

MODBUS & BACNET Communication with TNM PowerMeters

The *TNM* Energy Powermeters and Analyzers are supporting communication over MODBUS (RS485 and TCP/IP) and BACNET (IP and MSTP). The supported modes for each model are described in the following table:

| MODEL | MODBUS | | BACNET | |
|---|--------|--------|--------|--------|
| | RS485 | TCP/IP | MSTP | TCP/IP |
| TNM144-I TNM144-II | * | * | * | * |
| TNM96-ETN-I | * | | * | |
| TNM96-ETN-II | * | * | * | * |
| TNM300-DIN | * | * | | * |
| TNM35 | * | | | |
| TNM96-ETL TNM96-ED* (*without Energy) | * | | | |

Table 1-1 Supported protocols

MODBUS Protocol

The *TNM* Energy & Powermeters has a serial and TPC/IP interface ports allowing direct interface with an external communication network supporting the MODBUS Protocol.

MODBUS is an Industry Standard, widely known and commonly used communications protocol. Using MODBUS provides communication between a PC and up to 247 Powermeter slaves on a common line- the PC being the **master** and the powermeters the **slaves**. The PC initiates the transaction (either a query or broadcast) and the Powermeter/s responds. Powermeters respond to the **master** PC's request, but will not initiate any transmission on its own. The PC sends a single Query transaction and the Powermeter responds in a single response frame and is capable of only one query and one response at a time

1.1 — MODBUS Framing

1.1.1— RTU Transmission Mode

MODBUS uses the standard Remote Terminal Unit (RTU) transmission mode. RTU mode sends data in 8-bit binary EVEN parity or 8-bit binary NO parity data format. For the *TNM* Energy & Powermeter to successfully communicate, choose one in the communication Set Up.

| Field | No. of bits |
|-----------|-------------|
| Start bit | 1 |
| Data bits | 8 |
| Parity | 1 |
| Stop bit | 1 |

Table 1-2 RTU Data Format

1.1.2 — The RTU Frame Format

Query and response information is sent in frames. Each frame contains:

- Address
- Function (See Section 1.1.4 for descriptions of functions),
- Data
- Check.

| Address | Function | Data | Check |
|---------|----------|------------|---------|
| 8 bits | 8 bits | N * 8 bits | 16 bits |

Table 1-3 R T U Message Frame Format

If the receiving device (Powermeter) detects a time laps of five characters, then it will assume the message is incomplete and will flush the frame. The device then assumes that the next byte received will be an address. The maximum query and response message length is 256 bytes including check characters.

1.1.3 — Address Field

Each Powermeter is designated in a network system by a user assigned address. The Address can be any number between 1 and 255. The Powermeter will only respond to it's own specifacally assigned address.

1.1.4 — Function Field

The function field contains the code that tells the Powermeter what action to perform.

The *TNM* Energy & Powermeter uses and responds to four standard Message Format Functions.

Function 03

Function 04

Function 06

Function 16

| Function | Meaning in MODBUS | Action |
|--------------------|--------------------------|---|
| Function 03 | Read holding register | Obtain data from Powermeter (Read register) |
| Function 04 | Read input register | Obtain data from Powermeter (Read register) |
| Function 06 | Preset single register | Transmit data to Powermeter (Write single register) |
| Function 16 | Preset multiple register | Transmit data to Powermeter (Write multiple register) |

Table 1-4 **Function Codes**

1.1.5 — Data Field

The Data field contains the body of the message and contains instructions from the PC **master** to the Powermeter **slave** to perform a particuler action or respond to a query. The reply message from the Powermeter will be information contained in one or more of it's registers.

1.1.6 — Check Field

The error check field contains the result of Cyclical Redundancy Check (CRC). The start of the message is ignored in calculating the CRC.

For more detailed information on CRC, refer to the MODBUS Protocol Reference Guide.

1.2 — Registers for *TNM* Multimeter

The *TNM* Energy & Powermeter is capable of supporting either Function 03 or Function 04 Message Format(See Table 1-3). In a reply to a query from the PC **master** for a reading from a particular field, the response from the Powermeter can be either in Format 03 or Format 04 but will depend on which Format the query was originally sent.

The difference is significant because by using Function 03 the TNM will only send the INTEGER part of the field value requested and the PC **master** will only display the INTEGER part of the field value.

Function 04 on the other hand, is capable of sending two separate halves of the full FLOAT requested information (each half contained in a separate register). Then it is the task of the PC **master** to merge the two halves into a full FLOAT reply. (For more detailed information See IEEE Standard 754 Floating-Point).

E.G. 1 If the user's PC **master** supports Function 03, then the reply will contain the INTEGER part of the field only.

The PC **master** requests the Voltage from Line1, and the actual Voltage in that field is 230.5 Volts.

Function 03 will respond with the INTEGER only i.e. 230V.

E.G. 2 If the user PC **master** supports Function 04, then the reply will contain the information stored in the two registers assigned to that field and will contain the full, accurate reply.

The PC master requests the Voltage from Line1, and the actual Voltage in that field is 230.5 Volts.

Function 04 will respond with a composite reply of both register 1 and 2 giving the full FLOAT value (in IEEE Format) from that field i.e. 230.5V.

When Writing The Clock Registers (151-157) –
User must write special value (123) in register 99.

Bacnet Protocol

The TNM powermeters supports Bacnet IP and MSTP communication modes (please check page 1, table 1-1).

The information that can be read/write from the TNMs is:

- Time and Date
- Analog values

The BACNET "analog value" address numbers appear under the right column of the address table.

The RS485 port can not support simultaneously MODBUS and BACNET MSTP, the default mode of the RS485 communication port of the TNM powermeters is set to be MODBUS, in order to activate the BACNET MSTP mode the password 2244 must be used.

**When using TNM TXT (System B) – User must add 2000 to item (4000 to Register)
(e.g Current Line 1 - System B = ModBus Register # 4013-14)**

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---|------|-----------|----------|-------|-----------------------------|------------|---|--|
| 1-2 | Voltage Line 1 | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 1 |
| 3-4 | Voltage Line 2 | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 2 |
| 5-6 | Voltage Line 3 | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 3 |
| 7-8 | Voltage between line 1 and Line 2 | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 4 |
| 9-10 | Voltage between line 2 and Line 3 | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 5 |
| 11-12 | Voltage between line 3 and Line 1 | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 6 |
| 13-14 | Current in Line 1 | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 7 |
| 15-16 | Current in Line 2 | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 8 |
| 17-18 | Current in Line 3 | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 9 |
| 19-20 | Active Power Line 1 (Watt) | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 |
| 21-22 | Active Power Line 2 (Watt) | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 11 |
| 23-24 | Active Power Line 3 (watt) | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 12 |
| 25-26 | Combined Active Power Line 1+2 +3 (watt) | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 13 |
| 27-28 | Apparent Power Line 1 (VA) | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 14 |
| 29-30 | Apparent Power Line 2 (VA) | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 15 |
| 31-32 | Apparent Power Line 3 (VA) | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 16 |
| 33-34 | Combined Apparent Power Line 1+2+3 | R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 17 |

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|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 35-36 | Reactive Power Line 1 (VAR) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 18 |
| 37-38 | Reactive Power Line 2 (VAR) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 19 |
| 39-40 | Reactive Power Line 3 (VAR) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 20 |
| 41-42 | Combined Reactive Power Line 1+2+3 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 21 |
| 43-44 | Power Factor Line 1 (PF) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 22 |
| 45-46 | Power Factor Line 2 (PF) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 23 |
| 47-48 | Power Factor Line 3 (PF) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 24 |
| 49-50 | Combined Power Factor for Line 1+2+3 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 25 |
| 51-52 | Frequency Line 1 (Hrz) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 26 |
| 53-54 | Frequency Line 2 (Hrz) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 27 |
| 55-56 | Frequency Line 3 (Hrz) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 28 |
| 57-58 | Current Neutral Line | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 29 |
| 59-60 | Power Factor Line 1 (L & C) | R | ✓ | ✓ | ✓ | ✓ | | | | | 30 |
| 61-62 | Power Factor Line 2 (L & C) | R | ✓ | ✓ | ✓ | ✓ | | | | | 31 |
| 63-64 | Power Factor Line 3 (L & C) | R | ✓ | ✓ | ✓ | ✓ | | | | | 32 |
| 65-66 | Combined Power Factor for Line 1+2+3 (L & C) | R | ✓ | ✓ | ✓ | ✓ | | | | | 33 |
| 67-68 | Total Current in Line 1+2+3 | R | | | | ✓ | | | | | 34 |
| | | | | | | | | | | | |
| 77-78 | TOU (Taoz) rate | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 39 |

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|-----------------|---------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 79-80 | Active Total Energy (Wh) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 40 |
| 81-82 | Reactive Total Energy (VARh) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 41 |
| 83-84 | Apparent Total Energy (Vah) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 42 |
| 85-86 | Date Time (Win Format) | R | ✓ | ✓ | ✓ | ✓ | | | ✓ | | 43 |
| 87-88 | Time from 01 01 2000 in seconds | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 44 |
| 89-90 | ADDRESS | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 45 |
| 91-92 | BAUD RATE | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 46 |
| 93-94 | PARITY | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 47 |
| 95-96 | Current Transformer Ratio | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 48 |
| 97-98 | Timed average Voltage | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 49 |
| 99-100 | Timed average Current | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 50 |
| 101-102 | Timed average Power | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 51 |
| 103-104 | Timed average Frequency | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 52 |
| 105-106 | THD for Volts Line 1 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 53 |
| 107-108 | THD for Volts Line 2 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 54 |
| 109-110 | THD for Volts Line 3 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 55 |
| 111-112 | THD for Current Line 1 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 56 |
| 113-114 | THD for Current Line 2 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 57 |
| 115-116 | THD for Current Line 3 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 58 |
| 117-118 | Active Rate (1,2,3) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 59 |
| 119-120 | Active Energy Line 1 (W-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 60 |
| 121-122 | Active Energy Line 2 (W-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 61 |

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|-----------------|-------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 123-124 | Active Energy Line 3 (W-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 62 |
| 125-126 | Reactive Energy Line 1 (VAR-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 63 |
| 127-128 | Reactive Energy Line 2 (VAR-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 64 |
| 129-130 | Reactive Energy Line 3 (VAR-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 65 |
| 131-132 | Apparant Energy Line 1 (VA-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 66 |
| 133-134 | Apparant Energy Line 2 (VA-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 67 |
| 135-136 | Apparant Energy Line 3 (VA-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | 68 |
| 137-138 | Active Energy Line 1 – Rate 1 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 69 |
| 139-140 | Active Energy Line 2 – Rate 1 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 70 |
| 141-142 | Active Energy Line 3 – Rate 1 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 71 |
| 143-144 | Active Energy Line 1 – Rate 2 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 72 |
| 145-146 | Active Energy Line 2 – Rate 2 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 73 |
| 147-148 | Active Energy Line 3 – Rate 2 | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 74 |

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|-----------------|---------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | (Imp) | | | | | | | | | | |
| 149-150 | Active Energy Line 1 – Rate 3 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 75 |
| 151-152 | Active Energy Line 2 – Rate 3 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 76 |
| 153-154 | Active Energy Line 3 – Rate 3 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 77 |
| 155-156 | Active Energy Line 1+2+3 – Rate 1 (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 78 |
| 157-158 | Active Energy Line 1+2+3 – Rate 2 (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 79 |
| 159-160 | Active Energy Line 1+2+3 – Rate 3 (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 80 |
| 161-162 | Apparant Energy Line 1 – Rate 1 (I) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 81 |
| 163-164 | Apparant Energy Line 2 – Rate 1 (I) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 82 |
| 165-166 | Apparant Energy Line 3 – Rate 1 (I) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 83 |
| 167-168 | Apparant Energy Line 1 – Rate 2 (I) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 84 |
| 169-170 | Apparant Energy Line 2 – Rate 2 (I) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 85 |
| 171-172 | Apparant Energy Line 3 – Rate 2 (I) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 86 |

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|-----------------|-------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| | (I) | | | | | | | | | |
| 173-174 | Apparant Energy Line 1 – Rate 3 (I) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | 87 |
| 175-176 | Apparant Energy Line 2 – Rate 3 (I) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | 88 |
| 177-178 | Apparant Energy Line 3 – Rate 3 (I) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | 89 |
| 179-180 | Apparant Energy 1+2+3 – Rate 1 (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 90 |
| 181-182 | Apparant Energy 1+2+3 – Rate 2 (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 91 |
| 183-184 | Apparant Energy 1+2+3 – Rate 3 (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 92 |
| 185-186 | Voltage Transformer Ratio | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 93 |
| 187-188 | Epeom Revision | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 94 |
| 189-190 | Demo Mode | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 95 |
| 191-192 | Configuration PassWord | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | 96 |
| 193-194 | Min. Current To Accumulate Energy | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | 97 |
| 195-196 | MuliMeter ID | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 98 |
| 197-198 | User Function Mode (Technical) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 99 |
| 199-200 | Test Value 12.34 | R | | | | ✓ | | | | 100 |
| | | | | | | | | | | |

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|-----------------|------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 201-202 | Demand – KW Max (Watt) | R | | | ✓ | ✓ | | | | | 101 |
| 203-204 | Demand – PF (KW) | R | | | ✓ | ✓ | | | | | 102 |
| 205-206 | Demand – Date (KW) | R | | | ✓ | ✓ | | | | | 103 |
| 207-208 | Demand – KVA (Watt) | R | | | ✓ | ✓ | | | | | 104 |
| 209-210 | Demand – PF (KVA) | R | | | ✓ | ✓ | | | | | 105 |
| 211-212 | Demand – Date (KVA) | R | | | ✓ | ✓ | | | | | 106 |
| 213-214 | Demand – Current (A) L1 | R/W* | ✓ | ✓ | | ✓ | | | | | 107 |
| 215-216 | Demand – Current (A) L2 | R/W* | ✓ | ✓ | | ✓ | | | | | 108 |
| 217-218 | Demand – Current (A) L3 | R/W* | ✓ | ✓ | | ✓ | | | | | 109 |
| 219-220 | Demand – Current (A) L1+L2+L3 | R/W* | ✓ | ✓ | | ✓ | | | | | 110 |
| 221-222 | Demand – Current (A) L1 – Date | R | ✓ | ✓ | | ✓ | | | | | 111 |
| 223-224 | Demand – Current (A) L2 – Date | R | ✓ | ✓ | | ✓ | | | | | 112 |
| 225-226 | Demand – Current (A) L3 – Date | R | ✓ | ✓ | | ✓ | | | | | 113 |
| 227-228 | Demand – Current (A) L1+2+3 – Date | R | ✓ | ✓ | | ✓ | | | | | 114 |
| 229-230 | Demand – KVA (Last) | R | | | | ✓ | | | | | 115 |
| 231-232 | Demand – KVAR (Last) | R | | | | ✓ | | | | | 116 |
| 233-234 | Clear All Current Demand | R/W | ✓ | ✓ | | ✓ | | | | | 117 |
| 235-236 | Demand – KW (Last) | R | | | ✓ | ✓ | | | | | 118 |
| 237-238 | Min. Current For Display (0.1A) | R/W | | | | ✓ | | | | | 119 |
| | | | | | | | | | | | |
| 241-242 | PFC – Power Factor | R/W | | | | ✓ | | | | | 121 |

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|-----------------|------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 243-244 | PFC – On Time | R/W | | | | ✓ | | | | | 122 |
| 245-246 | PFC – Off Time | R/W | | | | ✓ | | | | | 123 |
| 247-248 | PFC – Average Time (Minute) | R/W | | | | ✓ | | | | | 124 |
| 249-250 | PFC – Stages | R/W | | | | ✓ | | | | | 125 |
| 251-252 | PFC – Mode Of Operation | R/W | | | | ✓ | | | | | 126 |
| 253-254 | PFC – THD (Volt) | R/W | | | | ✓ | | | | | 127 |
| 255-256 | PFC – Capacitor #1 (KVAR) | R/W | | | | ✓ | | | | | 128 |
| 257-258 | PFC – Capacitor #2 (KVAR) | R/W | | | | ✓ | | | | | 129 |
| 259-260 | PFC – Capacitor #3 (KVAR) | R/W | | | | ✓ | | | | | 130 |
| 261-262 | PFC – Capacitor #4 (KVAR) | R/W | | | | ✓ | | | | | 131 |
| 263-264 | PFC – Capacitor #5 (KVAR) | R/W | | | | ✓ | | | | | 132 |
| 265-266 | PFC – Capacitor #6 (KVAR) | R/W | | | | ✓ | | | | | 133 |
| 267-268 | PFC – THD (Current) | R/W | | | | ✓ | | | | | 134 |
| 269-270 | PFC – Min. Voltage | R/W | | | | ✓ | | | | | 135 |
| 271-272 | PFC – PF Average Time | R/W | | | | ✓ | | | | | 136 |
| 273-274 | PFC – Comb. Stayble Time | R/W | | | | ✓ | | | | | 137 |
| 275-276 | PFC – Hysteresis | R/W | | | | ✓ | | | | | 138 |
| 277-278 | PFC – % Voltage (VT) For OK | R/W | | | | ✓ | | | | | 139 |
| 279-280 | PFC – % Current (CT) To Stop | R/W | | | | ✓ | | | | | 140 |
| 281-282 | PFC – Capacitor #1 Status | R | | | | ✓ | | | | | 141 |
| 283-284 | PFC – Capacitor #2 Status | R | | | | ✓ | | | | | 142 |
| 285-286 | PFC – Capacitor #3 Status | R | | | | ✓ | | | | | 143 |

