



عناية الطاقة
energycare

EnergyCare's series of
SMART ENERGY METERS



Smart Metering Solution (RF & Cellular Communication)

Energy Measurement



- Active, Reactive inductive, Reactive capacitive, Apparent
- Import, Export, Absolute and Net
- Total and TOU
- Programmable decimal places

Demand Measurement



- Active, Reactive inductive, Reactive capacitive, Apparent
- Import, Export
- Maximum Demand & Cum.MD
- Block or Sliding window

Power Quality



- Instantaneous, Average, Maximum
- Voltage & Current (Under, Over, Sag, Well)
- V & I Harmonics (Upto 15th)
- V & I (Phase, line, neutral, vector sum)

Tariff and Time of Use



- 8 rates, 10 time divisions, 8 day/week/seasons
- 420 Special days
- Active and Passive calendars
- Immediate and scheduled activation

Supply/ load control



- Remote, local and Manual
- Scheduled or On-demand
- Over current, Over temperature
- Internal and External

Data recording



- Hourly/Daily load curve, Billing/AVC profiles
- Event logs, GPS information
- Anti-theft protection and notification
- Last gasp/First breath information

Input/Output



- Relay output (250V/16A)
- S0, EOI outputs
- 2xRJ-45 interface (Gateway/IHD)
- Auto/Manual scrolling LCD with backlight

Communication interfaces



- Optical port (IEC62056-21)
- Modular plug and play PLC/RF/Cellular
- RS-485 (Configurable DLMS or MODBUS)
- DLMS/COSEM communication profiles



Smart Metering Technical Specification

Sr. No	Description	Unit	Technical Parameters	
			DC (whole current)	CT connected (Transformer operated)
1	General Information			
	Model Number		NW34-R8.4/NW34160A-R8.4	NC34-R9.5
	Service Type		3-Phase, 4-Wire	
	Electrical Specification			
2	Ratings			
	Nominal Voltage (Un)	V	3x133/230/400 (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 Reactive (Sin Φ): 0.005lb	Active (Cos Φ): 0.001lb Reactive (Sin Φ): 0.003lb
3	Accuracy			
	Active Energy		1.0	0.5S
	Reactive Energy		2.0	2.0
4	Power Consumption			
	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

Smart Metering Technical Specification

Sr. No	Description	Unit	Technical Parameters	
			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	
Safety Parameters				
7	Protection			
	Protective Class for insulation		II	
	Rated Impulse Voltage (U _{imp})	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 (RTC keeps active when mains power off)	
	Meter life time	Years	≥ 15	
12	Terminal type and hole size	mm	Screw type 9 mm (For cable accommodation)	Screw type 5.3 mm (for cable accommodation)

Smart Metering Technical Specification

Sr. No	Description	Unit	Technical Parameters	
			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) Terminal Cover (2) (by utility)	
16	Casing and Terminals material and characteristics			
	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	Control Switch Method			
	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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