS_MAX	Q1 MAX RMS [VAR] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41175	float	Q1_RMS_min	Q1 Min RMS [VAR] over last "seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41177	float	Q2_RMS_AVG	Q2 RMS average [VAR] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41179	float	Q2_RMS_MAX	Q2 MAX RMS [VAR] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41181	float	Q2_RMS_min	Q2 Min RMS [VAR] over last "seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41183	float	Q3_RMS_AVG	Q3 RMS average [VAR] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41185	float	Q3_RMS_MAX	Q3 MAX RMS [VAR] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41187	float	Q3_RMS_min	Q3 Min RMS [VAR] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41189	float	Q_SUM_RMS_AVG	Q_SUM RMS average [VAR] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41191	float	Q_SUM_RMS_MAX	Q_SUM MAX RMS [VAR] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41193	float	Q_SUM_RMS_min	Q_SUM Min RMS [VAR] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41195	float	S1_RMS_AVG	S1 RMS average [VA] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41197	float	S1_RMS_MAX	S1 MAX RMS [VA] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41199	float	S1_RMS_min	S1 Min RMS [VA] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41201	float	S2_RMS_AVG	S2 RMS average [VA] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41203	float	S2_RMS_MAX	S2 MAX RMS [VA] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41205	float	S2_RMS_min	S2 Min RMS [VA] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41207	float	S3_RMS_AVG	S3 RMS average [VA] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41209	float	S3_RMS_MAX	S3 MAX RMS [VA] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41211	float	S3_RMS_min	S3 Min RMS [VA] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41213	float	S_SUM_RMS_AVG	S_SUM RMS average [VA] over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41215	float	S_SUM_RMS_MAX	S_SUM MAX RMS [VA] over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41217	float	S_SUM_RMS_min	S_SUM Min RMS [VA] over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41219	float	PF1_RMS_AVG	PF1 RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41221	float	PF1_RMS_MAX	PF1 MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41223	float	PF1_RMS_min	PF1 Min RMS over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41225	float	PF2_RMS_AVG	PF2 RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41227	float	PF2_RMS_MAX	PF2 MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41229	float	PF2_RMS_min	PF2 Min RMS over last "seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41231	float	PF3_RMS_AVG	PF3 RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41233	float	PF3_RMS_MAX	PF3 MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41235	float	PF3_RMS_min	PF3 Min RMS over last "seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41237	float	PF_SUM_RMS_AVG	PF_SUM RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41239	float	PF_SUM_RMS_MAX	PF_SUM MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41241	float	PF_SUM_RMS_min	PF_SUM Min RMS over last "seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41243	float	CF1_RMS_AVG	CF1 RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41245	float	CF1_RMS_MAX	CF1 MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41247	float	CF1_RMS_min	CF1 Min RMS over last"seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41249	float	CF2_RMS_AVG	CF2 RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41251	float	CF2_RMS_MAX	CF2 MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41253	float	CF2_RMS_min	CF2 Min RMS over last"seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41255	float	CF3_RMS_AVG	CF3 RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41257	float	CF3_RMS_MAX	CF3 MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41259	float	CF3_RMS_min	CF3 Min RMS over last"seconds_for_min_RMS "	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41261	float	CF_N_RMS_AVG	CF_N RMS average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41263	float	CF_N_RMS_MAX	CF_N MAX RMS over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41265	float	CF_N_RMS_min	CF_N Min RMS over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41267	float	Frequency_RMS_AVG	Frequency average over "seconds_for_mean_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41269	float	Frequency_RMS_MAX	Frequency MAX over last "seconds_for_MAX_RMS"	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41271	float	Frequency_RMS_min	Frequency Min over last "seconds_for_min_RMS"	100000	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41281	float	P1_Tot_AVG	Average total Power over "minute_for_Max_and_AVG_demand" for P1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41283	float	P2_Tot_AVG	Average total Power over "minute_for_Max_and_AVG_demand" for P2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41285	float	P3_Tot_AVG	Average total Power over "minute_for_Max_and_AVG_demand" for P3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41287	float	P_SUM_Tot_AVG	Average total Power over "minute_for_Max_and_AVG_demand" for P three phase	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41289	float	P1_Plus_AVG	Average positive Power over "minute_for_Max_and_AVG_demand" for P1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41291	float	P2_Plus_AVG	Average positive Power over "minute_for_Max_and_AVG_demand" for P2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41293	float	P3_Plus_AVG	Average positive Power over "minute_for_Max_and_AV G_demand" for P3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41295	float	P_SUM_Plus_AVG	Average positive Power over "minute_for_Max_and_AV G_demand" for P three phase	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41297	float	P1_Neg_AVG	Average Negative Power over "minute_for_Max_and_AV G_demand" for P1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41299	float	P2_Neg_AVG	Average Negative Power over "minute_for_Max_and_AV G_demand" for P2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41301	float	P3_Neg_AVG	Average Negative Power over "minute_for_Max_and_AV G_demand" for P3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41303	float	P_SUM_Neg_AVG	Average Negative Power over "minute_for_Max_and_AV G_demand" for P three phase	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41305	float	Q1_Plus_AVG_ind	Average Reactive Inductive Power with positive active power over "minute_for_Max_and_AV G_demand" for Q1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41307	float	Q2_Plus_AVG_ind	Average Reactive Inductive Power with positive active power over "minute_for_Max_and_AV G_demand" for Q2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41309	float	Q3_Plus_AVG_ind	Average Reactive Inductive Power with positive active power over "minute_for_Max_and_AV G_demand" for Q3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41311	float	Q_SUM_Plus_AVG_ind	Average Reactive Inductive Power with positive active power over "minute_for_Max_and_AV G_demand" for Q three phase	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41313	float	Q1_Neg_AVG_ind	Average Reactive Inductive Power with negative active power over "minute_for_Max_and_AVG_demand" for Q1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41315	float	Q2_Neg_AVG_ind	Average Reactive Inductive Power with negative active power over "minute_for_Max_and_AVG_demand" for Q2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41317	float	Q3_Neg_AVG_ind	Average Reactive Inductive Power with negative active power over "minute_for_Max_and_AVG_demand" for Q3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41319	float	Q_SUM_Neg_AVG_ind	Average Reactive Inductive Power with negative active power over "minute_for_Max_and_AVG_demand" for Q three phase	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41321	float	Q1_Plus_AVG_cap	Average Reactive Capacitive Power with positive active power over "minute_for_Max_and_AVG_demand" for Q1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41323	float	Q2_Plus_AVG_cap	Average Reactive Capacitive Power with positive active power over "minute_for_Max_and_AVG_demand" for Q2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41325	float	Q3_Plus_AVG_cap	Average Reactive Capacitive Power with positive active power over "minute_for_Max_and_AVG_demand" for Q3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41327	float	Q_SUM_Plus_AVG_cap	Average Reactive Capacitive Power with positive active power over "minute_for_Max_and_AVG_demand" for Q three phase	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41329	float	Q1_Neg_AVG_cap	Average Reactive Capacitive Power with negative active power over "minute_for_Max_and_AVG_demand" for Q1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41331	float	Q2_Neg_AVG_cap	Average Reactive Capacitive Power with negative active power over "minute_for_Max_and_AVG_demand" for Q2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All

