

NEMO 96 3DSH



DESCRIPTION

The NEMO 96 3DSH is housed in a flush mounting enclosure of 96x96mm, and will measure and display three phase voltage, current, power (kW, kVA, kVar), frequency, power factor and energy (kWh, kVarh), maximum demand (kW) and peak demand. Parameters are displayed by 7mm high red LED's. A pulsed output is provided for remote kWh signalling. The unit is suitable for unbalanced loads, 3 or 4 wire connection.

Current inputs must be from dedicated current transformers, a choice of 38 selectable ranges is provided.

A version with on board RS485 serial communication is also available.



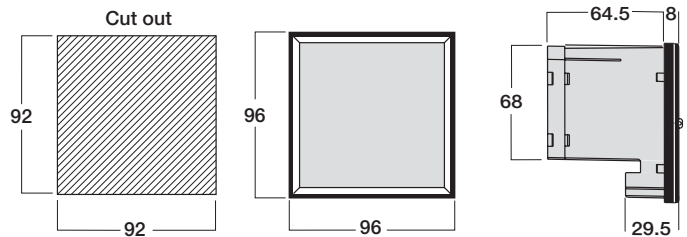
Model NEMO 96 3D

Simple selection of parameter via front push buttons with indication LED's.

SELECTION TABLE

Parameter	Model	NEMO 96 3DSH	NEMO 96 3DSHCM
Current – per phase		•	•
Voltage – phase to phase		•	•
Voltage – phase to neutral		•	•
Frequency		•	•
Power Factor		•	•
Power (kW, kVA, kVar)		•	•
Max. Demand (kW)		•	•
Peak Demand (kW)		•	•
Energy (kWh, kVarh)		•	•
Energy Pulsed Output (kWh)		•	•
RS485 Communication			•

DIMENSIONS



Fast-on connections

CT RATIOS

CT Primary (A)	Pulse Ratio
5	1 pulse/Wh
20, 25, 30, 40, 50, 60, 70, 75, 80, 100, 120, 125, 150	1 pulse/10 Wh
200, 250, 300, 400, 500, 600, 700, 750, 800, 1000, 1200, 1250, 1500, 1600	1 pulse/ 100Wh
2000, 2500, 3000, 3200, 4000, 5000, 6000, 7000, 7500, 8000	1 pulse/kWh

Pulse ratio may also be set to 1 pulse/Wh regardless of ratio.

DISPLAY MODE

Phase Current

Phase to Phase voltage and Phase to Neutral voltage

Watts/VAR/VA

ENERGY – kWh and kVarh

Max demand and peak demand

Power factor and frequency

Multi-Function Power Monitors

NEMO 96 3DSH - continued

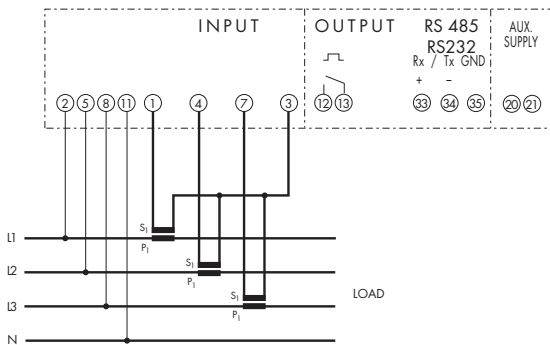


SPECIFICATIONS

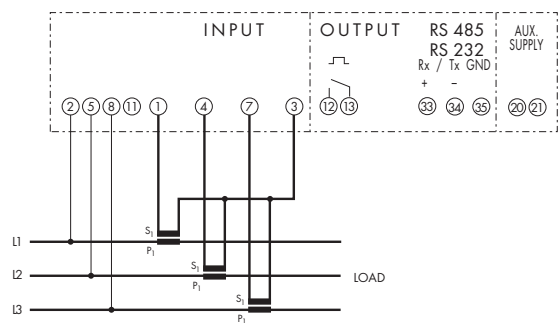
System	3 Phase, 3 or 4 wire Unbalanced	Power factor range	cos ϕ 0.5 ind ... 0.5 cap
Type of measurement	True RMS for circuits up to the 8th harmonic	Start time (energy)	< 5 seconds
Measured voltage	100 ... 450V ac (phase to phase)	Start current	A 0.5% In
Nominal current (In)	5A	Energy pulse output	Volt-free SPST NO 110V dc/ac 50mA
Current Overload	1.2 In Continuous, 20 In/5 secs	Pulse duration	> 100 ms
Rated burden	Voltage A0.5 VA per phase Current A0.75 VA per phase	Data retention	EEPROM memory
Frequency	50 ... 60 Hz \pm 5%	Auxiliary supply	230V ac (195 ... 253V) 50/60Hz (A 6 VA)
Display	Red LED	Communication	RS485 - 3 wire
No. of digits	Current, Voltages, Powers, Frequency, Power Factor, Max. Demand - 3 digit Energy - 9 digit	Transmission	Serial asynchronous
Digit height	7mm	Protocol	Jbus/Modbus
Resolution	Automatic, to highest possible no. of decimal places	Address	1 ... 255
Programmable parameters		Stop bit	1
Current ratio	See table	Parity bit	None
Max. demand	Reset Delay - 5, 8, 10, 15, 20, 30, 60 min	Required response time to request	A300ms
RS485 Communication	JBus address, baud rate (1200, 2400, 4800, 9600)	Max. no. of units to bus	RS485 - 32 (255 with 485 repeater)
Energy pulse ratio	See table	Max. distance from transmission point	RS485 - 1200m
Decimal point	automatic	Insulation	Impulse voltage 5 kV 1.2/5 μ s 0.5J (IEC 255-4)
Accuracy	Active energy: Class 2 (EN61036) Reactive energy: Class 3 (EN61268)	Input/Aux/Outputs	-min 2kV 50Hz/1 min Fast transient burst (IEC801-4)
	Voltage: \pm 0.5%	Electromagnetic compatibility	Severity level 4 Immunity to electrostatic discharge (IEC801-2) Severity level 4
	Current: \pm 0.5% (10-120% In)	Reference temperature	23°C
	Powers: \pm 1.5% (10-120%)	Operating temperature	-10 to 60°C
	Power factor: \pm 2%	Storage temperature	-25 to 70°C
	Frequency: \pm 0.15%		

WIRING DIAGRAMS

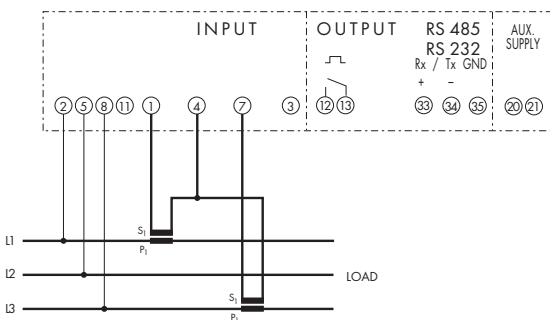
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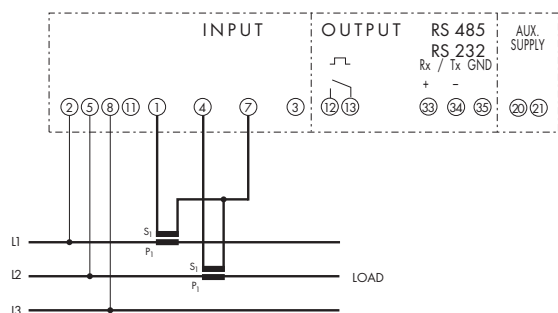
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Important Note: Current transformer secondary terminals must not be earthed. Dedicated CT's are required.