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|-----------------|---------------------------------|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 287-288 | PFC – Capacitor #4 Status | R | | | | ✓ | | | | 144 |
| 289-290 | PFC – Capacitor #5 Status | R | | | | ✓ | | | | 145 |
| 291-292 | PFC – Capacitor #6 Status | R | | | | ✓ | | | | 146 |
| 293-294 | Pulse Value (KW-IMP) Relay 1 | R/W | ✓ | ✓ | | ✓ | | | | 147 |
| 295-296 | Pulse Value (KW-EXP) Relay 2 | R/W | ✓ | ✓ | | | | | | 148 |
| 297-298 | Pulse Value (KQ-IMP) Relay 3 | R/W | ✓ | ✓ | | | | | | 149 |
| 299-300 | Pulse Duration (Seconds) | R/W | ✓ | ✓ | | ✓ | | | | 150 |
| 301-302 | Clock : Seconds | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 151 |
| 303-304 | Clock : Minutes | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 152 |
| 305-306 | Clock : Hours | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 153 |
| 307-308 | Clock : Week Day (1-7) | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 154 |
| 309-310 | Clock : Day | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 155 |
| 311-312 | Clock : Month | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 156 |
| 313-314 | Clock : Year (20xx) | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 157 |
| 315-316 | Run Time (Seconds With Current) | R/W* | | | ✓ | ✓ | | ✓ | | 158 |
| 317-318 | Day Time (Win Format) | R | ✓ | ✓ | | ✓ | | | | 159 |
| 319-320 | Force Cpu To response in MC | R/W | | | | | | ✓ | | 160 |
| 321-322 | Type Of Din 1 | R/W* | | | | | | | | 161 |
| 323-324 | Type Of Din 2 | R/W* | | | | | | | | 162 |
| 325-326 | Type Of Din 3 | R/W* | | | | | | | | 163 |
| 327-328 | Type Of Din 4 | R/W* | | | | | | | | 164 |

