



عناية الطاقة  
**energycare**

EnergyCare's series of  
**SMART ENERGY METERS**



# Smart Metering Solution

Energycare's series of smart energy meters is a next-generation platform designed to revolutionize the way electricity is monitored managed, and optimized. Combining precision engineering with advanced digital intelligence, they provide consumers and utilities with real-time insights for efficient energy management and sustainability.

## Special Features:

- SIMs Supports Multi-operators
- Remote Disconnect
- Notification Power Outage
- Modular Communication



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## POWER SMARTER

Energy care smart energy meters embodies our commitment to advanced data-driven energy management. Our smart electricity meters integrate state-of-the-art metering infrastructure (AMI) with real-time analytics and intelligent communication systems. Designed for precision and reliability enable accurate energy measurement, two-way data exchange, and supporting efficient load management and improved grid stability.

## DATA ANALYTICS

Our Smart energy meters don't just record electricity usage, they analyse and interpret data to create valuable insights. Through advanced analytics every watt becomes a key to smarter, more efficient energy management. With smart analytics energy meters becomes intelligent partner enabling smart energy decisions.

## ELEGANT DESIGN



Our smart energy meter features an elegant and modern design that blends functionality with style. Its sleek form factor, intuitive display and compact build make it easy to install in any environment - from homes to commercial spaces. The ergonomic layout ensures effortless operation, while the premium finish reflects innovation and sophistication.



## FUTURE PROOF



Our future-proof smart energy meter ensures long-term reliability and adaptability to upcoming technologies and regulations. It integrates hardware and software flexibility to support future advancements in smart grids communication networks. The **DLMS** protocol allows it to be upgraded in-site thus future-proofing your smart energy investments.

# Smart Metering Technical Specification

| Sr. No | Description   | Unit | Technical Parameters                                 |  |
|--------|---|------|--|--|
|        |   |      | DC (whole current)                                   | CT connected (Transformer operated)                  |
| 1      | <b>General Information</b>  |      |  |  |
|        | Model Number  |      | NW34-R8.4/NW34160A-R8.4                              | NC34-R9.5  |
|        | Service Type  |      | 3-Phase, 4-Wire                                      |  |
|        | <b>Electrical Specification</b>   |      |  |  |
| 2      | <b>Ratings</b>  |      |  |  |
|        | Nominal Voltage (Un)  | V    | 3x133/230/400<br>(Max endurable 500V per phase)      |  |
|        | Operating range   | V    | 0.8 Un ~ 1.15 Un                                     |  |
|        | Nominal Frequency (fn)  | Hz   | 60   |  |
|        | Nominal Current (In)  | A    | 10/20  | 1.5  |
|        | Maximum Current (Imax)  | A    | 100/160  | 6  |
|        | Minimum Current (Imin)  | A    | 0.5  | 0.015  |
|        | Transitional Current (Itr)  | A    | 1  | 0.15   |
|        | Starting Current (Ist)  | A    | Active (Cos Φ): 0.004lb<br>Reactive (Sin Φ): 0.005lb | Active (Cos Φ): 0.001lb<br>Reactive (Sin Φ): 0.003lb |
| 3      | <b>Accuracy</b>   |      |  |  |
|        | Active Energy   |      | 1.0  | 0.5S   |
|        | Reactive Energy   |      | 2.0  | 2.0  |
| 4      | <b>Power Consumption</b>  |      |  |  |
|        | Voltage circuit   |      | 1.65W/3.5VA  | 1.65W/3.5VA  |
|        | Voltage circuit (With communication module - Idle)                      |      | 2.06W/4VA  | 2.06W/4VA  |
|        | Voltage circuit (With communication module - communication in progress) |      | 2.15W/4.5VA  | 2.15W/4.5VA  |
|        | Current circuit   |      | ≤ 0.4VA  | ≤ 0.4VA  |

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|--------------------------|---|-----------|---|---|
|                          |   |           | DC (whole current)                              | CT connected (Transformer operated)               |
| 5                        | Meter Constant                            |           |   |   |
|                          | Active Constant                           | imp/kWh   | 1000  | 10000   |
|                          | Reactive Constant                         | imp/kvarh | 1000  | 10000   |
| 6                        | Pulse Indicator                           |           | LED w/ wavelength 610-700nm                     |   |
| <b>Safety Parameters</b> |   |           |   |   |
| 7                        | Protection                                |           |   |   |
|                          | Protective Class for insulation           |           | II  |   |
|                          | Rated Impulse Voltage (U <sub>imp</sub> ) | kV        | 8   |   |
|                          | Protection Degree                         |           | IP54  |   |
| 8                        | Temperature                               |           |   |   |
|                          | Limit Range for operation                 | °C        | -10 ~ + 75                                      |   |
|                          | Limit range for storage and transport     | °C        | -10 ~ + 85                                      |   |
| 9                        | Relative Humidity                         | RH        | ≤ %95 (no-condensing)                           |   |
| 10                       | Display                                   |           |   |   |
|                          | Display method                            |           | Segment Type                                    |   |
|                          | Connection                                |           | Pin   |   |
|                          | Dimension WxH                             | mm        | 75 x 22   |   |
|                          | Character Height                          | mm        | 8.32  |   |
|                          | No. of digits                             |           | 8   |   |
| 11                       | Life time                                 |           |   |   |
|                          | Number of Batteries                       | Nos       | 2 (One internal + One replaceable)              |   |
|                          | Storage life of Battery                   | Years     | ≥ 15  |   |
|                          | Operating life of Battery                 | Years     | ≥ 1<br>(RTC keeps active when mains power off)  |   |
|                          | Meter life time                           | Years     | ≥ 15  |   |
| 12                       | Terminal type and hole size               | mm        | Screw type<br>9 mm<br>(For cable accommodation) | Screw type<br>5.3 mm<br>(for cable accommodation) |

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|--------|--|------|--|-------------------------------------|
|        |  |      | DC (whole current)   | CT connected (Transformer operated) |
| 13     | Outline Dimensions                                       | mm   | 231 (H) x 173.5 (W) x 93 (D)   |                                     |
| 14     | Weight   | Kg   | 2.0  | <1.5                                |
|        | Sealing arrangement                                      | Pcs  | Ultrasonically welded and 4 one-way screws on casing, Modem/Battery Cover (1)<br>Terminal Cover (2) (by utility) |                                     |
| 16     | <b>Casing and Terminals material and characteristics</b> |      |  |                                     |
|        | Meter Base   |      | PC + %10 GF  |                                     |
|        | Meter Cover  |      | PC + %10 GF  |                                     |
|        | Terminal Block   |      | PBT + %30 GF   |                                     |
|        | Terminal Cover   |      | PC + %10 GF  |                                     |
|        | Terminals  |      | H59 Copper, Tin Plated   |                                     |
|        | Terminal Screws  |      | Grade A stainless, Tin plated (>5microns)  |                                     |
|        | Terminal Screw head Type                                 |      | Hexagon socket head (M8)   | Phoenix head (Star)                 |
| 17     | <b>Control Switch Method</b>                             |      |  |                                     |
|        | Method   |      | Supply Control Switch (SCS)  | Load Control Switch (LCS) 160A & CT |
|        | Qty  | Nos  | 03 (Each per Phase)  | 01                                  |
|        | Utilization Category                                     |      | UC3  | NA                                  |
|        | Rated Operational Voltage                                | V    | 230  | 250V                                |
|        | Rated Frequency  | Hz   | 60   |                                     |
|        | Operational Current                                      | A    | 120  | 1                                   |
|        | Electrical Endurance                                     | Nos  | 5500 ON/ 5500 OFF  |                                     |



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