41333	float	Q3_Neg_AVG_cap	Average Reactive Capacitive Power with negative active power over "minute_for_Max_and_AV G_demand" for Q3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41335	float	Q_SUM_Neg_AVG_cap	Average Reactive Capacitive Power with negative active power over "minute_for_Max_and_AV G_demand" for Q three phase	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41337	float	P1_MaxDemand	MAX Demand over "minute_for_Max_and_AV G_demand" for P1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41339	float	P2_MaxDemand	MAX Demand over "minute_for_Max_and_AV G_demand" for P2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41341	float	P3_MaxDemand	MAX Demand over "minute_for_Max_and_AV G_demand" for P3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41343	float	P_SUM_MaxDemand	MAX Demand over "minute_for_Max_and_AV G_demand" for P three phase	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	All
41345	unsigned short	Month_of_P1_MaxDemand	Month at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P1 for current month	0	ALWAYS	NEVER	0 – 65535	All
41346	unsigned short	Day_of_P1_MaxDemand	Day at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P1 for current month	0	ALWAYS	NEVER	0 – 65535	All
41347	unsigned short	Hour_of_P1_MaxDemand	Hour at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P1 for current month	0	ALWAYS	NEVER	0 – 65535	All
41348	unsigned short	Minute_of_P1_MaxDemand	Minute at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P1 for current month	0	ALWAYS	NEVER	0 – 65535	All

41349	unsigned short	Month_of_P2_MaxDemand	Month at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P2 for current month	0	ALWAYS	NEVER	0 – 65535	All
41350	unsigned short	Day_of_P2_MaxDemand	Day at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P2 for current month	0	ALWAYS	NEVER	0 – 65535	All
41351	unsigned short	Hour_of_P2_MaxDemand	Hour at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P2 for current month	0	ALWAYS	NEVER	0 – 65535	All
41352	unsigned short	Minute_of_P2_MaxDemand	Minute at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P2 for current month	0	ALWAYS	NEVER	0 – 65535	All
41353	unsigned short	Month_of_P3_MaxDemand	Month at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P3 for current month	0	ALWAYS	NEVER	0 – 65535	All
41354	unsigned short	Day_of_P3_MaxDemand	Day at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P3 for current month	0	ALWAYS	NEVER	0 – 65535	All
41355	unsigned short	Hour_of_P3_MaxDemand	Hour at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P3 for current month	0	ALWAYS	NEVER	0 – 65535	All
41356	unsigned short	Minute_of_P3_MaxDemand	Minute at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P3 for current month	0	ALWAYS	NEVER	0 – 65535	All
41357	unsigned short	Month_of_P_SUM_MaxDemand	Month at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P_SUM for current month	0	ALWAYS	NEVER	0 – 65535	All
41358	unsigned short	Day_of_P_SUM_MaxDemand	Day at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P_SUM for current month	0	ALWAYS	NEVER	0 – 65535	All
41359	unsigned short	Hour_of_P_SUM_MaxDemand	Hour at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P_SUM for current month	0	ALWAYS	NEVER	0 – 65535	All

41360	unsigned short	Minute_of_P_SUM_MaxDemand	Minute at which arises Max Demand over "minute_for_Max_and_AV G_demand" for P_SUM for current month	0	ALWAYS	NEVER	0 – 65535	All
41361	unsigned short	Year	RTC : year (2000-2099)	2025	ALWAYS	ALWAYS	0 – 65535	All
41362	unsigned short	Month	RTC : month (1-12)	10	ALWAYS	ALWAYS	0 – 65535	All
41363	unsigned short	Day	RTC : day month (1-31)	6	ALWAYS	ALWAYS	0 – 65535	All
41364	unsigned short	Hour	RTC : hour (0-23)	11	ALWAYS	ALWAYS	0 – 65535	All
41365	unsigned short	Minute	RTC : minute (0-59)	7	ALWAYS	ALWAYS	0 – 65535	All
41366	unsigned short	Seconds	RTC : second (0-59)	45	ALWAYS	ALWAYS	0 – 65535	All
41367	signed short	RSSI	Wifi Strength (of the connected AP)	0	ALWAYS	NEVER	-32768 – 32767	All

3.6 Harmonics and interharmonics

Harmonics and interharmonics								
Register	Type	Name	Description	Default	Read	Write	Min – Max	Ver.
41377	float	Efficiency	Calculate efficiency of Phase 1 compared to Phase 2	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
41379	float	Voltage_unbalance	Voltage Unbalance of the three phase system	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
41381	float	K_factor_I1	K-factor for I1, see IEEE Standard 1100-1992	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
41383	float	K_factor_I2	K-factor for I2, see IEEE Standard 1100-1992	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
41385	float	K_factor_I3	K-factor for I3, see IEEE Standard 1100-1992	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL

41387	float	DPF1	Distortion Power Factor line 1 (+ inductive, - capacitive)	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41389	float	DPF2	Distortion Power Factor line 2 (+ inductive, - capacitive)	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41391	float	DPF3	Distortion Power Factor line 3 (+ inductive, - capacitive)	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41393	float	DPF_N	Neutral Distortion Power Factor (+ inductive, - capacitive)	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41395	float	THD_V_L1	THD Star Voltage L1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41397	float	THD_V_L2	THD Star Voltage L2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41399	float	THD_V_L3	THD Star Voltage L3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41401	float	THD_V_L12	THD Line Voltage L1-L2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41403	float	THD_V_L23	THD Line Voltage L2-L3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41405	float	THD_V_L31	THD Line Voltage L3-L1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL

41407	float	THD_I_L1	THD Line Current L1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41409	float	THD_I_L2	THD Line Current L2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41411	float	THD_I_L3	THD Line Current L3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41413	float	THD_I_N	THD Neutral Current	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41415	float	TDD_I_L1	TDD Line Current L1	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41417	float	TDD_I_L2	TDD Line Current L2	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41419	float	TDD_I_L3	TDD Line Current L3	0	ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41421 – 41548	float × 64	V_L1N_H_AMPLITUDE_0 ... V_L1N_H_AMPLITUDE_63	Star Voltage L1-N Harmonic amplitude #0 ... Star Voltage L1-N Harmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41549 – 41676	float × 64	V_L1N_H_PHASE_0 ... V_L1N_H_PHASE_63	Star Voltage L1-N Harmonic phase #0 ... Star Voltage L1-N Harmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41677 – 41804	float × 64	V_L2N_H_AMPLITUDE_0 ... V_L2N_H_AMPLITUDE_63	Star Voltage L2-N Harmonic amplitude #0 ... Star Voltage L2-N Harmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL

41805 – 41932	float × 64	V_L2N_H_PHASE_0 ... V_L2N_H_PHASE_63	Star Voltage L2-N Harmonic phase #0 ... Star Voltage L2-N Harmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
41933 – 42060	float × 64	V_L3N_H_AMPLITUDE_0 ... V_L3N_H_AMPLITUDE_63	Star Voltage L3-N Harmonic amplitude #0 ... Star Voltage L3-N Harmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
42061 – 42188	float × 64	V_L3N_H_PHASE_0 ... V_L3N_H_PHASE_63	Star Voltage L3-N Harmonic phase #0 ... Star Voltage L3-N Harmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
42189 – 42316	float × 64	V_L12_H_AMPLITUDE_0 ... V_L12_H_AMPLITUDE_63	Line Voltage L1-L2 Harmonic amplitude #0 ... Line Voltage L1-L2 Harmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
42317 – 42444	float × 64	V_L12_H_PHASE_0 ... V_L12_H_PHASE_63	Line Voltage L1-L2 Harmonic phase #0 ... Line Voltage L1-L2 Harmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
42445 – 42572	float × 64	V_L23_H_AMPLITUDE_0 ... V_L23_H_AMPLITUDE_63	Line Voltage L2-L3 Harmonic amplitude #0 ... Line Voltage L2-L3 Harmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
42573 – 42700	float × 64	V_L23_H_PHASE_0 ... V_L23_H_PHASE_63	Line Voltage L2-L3 Harmonic phase #0 ... Line Voltage L2-L3 Harmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
42701 – 42828	float × 64	V_L31_H_AMPLITUDE_0 ... V_L31_H_AMPLITUDE_63	Line Voltage L3-L1 Harmonic amplitude #0 ... Line Voltage L3-L1 Harmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
42829 – 42956	float × 64	V_L31_H_PHASE_0 ... V_L31_H_PHASE_63	Line Voltage L3-L1 Harmonic phase #0 ... Line Voltage L3-L1 Harmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
42957 – 43084	float × 64	I_L1_H_AMPLITUDE_0 ... I_L1_H_AMPLITUDE_63	Line Current L1 Harmonic amplitude #0 ... Line Current L1 Harmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL