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|-----------------|---------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | | | | | | | | | | | |
| 333-334 | K.Factor – Current – Line 1 | R | ✓ | ✓ | | | | | | | 167 |
| 335-336 | K.Factor – Current – Line 2 | R | ✓ | ✓ | | | | | | | 168 |
| 337-338 | K.Factor – Current – Line 3 | R | ✓ | ✓ | | | | | | | 169 |
| 339-340 | K.Factor – Current – Line 1+2+3 | R | ✓ | ✓ | | | | | | | 170 |
| 341-342 | Din 1 Energy Total – Rate 1 | R | | | | | | | | | 171 |
| 343-344 | Din 2 Energy Total – Rate 1 | R | | | | | | | | | 172 |
| 345-346 | Din 3 Energy Total – Rate 1 | R | | | | | | | | | 173 |
| 347-348 | Din 4 Energy Total – Rate 1 | R | | | | | | | | | 174 |
| 349-350 | Din 1 Energy Total – Rate 2 | R | | | | | | | | | 175 |
| 351-352 | Din 2 Energy Total – Rate 2 | R | | | | | | | | | 176 |
| 353-354 | Din 3 Energy Total – Rate 2 | R | | | | | | | | | 177 |
| 355-356 | Din 4 Energy Total – Rate 2 | R | | | | | | | | | 178 |
| 357-358 | Din 1 Energy Total – Rate 3 | R | | | | | | | | | 179 |
| 359-360 | Din 2 Energy Total – Rate 3 | R | | | | | | | | | 180 |
| 361-362 | Din 3 Energy Total – Rate 3 | R | | | | | | | | | 181 |
| 363-364 | Din 4 Energy Total – Rate 3 | R | | | | | | | | | 182 |
| 365-366 | Din 1 Energy Total – Rate 1+2+3 | R | | | | | | | | | 183 |
| 367-368 | Din 2 Energy Total – Rate 1+2+3 | R | | | | | | | | | 184 |
| 369-370 | Din 3 Energy Total – Rate 1+2+3 | R | | | | | | | | | 185 |
| 371-372 | Din 4 Energy Total – Rate 1+2+3 | R | | | | | | | | | 186 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | | | | | | | | | | | |
| 379-380 | Temprature Sensor | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 190 |
| 381-382 | Digital In 1 - Status | R | ✓ | ✓ | | ✓ | | ✓ | | | 191 |
| 383-384 | Digital In 2 - Status | R | ✓ | ✓ | | ✓ | | ✓ | | | 192 |
| 385-386 | Digital In 3 - Status | R | ✓ | ✓ | | | | ✓ | | | 193 |
| 387-388 | Digital In 4 - Status | R | ✓ | ✓ | | | | | | | 194 |
| | | | | | | | | | | | |
| 395-396 | Web Authentication (User=admin) | R/W | | | | ✓ | | ✓ | | | 198 |
| 397-398 | Fast Trend Cycle Time (Seconds) | R/W | ✓ | ✓ | | | | | | | 199 |
| 399-400 | History - Date | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 200 |
| 401-402 | History – Day | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 201 |
| 403-404 | History – Month | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 202 |
| 405-406 | History - Year | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 203 |
| 407-408 | History-Active Energy Line 1 – Rate 1 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 204 |
| 409-410 | History-Active Energy Line 2 – Rate 1 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 205 |
| 411-412 | History-Active Energy Line 3 – Rate 1 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 206 |
| 413-414 | History-Active Energy Line 1 – Rate 2 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 207 |
| 415-416 | History-Active Energy Line 2 – | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 208 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | Rate 2 | | | | | | | | | | |
| 417-418 | History-Active Energy Line 3 – Rate 2 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 209 |
| 419-420 | History-Active Energy Line 1 – Rate 3 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 210 |
| 421-422 | History-Active Energy Line 2 – Rate 3 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 211 |
| 423-424 | History-Active Energy Line 3 – Rate 3 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 212 |
| 425-426 | History-ReActive Energy Ln 1– Rate 1 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 213 |
| 427-428 | History-ReActive Energy Ln 2– Rate 1 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 214 |
| 429-430 | History-ReActive Energy Ln 3– Rate 1 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 215 |
| 431-432 | History-ReActive Energy Ln 1– Rate 2 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 216 |
| 433-434 | History-ReActive Energy Ln 2– Rate 2 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 217 |
| 435-436 | History-ReActive Energy Ln 3– Rate 2 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 218 |
| 437-438 | History-ReActive Energy Ln 1– Rate 3 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 219 |
| 439-440 | History-ReActive Energy Ln 2– | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 220 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | Rate 3 | | | | | | | | | | |
| 441-442 | History-ReActive Energy Ln 3– Rate 3 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 221 |
| 443-444 | History-Din 1 Energy – Rate 1 | R | | | | | ✓ | | | | 222 |
| 445-446 | History-Din 2 Energy – Rate 1 | R | | | | | ✓ | | | | 223 |
| 447-448 | History-Din 3 Energy – Rate 1 | R | | | | | | | | | 224 |
| 449-450 | History-Din 4 Energy – Rate 1 | R | | | | | | | | | 225 |
| 451-452 | History-Din 1 Energy – Rate 2 | R | | | | | ✓ | | | | 226 |
| 453-454 | History-Din 2 Energy – Rate 2 | R | | | | | ✓ | | | | 227 |
| 455-456 | History-Din 3 Energy – Rate 2 | R | | | | | | | | | 228 |
| 457-458 | History-Din 4 Energy – Rate 2 | R | | | | | | | | | 229 |
| 459-460 | History-Din 1 Energy – Rate 3 | R | | | | | ✓ | | | | 230 |
| 461-462 | History-Din 2 Energy – Rate 3 | R | | | | | ✓ | | | | 231 |
| 463-464 | History-Din 3 Energy – Rate 3 | R | | | | | | | | | 232 |
| 465-466 | History-Din 4 Energy – Rate 3 | R | | | | | | | | | 233 |
| | | | | | | | | | | | |
| 491-492 | History – Reading Date | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 246 |
| 493-494 | Debug Counter 1 | R/W | | | ✓ | ✓ | | ✓ | | | 247 |
| 495-496 | Debug Counter 2 | R/W | | | ✓ | ✓ | | ✓ | | | 248 |
| 497-498 | Debug Counter 3 | R/W | | | ✓ | ✓ | | ✓ | | | 249 |
| 499-500 | Debug Counter 4 | R/W | | | ✓ | ✓ | | ✓ | | | 250 |
| 501-502 | Technical Calibration Value 1 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 251 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 503-504 | Technical Calibration Value 2 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 252 |
| 505-506 | Technical Calibration Value 3 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 253 |
| 507-508 | Technical Calibration Value 4 | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 254 |
| 509-510 | Float Format (0,1,2) | R/W | ✓ | | ✓ | ✓ | | ✓ | | | 255 |
| 511-512 | Compatibility Mode (0,130,170) | R/W | | | ✓ | ✓ | | ✓ | | | 256 |
| 513-514 | Technical Current Calibration | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 257 |
| | | | | | | | | | | | |
| 519-520 | Start Time1 For Period Alarm | R/W | ✓ | ✓ | | | | | | | 260 |
| 521-522 | Stop Time1 For Period Alarm | R/W | ✓ | ✓ | | | | | | | 261 |
| 523-524 | High Power (KW) (Period) | R/W | ✓ | ✓ | | | | | | | 262 |
| 525-526 | Low Power (KW) (Period) | R/W | ✓ | ✓ | | | | | | | 263 |
| 527-528 | Time Table For Period Alarm High | R/W | ✓ | ✓ | | | | | | | 264 |
| 529-530 | Time Table For Period Alarm Low | R/W | ✓ | ✓ | | | | | | | 265 |
| 531-532 | Start2 Time For Period Alarm | R/W | ✓ | ✓ | | | | | | | 266 |
| 533-534 | Stop2 Time For Period Alarm | R/W | ✓ | ✓ | | | | | | | 267 |
| | | | | | | | | | | | |
| 537-538 | ReActive Energy Line 1 –Rate 1 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 269 |
| 539-540 | ReActive Energy Line 2 –Rate 1 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 270 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 541-542 | ReActive Energy Line 3 –Rate 1 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 271 |
| 543-544 | ReActive Energy Line 1 –Rate 2 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 272 |
| 545-546 | ReActive Energy Line 2 –Rate 2 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 273 |
| 547-548 | ReActive Energy Line 3 –Rate 2 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 274 |
| 549-550 | ReActive Energy Line 1 –Rate 3 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 275 |
| 551-552 | ReActive Energy Line 2 –Rate 3 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 276 |
| 553-554 | ReActive Energy Line 3 –Rate 3 (Imp) | R/W | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 277 |
| 555-556 | ReActive E. Line 1+2+3 –Rate 1 (I) | R | ✓ | ✓ | | ✓ | | ✓ | | | 278 |
| 557-558 | ReActive E. Line 1+2+3 –Rate 2 (I) | R | ✓ | ✓ | | ✓ | | ✓ | | | 279 |
| 559-560 | ReActive E. Line 1+2+3 –Rate 3 (I) | R | ✓ | ✓ | | ✓ | | ✓ | | | 280 |
| 561-562 | Virtual Pulse Value (KW) P-Total | R/W | ✓ | ✓ | | | | | | | 281 |
| 563-564 | Virtual Pulse Counter | R/W | ✓ | ✓ | | | | | | | 282 |
| 565-566 | Fix Value (Debug) 123.4 | R | ✓ | ✓ | | ✓ | | | ✓ | | 283 |
| 567-568 | Float Order (0=LM),(1=ML) | R/W | ✓ | ✓ | | | | | | | 284 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 569-570 | ReActive E.Total In Capacitor Mode | R | | | | ✓ | | ✓ | ✓ | | 285 |
| 571-572 | ReActive E.Total In Non Capacitor Mode | R | | | | ✓ | | ✓ | ✓ | | 286 |
| 573-574 | Demand – KVAR (Var) | R | | | | ✓ | | | | | 287 |
| 575-576 | Demand – PF (KVAR) | R | | | | ✓ | | | | | 288 |
| 577-578 | Demand – Date (KVAR) | R | | | | ✓ | | | | | 289 |
| 579-580 | Delay (MS) for response time (RS485) | R/W | ✓ | | | ✓ | | | | | 290 |
| 581-582 | Current Line 1 Opposite Error | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 291 |
| 583-584 | Current Line 2 Opposite Error | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 292 |
| 585-586 | Current Line 3 Opposite Error | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 293 |
| 587-588 | Voltage Seq. Error | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 294 |
| 589-590 | Reactive Energy Quadrant # 1 (kvarh) W:Imp, Q:Imp | R | ✓ | ✓ | | ✓ | | ✓ | | | 295 |
| 591-592 | Reactive Energy Quadrant # 2 (kvarh) W:Imp, Q:Exp | R | ✓ | ✓ | | ✓ | | ✓ | | | 296 |
| 593-594 | Reactive Energy Quadrant # 3 (kvarh) W:Exp, Q:Imp | R | ✓ | ✓ | | ✓ | | ✓ | | | 297 |
| 595-596 | Reactive Energy Quadrant # 4 | R | ✓ | ✓ | | ✓ | | ✓ | | | 298 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|---|--------------------------|-----------|----------|-------|----------------|--------------|------------|-----------|--------------------------------|--|
| | (kvarh) W:Exp, Q:Exp | | | | | | | | | | |
| 601-602 | 1 st Harmonics for Volts Line 1 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 301 |
| 603-604 | 2 nd Harmonics for Volts Line 1 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 302 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | ✓ ¹ | | | | | <input type="checkbox"/> |
| 661-662 | 31 st Harmonics for Volts Line 1 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 331 |
| 663-664 | 32 nd Harmonics for Volts Line 1 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 332 |
| 665-666 | 1 st Harmonics for Volts Line 2 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 333 |
| 667-668 | 2 nd Harmonics for Volts Line 2 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 334 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | ✓ ¹ | | | | | <input type="checkbox"/> |
| 725-726 | 31 st Harmonics for Volts Line 2 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 363 |
| 727-728 | 32 nd Harmonics for Volts Line 2 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 364 |
| 729-730 | 1 st Harmonic for Volts Line 3 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 365 |
| 731-732 | 2 nd Harmonics for Volts Line 3 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 366 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 789-790 | 31 st Harmonics for Vots Line 3 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 395 |
| 791-792 | 32 nd Harmonics for Volts Line 3 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 396 |
| 793-794 | 1 st Harmonics for Current Line 1 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 397 |
| 795-796 | 2 nd Harmonics for Current Line 1 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | | | 398 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | ✓ ¹ | | | | | <input type="checkbox"/> |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-----------------------------|------------|---|--|
| 853-854 | 31 st Harmonics for Current Line 1 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | 427 |
| 855-856 | 32 nd Harmonics for Current Line 1 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | 428 |
| 857-858 | 1 st Harmonics for Current Line 2 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | 429 |
| 859-860 | 2 nd Harmonics for Current Line 2 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | 430 |
| □ | □ | □ | | | | ✓ ¹ | | | □ |
| 917-918 | 31 st Harmonics for Current line 2 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | 459 |
| 919-920 | 32 nd Harmonics for Current Line 2 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | 460 |
| 921-922 | 1 st Harmonics for Current Line 3 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | 461 |
| 923-924 | 2 nd Harmonics for Current Line 3 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | 462 |
| □ | □ | □ | | | | ✓ ¹ | | | □ |
| 981-982 | 31 st Harmonics for Current Line 3 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | 491 |
| 983-984 | 32 nd Harmonics for Current Line 3 | R | ✓ | ✓ | ✓ | ✓ ¹ | | | 492 |
| | | | | | | | | | |
| 1001-2 | User Alarm #1 | R | ✓ | ✓ | ✓ | | | | 501 |
| 1003-4 | User Alarm #2 | R | ✓ | ✓ | ✓ | | | | 502 |
| 1005-6 | User Alarm #3 | R | ✓ | ✓ | ✓ | | | | 503 |
| □ | □ | □ | | | | | | | □ |
| 1253-4 | User Alarm #127 | R | ✓ | ✓ | ✓ | | | | 627 |
| 1255-6 | User Alarm #128 | R | ✓ | ✓ | ✓ | | | | 628 |
| 1257-8 | | | | | | | | | 629 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 1259-60 | Demand – Synchronize Pulse | W | ✓ | ✓ | | ✓ | | | | | 630 |
| 1261-62 | Demand – Watt L1 | R | ✓ | ✓ | | ✓ | | | | | 631 |
| 1263-64 | Demand – Watt L2 | R | ✓ | ✓ | | ✓ | | | | | 632 |
| 1265-66 | Demand – Watt L3 | R | ✓ | ✓ | | ✓ | | | | | 633 |
| 1267-68 | Demand – VAR L1 | R | ✓ | ✓ | | ✓ | | | | | 634 |
| 1269-70 | Demand – VAR L2 | R | ✓ | ✓ | | ✓ | | | | | 635 |
| 1271-72 | Demand – VAR L3 | R | ✓ | ✓ | | ✓ | | | | | 636 |
| 1273-74 | Demand – VA L1 | R | ✓ | ✓ | | ✓ | | | | | 637 |
| 1275-76 | Demand – VA L2 | R | ✓ | ✓ | | ✓ | | | | | 638 |
| 1277-78 | Demand – VA L3 | R | ✓ | ✓ | | ✓ | | | | | 639 |
| 1279-80 | Demand – Watt L1+L2+L3 | R | ✓ | ✓ | | ✓ | | | | | 640 |
| 1281-82 | Demand – VAR L1+L2+L3 | R | ✓ | ✓ | | ✓ | | | | | 641 |
| 1283-84 | Demand – VA L1+L2+L3 | R | ✓ | ✓ | | ✓ | | | | | 642 |
| 1285-86 | Demand – Current (A) L1 | R | ✓ | ✓ | | ✓ | | | | | 643 |
| 1287-88 | Demand – Current (A) L2 | R | ✓ | ✓ | | ✓ | | | | | 644 |
| 1289-90 | Demand – Current (A) L3 | R | ✓ | ✓ | | ✓ | | | | | 645 |
| 1291-92 | Demand – Current (A) L1+L2+L3 | R | ✓ | ✓ | | ✓ | | | | | 646 |
| | | | | | | | | | | | |
| 1293-94 | Displacement Power Factor Line 1 (CosF) | R | | | | ✓ | | | | | 647 |
| 1295-96 | Displacement Power Factor Line 2 (CosF) | R | | | | ✓ | | | | | 648 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 1297-98 | Displacement Power Factor Line 3 (CosF) | R | | | | ✓ | | | | | 649 |
| 1299-00 | Long Wave Write Now !! | W | | ✓ | | | | | | | 650 |
| 1301-02 | Long Wave Event (Before) - Seconds | R/W | | ✓ | | | | | | | 651 |
| 1303-04 | Long Wave Event (Total) - Seconds | R/W | | ✓ | | | | | | | 652 |
| 1305-06 | Current L1 – High - Write Long Wave Event | R/W | | ✓ | | | | | | | 653 |
| 1307-08 | Current L1 – Hysteresis (Long Wave Event) | R/W | | ✓ | | | | | | | 654 |
| | | | | | | | | | | | |
| 1313-14 | Conn Type (0=STAR,1=DELTA) | R/W | ✓ | ✓ | | | | | | | 657 |
| 1315-16 | PQ – V.Nominal | R/W | | ✓ | | | | | | | 658 |
| 1317-18 | PQ – Enable (Active) | R/W | | ✓ | | | | | | | 659 |
| 1319-20 | Active Energy Line 1 (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 660 |
| 1321-22 | Active Energy Line 2 (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 661 |
| 1323-24 | Active Energy Line 3 (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 662 |
| 1325-26 | Reactive Energy Line 1 (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 663 |
| 1327-28 | Reactive Energy Line 2 (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 664 |
| 1329-30 | Reactive Energy Line 3 (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 665 |
| 1331-32 | Apparant Energy Line 1 (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 666 |
| 1333-34 | Apparant Energy Line 2 (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 667 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 1335-36 | Apparant Energy Line 3 (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 668 |
| 1337-38 | Active Energy Line 1 – Rate 1 (Exp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 669 |
| 1339-40 | Active Energy Line 2 – Rate 1 (Exp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 670 |
| 1341-42 | Active Energy Line 3 – Rate 1 (Exp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 671 |
| 1343-44 | Active Energy Line 1 – Rate 2 (Exp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 672 |
| 1345-46 | Active Energy Line 2 – Rate 2 (Exp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 673 |
| 1347-48 | Active Energy Line 3 – Rate 2 (Exp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 674 |
| 1349-50 | Active Energy Line 1 – Rate 3 (Exp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 675 |
| 1351-52 | Active Energy Line 2 – Rate 3 (Exp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 676 |
| 1353-54 | Active Energy Line 3 – Rate 3 (Exp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 677 |
| 1355-56 | Active Energy Line 1+2+3 –Rate 1 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 678 |
| 1357-58 | Active Energy Line 1+2+3 –Rate 2 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 679 |
| 1359-60 | Active Energy Line 1+2+3 –Rate | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 680 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|-------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| | 3 (E) | | | | | | | | | |
| 1361-62 | Apparant Energy Line 1 – Rate 1 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 681 |
| 1363-64 | Apparant Energy Line 2 – Rate 1 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 682 |
| 1365-66 | Apparant Energy Line 3 – Rate 1 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 683 |
| 1367-68 | Apparant Energy Line 1 – Rate 2 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 684 |
| 1369-70 | Apparant Energy Line 2 – Rate 2 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 685 |
| 1371-72 | Apparant Energy Line 3 – Rate 2 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 686 |
| 1373-74 | Apparant Energy Line 1 – Rate 3 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 687 |
| 1375-76 | Apparant Energy Line 2 – Rate 3 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 688 |
| 1377-78 | Apparant Energy Line 3 – Rate 3 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 689 |
| 1379-80 | Apparant Energy 1+2+3 – Rate 1 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 690 |
| 1381-82 | Apparant Energy 1+2+3 – Rate 2 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 691 |
| 1383-84 | Apparant Energy 1+2+3 – Rate 3 (E) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 692 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | (E) | | | | | | | | | | |
| 1385-86 | Active Energy (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 693 |
| 1387-88 | Reactive Energy (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 694 |
| 1389-90 | Apparant Energy (Export) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 695 |
| | | | | | | | | | | | |
| 1393-94 | Energy Flow Line #1 (1=Export) | R | ✓ | ✓ | | ✓ | | | | | 697 |
| 1395-96 | Energy Flow Line #2 (1=Export) | R | ✓ | ✓ | | ✓ | | | | | 698 |
| 1397-98 | Energy Flow Line #3 (1=Export) | R | ✓ | ✓ | | ✓ | | | | | 699 |
| | | | | | | | | | | | |
| 1401-02 | BacNet MSTP – Max Master | R/W | | | | ✓ | | | | | 701 |
| 1403-04 | BacNet MSTP – Instance | R/W | | | | ✓ | | | | | 702 |
| 1405-06 | BacNet MSTP – MAC | R/W | | | | ✓ | | | | | 703 |
| 1407-08 | BacNet MSTP – Slave Mode | R/W | | | | ✓ | | | | | 704 |
| | | | | | | | | | | | |
| 1419-20 | PQ – Level 0.95 | R/W | | ✓ | | | | | | | 710 |
| 1421-22 | PQ – Level 1.05 | R/W | | ✓ | | | | | | | 711 |
| 1423-24 | PQ – Level 1.10 | R/W | | ✓ | | | | | | | 712 |
| | | | | | | | | | | | |
| 1429-30 | Crest Factor – Voltage L1 | R | | ✓ | | | | | | | 715 |
| 1431-32 | Crest Factor – Voltage L2 | R | | ✓ | | | | | | | 716 |
| 1433-34 | Crest Factor – Voltage L3 | R | | ✓ | | | | | | | 717 |
| 1435-36 | Crest Factor – Current L1 | R | | ✓ | | | | | | | 718 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|----------------------------------|--------------------------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 1437-38 | Crest Factor – Current L2 | R | | ✓ | | | | | | | 719 |
| 1439-40 | Crest Factor – Current L3 | R | | ✓ | | | | | | | 720 |
| | | | | | | | | | | | |
| 3841-42 | Summer Clock DTE #1 (Sec) | R/W | | | ✓ | ✓ | | ✓ | | | 1921 |
| 3843-44 | Summer Clock DTE #2 (Sec) | R/W | | | ✓ | ✓ | | ✓ | | | 1922 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 3879-80 | Summer Clock DTE #20 (Sec) | R/W | | | ✓ | ✓ | | ✓ | | | 1940 |
| 3881-82 | Summer Clock #1 – Minute To Add | R/W | | | ✓ | ✓ | | ✓ | | | 1941 |
| 3883-84 | Summer Clock #2 – Minute To Add | R/W | | | ✓ | ✓ | | ✓ | | | 1942 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 3919-20 | Summer Clock #20 – Minute To Add | R/W | | | ✓ | ✓ | | ✓ | | | 1960 |
| 3921-22 | Summer Clock DTE #1 (Hour) | R/W | | | ✓ | ✓ | | ✓ | | | 1961 |
| 3923-24 | Summer Clock DTE #2 (Hour) | R/W | | | ✓ | ✓ | | ✓ | | | 1962 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 3959-60 | Summer Clock DTE #20 (Hour) | R/W | | | ✓ | ✓ | | ✓ | | | 1980 |
| | | | | | | | | | | | |
| 3961-62 | PFC – Capacitor #7 (KVAR) | R/W | | | | | | | | | 1981 |
| 3963-64 | PFC – Capacitor #8 (KVAR) | R/W | | | | | | | | | 1982 |
| 3965-66 | PFC – Capacitor #9 (KVAR) | R/W | | | | | | | | | 1983 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|-------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 3967-68 | PFC – Capacitor #10 (KVAR) | R/W | | | | | | | | 1984 |
| 3969-70 | PFC – Capacitor #11 (KVAR) | R/W | | | | | | | | 1985 |
| 3971-72 | PFC – Capacitor #12 (KVAR) | R/W | | | | | | | | 1986 |
| 3973-74 | PFC – Capacitor #13 (KVAR) | R/W | | | | | | | | 1987 |
| 3975-76 | PFC – Capacitor #14 (KVAR) | R/W | | | | | | | | 1988 |
| 3977-78 | PFC – Capacitor #15 (KVAR) | R/W | | | | | | | | 1989 |
| 3979-80 | PFC – Capacitor #16 (KVAR) | R/W | | | | | | | | 1990 |
| | | | | | | | | | | |
| 3981-82 | ModBus/IP Port | R/W | ✓ | ✓ | | ✓ | | ✓ | | 1991 |
| 3983-84 | HTTP Port | R/W | ✓ | ✓ | | ✓ | | ✓ | | 1992 |
| 3985-86 | UDP Extended Port | R/W | ✓ | ✓ | | ✓ | | ✓ | | 1993 |
| | | | | | | | | | | |
| 4001-2 | Active Energy (L123)- Month 1 - KWh | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 2001 |
| 4003-4 | Active Energy (L123)- Month 2- KWh | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 2002 |
| ☐ | ☐ | ☐ | | | | | | | | ☐ |
| 4071-72 | Active Energy(L123)- Month 36- KWh | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 2036 |
| 4073-74 | Month # 1 (1-12) (For Item 2001) | R | ✓ | ✓ | ✓ | ✓ | | | | 2037 |
| 4075-76 | Month # 2 (1-12) (For Item 2002) | R | ✓ | ✓ | ✓ | ✓ | | | | 2038 |
| ☐ | ☐ | ☐ | | | | | | | | ☐ |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|----------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 4143-44 | Month #36 (1-12) (For Item 2036) | R | ✓ | ✓ | ✓ | ✓ | | | | | 2072 |
| 4145-46 | Year # 1 (2001-99) (Item 2001) | R | ✓ | ✓ | ✓ | ✓ | | | | | 2073 |
| 4147-48 | Year # 2 (2001-99) (Item 2002) | R | ✓ | ✓ | ✓ | ✓ | | | | | 2074 |
| □ | □ | □ | | | | | | | | | □ |
| 4215-16 | Year #36 (2001-99) (Item 2036) | R | ✓ | ✓ | ✓ | ✓ | | | | | 2108 |
| | | | | | | | | | | | |
| 4239-40 | Keyboard Lock Status | R/W | | | | | ✓ | | | | 2120 |
| 4241-42 | U.Alarm – High Current Value | R/W | | | ✓ | ✓ | | | | | 2121 |
| 4243-44 | U.Alarm – High Voltage Value | R/W | | | ✓ | ✓ | | | | | 2122 |
| 4245-46 | U.Alarm – Low Voltage Value | R/W | | | ✓ | ✓ | | | | | 2123 |
| 4247-48 | U.Alarm – Low PF Value | R/W | | | ✓ | ✓ | | | | | 2124 |
| 4249-50 | U.Alarm – High V.TH D Value | R/W | | | ✓ | ✓ | | | | | 2125 |
| 4251-52 | U.Alarm – High I.TH D Value | R/W | | | ✓ | ✓ | | | | | 2126 |
| | | | | | | | | | | | |
| 4261-62 | U.Alarm – High Current DelayOn | R/W | | | ✓ | ✓ | | | | | 2131 |
| 4263-64 | U.Alarm – High Voltage DelayOn | R/W | | | ✓ | ✓ | | | | | 2132 |
| 4265-66 | U.Alarm – Low Voltage DelayOn | R/W | | | ✓ | ✓ | | | | | 2133 |
| 4267-68 | U.Alarm – Low PF DelayOn | R/W | | | ✓ | ✓ | | | | | 2134 |
| 4269-70 | U.Alarm – High V.TH D DelayOn | R/W | | | ✓ | ✓ | | | | | 2135 |
| 4271-72 | U.Alarm – High I.TH D DelayOn | R/W | | | ✓ | ✓ | | | | | 2136 |
| | | | | | | | | | | | |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 4281-82 | Demand – THD Current (A) L1 | R/W* | | | ✓ | ✓ | | | | | 2141 |
| 4283-84 | Demand – THD Current (A) L2 | R/W* | | | ✓ | ✓ | | | | | 2142 |
| 4285-86 | Demand – THD Current (A) L3 | R/W* | | | ✓ | ✓ | | | | | 2143 |
| 4287-88 | Demand – THD Current (A) L1 L2 I3 | R/W* | | | ✓ | ✓ | | | | | 2144 |
| 4289-90 | Demand – THD Current (A) L1 - Date | R | | | ✓ | ✓ | | | | | 2145 |
| 4291-92 | Demand – THD Current (A) L2 - Date | R | | | ✓ | ✓ | | | | | 2146 |
| 4293-94 | Demand – THD Current (A) L3 - Date | R | | | ✓ | ✓ | | | | | 2147 |
| 4295-96 | Demand – THD Current (A) L123 - Date | R | | | ✓ | ✓ | | | | | 2148 |
| 4297-98 | Demand – THD Voltage (A) L1 | R/W* | | | ✓ | ✓ | | | | | 2149 |
| 4299-300 | Demand – THD Voltage (A) L2 | R/W* | | | ✓ | ✓ | | | | | 2150 |
| 4301-02 | Demand – THD Voltage (A) L3 | R/W* | | | ✓ | ✓ | | | | | 2151 |
| 4303-04 | Demand – THD Voltage (A) L1 L2 I3 | R/W* | | | ✓ | ✓ | | | | | 2152 |
| 4305-06 | Demand – THD Voltage (A) L1 - Date | R | | | | ✓ | | | | | 2153 |
| 4307-08 | Demand – THD Voltage (A) L2 - Date | R | | | | ✓ | | | | | 2154 |
| 4309-10 | Demand – THD Voltage (A) L3 - | R | | | | ✓ | | | | | 2155 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | Date | | | | | | | | | | |
| 4311-12 | Demand – THD Voltage (A) L123 - Date | R | | | | ✓ | | | | | 2156 |
| 4313-14 | Clear All THD Demand | R/W | ✓ | ✓ | | ✓ | | | | | 2157 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 4399-00 | Alarm- High Voltage L1 | R/W | ✓ | ✓ | | | | | | | 2200 |
| 4401-02 | Alarm- High Voltage L2 | R/W | ✓ | ✓ | | | | | | | 2201 |
| 4403-04 | Alarm- High Voltage L3 | R/W | ✓ | ✓ | | | | | | | 2202 |
| 4405-06 | Alarm- High Voltage L1-2 | R/W | ✓ | ✓ | | | | | | | 2203 |
| 4407-08 | Alarm- High Voltage L2-3 | R/W | ✓ | ✓ | | | | | | | 2204 |
| 4409-10 | Alarm- High Voltage L3-1 | R/W | ✓ | ✓ | | | | | | | 2205 |
| 4411-12 | Alarm- High Current L1 | R/W | ✓ | ✓ | | | | | | | 2206 |
| 4413-14 | Alarm- High Current L2 | R/W | ✓ | ✓ | | | | | | | 2207 |
| 4415-16 | Alarm- High Current L3 | R/W | ✓ | ✓ | | | | | | | 2208 |
| 4417-18 | Alarm- High Current L0 | R/W | ✓ | ✓ | | | | | | | 2209 |
| 4419-20 | Alarm- High PF L1 | R/W | ✓ | ✓ | | | | | | | 2210 |
| 4421-22 | Alarm- High PF L2 | R/W | ✓ | ✓ | | | | | | | 2211 |
| 4423-24 | Alarm- High PF L3 | R/W | ✓ | ✓ | | | | | | | 2212 |
| 4425-26 | Alarm- High PF Total | R/W | ✓ | ✓ | | | | | | | 2213 |
| 4427-28 | Alarm- High Voltage THD L1 | R/W | ✓ | ✓ | | | | | | | 2214 |
| 4429-30 | Alarm- High Voltage THD L2 | R/W | ✓ | ✓ | | | | | | | 2215 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 4431-32 | Alarm- High Voltage THD L3 | R/W | ✓ | ✓ | | | | | | | 2216 |
| 4433-34 | Alarm- High Current THD L1 | R/W | ✓ | ✓ | | | | | | | 2217 |
| 4435-36 | Alarm- High Current THD L2 | R/W | ✓ | ✓ | | | | | | | 2218 |
| 4437-38 | Alarm- High Current THD L3 | R/W | ✓ | ✓ | | | | | | | 2219 |
| 4439-40 | Alarm- High Current THD L0 | R/W | ✓ | ✓ | | | | | | | 2220 |
| 4441-42 | Alarm- High Current TDD L1 | R/W | ✓ | ✓ | | | | | | | 2221 |
| 4443-44 | Alarm- High Current TDD L2 | R/W | ✓ | ✓ | | | | | | | 2222 |
| 4445-46 | Alarm- High Current TDD L3 | R/W | ✓ | ✓ | | | | | | | 2223 |
| 4447-48 | Alarm- High Current TDD L0 | R/W | ✓ | ✓ | | | | | | | 2224 |
| 4449-50 | Alarm – High KW – L1 | R/W | ✓ | ✓ | | | | | | | 2225 |
| 4451-52 | Alarm – High KW – L2 | R/W | ✓ | ✓ | | | | | | | 2226 |
| 4453-54 | Alarm – High KW – L3 | R/W | ✓ | ✓ | | | | | | | 2227 |
| 4455-56 | Alarm – High KW – Total 1 | R/W | ✓ | ✓ | | | | | | | 2228 |
| 4457-58 | Alarm – High KW – Total 2 | R/W | ✓ | ✓ | | | | | | | 2229 |
| 4459-60 | Alarm – High UnBalanced Current | R/W | ✓ | ✓ | | | | | | | 2230 |
| 4461-62 | Alarm – High UnBalanced Voltage | R/W | ✓ | ✓ | | | | | | | 2231 |
| 4463-64 | Alarm – High Freq - L1 | R/W | ✓ | ✓ | | | | | | | 2232 |
| 4465-66 | Alarm – High Freq – L2 | R/W | ✓ | ✓ | | | | | | | 2233 |
| 4467-68 | Alarm – High Freq – L3 | R/W | ✓ | ✓ | | | | | | | 2234 |
| 4469-70 | Alarm - High KVA Total | R/W | ✓ | ✓ | | | | | | | 2235 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|----------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 4471-72 | Alarm - High KVAR Total | R/W | ✓ | ✓ | | | | | | | 2236 |
| 4473-74 | Alarm- High CosF – L1 | R/W | ✓ | ✓ | | | | | | | 2237 |
| 4475-76 | Alarm- High CosF – L2 | R/W | ✓ | ✓ | | | | | | | 2238 |
| 4477-78 | Alarm- High CosF – L3 | R/W | ✓ | ✓ | | | | | | | 2239 |
| 4479-80 | Alarm- High Demand Total KW | R/W | ✓ | ✓ | | | | | | | 2240 |
| 4481-82 | Alarm – High Demad Total Current | R/W | ✓ | ✓ | | | | | | | 2241 |
| | | | | | | | | | | | |
| 4599-00 | Alarm- Low Voltage L1 | R/W | ✓ | ✓ | | | | | | | 2300 |
| 4601-02 | Alarm- Low Voltage L2 | R/W | ✓ | ✓ | | | | | | | 2301 |
| 4603-04 | Alarm- Low Voltage L3 | R/W | ✓ | ✓ | | | | | | | 2302 |
| 4605-06 | Alarm- Low Voltage L1-2 | R/W | ✓ | ✓ | | | | | | | 2303 |
| 4607-08 | Alarm- Low Voltage L2-3 | R/W | ✓ | ✓ | | | | | | | 2304 |
| 4609-10 | Alarm- Low Voltage L3-1 | R/W | ✓ | ✓ | | | | | | | 2305 |
| 4611-12 | Alarm- Low Current L1 | R/W | ✓ | ✓ | | | | | | | 2306 |
| 4613-14 | Alarm- Low Current L2 | R/W | ✓ | ✓ | | | | | | | 2307 |
| 4615-16 | Alarm- Low Current L3 | R/W | ✓ | ✓ | | | | | | | 2308 |
| 4617-18 | Alarm- Low Current L0 | R/W | ✓ | ✓ | | | | | | | 2309 |
| 4619-20 | Alarm- Low PF L1 | R/W | ✓ | ✓ | | | | | | | 2310 |
| 4621-22 | Alarm- Low PF L2 | R/W | ✓ | ✓ | | | | | | | 2311 |
| 4623-24 | Alarm- Low PF L3 | R/W | ✓ | ✓ | | | | | | | 2312 |
| 4625-26 | Alarm- Low PF Total | R/W | ✓ | ✓ | | | | | | | 2313 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 4627-28 | Alarm- Low Voltage THD L1 | R/W | ✓ | ✓ | | | | | | | 2314 |
| 4629-30 | Alarm- Low Voltage THD L2 | R/W | ✓ | ✓ | | | | | | | 2315 |
| 4631-32 | Alarm- Low Voltage THD L3 | R/W | ✓ | ✓ | | | | | | | 2316 |
| 4633-34 | Alarm- Low Current THD L1 | R/W | ✓ | ✓ | | | | | | | 2317 |
| 4635-36 | Alarm- Low Current THD L2 | R/W | ✓ | ✓ | | | | | | | 2318 |
| 4637-38 | Alarm- Low Current THD L3 | R/W | ✓ | ✓ | | | | | | | 2319 |
| 4639-40 | Alarm- Low Current THD L0 | R/W | ✓ | ✓ | | | | | | | 2320 |
| 4641-42 | Alarm- Low Current TDD L1 | R/W | ✓ | ✓ | | | | | | | 2321 |
| 4643-44 | Alarm- Low Current TDD L2 | R/W | ✓ | ✓ | | | | | | | 2322 |
| 4645-46 | Alarm- Low Current TDD L3 | R/W | ✓ | ✓ | | | | | | | 2323 |
| 4647-48 | Alarm- Low Current TDD L0 | R/W | ✓ | ✓ | | | | | | | 2324 |
| 4649-50 | Alarm- Low KW – L1 | R/W | ✓ | ✓ | | | | | | | 2325 |
| 4651-52 | Alarm – Low KW – L2 | R/W | ✓ | ✓ | | | | | | | 2326 |
| 4653-54 | Alarm – Low KW – L3 | R/W | ✓ | ✓ | | | | | | | 2327 |
| 4655-56 | Alarm – Low KW – Total 1 | R/W | ✓ | ✓ | | | | | | | 2328 |
| 4657-58 | Alarm – Low KW – Total 2 | R/W | ✓ | ✓ | | | | | | | 2329 |
| 4859-60 | Alarm – Low UnBalanced Current | R/W | ✓ | ✓ | | | | | | | 2330 |
| 4861-62 | Alarm – Low UnBalanced Voltage | R/W | ✓ | ✓ | | | | | | | 2331 |
| 4863-64 | Alarm – Low Freq - L1 | R/W | ✓ | ✓ | | | | | | | 2332 |
| 4865-66 | Alarm – Low Freq – L2 | R/W | ✓ | ✓ | | | | | | | 2333 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 4867-68 | Alarm – Low Freq – L3 | R/W | ✓ | ✓ | | | | | | | 2334 |
| 4869-70 | Alarm - Low KVA Total | R/W | ✓ | ✓ | | | | | | | 2335 |
| 4871-72 | Alarm - Low KVAR Total | R/W | ✓ | ✓ | | | | | | | 2336 |
| 4873-74 | Alarm - Low CosF – L1 | R/W | ✓ | ✓ | | | | | | | 2337 |
| 4875-76 | Alarm - Low CosF – L2 | R/W | ✓ | ✓ | | | | | | | 2338 |
| 4877-78 | Alarm - Low CosF – L3 | R/W | ✓ | ✓ | | | | | | | 2339 |
| 4879-80 | Alarm - Low Demand Total KW | R/W | ✓ | ✓ | | | | | | | 2340 |
| 4881-82 | Alarm – Low Demad Total Current | R/W | ✓ | ✓ | | | | | | | 2341 |
| | | | | | | | | | | | |
| 4799-00 | Alarm- Relay High Voltage L1 | R/W | ✓ | ✓ | | | | | | | 2400 |
| 4801-02 | Alarm- Relay High Voltage L2 | R/W | ✓ | ✓ | | | | | | | 2401 |
| 4803-04 | Alarm- Relay High Voltage L3 | R/W | ✓ | ✓ | | | | | | | 2402 |
| 4805-06 | Alarm- Relay High Voltage L1-2 | R/W | ✓ | ✓ | | | | | | | 2403 |
| 4807-08 | Alarm- Relay High Voltage L2-3 | R/W | ✓ | ✓ | | | | | | | 2404 |
| 4809-10 | Alarm- Relay High Voltage L3-1 | R/W | ✓ | ✓ | | | | | | | 2405 |
| 4811-12 | Alarm- Relay High Current L1 | R/W | ✓ | ✓ | | | | | | | 2406 |
| 4813-14 | Alarm- Relay High Current L2 | R/W | ✓ | ✓ | | | | | | | 2407 |
| 4815-16 | Alarm- Relay High Current L3 | R/W | ✓ | ✓ | | | | | | | 2408 |
| 4817-18 | Alarm- Relay High Current L0 | R/W | ✓ | ✓ | | | | | | | 2409 |
| 4819-20 | Alarm- Relay High PF L1 | R/W | ✓ | ✓ | | | | | | | 2410 |
| 4821-22 | Alarm- Relay High PF L2 | R/W | ✓ | ✓ | | | | | | | 2411 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|----------------------------------|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 4823-24 | Alarm- Relay High PF L3 | R/W | ✓ | ✓ | | | | | | 2412 |
| 4825-26 | Alarm- Relay High PF Total | R/W | ✓ | ✓ | | | | | | 2413 |
| 4827-28 | Alarm- Relay High Voltage THD L1 | R/W | ✓ | ✓ | | | | | | 2414 |
| 4829-30 | Alarm- Relay High Voltage THD L2 | R/W | ✓ | ✓ | | | | | | 2415 |
| 4831-32 | Alarm- Relay High Voltage THD L3 | R/W | ✓ | ✓ | | | | | | 2416 |
| 4833-34 | Alarm- Relay High Current THD L1 | R/W | ✓ | ✓ | | | | | | 2417 |
| 4835-36 | Alarm- Relay High Current THD L2 | R/W | ✓ | ✓ | | | | | | 2418 |
| 4837-38 | Alarm- Relay High Current THD L3 | R/W | ✓ | ✓ | | | | | | 2419 |
| 4839-40 | Alarm- Relay High Current THD L0 | R/W | ✓ | ✓ | | | | | | 2420 |
| 4841-42 | Alarm- Relay High Current TDD L1 | R/W | ✓ | ✓ | | | | | | 2421 |
| 4843-44 | Alarm- Relay High Current TDD L2 | R/W | ✓ | ✓ | | | | | | 2422 |
| 4845-46 | Alarm- Relay High Current TDD L3 | R/W | ✓ | ✓ | | | | | | 2423 |
| 4847-48 | Alarm- Relay High Current TDD L0 | R/W | ✓ | ✓ | | | | | | 2424 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 4849-50 | Alarm- Relay High KW – L1 | R/W | ✓ | ✓ | | | | | | | 2425 |
| 4851-52 | Alarm – Relay High KW – L2 | R/W | ✓ | ✓ | | | | | | | 2426 |
| 4853-54 | Alarm – Relay High KW – L3 | R/W | ✓ | ✓ | | | | | | | 2427 |
| 4855-56 | Alarm – Relay High KW – Total 1 | R/W | ✓ | ✓ | | | | | | | 2428 |
| 4857-58 | Alarm – Relay High KW – Total 2 | R/W | ✓ | ✓ | | | | | | | 2429 |
| 4859-60 | Alarm – Relay High UnBalanced Current | R/W | ✓ | ✓ | | | | | | | 2430 |
| 4861-62 | Alarm – Relay High UnBalanced Voltage | R/W | ✓ | ✓ | | | | | | | 2431 |
| 4863-64 | Alarm – Relay High Freq - L1 | R/W | ✓ | ✓ | | | | | | | 2432 |
| 4865-66 | Alarm – Relay High Freq – L2 | R/W | ✓ | ✓ | | | | | | | 2433 |
| 4867-68 | Alarm – Relay High Freq – L3 | R/W | ✓ | ✓ | | | | | | | 2434 |
| 4869-70 | Alarm - Relay High KVA Total | R/W | ✓ | ✓ | | | | | | | 2435 |
| 4871-72 | Alarm - Relay High KVAR Total | R/W | ✓ | ✓ | | | | | | | 2436 |
| 4873-74 | Alarm - Relay High CosF – L1 | R/W | ✓ | ✓ | | | | | | | 2437 |
| 4875-76 | Alarm - Relay High CosF – L2 | R/W | ✓ | ✓ | | | | | | | 2438 |
| 4877-78 | Alarm - Relay High CosF – L3 | R/W | ✓ | ✓ | | | | | | | 2439 |
| 4879-80 | Alarm - Relay High Demand Total KW | R/W | ✓ | ✓ | | | | | | | 2440 |
| 4881-82 | Alarm – Relay High Demad Total Current | R/W | ✓ | ✓ | | | | | | | 2441 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 4999-00 | Alarm- Relay Low Voltage L1 | R/W | ✓ | ✓ | | | | | | | 2500 |
| 5001-02 | Alarm- Relay Low Voltage L2 | R/W | ✓ | ✓ | | | | | | | 2501 |
| 5003-04 | Alarm- Relay Low Voltage L3 | R/W | ✓ | ✓ | | | | | | | 2502 |
| 5005-06 | Alarm- Relay Low Voltage L1-2 | R/W | ✓ | ✓ | | | | | | | 2503 |
| 5007-08 | Alarm- Relay Low Voltage L2-3 | R/W | ✓ | ✓ | | | | | | | 2504 |
| 5009-10 | Alarm- Relay Low Voltage L3-1 | R/W | ✓ | ✓ | | | | | | | 2505 |
| 5011-12 | Alarm- Relay Low Current L1 | R/W | ✓ | ✓ | | | | | | | 2506 |
| 5013-14 | Alarm- Relay Low Current L2 | R/W | ✓ | ✓ | | | | | | | 2507 |
| 5015-16 | Alarm- Relay Low Current L3 | R/W | ✓ | ✓ | | | | | | | 2508 |
| 5017-18 | Alarm- Relay Low Current L0 | R/W | ✓ | ✓ | | | | | | | 2509 |
| 5019-20 | Alarm- Relay Low PF L1 | R/W | ✓ | ✓ | | | | | | | 2510 |
| 5021-22 | Alarm- Relay Low PF L2 | R/W | ✓ | ✓ | | | | | | | 2511 |
| 5023-24 | Alarm- Relay Low PF L3 | R/W | ✓ | ✓ | | | | | | | 2512 |
| 5025-26 | Alarm- Relay Low PF Total | R/W | ✓ | ✓ | | | | | | | 2513 |
| 5027-28 | Alarm- Relay Low Voltage THD L1 | R/W | ✓ | ✓ | | | | | | | 2514 |
| 5029-30 | Alarm- Relay Low Voltage THD L2 | R/W | ✓ | ✓ | | | | | | | 2515 |
| 5031-32 | Alarm- Relay Low Voltage THD L3 | R/W | ✓ | ✓ | | | | | | | 2516 |
| 5033-34 | Alarm- Relay Low Current THD | R/W | ✓ | ✓ | | | | | | | 2517 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | L1 | | | | | | | | | | |
| 5035-36 | Alarm- Relay Low Current THD L2 | R/W | ✓ | ✓ | | | | | | | 2518 |
| 5037-38 | Alarm- Relay Low Current THD L3 | R/W | ✓ | ✓ | | | | | | | 2519 |