43085 – 43212	float × 64	I_L1_H_PHASE_0 ... I_L1_H_PHASE_63	Line Current L1 Harmonic phase #0 ... Line Current L1 Harmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
43213 – 43340	float × 64	I_L2_H_AMPLITUDE_0 ... I_L2_H_AMPLITUDE_63	Line Current L2 Harmonic amplitude #0 ... Line Current L2 Harmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
43341 – 43468	float × 64	I_L2_H_PHASE_0 ... I_L2_H_PHASE_63	Line Current L2 Harmonic phase #0 ... Line Current L2 Harmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
43469 – 43596	float × 64	I_L3_H_AMPLITUDE_0 ... I_L3_H_AMPLITUDE_63	Line Current L3 Harmonic amplitude #0 ... Line Current L3 Harmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
43597 – 43724	float × 64	I_L3_H_PHASE_0 ... I_L3_H_PHASE_63	Line Current L3 Harmonic phase #0 ... Line Current L3 Harmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
43725 – 43852	float × 64	I_N_H_AMPLITUDE_0 ... I_N_H_AMPLITUDE_63	Line Current N Harmonic amplitude #0 ... Line Current N Harmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
43853 – 43980	float × 64	I_N_H_PHASE_0 ... I_N_H_PHASE_63	Line Current N Harmonic phase #0 ... Line Current N Harmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
43981 – 44108	float × 64	V_L1N_IH_AMPLITUDE_0 ... V_L1N_IH_AMPLITUDE_63	Star Voltage L1-N InterHarmonic amplitude #0 ... Star Voltage L1-N InterHarmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
44109 – 44236	float × 64	V_L1N_IH_PHASE_0 ... V_L1N_IH_PHASE_63	Star Voltage L1-N InterHarmonic phase #0 ... Star Voltage L1-N InterHarmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
44237 – 44364	float × 64	V_L2N_IH_AMPLITUDE_0 ... V_L2N_IH_AMPLITUDE_63	Star Voltage L2-N InterHarmonic amplitude #0 ... Star Voltage L2-N InterHarmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL

44365 – 44492	float × 64	V_L2N_IH_PHASE_0 ... V_L2N_IH_PHASE_63	Star Voltage L2-N InterHarmonic phase #0 ... Star Voltage L2-N InterHarmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
44493 – 44620	float × 64	V_L3N_IH_AMPLITUDE_0 ... V_L3N_IH_AMPLITUDE_63	Star Voltage L3-N InterHarmonic amplitude #0 ... Star Voltage L3-N InterHarmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
44621 – 44748	float × 64	V_L3N_IH_PHASE_0 ... V_L3N_IH_PHASE_63	Star Voltage L3-N InterHarmonic phase #0 ... Star Voltage L3-N InterHarmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
44749 – 44876	float × 64	V_L12_IH_AMPLITUDE_0 ... V_L12_IH_AMPLITUDE_63	Line Voltage L1-L2 InterHarmonic amplitude #0 ... Line Voltage L1-L2 InterHarmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
44877 – 45004	float × 64	V_L12_IH_PHASE_0 ... V_L12_IH_PHASE_63	Line Voltage L1-L2 InterHarmonic phase #0 ... Line Voltage L1-L2 InterHarmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
45005 – 45132	float × 64	V_L23_IH_AMPLITUDE_0 ... V_L23_IH_AMPLITUDE_63	Line Voltage L2-L3 InterHarmonic amplitude #0 ... Line Voltage L2-L3 InterHarmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
45133 – 45260	float × 64	V_L23_IH_PHASE_0 ... V_L23_IH_PHASE_63	Line Voltage L2-L3 InterHarmonic phase #0 ... Line Voltage L2-L3 InterHarmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
45261 – 45388	float × 64	V_L31_IH_AMPLITUDE_0 ... V_L31_IH_AMPLITUDE_63	Line Voltage L3-L1 InterHarmonic amplitude #0 ... Line Voltage L3-L1 InterHarmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
45389 – 45516	float × 64	V_L31_IH_PHASE_0 ... V_L31_IH_PHASE_63	Line Voltage L3-L1 InterHarmonic phase #0 ... Line Voltage L3-L1 InterHarmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
45517 – 45644	float × 64	I_L1_IH_AMPLITUDE_0 ... I_L1_IH_AMPLITUDE_63	Line Current L1 InterHarmonic amplitude #0 ... Line Current L1 InterHarmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL

45645 – 45772	float × 64	I_L1_IH_PHASE_0 ... I_L1_IH_PHASE_63	Line Current L1 InterHarmonic phase #0 ... Line Current L1 InterHarmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
45773 – 45900	float × 64	I_L2_IH_AMPLITUDE_0 ... I_L2_IH_AMPLITUDE_63	Line Current L2 InterHarmonic amplitude #0 ... Line Current L2 InterHarmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
45901 – 46028	float × 64	I_L2_IH_PHASE_0 ... I_L2_IH_PHASE_63	Line Current L2 InterHarmonic phase #0 ... Line Current L2 InterHarmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46029 – 46156	float × 64	I_L3_IH_AMPLITUDE_0 ... I_L3_IH_AMPLITUDE_63	Line Current L3 InterHarmonic amplitude #0 ... Line Current L3 InterHarmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46157 – 46284	float × 64	I_L3_IH_PHASE_0 ... I_L3_IH_PHASE_63	Line Current L3 InterHarmonic phase #0 ... Line Current L3 InterHarmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46285 – 46412	float × 64	I_N_IH_AMPLITUDE_0 ... I_N_IH_AMPLITUDE_63	Line Current N InterHarmonic amplitude #0 ... Line Current N InterHarmonic amplitude #63		ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46413 – 46540	float × 64	I_N_IH_PHASE_0 ... I_N_IH_PHASE_63	Line Current N InterHarmonic phase #0 ... Line Current N InterHarmonic phase #63		ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL

3.7 Power quality

Power quality								
Register	Type	Name	Description	Default	Read	Write	Min – Max	Ver.
46541	float	V_SAG_VALUE_N_0	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-0	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46543	unsigned short	V_SAG_YEAR_N_0	Voltage Sag Year @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL

46544	unsigned short	V_SAG_MONTH_N_0	Voltage Sag Month @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46545	unsigned short	V_SAG_DAY_N_0	Voltage Sag Day @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46546	unsigned short	V_SAG_HOUR_N_0	Voltage Sag Hour @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46547	unsigned short	V_SAG_MINUTE_N_0	Voltage Sag Minute @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46548	unsigned short	V_SAG_SECOND_N_0	Voltage Sag Second @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46549	unsigned short	V_SAG_DURATION_N_0	Voltage Sag Duration [ms] @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46550	unsigned short	V_SAG_QUERY_N_0	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46551	float	V_SAG_VALUE_N_1	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-1	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46553	unsigned short	V_SAG_YEAR_N_1	Voltage Sag Year @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46554	unsigned short	V_SAG_MONTH_N_1	Voltage Sag Month @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46555	unsigned short	V_SAG_DAY_N_1	Voltage Sag Day @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46556	unsigned short	V_SAG_HOUR_N_1	Voltage Sag Hour @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46557	unsigned short	V_SAG_MINUTE_N_1	Voltage Sag Minute @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46558	unsigned short	V_SAG_SECOND_N_1	Voltage Sag Second @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46559	unsigned short	V_SAG_DURATION_N_1	Voltage Sag Duration [ms] @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46560	unsigned short	V_SAG_QUERY_N_1	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46561	float	V_SAG_VALUE_N_2	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-2	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46563	unsigned short	V_SAG_YEAR_N_2	Voltage Sag Year @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46564	unsigned short	V_SAG_MONTH_N_2	Voltage Sag Month @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL

46565	unsigned short	V_SAG_DAY_N_2	Voltage Sag Day @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46566	unsigned short	V_SAG_HOUR_N_2	Voltage Sag Hour @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46567	unsigned short	V_SAG_MINUTE_N_2	Voltage Sag Minute @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46568	unsigned short	V_SAG_SECOND_N_2	Voltage Sag Second @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46569	unsigned short	V_SAG_DURATION_N_2	Voltage Sag Duration [ms] @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46570	unsigned short	V_SAG_QUERY_N_2	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46571	float	V_SAG_VALUE_N_3	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-3	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46573	unsigned short	V_SAG_YEAR_N_3	Voltage Sag Year @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46574	unsigned short	V_SAG_MONTH_N_3	Voltage Sag Month @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46575	unsigned short	V_SAG_DAY_N_3	Voltage Sag Day @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46576	unsigned short	V_SAG_HOUR_N_3	Voltage Sag Hour @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46577	unsigned short	V_SAG_MINUTE_N_3	Voltage Sag Minute @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46578	unsigned short	V_SAG_SECOND_N_3	Voltage Sag Second @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46579	unsigned short	V_SAG_DURATION_N_3	Voltage Sag Duration [ms] @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46580	unsigned short	V_SAG_QUERY_N_3	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46581	float	V_SAG_VALUE_N_4	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-4	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46583	unsigned short	V_SAG_YEAR_N_4	Voltage Sag Year @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46584	unsigned short	V_SAG_MONTH_N_4	Voltage Sag Month @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46585	unsigned short	V_SAG_DAY_N_4	Voltage Sag Day @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL

46586	unsigned short	V_SAG_HOUR_N_4	Voltage Sag Hour @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46587	unsigned short	V_SAG_MINUTE_N_4	Voltage Sag Minute @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46588	unsigned short	V_SAG_SECOND_N_4	Voltage Sag Second @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46589	unsigned short	V_SAG_DURATION_N_4	Voltage Sag Duration [ms] @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46590	unsigned short	V_SAG_QUERY_N_4	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46591	float	V_SAG_VALUE_N_5	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-5	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46593	unsigned short	V_SAG_YEAR_N_5	Voltage Sag Year @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46594	unsigned short	V_SAG_MONTH_N_5	Voltage Sag Month @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46595	unsigned short	V_SAG_DAY_N_5	Voltage Sag Day @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46596	unsigned short	V_SAG_HOUR_N_5	Voltage Sag Hour @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46597	unsigned short	V_SAG_MINUTE_N_5	Voltage Sag Minute @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46598	unsigned short	V_SAG_SECOND_N_5	Voltage Sag Second @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46599	unsigned short	V_SAG_DURATION_N_5	Voltage Sag Duration [ms] @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46600	unsigned short	V_SAG_QUERY_N_5	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46601	float	V_SAG_VALUE_N_6	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-6	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46603	unsigned short	V_SAG_YEAR_N_6	Voltage Sag Year @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46604	unsigned short	V_SAG_MONTH_N_6	Voltage Sag Month @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46605	unsigned short	V_SAG_DAY_N_6	Voltage Sag Day @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46606	unsigned short	V_SAG_HOUR_N_6	Voltage Sag Hour @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL

46607	unsigned short	V_SAG_MINUTE_N_6	Voltage Sag Minute @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46608	unsigned short	V_SAG_SECOND_N_6	Voltage Sag Second @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46609	unsigned short	V_SAG_DURATION_N_6	Voltage Sag Duration [ms] @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46610	unsigned short	V_SAG_QUERY_N_6	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46611	float	V_SAG_VALUE_N_7	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-7	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46613	unsigned short	V_SAG_YEAR_N_7	Voltage Sag Year @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46614	unsigned short	V_SAG_MONTH_N_7	Voltage Sag Month @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46615	unsigned short	V_SAG_DAY_N_7	Voltage Sag Day @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46616	unsigned short	V_SAG_HOUR_N_7	Voltage Sag Hour @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46617	unsigned short	V_SAG_MINUTE_N_7	Voltage Sag Minute @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46618	unsigned short	V_SAG_SECOND_N_7	Voltage Sag Second @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46619	unsigned short	V_SAG_DURATION_N_7	Voltage Sag Duration [ms] @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46620	unsigned short	V_SAG_QUERY_N_7	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46621	float	V_SAG_VALUE_N_8	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-8	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46623	unsigned short	V_SAG_YEAR_N_8	Voltage Sag Year @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46624	unsigned short	V_SAG_MONTH_N_8	Voltage Sag Month @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46625	unsigned short	V_SAG_DAY_N_8	Voltage Sag Day @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46626	unsigned short	V_SAG_HOUR_N_8	Voltage Sag Hour @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46627	unsigned short	V_SAG_MINUTE_N_8	Voltage Sag Minute @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL

46628	unsigned short	V_SAG_SECOND_N_8	Voltage Sag Second @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46629	unsigned short	V_SAG_DURATION_N_8	Voltage Sag Duration [ms] @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46630	unsigned short	V_SAG_QUERY_N_8	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46631	float	V_SAG_VALUE_N_9	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-9	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46633	unsigned short	V_SAG_YEAR_N_9	Voltage Sag Year @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46634	unsigned short	V_SAG_MONTH_N_9	Voltage Sag Month @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46635	unsigned short	V_SAG_DAY_N_9	Voltage Sag Day @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46636	unsigned short	V_SAG_HOUR_N_9	Voltage Sag Hour @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46637	unsigned short	V_SAG_MINUTE_N_9	Voltage Sag Minute @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46638	unsigned short	V_SAG_SECOND_N_9	Voltage Sag Second @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46639	unsigned short	V_SAG_DURATION_N_9	Voltage Sag Duration [ms] @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46640	unsigned short	V_SAG_QUERY_N_9	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46641	float	V_SAG_VALUE_EEPROM	Voltage Sag RMS Value (between 10% and 90% "Nominal_Star_Voltage") EEPROM data	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46643	unsigned short	V_SAG_YEAR_EEPROM	Voltage Sag Year EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46644	unsigned short	V_SAG_MONTH_EEPROM	Voltage Sag Month EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46645	unsigned short	V_SAG_DAY_EEPROM	Voltage Sag Day EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46646	unsigned short	V_SAG_HOUR_EEPROM	Voltage Sag Hour EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46647	unsigned short	V_SAG_MINUTE_EEPROM	Voltage Sag Minute EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46648	unsigned short	V_SAG_SECOND_EEPROM	Voltage Sag Second EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL

46649	unsigned short	V_SAG_DURATION_EEPROM	Voltage Sag Duration [ms] EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46650	unsigned short	V_SAG_QUERY_EEPROM	// Voltage Sag Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46651	float	V_SWELL_VALUE_N_0	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-0	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46653	unsigned short	V_SWELL_YEAR_N_0	Voltage Swell Year @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46654	unsigned short	V_SWELL_MONTH_N_0	Voltage Swell Month @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46655	unsigned short	V_SWELL_DAY_N_0	Voltage Swell Day @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46656	unsigned short	V_SWELL_HOUR_N_0	Voltage Swell Hour @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46657	unsigned short	V_SWELL_MINUTE_N_0	Voltage Swell Minute @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46658	unsigned short	V_SWELL_SECOND_N_0	Voltage Swell Second @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46659	unsigned short	V_SWELL_DURATION_N_0	Voltage Swell Duration [ms] @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46660	unsigned short	V_SWELL_QUERY_N_0	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46661	float	V_SWELL_VALUE_N_1	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-1	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46663	unsigned short	V_SWELL_YEAR_N_1	Voltage Swell Year @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46664	unsigned short	V_SWELL_MONTH_N_1	Voltage Swell Month @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46665	unsigned short	V_SWELL_DAY_N_1	Voltage Swell Day @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46666	unsigned short	V_SWELL_HOUR_N_1	Voltage Swell Hour @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46667	unsigned short	V_SWELL_MINUTE_N_1	Voltage Swell Minute @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46668	unsigned short	V_SWELL_SECOND_N_1	Voltage Swell Second @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46669	unsigned short	V_SWELL_DURATION_N_1	Voltage Swell Duration [ms] @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL

46670	unsigned short	V_SWELL_QUERY_N_1	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46671	float	V_SWELL_VALUE_N_2	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-2	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46673	unsigned short	V_SWELL_YEAR_N_2	Voltage Swell Year @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46674	unsigned short	V_SWELL_MONTH_N_2	Voltage Swell Month @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46675	unsigned short	V_SWELL_DAY_N_2	Voltage Swell Day @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46676	unsigned short	V_SWELL_HOUR_N_2	Voltage Swell Hour @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46677	unsigned short	V_SWELL_MINUTE_N_2	Voltage Swell Minute @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46678	unsigned short	V_SWELL_SECOND_N_2	Voltage Swell Second @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46679	unsigned short	V_SWELL_DURATION_N_2	Voltage Swell Duration [ms] @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46680	unsigned short	V_SWELL_QUERY_N_2	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46681	float	V_SWELL_VALUE_N_3	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-3	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46683	unsigned short	V_SWELL_YEAR_N_3	Voltage Swell Year @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46684	unsigned short	V_SWELL_MONTH_N_3	Voltage Swell Month @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46685	unsigned short	V_SWELL_DAY_N_3	Voltage Swell Day @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46686	unsigned short	V_SWELL_HOUR_N_3	Voltage Swell Hour @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46687	unsigned short	V_SWELL_MINUTE_N_3	Voltage Swell Minute @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46688	unsigned short	V_SWELL_SECOND_N_3	Voltage Swell Second @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46689	unsigned short	V_SWELL_DURATION_N_3	Voltage Swell Duration [ms] @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL

46690	unsigned short	V_SWELL_QUERY_N_3	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46691	float	V_SWELL_VALUE_N_4	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-4	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46693	unsigned short	V_SWELL_YEAR_N_4	Voltage Swell Year @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46694	unsigned short	V_SWELL_MONTH_N_4	Voltage Swell Month @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46695	unsigned short	V_SWELL_DAY_N_4	Voltage Swell Day @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46696	unsigned short	V_SWELL_HOUR_N_4	Voltage Swell Hour @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46697	unsigned short	V_SWELL_MINUTE_N_4	Voltage Swell Minute @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46698	unsigned short	V_SWELL_SECOND_N_4	Voltage Swell Second @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46699	unsigned short	V_SWELL_DURATION_N_4	Voltage Swell Duration [ms] @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46700	unsigned short	V_SWELL_QUERY_N_4	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46701	float	V_SWELL_VALUE_N_5	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-5	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46703	unsigned short	V_SWELL_YEAR_N_5	Voltage Swell Year @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46704	unsigned short	V_SWELL_MONTH_N_5	Voltage Swell Month @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46705	unsigned short	V_SWELL_DAY_N_5	Voltage Swell Day @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46706	unsigned short	V_SWELL_HOUR_N_5	Voltage Swell Hour @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46707	unsigned short	V_SWELL_MINUTE_N_5	Voltage Swell Minute @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46708	unsigned short	V_SWELL_SECOND_N_5	Voltage Swell Second @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46709	unsigned short	V_SWELL_DURATION_N_5	Voltage Swell Duration [ms] @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL

46710	unsigned short	V_SWELL_QUERY_N_5	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46711	float	V_SWELL_VALUE_N_6	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-6	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46713	unsigned short	V_SWELL_YEAR_N_6	Voltage Swell Year @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46714	unsigned short	V_SWELL_MONTH_N_6	Voltage Swell Month @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46715	unsigned short	V_SWELL_DAY_N_6	Voltage Swell Day @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46716	unsigned short	V_SWELL_HOUR_N_6	Voltage Swell Hour @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46717	unsigned short	V_SWELL_MINUTE_N_6	Voltage Swell Minute @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46718	unsigned short	V_SWELL_SECOND_N_6	Voltage Swell Second @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46719	unsigned short	V_SWELL_DURATION_N_6	Voltage Swell Duration [ms] @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46720	unsigned short	V_SWELL_QUERY_N_6	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46721	float	V_SWELL_VALUE_N_7	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-7	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46723	unsigned short	V_SWELL_YEAR_N_7	Voltage Swell Year @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46724	unsigned short	V_SWELL_MONTH_N_7	Voltage Swell Month @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46725	unsigned short	V_SWELL_DAY_N_7	Voltage Swell Day @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46726	unsigned short	V_SWELL_HOUR_N_7	Voltage Swell Hour @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46727	unsigned short	V_SWELL_MINUTE_N_7	Voltage Swell Minute @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46728	unsigned short	V_SWELL_SECOND_N_7	Voltage Swell Second @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46729	unsigned short	V_SWELL_DURATION_N_7	Voltage Swell Duration [ms] @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL

46730	unsigned short	V_SWELL_QUERY_N_7	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46731	float	V_SWELL_VALUE_N_8	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-8	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46733	unsigned short	V_SWELL_YEAR_N_8	Voltage Swell Year @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46734	unsigned short	V_SWELL_MONTH_N_8	Voltage Swell Month @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46735	unsigned short	V_SWELL_DAY_N_8	Voltage Swell Day @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46736	unsigned short	V_SWELL_HOUR_N_8	Voltage Swell Hour @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46737	unsigned short	V_SWELL_MINUTE_N_8	Voltage Swell Minute @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46738	unsigned short	V_SWELL_SECOND_N_8	Voltage Swell Second @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46739	unsigned short	V_SWELL_DURATION_N_8	Voltage Swell Duration [ms] @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46740	unsigned short	V_SWELL_QUERY_N_8	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46741	float	V_SWELL_VALUE_N_9	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-9	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46743	unsigned short	V_SWELL_YEAR_N_9	Voltage Swell Year @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46744	unsigned short	V_SWELL_MONTH_N_9	Voltage Swell Month @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46745	unsigned short	V_SWELL_DAY_N_9	Voltage Swell Day @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46746	unsigned short	V_SWELL_HOUR_N_9	Voltage Swell Hour @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46747	unsigned short	V_SWELL_MINUTE_N_9	Voltage Swell Minute @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46748	unsigned short	V_SWELL_SECOND_N_9	Voltage Swell Second @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46749	unsigned short	V_SWELL_DURATION_N_9	Voltage Swell Duration [ms] @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL

46750	unsigned short	V_SWELL_QUERY_N_9	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46751	float	V_SWELL_VALUE_EEPROM	Voltage Swell RMS Value (between 10% and 90% "Nominal_Star_Voltage") EEPROM data	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46753	unsigned short	V_SWELL_YEAR_EEPROM	Voltage Swell Year EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46754	unsigned short	V_SWELL_MONTH_EEPROM	Voltage Swell Month EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46755	unsigned short	V_SWELL_DAY_EEPROM	Voltage Swell Day EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46756	unsigned short	V_SWELL_HOUR_EEPROM	Voltage Swell Hour EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46757	unsigned short	V_SWELL_MINUTE_EEPROM	Voltage Swell Minute EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46758	unsigned short	V_SWELL_SECOND_EEPROM	Voltage Swell Second EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46759	unsigned short	V_SWELL_DURATION_EEPROM	Voltage Swell Duration [ms] EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46760	unsigned short	V_SWELL_QUERY_EEPROM	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46761	float	V_INTERRUPTON_VALUE_N_0	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-0	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46763	unsigned short	V_INTERRUPTON_YEAR_N_0	Voltage Interruption Year @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46764	unsigned short	V_INTERRUPTON_MONTH_N_0	Voltage Interruption Month @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46765	unsigned short	V_INTERRUPTON_DAY_N_0	Voltage Interruption Day @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46766	unsigned short	V_INTERRUPTON_HOUR_N_0	Voltage Interruption Hour @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46767	unsigned short	V_INTERRUPTON_MINUTE_N_0	Voltage Interruption Minute @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46768	unsigned short	V_INTERRUPTON_SECOND_N_0	Voltage Interruption Second @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46769	unsigned short	V_INTERRUPTON_DURATION_N_0	Voltage Interruption Duration [ms] @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL

46770	unsigned short	V_INTERRUPTIO N_Q UERY_N_0	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46771	float	V_INTERRUPTIO N_VA LUE_N_1	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-1	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46773	unsigned short	V_INTERRUPTIO N_YE AR_N_1	Voltage Interruption Year @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46774	unsigned short	V_INTERRUPTIO N_M ONTH_N_1	Voltage Interruption Month @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46775	unsigned short	V_INTERRUPTIO N_DA Y_N_1	Voltage Interruption Day @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46776	unsigned short	V_INTERRUPTIO N_H OUR_N_1	Voltage Interruption Hour @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46777	unsigned short	V_INTERRUPTIO N_MI NUTE_N_1	Voltage Interruption Minute @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46778	unsigned short	V_INTERRUPTIO N_SE COND_N_1	Voltage Interruption Second @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46779	unsigned short	V_INTERRUPTIO N_DU RATION_N_1	Voltage Interruption Duration [ms] @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46780	unsigned short	V_INTERRUPTIO N_Q UERY_N_1	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46781	float	V_INTERRUPTIO N_VA LUE_N_2	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-2	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46783	unsigned short	V_INTERRUPTIO N_YE AR_N_2	Voltage Interruption Year @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46784	unsigned short	V_INTERRUPTIO N_M ONTH_N_2	Voltage Interruption Month @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46785	unsigned short	V_INTERRUPTIO N_DA Y_N_2	Voltage Interruption Day @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46786	unsigned short	V_INTERRUPTIO N_H OUR_N_2	Voltage Interruption Hour @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46787	unsigned short	V_INTERRUPTIO N_MI NUTE_N_2	Voltage Interruption Minute @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46788	unsigned short	V_INTERRUPTIO N_SE COND_N_2	Voltage Interruption Second @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46789	unsigned short	V_INTERRUPTIO N_DU RATION_N_2	Voltage Interruption Duration [ms] @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL

46790	unsigned short	V_INTERRUPTIO N_2	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46791	float	V_INTERRUPTIO N_3	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-3	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46793	unsigned short	V_INTERRUPTIO N_3	Voltage Interruption Year @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46794	unsigned short	V_INTERRUPTIO N_3	Voltage Interruption Month @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46795	unsigned short	V_INTERRUPTIO N_3	Voltage Interruption Day @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46796	unsigned short	V_INTERRUPTIO N_3	Voltage Interruption Hour @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46797	unsigned short	V_INTERRUPTIO N_3	Voltage Interruption Minute @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46798	unsigned short	V_INTERRUPTIO N_3	Voltage Interruption Second @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46799	unsigned short	V_INTERRUPTIO N_3	Voltage Interruption Duration [ms] @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46800	unsigned short	V_INTERRUPTIO N_3	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46801	float	V_INTERRUPTIO N_4	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-4	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46803	unsigned short	V_INTERRUPTIO N_4	Voltage Interruption Year @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46804	unsigned short	V_INTERRUPTIO N_4	Voltage Interruption Month @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46805	unsigned short	V_INTERRUPTIO N_4	Voltage Interruption Day @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46806	unsigned short	V_INTERRUPTIO N_4	Voltage Interruption Hour @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46807	unsigned short	V_INTERRUPTIO N_4	Voltage Interruption Minute @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46808	unsigned short	V_INTERRUPTIO N_4	Voltage Interruption Second @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46809	unsigned short	V_INTERRUPTIO N_4	Voltage Interruption Duration [ms] @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL

46810	unsigned short	V_INTERRUPTIO N_4	// Voltage Swell Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46811	float	V_INTERRUPTIO N_5	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-5	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46813	unsigned short	V_INTERRUPTIO N_5	Voltage Interruption Year @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46814	unsigned short	V_INTERRUPTIO N_5	Voltage Interruption Month @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46815	unsigned short	V_INTERRUPTIO N_5	Voltage Interruption Day @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46816	unsigned short	V_INTERRUPTIO N_5	Voltage Interruption Hour @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46817	unsigned short	V_INTERRUPTIO N_5	Voltage Interruption Minute @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46818	unsigned short	V_INTERRUPTIO N_5	Voltage Interruption Second @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46819	unsigned short	V_INTERRUPTIO N_5	Voltage Interruption Duration [ms] @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46820	unsigned short	V_INTERRUPTIO N_5	// Voltage Interruption Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46821	float	V_INTERRUPTIO N_6	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-6	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46823	unsigned short	V_INTERRUPTIO N_6	Voltage Interruption Year @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46824	unsigned short	V_INTERRUPTIO N_6	Voltage Interruption Month @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46825	unsigned short	V_INTERRUPTIO N_6	Voltage Interruption Day @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46826	unsigned short	V_INTERRUPTIO N_6	Voltage Interruption Hour @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46827	unsigned short	V_INTERRUPTIO N_6	Voltage Interruption Minute @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46828	unsigned short	V_INTERRUPTIO N_6	Voltage Interruption Second @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46829	unsigned short	V_INTERRUPTIO N_6	Voltage Interruption Duration [ms] @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL

46830	unsigned short	V_INTERRUPTIO N_Q UERY_N_6	// Voltage Interruption Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46831	float	V_INTERRUPTIO N_VA LUE_N_7	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-7	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46833	unsigned short	V_INTERRUPTIO N_YE AR_N_7	Voltage Interruption Year @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46834	unsigned short	V_INTERRUPTIO N_M ONTH_N_7	Voltage Interruption Month @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46835	unsigned short	V_INTERRUPTIO N_DA Y_N_7	Voltage Interruption Day @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46836	unsigned short	V_INTERRUPTIO N_H OUR_N_7	Voltage Interruption Hour @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46837	unsigned short	V_INTERRUPTIO N_MI NUTE_N_7	Voltage Interruption Minute @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46838	unsigned short	V_INTERRUPTIO N_SE COND_N_7	Voltage Interruption Second @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46839	unsigned short	V_INTERRUPTIO N_DU RATION_N_7	Voltage Interruption Duration [ms] @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46840	unsigned short	V_INTERRUPTIO N_Q UERY_N_7	// Voltage Interruption Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46841	float	V_INTERRUPTIO N_VA LUE_N_8	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-8	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46843	unsigned short	V_INTERRUPTIO N_YE AR_N_8	Voltage Interruption Year @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46844	unsigned short	V_INTERRUPTIO N_M ONTH_N_8	Voltage Interruption Month @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46845	unsigned short	V_INTERRUPTIO N_DA Y_N_8	Voltage Interruption Day @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46846	unsigned short	V_INTERRUPTIO N_H OUR_N_8	Voltage Interruption Hour @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46847	unsigned short	V_INTERRUPTIO N_MI NUTE_N_8	Voltage Interruption Minute @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46848	unsigned short	V_INTERRUPTIO N_SE COND_N_8	Voltage Interruption Second @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46849	unsigned short	V_INTERRUPTIO N_DU RATION_N_8	Voltage Interruption Duration [ms] @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL

46850	unsigned short	V_INTERRUPTIO N_Q N_8	// Voltage Interruption Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46851	float	V_INTERRUPTIO N_VA LUE_N_9	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-9	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46853	unsigned short	V_INTERRUPTIO N_YE AR_N_9	Voltage Interruption Year @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46854	unsigned short	V_INTERRUPTIO N_M ONTH_N_9	Voltage Interruption Month @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46855	unsigned short	V_INTERRUPTIO N_DA Y_N_9	Voltage Interruption Day @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46856	unsigned short	V_INTERRUPTIO N_H OUR_N_9	Voltage Interruption Hour @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46857	unsigned short	V_INTERRUPTIO N_MI NUTE_N_9	Voltage Interruption Minute @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46858	unsigned short	V_INTERRUPTIO N_SE COND_N_9	Voltage Interruption Second @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46859	unsigned short	V_INTERRUPTIO N_DU RATION_N_9	Voltage Interruption Duration [ms] @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46860	unsigned short	V_INTERRUPTIO N_Q N_9	// Voltage Interruption Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46861	float	V_INTERRUPTIO N_VA LUE_EEPROM	Voltage Interruption RMS Value (between 10% and 90% "Nominal_Star_Voltage") EEPROM data	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46863	unsigned short	V_INTERRUPTIO N_YE AR_EEPROM	Voltage Interruption Year EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46864	unsigned short	V_INTERRUPTIO N_M ONTH_EEPROM	Voltage Interruption Month EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46865	unsigned short	V_INTERRUPTIO N_DA Y_EEPROM	Voltage Interruption Day EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46866	unsigned short	V_INTERRUPTIO N_H OUR_EEPROM	Voltage Interruption Hour EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46867	unsigned short	V_INTERRUPTIO N_MI NUTE_EEPROM	Voltage Interruption Minute EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46868	unsigned short	V_INTERRUPTIO N_SE COND_EEPROM	Voltage Interruption Second EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46869	unsigned short	V_INTERRUPTIO N_DU RATION_EEPROM	Voltage Interruption Duration [ms] EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL

46870	unsigned short	V_INTERRUPTIO N_QUERY_EEPROM	// Voltage Interruption Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46871	float	V_FLICKER_VALUE_N _0	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-0	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46873	unsigned short	V_FLICKER_YEAR_N_ 0	Voltage Flicker Year @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46874	unsigned short	V_FLICKER_MONTH_ N_0	Voltage Flicker Month @ n- 0	0	ALWAYS	NEVER	0 – 65535	FULL
46875	unsigned short	V_FLICKER_DAY_N_0	Voltage Flicker Day @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46876	unsigned short	V_FLICKER_HOUR_N_ 0	Voltage Flicker Hour @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46877	unsigned short	V_FLICKER_MINUTE_ N_0	Voltage Flicker Minute @ n- 0	0	ALWAYS	NEVER	0 – 65535	FULL
46878	unsigned short	V_FLICKER_SECOND_ N_0	Voltage Flicker Second @ n- 0	0	ALWAYS	NEVER	0 – 65535	FULL
46879	unsigned short	V_FLICKER_REPETITIO N_N_0	Voltage Flicker Repetition [ms] @ n-0	0	ALWAYS	NEVER	0 – 65535	FULL
46880	unsigned short	V_FLICKER_QUERY_N _0	// Voltage Interruption Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46881	float	V_FLICKER_VALUE_N _1	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-1	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46883	unsigned short	V_FLICKER_YEAR_N_ 1	Voltage Flicker Year @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46884	unsigned short	V_FLICKER_MONTH_ N_1	Voltage Flicker Month @ n- 1	0	ALWAYS	NEVER	0 – 65535	FULL
46885	unsigned short	V_FLICKER_DAY_N_1	Voltage Flicker Day @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46886	unsigned short	V_FLICKER_HOUR_N_ 1	Voltage Flicker Hour @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL
46887	unsigned short	V_FLICKER_MINUTE_ N_1	Voltage Flicker Minute @ n- 1	0	ALWAYS	NEVER	0 – 65535	FULL
46888	unsigned short	V_FLICKER_SECOND_ N_1	Voltage Flicker Second @ n- 1	0	ALWAYS	NEVER	0 – 65535	FULL
46889	unsigned short	V_FLICKER_REPETITIO N_N_1	Voltage Flicker Repetition [ms] @ n-1	0	ALWAYS	NEVER	0 – 65535	FULL

46890	unsigned short	V_FLICKER_QUERY_N_1	// Voltage Interruption Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46891	float	V_FLICKER_VALUE_N_2	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-2	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46893	unsigned short	V_FLICKER_YEAR_N_2	Voltage Flicker Year @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46894	unsigned short	V_FLICKER_MONTH_N_2	Voltage Flicker Month @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46895	unsigned short	V_FLICKER_DAY_N_2	Voltage Flicker Day @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46896	unsigned short	V_FLICKER_HOUR_N_2	Voltage Flicker Hour @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46897	unsigned short	V_FLICKER_MINUTE_N_2	Voltage Flicker Minute @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46898	unsigned short	V_FLICKER_SECOND_N_2	Voltage Flicker Second @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46899	unsigned short	V_FLICKER_REPETITION_N_2	Voltage Flicker Repetition [ms] @ n-2	0	ALWAYS	NEVER	0 – 65535	FULL
46900	unsigned short	V_FLICKER_QUERY_N_2	// Voltage Flicker Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46901	float	V_FLICKER_VALUE_N_3	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-3	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46903	unsigned short	V_FLICKER_YEAR_N_3	Voltage Flicker Year @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46904	unsigned short	V_FLICKER_MONTH_N_3	Voltage Flicker Month @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46905	unsigned short	V_FLICKER_DAY_N_3	Voltage Flicker Day @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46906	unsigned short	V_FLICKER_HOUR_N_3	Voltage Flicker Hour @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46907	unsigned short	V_FLICKER_MINUTE_N_3	Voltage Flicker Minute @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46908	unsigned short	V_FLICKER_SECOND_N_3	Voltage Flicker Second @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL
46909	unsigned short	V_FLICKER_REPETITION_N_3	Voltage Flicker Repetition [ms] @ n-3	0	ALWAYS	NEVER	0 – 65535	FULL

46910	unsigned short	V_FLICKER_QUERY_N_3	// Voltage Flicker Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46911	float	V_FLICKER_VALUE_N_4	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-4	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46913	unsigned short	V_FLICKER_YEAR_N_4	Voltage Flicker Year @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46914	unsigned short	V_FLICKER_MONTH_N_4	Voltage Flicker Month @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46915	unsigned short	V_FLICKER_DAY_N_4	Voltage Flicker Day @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46916	unsigned short	V_FLICKER_HOUR_N_4	Voltage Flicker Hour @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46917	unsigned short	V_FLICKER_MINUTE_N_4	Voltage Flicker Minute @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46918	unsigned short	V_FLICKER_SECOND_N_4	Voltage Flicker Second @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46919	unsigned short	V_FLICKER_REPETITION_N_4	Voltage Flicker Repetition [ms] @ n-4	0	ALWAYS	NEVER	0 – 65535	FULL
46920	unsigned short	V_FLICKER_QUERY_N_4	// Voltage Flicker Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46921	float	V_FLICKER_VALUE_N_5	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-5	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46923	unsigned short	V_FLICKER_YEAR_N_5	Voltage Flicker Year @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46924	unsigned short	V_FLICKER_MONTH_N_5	Voltage Flicker Month @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46925	unsigned short	V_FLICKER_DAY_N_5	Voltage Flicker Day @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46926	unsigned short	V_FLICKER_HOUR_N_5	Voltage Flicker Hour @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46927	unsigned short	V_FLICKER_MINUTE_N_5	Voltage Flicker Minute @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46928	unsigned short	V_FLICKER_SECOND_N_5	Voltage Flicker Second @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL
46929	unsigned short	V_FLICKER_REPETITION_N_5	Voltage Flicker Repetition [ms] @ n-5	0	ALWAYS	NEVER	0 – 65535	FULL