| 5039-40 | Alarm- Relay Low Current THD L0 | R/W | ✓ | ✓ | | | | | | | 2520 |
| 5041-42 | Alarm- Relay Low Current TDD L1 | R/W | ✓ | ✓ | | | | | | | 2521 |
| 5043-44 | Alarm- Relay Low Current TDD L2 | R/W | ✓ | ✓ | | | | | | | 2522 |
| 5045-46 | Alarm- Relay Low Current TDD L3 | R/W | ✓ | ✓ | | | | | | | 2523 |
| 5047-48 | Alarm- Relay Low Current TDD L0 | R/W | ✓ | ✓ | | | | | | | 2524 |
| 5049-50 | Alarm- Relay Low KW – L1 | R/W | ✓ | ✓ | | | | | | | 2525 |
| 5051-52 | Alarm – Relay Low KW – L2 | R/W | ✓ | ✓ | | | | | | | 2526 |
| 5053-54 | Alarm – Relay Low KW – L3 | R/W | ✓ | ✓ | | | | | | | 2527 |
| 5055-56 | Alarm – Relay Low KW – Total 1 | R/W | ✓ | ✓ | | | | | | | 2528 |
| 5057-58 | Alarm – Relay Low KW – Total 2 | R/W | ✓ | ✓ | | | | | | | 2529 |
| 5059-60 | Alarm – Relay Low UnBalanced Current | R/W | ✓ | ✓ | | | | | | | 2530 |
| 5061-62 | Alarm – Relay Low UnBalanced Voltage | R/W | ✓ | ✓ | | | | | | | 2531 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 5063-64 | Alarm – Relay Low Freq - L1 | R/W | ✓ | ✓ | | | | | | 2532 |
| 5065-66 | Alarm – Relay Low Freq – L2 | R/W | ✓ | ✓ | | | | | | 2533 |
| 5067-68 | Alarm – Relay Low Freq – L3 | R/W | ✓ | ✓ | | | | | | 2534 |
| 5069-70 | Alarm - Relay Low KVA Total | R/W | ✓ | ✓ | | | | | | 2535 |
| 5071-72 | Alarm - Relay Low KVAR Total | R/W | ✓ | ✓ | | | | | | 2536 |
| 5073-74 | Alarm - Relay Low CosF – L1 | R/W | ✓ | ✓ | | | | | | 2537 |
| 5075-76 | Alarm - Relay Low CosF – L2 | R/W | ✓ | ✓ | | | | | | 2538 |
| 5077-78 | Alarm - Relay Low CosF – L3 | R/W | ✓ | ✓ | | | | | | 2539 |
| 5079-80 | Alarm - Relay Low Demand Total KW | R/W | ✓ | ✓ | | | | | | 2540 |
| 5081-82 | Alarm – Relay Low Demad Total Current | R/W | ✓ | ✓ | | | | | | 2541 |
| | | | | | | | | | | |
| 5199-00 | Alarm- T.Tbl Voltage L1 | R/W | ✓ | ✓ | | | | | | 2600 |
| 5201-02 | Alarm- T.Tbl Voltage L2 | R/W | ✓ | ✓ | | | | | | 2601 |
| 5203-04 | Alarm- T.Tbl Voltage L3 | R/W | ✓ | ✓ | | | | | | 2602 |
| 5205-06 | Alarm- T.Tbl Voltage L1-2 | R/W | ✓ | ✓ | | | | | | 2603 |
| 5207-08 | Alarm- T.Tbl Voltage L2-3 | R/W | ✓ | ✓ | | | | | | 2604 |
| 5209-10 | Alarm- T.Tbl Voltage L3-1 | R/W | ✓ | ✓ | | | | | | 2605 |
| 5211-12 | Alarm- T.Tbl Current L1 | R/W | ✓ | ✓ | | | | | | 2606 |
| 5213-14 | Alarm- T.Tbl Current L2 | R/W | ✓ | ✓ | | | | | | 2607 |
| 5215-16 | Alarm- T.Tbl Current L3 | R/W | ✓ | ✓ | | | | | | 2608 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|-----------------------------|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 5217-18 | Alarm- T.Tbl Current L0 | R/W | ✓ | ✓ | | | | | | 2609 |
| 5219-20 | Alarm- T.Tbl PF L1 | R/W | ✓ | ✓ | | | | | | 2610 |
| 5221-22 | Alarm- T.Tbl PF L2 | R/W | ✓ | ✓ | | | | | | 2611 |
| 5223-24 | Alarm- T.Tbl PF L3 | R/W | ✓ | ✓ | | | | | | 2612 |
| 5225-26 | Alarm- T.Tbl PF Total | R/W | ✓ | ✓ | | | | | | 2613 |
| 5227-28 | Alarm- T.Tbl Voltage THD L1 | R/W | ✓ | ✓ | | | | | | 2614 |
| 5229-30 | Alarm- T.Tbl Voltage THD L2 | R/W | ✓ | ✓ | | | | | | 2615 |
| 5231-32 | Alarm- T.Tbl Voltage THD L3 | R/W | ✓ | ✓ | | | | | | 2616 |
| 5233-34 | Alarm- T.Tbl Current THD L1 | R/W | ✓ | ✓ | | | | | | 2617 |
| 5235-36 | Alarm- T.Tbl Current THD L2 | R/W | ✓ | ✓ | | | | | | 2618 |
| 5237-38 | Alarm- T.Tbl Current THD L3 | R/W | ✓ | ✓ | | | | | | 2619 |
| 5239-40 | Alarm- T.Tbl Current THD L0 | R/W | ✓ | ✓ | | | | | | 2620 |
| 5241-42 | Alarm- T.Tbl Current TDD L1 | R/W | ✓ | ✓ | | | | | | 2621 |
| 5243-44 | Alarm- T.Tbl Current TDD L2 | R/W | ✓ | ✓ | | | | | | 2622 |
| 5245-46 | Alarm- T.Tbl Current TDD L3 | R/W | ✓ | ✓ | | | | | | 2623 |
| 5247-48 | Alarm- T.Tbl Current TDD L0 | R/W | ✓ | ✓ | | | | | | 2624 |
| 5249-50 | Alarm- T.Tbl KW – L1 | R/W | ✓ | ✓ | | | | | | 2625 |
| 5251-52 | Alarm – T.Tbl KW – L2 | R/W | ✓ | ✓ | | | | | | 2626 |
| 5253-54 | Alarm – T.Tbl KW – L3 | R/W | ✓ | ✓ | | | | | | 2627 |
| 5255-56 | Alarm – T.Tbl KW – Total 1 | R/W | ✓ | ✓ | | | | | | 2628 |
| 5257-58 | Alarm – T.Tbl KW – Total 2 | R/W | ✓ | ✓ | | | | | | 2629 |
| 5259-60 | Alarm – T.Tbl UnBalanced | R/W | ✓ | ✓ | | | | | | 2630 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|-----------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | Current | | | | | | | | | | |
| 5261-62 | Alarm – T.Tbl UnBalanced Voltage | R/W | ✓ | ✓ | | | | | | | 2631 |
| 5263-64 | Alarm – T.Tbl Freq - L1 | R/W | ✓ | ✓ | | | | | | | 2632 |
| 5265-66 | Alarm – T.Tbl Freq – L2 | R/W | ✓ | ✓ | | | | | | | 2633 |
| 5267-68 | Alarm – T.Tbl Freq – L3 | R/W | ✓ | ✓ | | | | | | | 2634 |
| 5269-70 | Alarm - T.Tbl KVA Total | R/W | ✓ | ✓ | | | | | | | 2635 |
| 5271-72 | Alarm - T.Tbl KVAR Total | R/W | ✓ | ✓ | | | | | | | 2636 |
| 5273-74 | Alarm - T.Tbl CosF – L1 | R/W | ✓ | ✓ | | | | | | | 2637 |
| 5275-76 | Alarm - T.Tbl CosF – L2 | R/W | ✓ | ✓ | | | | | | | 2638 |
| 5277-78 | Alarm - T.Tbl CosF – L3 | R/W | ✓ | ✓ | | | | | | | 2639 |
| 5279-80 | Alarm - T.Tbl Demand Total KW | R/W | ✓ | ✓ | | | | | | | 2640 |
| 5281-82 | Alarm – T.Tbl Demad Total Current | R/W | ✓ | ✓ | | | | | | | 2641 |
| | | | | | | | | | | | |
| 5401-2 | Alarm- T.Tbl #1 | R/W | ✓ | ✓ | | | | | | | 2701 |
| □ | □ | □ | | | | | | | | | □ |
| 5431-32 | Alarm- T.Tbl #16 | R/W | ✓ | ✓ | | | | | | | 2716 |
| | | | | | | | | | | | |
| 5601-2 | TOU- custom (Dbl) Low - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2801 |
| 5603-4 | TOU- custom (Dbl) Low - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2802 |
| 5605-6 | TOU- custom (Dbl) Low - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2803 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 5607-8 | TOU- custom (Dbl) Low - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2804 |
| 5609-10 | TOU- custom (Dbl) Med - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2805 |
| 5611-12 | TOU- custom (Dbl) Med - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2806 |
| 5613-14 | TOU- custom (Dbl) Med - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2807 |
| 5615-16 | TOU- custom (Dbl) Med - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2808 |
| 5617-18 | TOU- custom (Dbl) High - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2809 |
| 5619-20 | TOU- custom (Dbl) High - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2810 |
| 5621-22 | TOU- custom (Dbl) High - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2811 |
| 5623-24 | TOU- custom (Dbl) High - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2812 |
| 5625-26 | TOU- Uruguay (Trpl) Low - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2813 |
| 5627-28 | TOU- Uruguay (Trpl) Low - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2814 |
| 5629-30 | TOU- Uruguay (Trpl) Low - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2815 |
| 5631-32 | TOU- Uruguay (Trpl) Low - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2816 |
| 5633-34 | TOU- Uruguay (Trpl) Med - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2817 |
| 5635-36 | TOU- Uruguay (Trpl) Med - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2818 |
| 5637-38 | TOU- Uruguay (Trpl) Med - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2819 |
| 5639-40 | TOU- Uruguay (Trpl) Med - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2820 |
| 5641-42 | TOU- Uruguay (Trpl) High - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2821 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 5643-44 | TOU- Uruguay (Trpl) High - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2822 |
| 5645-46 | TOU- Uruguay (Trpl) High - From | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2823 |
| 5647-48 | TOU- Uruguay (Trpl) High - To | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 2824 |
| | | | | | | | | | | | |
| 6001-2 | Relay # 1 Force Start Time | R/W | ✓ | ✓ | | | | | | | 3001 |
| 6003-4 | Relay # 1 Force Stop Time | R/W | ✓ | ✓ | | | | | | | 3002 |
| 6005-6 | Relay # 1 Force Start Time | R/W | ✓ | ✓ | | | | | | | 3003 |
| 6007-8 | Relay # 1 Force Stop Time | R/W | ✓ | ✓ | | | | | | | 3004 |
| 6009-10 | Relay # 1 Force Start Time | R/W | ✓ | ✓ | | | | | | | 3005 |
| 6011-12 | Relay # 1 Force Stop Time | R/W | ✓ | ✓ | | | | | | | 3006 |
| | | | | | | | | | | | |
| 6017-18 | Relay # 2 Force Start Time | R/W | ✓ | ✓ | | | | | | | 3009 |
| 6019-20 | Relay # 2 Force Stop Time | R/W | ✓ | ✓ | | | | | | | 3010 |
| 6021-22 | Relay # 2 Force Start Time | R/W | ✓ | ✓ | | | | | | | 3011 |
| 6023-24 | Relay # 2 Force Stop Time | R/W | ✓ | ✓ | | | | | | | 3012 |
| 6025-26 | Relay # 2 Force Start Time | R/W | ✓ | ✓ | | | | | | | 3013 |
| 6027-28 | Relay # 2 Force Stop Time | R/W | ✓ | ✓ | | | | | | | 3014 |
| | | | | | | | | | | | |
| 6033-34 | Relay # 3 Force Start Time | R/W | ✓ | ✓ | | | | | | | 3017 |
| 6035-36 | Relay # 3 Force Stop Time | R/W | ✓ | ✓ | | | | | | | 3018 |
| 6037-38 | Relay # 3 Force Start Time | R/W | ✓ | ✓ | | | | | | | 3019 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|------------------------------|--------------------------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 6039-40 | Relay # 3 Force Stop Time | R/W | ✓ | ✓ | | | | | | 3020 |
| 6041-42 | Relay # 3 Force Start Time | R/W | ✓ | ✓ | | | | | | 3021 |
| 6043-44 | Relay # 3 Force Stop Time | R/W | ✓ | ✓ | | | | | | 3022 |
| | | | | | | | | | | |
| 6049-50 | Flg To Clear SST At MidNight | R/W | ✓ | ✓ | | | | | | 3025 |
| | | | | | | | | | | |
| 6061-62 | Digital Out #1 (Status) | R | ✓ | ✓ | | ✓ | | | | 3031 |
| 6063-64 | Digital Out #2 (Status) | R | ✓ | ✓ | | ✓ | | | | 3032 |
| 6065-66 | Digital Out #3 (Status) | R | ✓ | ✓ | | ✓ | | | | 3033 |
| 6067-68 | Digital Out #4 (Status) | R | ✓ | ✓ | | ✓ | | | | 3034 |
| 6069-70 | Digital Out #5 (Status) | R | | | | ✓ | | | | 3035 |
| 6071-72 | Digital Out #6 (Status) | R | | | | ✓ | | | | 3036 |
| | | | | | | | | | | |
| 6201-2 | TOU – January Type | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | | 3101 |
| 6203-4 | TOU – February Type | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | | 3102 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 6223-24 | TOU – December Type | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | | 3112 |
| 6225-26 | TOU – Hour Details | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | | 3113 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 6655-56 | TOU – Hour Details | R/W* | ✓ | ✓ | ✓ | ✓ | | ✓ | | 3328 |
| | | | | | | | | | | |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 6799-0 | Active Total Energy (KWh) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3400 |
| 6801-2 | Reactive Total Energy (KVARh) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3401 |
| 6803-4 | Apparent Total Energy (KVah) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3402 |
| 6805-6 | Active Energy Line 1 (KWh-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3403 |
| 6807-8 | Active Energy Line 2 (KWh-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3404 |
| 6809-10 | Active Energy Line 3 (KWh-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3405 |
| 6811-12 | Reactive Energy Line 1 (KVARh-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3406 |
| 6813-14 | Reactive Energy Line 2 (KVARh-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3407 |
| 6815-16 | Reactive Energy Line 3 (KVARh-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3408 |
| 6817-18 | Apparant Energy Line 1 (KVAh-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3409 |
| 6819-20 | Apparant Energy Line 2 (KVAh-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3410 |
| 6821-22 | Apparant Energy Line 3 (KVAh-Import) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | 3411 |
| 6823-24 | Active Energy Line 1 – Rate 1 – KWh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 3412 |
| 6825-26 | Active Energy Line 2 – Rate 1 – | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | 3413 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | KWh (Imp) | | | | | | | | | | |
| 6827-28 | Active Energy Line 3 – Rate 1 – KWh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3414 |
| 6829-30 | Active Energy Line 1 – Rate 2 – KWh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3415 |
| 6831-32 | Active Energy Line 2 – Rate 2 – KWh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3416 |
| 6833-34 | Active Energy Line 3 – Rate 2 – KWh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3417 |
| 6835-36 | Active Energy Line 1 – Rate 3 – KWh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3418 |
| 6837-38 | Active Energy Line 2 – Rate 3 – KWh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3419 |
| 6839-40 | Active Energy Line 3 – Rate 3 – KWh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3420 |
| 6841-42 | Active Energy Line 1+2+3 – Rate 1 – KWh (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3421 |
| 6843-44 | Active Energy Line 1+2+3 – Rate 2 – KWh (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3422 |
| 6845-46 | Active Energy Line 1+2+3 – Rate 3 – KWh (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3423 |
| 6847-48 | ReActive Energy Line 1 –Rate 1 – KVARh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3424 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 6849-50 | ReActive Energy Line 2 –Rate 1 – KVARh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3425 |
| 6851-52 | ReActive Energy Line 3 –Rate 1 – KVARh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3426 |
| 6853-54 | ReActive Energy Line 1 –Rate 2 – KVARh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3427 |
| 6855-56 | ReActive Energy Line 2 –Rate 2 – KVARh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3428 |
| 6857-58 | ReActive Energy Line 3 –Rate 2 – KVARh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3429 |
| 6859-60 | ReActive Energy Line 1 –Rate 3 – KVARh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3430 |
| 6861-62 | ReActive Energy Line 2 –Rate 3 – KVARh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3431 |
| 6863-64 | ReActive Energy Line 3 –Rate 3 – KVARh (Imp) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3432 |
| 6865-66 | ReActive E. Line 1+2+3 –Rate 1 – KVARh (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3433 |
| 6867-68 | ReActive E. Line 1+2+3 –Rate 2 – KVARh (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3434 |
| 6869-70 | ReActive E. Line 1+2+3 –Rate 3 – KVARh (I) | R | ✓ | ✓ | ✓ | ✓ | | ✓ | | | 3435 |
| 6871-72 | Combined Active Power Line 1+2 +3 (KW) | R | ✓ | ✓ | | ✓ | | ✓ | | | 3436 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 6873-74 | Combined Active Power 1+2 +3 (MW) | R | ✓ | ✓ | | ✓ | | ✓ | | | 3437 |
| 6875-76 | Combined ReActive Power 1+2 +3 (MVAR) | R | ✓ | ✓ | | ✓ | | ✓ | | | 3438 |
| 6875-76 | Combined ReActive Power 1+2 +3 (KVAR) | R | ✓ | ✓ | | ✓ | | ✓ | | | 3439 |
| | | | | | | | | | | | |
| 6879-80 | Active Total Energy (Wh) -Meter B | R | | | | ✓ | | | | | 3440 |
| 6881-82 | Reactive Total Energy (VARh) - Meter B | R | | | | ✓ | | | | | 3441 |
| 6883-84 | Apparent Total Energy (Vah) - Meter B | R | | | | ✓ | | | | | 3442 |
| | | | | | | | | | | | |
| 6885-86 | Combined Apparant Power 1+2 +3 (KVA) | R | | | | ✓ | | | | | 3443 |
| 6887-88 | Combined Apparant Power 1+2 +3 (MVA) | R | | | | ✓ | | | | | 3444 |
| | | | | | | | | | | | |
| 6919-20 | Active Energy Line 1 (W-Import) -Meter B | R | | | | ✓ | | | | | 3460 |
| 6921-22 | Active Energy Line 2 (W-Import) -Meter B | R | | | | ✓ | | | | | 3461 |
| 6923-24 | Active Energy Line 3 (W-Import) | R | | | | ✓ | | | | | 3462 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | -Meter B | | | | | | | | | | |
| 6925-26 | Reactive Energy Line 1 (VAR-Import) -Meter B | R | | | | ✓ | | | | | 3463 |
| 6927-28 | Reactive Energy Line 2 (VAR-Import) -Meter B | R | | | | ✓ | | | | | 3464 |
| 6929-30 | Reactive Energy Line 3 (VAR-Import) -Meter B | R | | | | ✓ | | | | | 3465 |
| 6931-32 | Apparant Energy Line 1 (VA-Import) -Meter B | R | | | | ✓ | | | | | 3466 |
| 6933-34 | Apparant Energy Line 2 (VA-Import) -Meter B | R | | | | ✓ | | | | | 3467 |
| 6935-36 | Apparant Energy Line 3 (VA-Import) -Meter B | R | | | | ✓ | | | | | 3468 |
| 6937-38 | Active Energy Line 1 – Rate 1 (Imp) -Meter B | R | | | | ✓ | | | | | 3469 |
| 6939-40 | Active Energy Line 2 – Rate 1 (Imp) -Meter B | R | | | | ✓ | | | | | 3470 |
| 6941-42 | Active Energy Line 3 – Rate 1 (Imp) -Meter B | R | | | | ✓ | | | | | 3471 |
| 6943-44 | Active Energy Line 1 – Rate 2 (Imp) -Meter B | R | | | | ✓ | | | | | 3472 |
| 6945-46 | Active Energy Line 2 – Rate 2 (Imp) -Meter B | R | | | | ✓ | | | | | 3473 |
| 6947-48 | Active Energy Line 3 – Rate 2 | R | | | | ✓ | | | | | 3474 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | (Imp) -Meter B | | | | | | | | | | |
| 6949-50 | Active Energy Line 1 – Rate 3 (Imp) -Meter B | R | | | | ✓ | | | | | 3475 |
| 6951-52 | Active Energy Line 2 – Rate 3 (Imp) -Meter B | R | | | | ✓ | | | | | 3476 |
| 6953-54 | Active Energy Line 3 – Rate 3 (Imp) -Meter B | R | | | | ✓ | | | | | 3477 |
| 6955-56 | Active Power Line 1 (KW) | R | ✓ | ✓ | | | | | | | 3478 |
| 6957-58 | Active Power Line 2 (KW) | R | ✓ | ✓ | | | | | | | 3479 |
| 6959-60 | Active Power Line 3 (KW) | R | ✓ | ✓ | | | | | | | 3480 |
| 6961-62 | ReActive Power Line 1 (KVAR) | R | ✓ | ✓ | | | | | | | 3481 |
| 6963-64 | ReActive Power Line 2 (KVAR) | R | ✓ | ✓ | | | | | | | 3482 |
| 6965-66 | ReActive Power Line 3 (KVAR) | R | ✓ | ✓ | | | | | | | 3483 |
| 6967-68 | Apparent Power Line 1 (KVA) | R | ✓ | ✓ | | | | | | | 3484 |
| 6969-70 | Apparent Power Line 2 (KVA) | R | ✓ | ✓ | | | | | | | 3485 |
| 6971-72 | Apparent Power Line 3 (KVA) | R | ✓ | ✓ | | | | | | | 3486 |
| | | | | | | | | | | | |
| 7001-2 | 33 Harmonics for Volts Line 1 | R | ✓ | ✓ | | | | | | | 3501 |
| 7003-4 | 34 Harmonics for Volts Line 1 | R | ✓ | ✓ | | | | | | | 3502 |
| □ | □ | □ | | | | | | | | | □ |
| 7061-62 | 63 Harmonics for Volts Line 1 | R | ✓ | ✓ | | | | | | | 3531 |
| 7063-64 | 64 Harmonics for Volts Line 1 | R | ✓ | ✓ | | | | | | | 3532 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|--|--------------------------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 7065-66 | 33 Harmonics for Volts Line 2 | R | ✓ | ✓ | | | | | | 3533 |
| 7067-68 | 34 Harmonics for Volts Line 2 | R | ✓ | ✓ | | | | | | 3534 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 7125-26 | 63 Harmonics for Volts Line 2 | R | ✓ | ✓ | | | | | | 3563 |
| 7127-28 | 64 Harmonics for Volts Line 2 | R | ✓ | ✓ | | | | | | 3564 |
| 7129-30 | 33 Harmonic for Volts Line 3 | R | ✓ | ✓ | | | | | | 3565 |
| 7131-32 | 34 Harmonics for Volts Line 3 | R | ✓ | ✓ | | | | | | 3566 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 7189-90 | 63 Harmonics for Vots Line 3 | R | ✓ | ✓ | | | | | | 3595 |
| 7191-92 | 64 Harmonics for Volts Line 3 | R | ✓ | ✓ | | | | | | 3596 |
| 7193-94 | 33 Harmonics for Current Line 1 | R | ✓ | ✓ | | | | | | 3597 |
| 7195-96 | 34 Harmonics for Current Line 1 | R | ✓ | ✓ | | | | | | 3598 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 7253-54 | 63 Harmonics for Current Line 1 | R | ✓ | ✓ | | | | | | 3627 |
| 7255-56 | 64 Harmonics for Current Line 1 | R | ✓ | ✓ | | | | | | 3628 |
| 7257-58 | 33 Harmonics for Current Line 2 | R | ✓ | ✓ | | | | | | 3629 |
| 7259-60 | 34 Harmonics for Current Line 2 | R | ✓ | ✓ | | | | | | 3630 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 7317-18 | 63 Harmonics for Current line 2 | R | ✓ | ✓ | | | | | | 3659 |
| 7319-20 | 64 Harmonicsfor Current Line 2 | R | ✓ | ✓ | | | | | | 3660 |
| 7321-22 | 33 Harmonics for Current Line 3 | R | ✓ | ✓ | | | | | | 3661 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 7323-24 | 34 Harmonics for Current Line 3 | R | ✓ | ✓ | | | | | | 3662 |
| □ | □ | □ | | | | | | | | □ |
| 7381-82 | 63 Harmonics for Current Line 3 | R | ✓ | ✓ | | | | | | 3691 |
| 7383-84 | 64 Harmonics for Current Line 3 | R | ✓ | ✓ | | | | | | 3692 |
| | | | | | | | | | | |
| 7389-90 | UnBalance % (Now) | R | | | | ✓ | | | | 3695 |
| 7391-92 | UnBalance % (Last 10 Minutes) | R | | ✓ | | | | | | 3696 |
| 7393-94 | PST (Last 10 Minutes) For Line 1 | R | | ✓ | | | | | | 3697 |
| 7395-96 | PST (Last 10 Minutes) For Line 2 | R | | ✓ | | | | | | 3698 |
| 7397-98 | PST (Last 10 Minutes) For Line 3 | R | | ✓ | | | | | | 3699 |
| | | | | | | | | | | |
| 7401-02 | XAOut 1 – Item # | R/W | | | | ✓ | | | | 3701 |
| 7403-04 | XAOut 2 – Item # | R/W | | | | ✓ | | | | 3702 |
| 7405-06 | XAOut 3 – Item # | R/W | | | | ✓ | | | | 3703 |
| 7407-08 | XAOut 4 – Item # | R/W | | | | ✓ | | | | 3704 |
| | | | | | | | | | | |
| 7433-34 | XAOut 1 – Mode | R/W | | | | ✓ | | | | 3717 |
| 7435-36 | XAOut 2 – Mode | R/W | | | | ✓ | | | | 3718 |
| 7437-38 | XAOut 3 – Mode | R/W | | | | ✓ | | | | 3719 |
| 7439-40 | XAOut 4 – Mode | R/W | | | | ✓ | | | | 3720 |
| | | | | | | | | | | |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|----------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 7465-66 | XAOut 1 – Measured value 1 | R/W | | | | ✓ | | | | | 3733 |
| 7467-68 | XAOut 2 – Measured value 1 | R/W | | | | ✓ | | | | | 3734 |
| 7469-70 | XAOut 3 – Measured value 1 | R/W | | | | ✓ | | | | | 3735 |
| 7471-72 | XAOut 4 – Measured value 1 | R/W | | | | ✓ | | | | | 3736 |
| | | | | | | | | | | | |
| 7497-98 | XAOut 1 – Measured value 2 | R/W | | | | ✓ | | | | | 3749 |
| 7499-00 | XAOut 2 – Measured value 2 | R/W | | | | ✓ | | | | | 3750 |
| 7501-02 | XAOut 3 – Measured value 2 | R/W | | | | ✓ | | | | | 3751 |
| 7503-04 | XAOut 4 – Measured value 2 | R/W | | | | ✓ | | | | | 3752 |
| | | | | | | | | | | | |
| 7529-30 | XAOut 1 – Output value 1 | R/W | | | | ✓ | | | | | 3765 |
| 7531-32 | XAOut 2 – Output value 1 | R/W | | | | ✓ | | | | | 3766 |
| 7533-34 | XAOut 3 – Output value 1 | R/W | | | | ✓ | | | | | 3767 |
| 7535-36 | XAOut 4 – Output value 1 | R/W | | | | ✓ | | | | | 3768 |
| | | | | | | | | | | | |
| 7561-62 | XAOut 1 – Output value 2 | R/W | | | | ✓ | | | | | 3781 |
| 7563-64 | XAOut 2 – Output value 2 | R/W | | | | ✓ | | | | | 3782 |
| 7565-66 | XAOut 3 – Output value 2 | R/W | | | | ✓ | | | | | 3783 |
| 7567-68 | XAOut 4 – Output value 2 | R/W | | | | ✓ | | | | | 3784 |
| □ | □ | □ | | | | | | | | | □ |
| 7591-92 | | R/W | | | | ✓ | | | | | 3796 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|---------------------------------|--------------------------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | | | | | | | | | | | |
| 7599-00 | Map Item 3900 (Reg 7799-7800) | R/W | ✓ | ✓ | | ✓ | | ✓ | | | 3800 |
| 7601-02 | Map Item 3901 (Reg 7801-7802) | R/W | ✓ | ✓ | | ✓ | | ✓ | | | 3801 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 7797-98 | Map Item 3999 (Reg 7997-7998) | R/W | ✓ | ✓ | | ✓ | | ✓ | | | 3899 |
| 7799-00 | Maped Item 3800 (Reg 7599-7600) | R/W | ✓ | ✓ | | ✓ | | ✓ | | | 3900 |
| 7801-02 | Maped Item 3801 (Reg 7601-7602) | R/W | ✓ | ✓ | | ✓ | | ✓ | | | 3901 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 7997-98 | Maped Item 3899 (Reg 7797-7798) | R/W | ✓ | ✓ | | ✓ | | ✓ | | | 3999 |
| | | | | | | | | | | | |
| 8799-00 | Alarm- High Voltage L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4400 |
| 8801-02 | Alarm- High Voltage L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4401 |
| 8803-04 | Alarm- High Voltage L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4402 |
| 8805-06 | Alarm- High Current L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4403 |
| 8806-08 | Alarm- High Current L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4404 |
| 8809-10 | Alarm- High Current L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4405 |
| 8811-12 | Alarm- High Demand Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4406 |
| 8813-14 | Alarm- High Import Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4407 |
| 8815-16 | Alarm- High Export Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4408 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 8817-18 | Alarm- High Temperature | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4409 |
| 8819-20 | Alarm- High kVarhC/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4410 |
| 8821-22 | Alarm- High kVarhL/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4411 |
| | | | | | | | | | | | |
| 8839-40 | Alarm- Low Voltage L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4420 |
| 8841-42 | Alarm- Low Voltage L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4421 |
| 8843-44 | Alarm- Low Voltage L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4422 |
| 8845-46 | Alarm- Low Current L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4423 |
| 8846-48 | Alarm- Low Current L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4424 |
| 8849-50 | Alarm- Low Current L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4425 |
| 8851-52 | Alarm- Low Demand Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4426 |
| 8853-54 | Alarm- Low Import Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4427 |
| 8855-56 | Alarm- Low Export Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4428 |
| 8857-58 | Alarm- Low Temperature | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4429 |
| 8859-60 | Alarm- Low kVarhC/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4430 |
| 8861-62 | Alarm- Low kVarhL/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4431 |
| | | | | | | | | | | | |
| 8879-80 | Alarm- Hysteresis Voltage L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4440 |
| 8881-82 | Alarm- Hysteresis Voltage L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4441 |
| 8883-84 | Alarm- Hysteresis Voltage L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4442 |
| 8885-86 | Alarm- Hysteresis Current L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4443 |
| 8886-88 | Alarm- Hysteresis Current L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4444 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|-----------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 8889-90 | Alarm- Hysteresis Current L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4445 |
| 8891-92 | Alarm- Hysteresis Demand Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4446 |
| 8893-94 | Alarm- Hysteresis Import Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4447 |
| 8895-96 | Alarm- Hysteresis Export Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4448 |
| 8897-98 | Alarm- Hysteresis Temperature | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4449 |
| 8899-00 | Alarm- Hysteresis kVarhC/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4450 |
| 8901-02 | Alarm- Hysteresis kVarhL/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4451 |
| □ | | | | | | | | | | | □ |
| 8919-20 | Alarm- Delay On -Voltage L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4460 |
| 8921-22 | Alarm- Delay On -Voltage L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4461 |
| 8923-24 | Alarm- Delay On -Voltage L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4462 |
| 8925-26 | Alarm- Delay On -Current L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4463 |
| 8926-28 | Alarm- Delay On -Current L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4464 |
| 8929-30 | Alarm- Delay On -Current L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4465 |
| 8931-32 | Alarm- Delay On -Demand Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4466 |
| 8933-34 | Alarm- Delay On -Import Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4467 |
| 8935-36 | Alarm- Delay On -Export Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4468 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|-----------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 8937-38 | Alarm- Delay On -Temperature | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4469 |
| 8939-40 | Alarm- Delay On -kVarhC/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4470 |
| 8941-42 | Alarm- Delay On -kVarhL/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4471 |
| □ | | | | | | | | | | | □ |
| 8959-60 | Alarm- Delay Off -Voltage L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4480 |
| 8961-62 | Alarm- Delay Off -Voltage L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4481 |
| 8963-64 | Alarm- Delay Off -Voltage L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4482 |
| 8965-66 | Alarm- Delay Off -Current L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4483 |
| 8966-68 | Alarm- Delay Off -Current L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4484 |
| 8969-70 | Alarm- Delay Off -Current L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4485 |
| 8971-72 | Alarm- Delay Off -Demand Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4486 |
| 8973-74 | Alarm- Delay Off -Import Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4487 |
| 8975-76 | Alarm- Delay Off -Export Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4488 |
| 8977-78 | Alarm- Delay Off -Temprature | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4489 |
| 8979-80 | Alarm- Delay Off -kVarhC/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4490 |
| 8981-82 | Alarm- Delay Off -kVarhL/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4491 |
| | | | | | | | | | | | |
| 8999-00 | Alarm- Relay -Voltage L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4500 |
| 9001-02 | Alarm- Relay -Voltage L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4501 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 9003-04 | Alarm- Relay -Voltage L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4502 |
| 9005-06 | Alarm- Relay -Current L1 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4503 |
| 9006-08 | Alarm- Relay -Current L2 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4504 |
| 9009-10 | Alarm- Relay -Current L3 | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4505 |
| 9011-12 | Alarm- Relay -Demand Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4506 |
| 9013-14 | Alarm- Relay -Import Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4507 |
| 9015-16 | Alarm- Relay -Export Total KW | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4508 |
| 9017-18 | Alarm- Relay -Temprature | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4509 |
| 9019-20 | Alarm- Relay -kVarhC/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4500 |
| 9021-22 | Alarm- Relay -kVarhL/kWh | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4511 |
| 9023-24 | @ | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4512 |
| 9025-26 | @ | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4513 |
| 9027-28 | @ | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4514 |
| 9029-30 | @ | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4515 |
| 9031-32 | @ | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4516 |
| 9033-34 | @ | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4517 |
| 9035-36 | @ | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4518 |
| 9037-38 | @ | R/W | ✓ | ✓ | ✓ | ✓ | | | | | 4519 |
| | | | | | | | | | | | |
| 10001-02 | Trip Current – Amper (Point 1) | R/W | | ✓ | | | | | | | 5001 |
| 10003-04 | Trip Current – Amper (Point 2) | R/W | | ✓ | | | | | | | 5002 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|--|--------------------------|-----------|----------|-------|-------------|--------------|------------|---|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 10039-40 | Trip Current – Amper (Point 20) | R/W | | ✓ | | | | | | 5020 |
| 10041-42 | Trip Current – Time (Point 1) | R/W | | ✓ | | | | | | 5021 |
| 10043-44 | Trip Current – Time (Point 2) | R/W | | ✓ | | | | | | 5022 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 10079-80 | Trip Current – Time (Point 20) | R/W | | ✓ | | | | | | 5040 |
| | | | | | | | | | | |
| 10081-82 | Trip Current – Phase 1 DTE (Write To Clear) | R/W | | ✓ | | | | | | 5041 |
| 10083-84 | Trip Current – Phase 2 DTE (Write To Clear) | R/W | | ✓ | | | | | | 5042 |
| 10085-86 | Trip Current – Phase 3 DTE (Write To Clear) | R/W | | ✓ | | | | | | 5043 |
| 10087-88 | Trip Current – Phase 1 Amper | R | | ✓ | | | | | | 5044 |
| 10089-90 | Trip Current – Phase 1 Time (Seconds) | R | | ✓ | | | | | | 5045 |
| 10091-92 | Trip Current – Phase 2 Amper | R | | ✓ | | | | | | 5046 |
| 10093-94 | Trip Current – Phase 2 Time (Seconds) | R | | ✓ | | | | | | 5047 |
| 10095-96 | Trip Current – Phase 3 Amper | R | | ✓ | | | | | | 5048 |
| 10097-98 | Trip Current – Phase 3 Time (Seconds) | R | | ✓ | | | | | | 5049 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10101-02 | Simple Trip Current #1 – SetPoint (Amper) | R/W | | ✓ | | | | | | | 5051 |
| 10103-04 | Simple Trip Current #1 – Time (Seconds) | R/W | | ✓ | | | | | | | 5052 |
| 10105-06 | Simple Trip Current #1 – Relay (1-4) | R/W | | ✓ | | | | | | | 5053 |
| 10107-08 | Simple Trip Current #1 – Status | R/W | | ✓ | | | | | | | 5054 |
| 10109-10 | Simple Trip Current #2 – SetPoint (Amper) | R/W | | ✓ | | | | | | | 5055 |
| 10111-12 | Simple Trip Current #2 – Time (Seconds) | R/W | | ✓ | | | | | | | 5056 |
| 10113-14 | Simple Trip Current #2 – Relay (1-4) | R/W | | ✓ | | | | | | | 5057 |
| 10115-16 | Simple Trip Current #2 – Status | R/W | | ✓ | | | | | | | 5058 |
| 10121-22 | Dout Mode # 1 | R/W | ✓ | ✓ | | | | | | | 5061 |
| 10123-24 | Dout Mode # 2 | R/W | ✓ | ✓ | | | | | | | 5062 |
| 10125-26 | Dout Mode # 3 | R/W | ✓ | ✓ | | | | | | | 5063 |
| 10127-28 | Dout Mode # 4 | R/W | ✓ | ✓ | | | | | | | 5064 |
| 10139-40 | Demand – Current (A) AVR(L1+L2+L3) | R/W | | | | ✓ | | | | | 5070 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10141-42 | Demand – Current (A) L0 | R/W | | | | ✓ | | | | | 5071 |
| 10143-44 | Demand – Current (A) AVR(L1+L2+L3) – Date | R | | | | ✓ | | | | | 5072 |
| 10145-46 | Demand – Current (A) L0 – Date | R | | | | ✓ | | | | | 5073 |
| | | | | | | | | | | | |
| 10159-60 | Demand – Current (A) L1 (Last) | R | | | | ✓ | | | | | 5080 |
| 10161-62 | Demand – Current (A) L2 (Last) | R | | | | ✓ | | | | | 5081 |
| 10163-64 | Demand – Current (A) L3 (Last) | R | | | | ✓ | | | | | 5082 |
| 10165-66 | Demand – Current (A) L1+L2+L3 (Last) | R | | | | ✓ | | | | | 5083 |
| 10167-68 | Demand – Current (A) AVR(L1+L2+L3) (Last) | R | | | | ✓ | | | | | 5084 |
| 10169-70 | Demand – Current (A) L0 (Last) | R | | | | ✓ | | | | | 5085 |
| | | | | | | | | | | | |
| 10179-80 | THD for Volts Lines 1+2+3 | R | | | | ✓ | | | | | 5090 |
| 10181-82 | THD for Current Lines 1+2+3 | R | | | | ✓ | | | | | 5091 |
| | | | | | | | | | | | |
| 10199-00 | Minimum Volt L1 | R | | | ✓ | ✓ | | | | | 5100 |
| 10201-02 | Minimum Volt L2 | R | | | ✓ | ✓ | | | | | 5101 |
| 10203-04 | Minimum Volt L3 | R | | | ✓ | ✓ | | | | | 5102 |
| 10205-06 | Maximum Volt L1 | R | | | ✓ | ✓ | | | | | 5103 |
| 10207-08 | Maximum Volt L2 | R | | | ✓ | ✓ | | | | | 5104 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10209-10 | Maximum Volt L3 | R | | | ✓ | ✓ | | | | | 5105 |
| 10211-12 | Maximum Current L1 | R | | | ✓ | ✓ | | | | | 5106 |
| 10213-14 | Maximum Current L2 | R | | | ✓ | ✓ | | | | | 5107 |
| 10215-16 | Maximum Current L3 | R | | | ✓ | ✓ | | | | | 5108 |
| 10217-18 | Maximum Current L0 | R | | | ✓ | ✓ | | | | | 5109 |
| 10219-20 | Minimum Volt L1-3 | R | | | ✓ | ✓ | | | | | 5110 |
| 10221-22 | Minimum Volt L2-3 | R | | | ✓ | ✓ | | | | | 5111 |
| 10223-24 | Minimum Volt L3-1 | R | | | ✓ | ✓ | | | | | 5112 |
| 10225-26 | Maximum Volt L1-3 | R | | | ✓ | ✓ | | | | | 5113 |
| 10227-28 | Maximum Volt L2-3 | R | | | ✓ | ✓ | | | | | 5114 |
| 10229-30 | Maximum Volt L3-1 | R | | | ✓ | ✓ | | | | | 5115 |
| 10231-32 | Maximum Active Power Total | R | | | ✓ | ✓ | | | | | 5116 |
| 10233-34 | Maximum Apparent Power Total | R | | | ✓ | ✓ | | | | | 5117 |
| 10235-36 | Maximum ReActive Power Total | R | | | ✓ | ✓ | | | | | 5118 |
| 10237-38 | Minimum PF. L1 | R | | | ✓ | ✓ | | | | | 5119 |
| 10239-40 | Minimum PF. L2 | R | | | ✓ | ✓ | | | | | 5120 |
| 10241-42 | Minimum PF. L3 | R | | | ✓ | ✓ | | | | | 5121 |
| 10243-44 | Minimum PF. Total | R | | | ✓ | ✓ | | | | | 5122 |
| 10245-46 | Maximum PF. L1 | R | | | ✓ | ✓ | | | | | 5123 |
| 10247-48 | Maximum PF. L2 | R | | | ✓ | ✓ | | | | | 5124 |
| 10249-50 | Maximum PF. L3 | R | | | ✓ | ✓ | | | | | 5125 |
| 10251-52 | Maximum PF. Total | R | | | ✓ | ✓ | | | | | 5126 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10253-54 | Minimum Freq. | R | | | ✓ | ✓ | | | | | 5127 |
| 10255-56 | Maximum Freq. | R | | | ✓ | ✓ | | | | | 5128 |
| 10257-58 | Minimum Current L1 | R | | | | ✓ | | | | | 5129 |
| 10259-60 | Minimum Current L2 | R | | | | ✓ | | | | | 5130 |
| 10261-62 | Minimum Current L3 | R | | | | ✓ | | | | | 5131 |
| 10263-64 | Minimum Current L0 | R | | | | ✓ | | | | | 5132 |
| 10265-66 | Maximum Active Power (W) L1 | R | | | | ✓ | | | | | 5133 |
| 10267-68 | Maximum Active Power (W) L2 | R | | | | ✓ | | | | | 5134 |
| 10269-70 | Maximum Active Power (W) L3 | R | | | | ✓ | | | | | 5135 |
| 10271-72 | Minimum Active Power (W) L1 | R | | | | ✓ | | | | | 5136 |
| 10273-74 | Minimum Active Power (W) L2 | R | | | | ✓ | | | | | 5137 |
| 10275-76 | Minimum Active Power (W) L3 | R | | | | ✓ | | | | | 5138 |
| 10277-78 | Maximum ReActive Power (VAR) L1 | R | | | | ✓ | | | | | 5139 |
| 10279-80 | Maximum ReActive Power (VAR) L2 | R | | | | ✓ | | | | | 5140 |
| 10281-82 | Maximum ReActive Power (VAR) L3 | R | | | | ✓ | | | | | 5141 |
| 10283-84 | Minimum ReActive Power (VAR) L1 | R | | | | ✓ | | | | | 5142 |
| 10285-86 | Minimum ReActive Power (VAR) L2 | R | | | | ✓ | | | | | 5143 |
| 10287-88 | Minimum ReActive Power | R | | | | ✓ | | | | | 5144 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | (VAR) L3 | | | | | | | | | | |
| 10289-90 | Maximum Apparent Power (VA) L1 | R | | | | ✓ | | | | | 5145 |
| 10291-92 | Maximum Apparent Power (VA) L2 | R | | | | ✓ | | | | | 5146 |
| 10293-94 | Maximum Apparent Power (VA) L3 | R | | | | ✓ | | | | | 5147 |
| 10295-96 | Minimum Apparent Power (VA) L1 | R | | | | ✓ | | | | | 5148 |
| 10297-98 | Minimum Apparent Power (VA) L2 | R | | | | ✓ | | | | | 5149 |