46930	unsigned short	V_FLICKER_QUERY_N_5	// Voltage Flicker Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46931	float	V_FLICKER_VALUE_N_6	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-6	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46933	unsigned short	V_FLICKER_YEAR_N_6	Voltage Flicker Year @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46934	unsigned short	V_FLICKER_MONTH_N_6	Voltage Flicker Month @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46935	unsigned short	V_FLICKER_DAY_N_6	Voltage Flicker Day @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46936	unsigned short	V_FLICKER_HOUR_N_6	Voltage Flicker Hour @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46937	unsigned short	V_FLICKER_MINUTE_N_6	Voltage Flicker Minute @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46938	unsigned short	V_FLICKER_SECOND_N_6	Voltage Flicker Second @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46939	unsigned short	V_FLICKER_REPETITION_N_6	Voltage Flicker Repetition [ms] @ n-6	0	ALWAYS	NEVER	0 – 65535	FULL
46940	unsigned short	V_FLICKER_QUERY_N_6	// Voltage Flicker Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46941	float	V_FLICKER_VALUE_N_7	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-7	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46943	unsigned short	V_FLICKER_YEAR_N_7	Voltage Flicker Year @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46944	unsigned short	V_FLICKER_MONTH_N_7	Voltage Flicker Month @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46945	unsigned short	V_FLICKER_DAY_N_7	Voltage Flicker Day @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46946	unsigned short	V_FLICKER_HOUR_N_7	Voltage Flicker Hour @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46947	unsigned short	V_FLICKER_MINUTE_N_7	Voltage Flicker Minute @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46948	unsigned short	V_FLICKER_SECOND_N_7	Voltage Flicker Second @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL
46949	unsigned short	V_FLICKER_REPETITION_N_7	Voltage Flicker Repetition [ms] @ n-7	0	ALWAYS	NEVER	0 – 65535	FULL

46950	unsigned short	V_FLICKER_QUERY_N_7	// Voltage Flicker Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46951	float	V_FLICKER_VALUE_N_8	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-8	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46953	unsigned short	V_FLICKER_YEAR_N_8	Voltage Flicker Year @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46954	unsigned short	V_FLICKER_MONTH_N_8	Voltage Flicker Month @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46955	unsigned short	V_FLICKER_DAY_N_8	Voltage Flicker Day @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46956	unsigned short	V_FLICKER_HOUR_N_8	Voltage Flicker Hour @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46957	unsigned short	V_FLICKER_MINUTE_N_8	Voltage Flicker Minute @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46958	unsigned short	V_FLICKER_SECOND_N_8	Voltage Flicker Second @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46959	unsigned short	V_FLICKER_REPETITION_N_8	Voltage Flicker Repetition [ms] @ n-8	0	ALWAYS	NEVER	0 – 65535	FULL
46960	unsigned short	V_FLICKER_QUERY_N_8	// Voltage Flicker Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46961	float	V_FLICKER_VALUE_N_9	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") @ n-9	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46963	unsigned short	V_FLICKER_YEAR_N_9	Voltage Flicker Year @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46964	unsigned short	V_FLICKER_MONTH_N_9	Voltage Flicker Month @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46965	unsigned short	V_FLICKER_DAY_N_9	Voltage Flicker Day @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46966	unsigned short	V_FLICKER_HOUR_N_9	Voltage Flicker Hour @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46967	unsigned short	V_FLICKER_MINUTE_N_9	Voltage Flicker Minute @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46968	unsigned short	V_FLICKER_SECOND_N_9	Voltage Flicker Second @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL
46969	unsigned short	V_FLICKER_REPETITION_N_9	Voltage Flicker Repetition [ms] @ n-9	0	ALWAYS	NEVER	0 – 65535	FULL

46970	unsigned short	V_FLICKER_QUERY_N_9	// Voltage Flicker Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL
46971	float	V_FLICKER_VALUE_EEPROM	Voltage Flicker RMS Value (between 10% and 90% "Nominal_Star_Voltage") EEPROM data	0	ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
46973	unsigned short	V_FLICKER_YEAR_EEPROM	Voltage Flicker Year EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46974	unsigned short	V_FLICKER_MONTH_EEPROM	Voltage Flicker Month EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46975	unsigned short	V_FLICKER_DAY_EEPROM	Voltage Flicker Day EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46976	unsigned short	V_FLICKER_HOUR_EEPROM	Voltage Flicker Hour EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46977	unsigned short	V_FLICKER_MINUTE_EEPROM	Voltage Flicker Minute EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46978	unsigned short	V_FLICKER_SECOND_EEPROM	Voltage Flicker Second EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46979	unsigned short	V_FLICKER_REPETITION_EEPROM	Voltage Flicker Repetition [ms] EEPROM data	0	ALWAYS	NEVER	0 – 65535	FULL
46980	unsigned short	V_FLICKER_QUERY_EEPROM	// Voltage Flicker Type: // 0: V_L1N // 1: V_L2N // 2: V_L3N // 3: V_L1L2 // 4: V_L2L3 // 5: V_L3L1	0	ALWAYS	NEVER	0 – 65535	FULL

3.8 Waveforms (oscilloscope)

Waveforms (oscilloscope)								
Register	Type	Name	Description	Default	Read	Write	Min – Max	Ver.
46981 – 47236	float × 128	V_L1N_Oscilloscope_0 ... V_L1N_Oscilloscope_127	Star Voltage L1-N Sample #0 ... Star Voltage L1-N Sample #127		ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL
47237 – 47492	float × 128	V_L2N_Oscilloscope_0 ... V_L2N_Oscilloscope_127	Star Voltage L2-N Sample #0 ... Star Voltage L2-N Sample #127		ALWAYS	NEVER	- 3.40282 35e+38 – 3.40282 35e+38	FULL

47749 – 47748	float × 128	V_L3N_Oscilloscope_0 ... V_L3N_Oscilloscope_127	Star Voltage L3-N Sample #0 ... Star Voltage L3-N Sample #127		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
47749 – 48004	float × 128	V_L12_Oscilloscope_0 ... V_L12_Oscilloscope_127	Line Voltage L1-L2 Sample #0 ... Line Voltage L1-L2 Sample #127		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
48005 – 48260	float × 128	V_L23_Oscilloscope_0 ... V_L23_Oscilloscope_127	Line Voltage L2-L3 Sample #0 ... Line Voltage L2-L3 Sample #127		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
48261 – 48516	float × 128	V_L31_Oscilloscope_0 ... V_L31_Oscilloscope_127	Line Voltage L3-L1 Sample #0 ... Line Voltage L3-L1 Sample #127		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
48517 – 48772	float × 128	I_L1_Oscilloscope_0 ... I_L1_Oscilloscope_127	Line Current L1 Sample #0 ... Line Current L1 Sample #127		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
48773 – 49028	float × 128	I_L2_Oscilloscope_0 ... I_L2_Oscilloscope_127	Line Current L2 Sample #0 ... Line Current L2 Sample #127		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
49029 – 49284	float × 128	I_L3_Oscilloscope_0 ... I_L3_Oscilloscope_127	Line Current L3 Sample #0 ... Line Current L3 Sample #127		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL
49285 – 49540	float × 128	I_N_Oscilloscope_0 ... I_N_Oscilloscope_127	Line Current N Sample #0 ... Line Current N Sample #127		ALWAYS	NEVER	- 3.40282 35e+38 - 3.40282 35e+38	FULL

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