| 10299-00 | Minimum Apparent Power (VA) L3 | R | | | | ✓ | | | | | 5150 |
| 10301-02 | Minimum Active Power Total | R | | | | ✓ | | | | | 5151 |
| 10303-04 | Minimum Apparent Power Total | R | | | | ✓ | | | | | 5152 |
| 10305-06 | Minimum ReActive Power Total | R | | | | ✓ | | | | | 5153 |
| 10307-08 | Minimum Displacement PF. L1 | R | | | | ✓ | | | | | 5154 |
| 10309-10 | Minimum Displacement PF. L2 | R | | | | ✓ | | | | | 5155 |
| 10311-12 | Minimum Displacement PF. L3 | R | | | | ✓ | | | | | 5156 |
| 10313-14 | Maximum Displacement PF. L1 | R | | | | ✓ | | | | | 5157 |
| 10315-16 | Maximum Displacement PF. L2 | R | | | | ✓ | | | | | 5158 |
| 10317-18 | Maximum Displacement PF. L3 | R | | | | ✓ | | | | | 5159 |
| 10319-20 | Minimum THD V-L1 | R | | | | ✓ | | | | | 5160 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10321-22 | Minimum THD V-L2 | R | | | | ✓ | | | | | 5161 |
| 10323-24 | Minimum THD V-L3 | R | | | | ✓ | | | | | 5162 |
| 10325-26 | Maximum THD V-L1 | R | | | | ✓ | | | | | 5163 |
| 10327-28 | Maximum THD V-L2 | R | | | | ✓ | | | | | 5164 |
| 10329-30 | Maximum THD V-L3 | R | | | | ✓ | | | | | 5165 |
| 10331-32 | Minimum THD I-L1 | R | | | | ✓ | | | | | 5166 |
| 10333-34 | Minimum THD I-L2 | R | | | | ✓ | | | | | 5167 |
| 10335-36 | Minimum THD I-L3 | R | | | | ✓ | | | | | 5168 |
| 10337-38 | Maximum THD I-L1 | R | | | | ✓ | | | | | 5169 |
| 10339-40 | Maximum THD I-L2 | R | | | | ✓ | | | | | 5170 |
| 10341-42 | Maximum THD I-L3 | R | | | | ✓ | | | | | 5171 |
| | | | | | | | | | | | |
| 10399-00 | Minimum Volt L1 (DTE) | R | | | | ✓ | | | | | 5200 |
| 10401-2 | Minimum Volt L2 (DTE) | R | | | | ✓ | | | | | 5201 |
| 10403-4 | Minimum Volt L3 (DTE) | R | | | | ✓ | | | | | 5202 |
| 10405-6 | Maximum Volt L1 (DTE) | R | | | | ✓ | | | | | 5203 |
| 10407-8 | Maximum Volt L2 (DTE) | R | | | | ✓ | | | | | 5204 |
| 10409-10 | Maximum Volt L3 (DTE) | R | | | | ✓ | | | | | 5205 |
| 10411-12 | Maximum Current L1 (DTE) | R | | | | ✓ | | | | | 5206 |
| 10413-14 | Maximum Current L2 (DTE) | R | | | | ✓ | | | | | 5207 |
| 10415-16 | Maximum Current L3 (DTE) | R | | | | ✓ | | | | | 5208 |
| 10417-18 | Maximum Current L0 (DTE) | R | | | | ✓ | | | | | 5209 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10419-20 | Minimum Volt L1-3 (DTE) | R | | | | ✓ | | | | | 5210 |
| 10421-22 | Minimum Volt L2-3 (DTE) | R | | | | ✓ | | | | | 5211 |
| 10423-24 | Minimum Volt L3-1 (DTE) | R | | | | ✓ | | | | | 5212 |
| 10425-26 | Maximum Volt L1-3 (DTE) | R | | | | ✓ | | | | | 5213 |
| 10427-28 | Maximum Volt L2-3 (DTE) | R | | | | ✓ | | | | | 5214 |
| 10429-30 | Maximum Volt L3-1 (DTE) | R | | | | ✓ | | | | | 5215 |
| 10431-32 | Maximum Active Power Total (DTE) | R | | | | ✓ | | | | | 5216 |
| 10433-34 | Maximum Apparent Power Total (DTE) | R | | | | ✓ | | | | | 5217 |
| 10435-36 | Maximum ReActive Power Total (DTE) | R | | | | ✓ | | | | | 5218 |
| 10437-38 | Minimum PF. L1 (DTE) | R | | | | ✓ | | | | | 5219 |
| 10439-40 | Minimum PF. L2 (DTE) | R | | | | ✓ | | | | | 5220 |
| 10441-42 | Minimum PF. L3 (DTE) | R | | | | ✓ | | | | | 5221 |
| 10443-44 | Minimum PF. Total (DTE) | R | | | | ✓ | | | | | 5222 |
| 10445-46 | Maximum PF. L1 (DTE) | R | | | | ✓ | | | | | 5223 |
| 10447-48 | Maximum PF. L2 (DTE) | R | | | | ✓ | | | | | 5224 |
| 10449-50 | Maximum PF. L3 (DTE) | R | | | | ✓ | | | | | 5225 |
| 10451-52 | Maximum PF. Total (DTE) | R | | | | ✓ | | | | | 5226 |
| 10453-54 | Minimum Freq. (DTE) | R | | | | ✓ | | | | | 5227 |
| 10455-56 | Maximum Freq. (DTE) | R | | | | ✓ | | | | | 5228 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10457-58 | Minimum Current L1 (DTE) | R | | | | ✓ | | | | | 5229 |
| 10459-60 | Minimum Current L2 (DTE) | R | | | | ✓ | | | | | 5230 |
| 10461-62 | Minimum Current L3 (DTE) | R | | | | ✓ | | | | | 5231 |
| 10463-64 | Minimum Current L0 (DTE) | R | | | | ✓ | | | | | 5232 |
| 10465-66 | Maximum Active Power (W) L1 (DTE) | R | | | | ✓ | | | | | 5233 |
| 10467-68 | Maximum Active Power (W) L2 (DTE) | R | | | | ✓ | | | | | 5234 |
| 10469-70 | Maximum Active Power (W) L3 (DTE) | R | | | | ✓ | | | | | 5235 |
| 10471-72 | Minimum Active Power (W) L1 (DTE) | R | | | | ✓ | | | | | 5236 |
| 10473-74 | Minimum Active Power (W) L2 (DTE) | R | | | | ✓ | | | | | 5237 |
| 10475-76 | Minimum Active Power (W) L3 (DTE) | R | | | | ✓ | | | | | 5238 |
| 10477-78 | Maximum ReActive Power (VAR) L1 (DTE) | R | | | | ✓ | | | | | 5239 |
| 10479-80 | Maximum ReActive Power (VAR) L2 (DTE) | R | | | | ✓ | | | | | 5240 |
| 10481-82 | Maximum ReActive Power (VAR) L3 (DTE) | R | | | | ✓ | | | | | 5241 |
| 10483-84 | Minimum ReActive Power (VAR) L1 (DTE) | R | | | | ✓ | | | | | 5242 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|---------------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10485-86 | Minimum ReActive Power (VAR) L2 (DTE) | R | | | | ✓ | | | | | 5243 |
| 10487-88 | Minimum ReActive Power (VAR) L3 (DTE) | R | | | | ✓ | | | | | 5244 |
| 10489-90 | Maximum Apparent Power (VA) L1 (DTE) | R | | | | ✓ | | | | | 5245 |
| 10491-92 | Maximum Apparent Power (VA) L2 (DTE) | R | | | | ✓ | | | | | 5246 |
| 10493-94 | Maximum Apparent Power (VA) L3 (DTE) | R | | | | ✓ | | | | | 5247 |
| 10495-96 | Minimum Apparent Power (VA) L1 (DTE) | R | | | | ✓ | | | | | 5248 |
| 10497-98 | Minimum Apparent Power (VA) L2 (DTE) | R | | | | ✓ | | | | | 5249 |
| 10499-00 | Minimum Apparent Power (VA) L3 (DTE) | R | | | | ✓ | | | | | 5250 |
| 10501-2 | Minimum Active Power Total (DTE) | R | | | | ✓ | | | | | 5251 |
| 10503-4 | Minimum Apparent Power Total (DTE) | R | | | | ✓ | | | | | 5252 |
| 10505-6 | Minimum ReActive Power Total (DTE) | R | | | | ✓ | | | | | 5253 |
| 10507-8 | Minimum Displacement PF. L1 (DTE) | R | | | | ✓ | | | | | 5254 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|-----------------------------------|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10509-10 | Minimum Displacement PF. L2 (DTE) | R | | | | ✓ | | | | | 5255 |
| 10511-12 | Minimum Displacement PF. L3 (DTE) | R | | | | ✓ | | | | | 5256 |
| 10513-14 | Maximum Displacement PF. L1 (DTE) | R | | | | ✓ | | | | | 5257 |
| 10515-16 | Maximum Displacement PF. L2 (DTE) | R | | | | ✓ | | | | | 5258 |
| 10517-18 | Maximum Displacement PF. L3 (DTE) | R | | | | ✓ | | | | | 5259 |
| 10519-20 | Minimum THD V-L1 (DTE) | R | | | | ✓ | | | | | 5260 |
| 10521-22 | Minimum THD V-L2 (DTE) | R | | | | ✓ | | | | | 5261 |
| 10523-24 | Minimum THD V-L3 (DTE) | R | | | | ✓ | | | | | 5262 |
| 10525-26 | Maximum THD V-L1 (DTE) | R | | | | ✓ | | | | | 5263 |
| 10527-28 | Maximum THD V-L2 (DTE) | R | | | | ✓ | | | | | 5264 |
| 10529-30 | Maximum THD V-L3 (DTE) | R | | | | ✓ | | | | | 5265 |
| 10531-32 | Minimum THD I-L1 (DTE) | R | | | | ✓ | | | | | 5266 |
| 10533-34 | Minimum THD I-L2 (DTE) | R | | | | ✓ | | | | | 5267 |
| 10535-36 | Minimum THD I-L3 (DTE) | R | | | | ✓ | | | | | 5268 |
| 10537-38 | Maximum THD I-L1 (DTE) | R | | | | ✓ | | | | | 5269 |
| 10539-40 | Maximum THD I-L2 (DTE) | R | | | | ✓ | | | | | 5270 |
| 10541-42 | Maximum THD I-L3 (DTE) | R | | | | ✓ | | | | | 5271 |
| | | | | | | | | | | | |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|------------------------------------|--------------------------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 10557-58 | Last MinMax Table (DTE) | R | | | | | | | | 5279 |
| 10599-0 | Fast Trend Type (0,1,2) 2=User | R/W | ✓ | ✓ | | | | | | 5300 |
| 10601-2 | User Trend Item # 1 | R/W | ✓ | ✓ | | | | | | 5301 |
| 10603-4 | User Trend Item # 2 | R/W | ✓ | ✓ | | | | | | 5302 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 10629-30 | User Trend Item # 15 | R/W | ✓ | ✓ | | | | | | 5315 |
| 10639-40 | Demand – PF L1 | R | ✓ | ✓ | | | | | | 5320 |
| 10641-42 | Demand – PF L2 | R | ✓ | ✓ | | | | | | 5321 |
| 10643-44 | Demand – PF L3 | R | ✓ | ✓ | | | | | | 5322 |
| 10645-46 | Demand – PF L1+2+3 | R | ✓ | ✓ | | | | | | 5323 |
| 10647-48 | Demand – Current (AVR) L1,L2,L3 | R | ✓ | ✓ | | | | | | 5324 |
| 10649-50 | Demand – Current L0 | R | ✓ | ✓ | | | | | | 5325 |
| 10651-52 | Demand – V- THD L1 | R | ✓ | ✓ | | | | | | 5326 |
| 10653-54 | Demand – V- THD L2 | R | ✓ | ✓ | | | | | | 5327 |
| 10655-56 | Demand – V- THD L3 | R | ✓ | ✓ | | | | | | 5328 |
| 10657-58 | Demand – V- THD (Max) L1,L2,L3 | R | ✓ | ✓ | | | | | | 5329 |
| 10659-60 | Demand – I- THD L1 | R | ✓ | ✓ | | | | | | 5330 |
| 10661-62 | Demand – I- THD L2 | R | ✓ | ✓ | | | | | | 5331 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 10663-64 | Demand – I- THD L3 | R | ✓ | ✓ | | | | | | 5332 |
| 10665-66 | Demand – I- THD (Max) L1,L2,L3 | R | ✓ | ✓ | | | | | | 5333 |
| | | | | | | | | | | |
| 10679-80 | Voltage Line 1 (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5340 |
| 10681-82 | Voltage Line 2 (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5341 |
| 10682-84 | Voltage Line 3 (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5342 |
| 10685-86 | Voltage between line 1 and Line 3 (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5343 |
| 10687-88 | Voltage between line 2 and Line 3 (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5344 |
| 10689-90 | Voltage between line 3 and Line 1 (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5345 |
| 10691-92 | Current in Line 1 (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5346 |
| 10693-94 | Current in Line 2 (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5347 |
| 10695-96 | Current in Line 3 (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5348 |
| 10697-98 | Active Power Line 1 -Watt (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5349 |
| 10699-00 | Active Power Line 2 -Watt (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | 5350 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10701-02 | Active Power Line 3 -Watt (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5351 |
| 10703-04 | Active Power Line 1+2+3 -Watt (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5352 |
| 10705-06 | ReActive Power Line 1 -VAR (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5353 |
| 10707-08 | ReActive Power Line 2 -VAR (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5354 |
| 10709-10 | ReActive Power Line 3 -VAR (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5355 |
| 10711-12 | ReActive Power Line 1+2+3 -VAR (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5356 |
| 10713-14 | Power Factor Line 1 (PF) (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5357 |
| 10715-16 | Power Factor Line 2 (PF) (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5358 |
| 10717-18 | Power Factor Line 3 (PF) (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5359 |
| 10719-20 | Power Factor Line 1+2+3 (PF) (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5360 |
| 10721-22 | Current L0 (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5361 |
| 10723-24 | Frequency (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5362 |
| 10725-26 | Apparent Power Line 1 -VA (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5363 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 10727-28 | Apparent Power Line 2 - VA (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5364 |
| 10729-30 | Apparent Power Line 3 - VA (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5365 |
| 10731-32 | Apparent Power Line 1+2+3 - VA (15 Mint Average) | R | ✓ | ✓ | | ✓ | | | | | 5366 |
| | | | | | | | | | | | |
| 10779-80 | Demand – Cycle Time (Minutes) | R/W | ✓ | ✓ | | ✓ | | | | | 5390 |
| 10781-82 | Demand – Type (0=Slide,1=Block,2=Therm) | R/W | ✓ | ✓ | | ✓ | | | | | 5391 |
| 10783-84 | Demand – Sync (1=D.In,2=Comm,3=Clock) | R/W | ✓ | ✓ | | ✓ | | | | | 5392 |
| | | | | | | | | | | | |
| 10799-00 | EN50160 Event 1: Id | R | | ✓ | | | | | | | 5400 |
| 10801-02 | EN50160 Event 1: Event Num Code | R | | ✓ | | | | | | | 5401 |
| 10803-04 | EN50160 Event 1: Date (Dte) | R | | ✓ | | | | | | | 5402 |
| 10805-06 | EN50160 Event 1: MicroSecond | R | | ✓ | | | | | | | 5403 |
| 10807-08 | EN50160 Event 1: Length | R | | ✓ | | | | | | | 5404 |
| 10809-10 | EN50160 Event 1: Value | R | | ✓ | | | | | | | 5405 |
| 10811-12 | EN50160 Event 1: Phase | R | | ✓ | | | | | | | 5406 |
| 10715-16 | EN50160 Event 2: Id | R | | ✓ | | | | | | | 5408 |
| 10817-18 | EN50160 Event 2: Event Num | R | | ✓ | | | | | | | 5409 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|-------------------------------------|--------------------------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | Code | | | | | | | | | | |
| 10819-20 | EN50160 Event 2: Date (Dte) | R | | ✓ | | | | | | | 5410 |
| 10821-22 | EN50160 Event 2: MicroSecond | R | | ✓ | | | | | | | 5411 |
| 10823-24 | EN50160 Event 2: Length | R | | ✓ | | | | | | | 5412 |
| 10825-26 | EN50160 Event 2: Value | R | | ✓ | | | | | | | 5413 |
| 10827-28 | EN50160 Event 2: Phase | R | | ✓ | | | | | | | 5414 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 11583-84 | EN50160 Event 50: Id | R | | ✓ | | | | | | | 5792 |
| 11585-86 | EN50160 Event 50: Event Num Code | R | | ✓ | | | | | | | 5793 |
| 11587-88 | EN50160 Event 50: Date (Dte) | R | | ✓ | | | | | | | 5794 |
| 11589-90 | EN50160 Event 50: MicroSecond | R | | ✓ | | | | | | | 5795 |
| 11591-92 | EN50160 Event 50: Length | R | | ✓ | | | | | | | 5796 |
| 11593-94 | EN50160 Event 50: Value | R | | ✓ | | | | | | | 5797 |
| | | | | | | | | | | | |
| 11601-02 | Option # 1 | R/W | | ✓ | | | | | | | 5801 |
| 11603-04 | Option # 2 | R/W | | ✓ | | | | | | | 5802 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 11647-48 | Option # 24 | R/W | | ✓ | | | | | | | 5824 |
| | | | | | | | | | | | |
| 11699-00 | Internal Use | R/W | | ✓ | | | | | | | 5850 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|-------------------------------|------|-----------|----------|-------|-------------|--------------|------------|---|--|
| □ | □ | □ | | | | | | | | □ |
| 11819-20 | Internal Use | R/W | | ✓ | | | | | | 5910 |
| 11681-82 | Pulse D.In 1 Rate 1 | R | | | | ✓ | | | | 5921 |
| 11683-84 | Pulse D.In 1 Rate 2 | R | | | | ✓ | | | | 5922 |
| 11685-86 | Pulse D.In 1 Rate 3 | R | | | | ✓ | | | | 5923 |
| 11687-88 | Pulse D.In 2 Rate 1 | R | | | | ✓ | | | | 5924 |
| 11689-90 | Pulse D.In 2 Rate 2 | R | | | | ✓ | | | | 5925 |
| 11691-92 | Pulse D.In 2 Rate 3 | R | | | | ✓ | | | | 5926 |
| 11693-94 | Pulse D.In 1 Rate 1 (x K) | R | | | | ✓ | | | | 5927 |
| 11695-96 | Pulse D.In 1 Rate 2 (x K) | R | | | | ✓ | | | | 5928 |
| 11697-98 | Pulse D.In 1 Rate 3 (x K) | R | | | | ✓ | | | | 5929 |
| 11699-00 | Pulse D.In 2 Rate 1 (x K) | R | | | | ✓ | | | | 5930 |
| 11701-02 | Pulse D.In 2 Rate 2 (x K) | R | | | | ✓ | | | | 5931 |
| 11703-04 | Pulse D.In 2 Rate 3 (x K) | R | | | | ✓ | | | | 5932 |
| 11703-04 | Pulse D.In1 (K) | R/W | | | | ✓ | | | | 5933 |
| 11705-06 | Pulse D.In2 (K) | R/W | | | | ✓ | | | | 5934 |
| 11707-08 | Pulse D.In 1 Rate 1+2+3 | R | | | | ✓ | | | | 5935 |
| 11709-10 | Pulse D.In 2 Rate 1+2+3 | R | | | | ✓ | | | | 5936 |
| 11711-12 | Pulse D.In 1 Rate 1+2+3 (x K) | R | | | | ✓ | | | | 5937 |
| 11713-14 | Pulse D.In 2 Rate 1+2+3 (x K) | R | | | | ✓ | | | | 5938 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|-----------------|--|------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 11789-90 | Flash Trend Time | R/W | | | | ✓ | | | | | 5940 |
| 11791-02 | Flash Tend Day | R/W | | | | ✓ | | | | | 5941 |
| 11793-04 | Flash Trend Month | R/W | | | | ✓ | | | | | 5942 |
| 11795-06 | Flash Trend Year | R/W | | | | ✓ | | | | | 5943 |
| 11797-08 | Flash Trend Hour | R/W | | | | ✓ | | | | | 5944 |
| 11799-00 | Flash Trend Minute | R/W | | | | ✓ | | | | | 5945 |
| 11801-02 | Flash Trend Second | R/W | | | | ✓ | | | | | 5945 |
| | | | | | | | | | | | |
| 11901-02 | User Flash Trend Item # 1 | R/W | | | | ✓ | | | | | 5951 |
| 11903-04 | User Flash Trend Item # 2 | R/W | | | | ✓ | | | | | 5952 |
| □ | □ | □ | | | | | | | | | □ |
| 11935-36 | User Flash Trend Item # 18 | R/W | | | | ✓ | | | | | 5968 |
| | | | | | | | | | | | |
| 13995-96 | Historical Alarm – Current Record | R | | | | ✓ | | | | | 6998 |
| 13997-98 | Historical Alarm – Total Records (200) | R | | | | ✓ | | | | | 6999 |
| 13999-00 | Historical Alarm # 1 -Dte | R | | | | ✓ | | | | | 7000 |
| 14001-02 | Historical Alarm # 2 -Dte | R | | | | ✓ | | | | | 7001 |
| □ | □ | □ | | | | | | | | | □ |
| 14397-98 | Historical Alarm # 200 -Dte | R | | | | ✓ | | | | | 7199 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|--|--------------------------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| 14399-00 | Historical Alarm # 1 -Date | R | | | | ✓ | | | | | 7200 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 14797-98 | Historical Alarm # 200 -Date | R | | | | ✓ | | | | | 7399 |
| 14799-00 | Historical Alarm # 1 -Time | R | | | | ✓ | | | | | 7400 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 15197-98 | Historical Alarm # 200 -Time | R | | | | ✓ | | | | | 7599 |
| 15199-00 | Historical Alarm # 1 -Alarm Number | R | | | | ✓ | | | | | 7600 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 15597-98 | Historical Alarm # 200 – Alarm Number | R | | | | ✓ | | | | | 7799 |
| 15599-00 | Historical Alarm # 1 –Alarm Phase | R | | | | ✓ | | | | | 7800 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 15997-98 | Historical Alarm # 200 – Alarm Phase | R | | | | ✓ | | | | | 7999 |
| 15999-00 | Historical Alarm # 1 –Alarm Type | R | | | | ✓ | | | | | 8000 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 16397-98 | Historical Alarm # 200 – Alarm Type | R | | | | ✓ | | | | | 8199 |
| 16399-00 | Historical Alarm # 1 –Alarm | R | | | | ✓ | | | | | 8200 |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL | TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|---------------------------------------|--------------------------|-----------|----------|-------|-------------|--------------|------------|-----------|--------------------------------|--|
| | On/Off | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 16797-98 | Historical Alarm # 200 – Alarm On/Off | R | | | | ✓ | | | | | 8399 |
| 16799-00 | Historical Alarm # 1 –Alarm Value | R | | | | ✓ | | | | | 8400 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 17197-98 | Historical Alarm # 200 – Alarm Value | R | | | | ✓ | | | | | 8599 |
| | | | | | | | | | | | |
| 17199-00 | I0 – First Wave Sample | R | | ✓ | | | | | | | 8600 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 17597-98 | I0 – Last Wave Sample | R | | ✓ | | | | | | | 8799 |
| 17599-00 | I1 – First Wave Sample | R | | ✓ | | | | | | | 8800 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 17997-98 | I1 – Last Wave Sample | R | | ✓ | | | | | | | 8999 |
| 17999-00 | I2 – First Wave Sample | R | | ✓ | | | | | | | 9000 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |
| 18397-98 | I2 – Last Wave Sample | R | | ✓ | | | | | | | 9199 |
| 18399-00 | I3 – First Wave Sample | R | | ✓ | | | | | | | 9200 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | <input type="checkbox"/> |

| MODBUS Register | Field Description | Type | TNM144-II | TNM144-I | TNM35 | TNM96-ETN-I | TNM96-ETN-II | TNM300-DIN | TNM96-ETL TNM96-ED* (*without Energy) | EEM Logger # UniArt \ BACnet AV |
|--------------------------|--------------------------|--------------------------|-----------|----------|-------|-------------|--------------|------------|---|--|
| 18797-98 | I3 – Last Wave Sample | R | | ✓ | | | | | | 9399 |
| 18799-00 | V1 – First Wave Sample | R | | ✓ | | | | | | 9400 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 19197-98 | V1 – Last Wave Sample | R | | ✓ | | | | | | 9599 |
| 19199-00 | V2 – First Wave Sample | R | | ✓ | | | | | | 9600 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 19597-98 | V2 – Last Wave Sample | R | | ✓ | | | | | | 9799 |
| 19599-00 | V3 – First Wave Sample | R | | ✓ | | | | | | 9800 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | <input type="checkbox"/> |
| 19997-98 | V3 – Last Wave Sample | R | | ✓ | | | | | | 9999 |
| | | | | | | | | | | |
| | | | | | | | | | | |

Table 1-4 Registers Table

1.3 — UniArt Alarms for *TNM* Multimeter

The *TNM* Energy & Powermeter is capable of working with UNIART software. When working with UNIART software user can get specific alarms from the unit as described in Table 1-5.

| Alarm # | Description | Phase | TNM144-II | TNM229-DIN | TNM35 |
|---------|-----------------------------|--------|-----------|------------|-------|
| 1 | Low Voltage (Line To N) | 1 | ✓ | | |
| 2 | High Voltage (Line To N) | 1 | ✓ | | |
| 3 | Low Voltage (Line To N) | 2 | ✓ | | |
| 4 | High Voltage (Line To N) | 2 | ✓ | | |
| 5 | Low Voltage (Line To N) | 3 | ✓ | | |
| 6 | High Voltage (Line To N) | 3 | ✓ | | |
| 7 | Low Voltage (Line To Line) | 1-2 | ✓ | | |
| 8 | High Voltage (Line To Line) | 1-2 | ✓ | | |
| 9 | Low Voltage (Line To Line) | 2-3 | ✓ | | |
| 10 | High Voltage (Line To Line) | 2-3 | ✓ | | |
| 11 | Low Voltage (Line To Line) | 3-1 | ✓ | | |
| 12 | High Voltage (Line To Line) | 3-1 | ✓ | | |
| 13 | Low Current | 1 | ✓ | | |
| 14 | High Current | 1 | ✓ | | |
| 15 | Low Current | 2 | ✓ | | |
| 16 | High Current | 2 | ✓ | | |
| 17 | Low Current | 3 | ✓ | | |
| 18 | High Current | 3 | ✓ | | |
| 19 | Low Current | L0 (N) | ✓ | | |
| 20 | High Current | L0 (N) | ✓ | | |
| 21 | Low Power Factor | 1 | ✓ | | |

| Alarm # | Description | Phase | TNM144-II | TNM229-DIN | TNM35 |
|---------|------------------------------|--------|-----------|------------|-------|
| 22 | High Power Factor | 1 | ✓ | | |
| 23 | Low Power Factor | 2 | ✓ | | |
| 24 | High Power Factor | 2 | ✓ | | |
| 25 | Low Power Factor | 3 | ✓ | | |
| 26 | High Power Factor | 3 | ✓ | | |
| 27 | Low Power Factor | 1+2+3 | ✓ | | |
| 28 | High Power Factor | 1+2+3 | ✓ | | |
| | | | | | |
| 39 | High Power Period (Item 262) | 1+2+3 | ✓ | | |
| 40 | Low Power Period (Item 263) | 1+2+3 | ✓ | | |
| 41 | Low Voltage THD | 1 | ✓ | | |
| 42 | High Voltage THD | 1 | ✓ | | |
| 43 | Low Voltage THD | 2 | ✓ | | |
| 43 | High Voltage THD | 2 | ✓ | | |
| 45 | Low Voltage THD | 3 | ✓ | | |
| 46 | High Voltage THD | 3 | ✓ | | |
| 47 | Low Current THD | 1 | ✓ | | |
| 48 | High Current THD | 1 | ✓ | | |
| 49 | Low Current THD | 2 | ✓ | | |
| 50 | High Current THD | 2 | ✓ | | |
| 51 | Low Current THD | 3 | ✓ | | |
| 52 | High Current THD | 3 | ✓ | | |
| 53 | Low Current THD | L0 (N) | ✓ | | |
| 54 | High Current THD | L0 (N) | ✓ | | |
| 55 | Low Current TDD | 1 | ✓ | | |

| Alarm # | Description | Phase | TNM144-II | TNM229-DIN | TNM35 |
|---------|------------------------|--------|-----------|------------|-------|
| 56 | High Current TDD | 1 | ✓ | | |
| 57 | Low Current TDD | 2 | ✓ | | |
| 58 | High Current TDD | 2 | ✓ | | |
| 59 | Low Current TDD | 3 | ✓ | | |
| 60 | High Current TDD | 3 | ✓ | | |
| 61 | Low Current TDD | L0 (N) | ✓ | | |
| 62 | High Current TDD | L0 (N) | ✓ | | |
| 63 | Low Current K.Factor | 1 | ✓ | | |
| 64 | High Current K.Factor | 1 | ✓ | | |
| 65 | Low Current K.Factor | 2 | ✓ | | |
| 66 | High Current K.Factor | 2 | ✓ | | |
| 67 | Low Current K.Factor | 3 | ✓ | | |
| 68 | High Current K.Factor | 3 | ✓ | | |
| 69 | Low Current K.Factor | L0 (N) | ✓ | | |
| 70 | High Current K.Factor | L0 (N) | ✓ | | |
| 81 | U.Alarm – High Current | 1 | | | |
| 82 | U.Alarm – High Current | 2 | | | |
| 83 | U.Alarm – High Current | 3 | | | |
| 84 | U.Alarm – High Voltage | 1 | | | |
| 85 | U.Alarm – High Voltage | 2 | | | |
| 86 | U.Alarm – High Voltage | 3 | | | |
| 87 | U.Alarm – Low Voltage | 1 | | | |
| 88 | U.Alarm – Low Voltage | 2 | | | |
| 89 | U.Alarm – Low Voltage | 3 | | | |
| 90 | U.Alarm – Low PF | 1+2+3 | | | |

| Alarm # | Description | Phase | TNM144-II | TNM229-DIN | TNM35 |
|---------|----------------------|-------|-----------|------------|-------|
| 91 | U.Alarm – High V.THd | 1+2+3 | | | |
| 92 | U.Alarm – High I.THd | 1+2+3 | | | |

Table 1-5 Alarm Table

| Alarm # | Description | Phase | TNM96-I |
|---------|--------------------------|-------|----------|
| | | | TNM96-II |
| 1 | High Voltage (Line To N) | 1 | ✓ |
| 2 | High Voltage (Line To N) | 2 | ✓ |
| 3 | High Voltage (Line To N) | 3 | ✓ |
| 4 | High Current | 1 | ✓ |
| 5 | High Current | 2 | ✓ |
| 6 | High Current | 3 | ✓ |
| 7 | Demand KW | Tot | ✓ |
| 8 | Import Power Total KW | Tot | ✓ |
| 9 | Export Power Total KW | Tot | ✓ |
| 10 | Temprature | --- | ✓ |
| 11 | % kVarhC/kWh | Tot | ✓ |
| 12 | % kVarhL/kWh | Tot | ✓ |
| 13 | No Volt | 1 | ✓ |
| 14 | No Volt | 2 | ✓ |
| 15 | No Volt | 3 | ✓ |
| 16 | No Current | 1 | ✓ |
| 17 | No Current | 1 | ✓ |
| 18 | No Current | 1 | ✓ |

| Alarm # | Description | Phase | TNM96-I |
|---------|---------------------------|-------|----------|
| | | | TNM96-II |
| 19 | High Leakage Current | --- | ✓ |
| 20 | High General PF | --- | ✓ |
| | | | |
| 41 | Low Voltage (Line To N) | 1 | ✓ |
| 42 | Low Voltage (Line To N) | 2 | ✓ |
| 43 | Low Voltage (Line To N) | 3 | ✓ |
| 44 | Low Current | 1 | ✓ |
| 45 | Low Current | 2 | ✓ |
| 46 | Low Current | 3 | ✓ |
| 47 | Low Demand KW | Tot | ✓ |
| 48 | Low Import Power Total KW | Tot | ✓ |
| 49 | Low Export Power Total KW | Tot | ✓ |
| 50 | Low Temperature | --- | ✓ |
| 51 | Low % kVarhC/kWh | Tot | ✓ |
| 52 | Low % kVarhL/kWh | Tot | ✓ |
| 53 | Low No Volt | 1 | ✓ |
| 54 | Low No Volt | 2 | ✓ |
| 55 | Low No Volt | 3 | ✓ |
| 56 | Low No Current | 1 | ✓ |
| 57 | Low No Current | 1 | ✓ |
| 58 | Low No Current | 1 | ✓ |
| 59 | High Leakage Current | --- | ✓ |
| 60 | Low General PF | --- | ✓ |

Table 1-6 LT (Color) Alarm Table

