

Rail 350

**Efficiently simple and cost effective,
the perfect combination.**

Standard Features

- 3Ø energy & power sub-meter
- Standard 6-way DIN-rail mount
- Pulse Output, MODBUS & Ethernet Comms options
- Measures comprehensive range of energy and power parameters
- Easy-fit auto-CT rotation
- 5/1Amp & mV retrofit CT input options
- Voltage balance mode
- Custom wall mount enclosure
- Hours run
- 5 year warranty
- CE, UL, C-Tick accredited



Model Options

Pulse Output Option

- kWh & kVAh over 2 Pulse Outputs
- Comprehensive range of energy & power parameters on the display

MODBUS RS485 Option

- 2 pulse outputs
- Comprehensive range of energy & power parameters over MODBUS & smaller selection on display
- Individual harmonics to the 15th, THD to the 30th over MODBUS option

IP Ethernet Option

- Web pages show energy, power, volts, amps, power factor, & digital input/output set-up
- Log upto 60 parameters
- Set up logging for FTP / HTTP / TFTP / SNMP for directly interfacing with energy management software & building control solutions
- 3 scalable Digital Pulse Inputs can measure other utilities eg gas & water etc
- 2 digital alarm outputs
- Individual Harmonics to the 15th, THD to the 30th over MODBUS TCP/IP standard
- Comprehensive range of energy & power parameters over IP Ethernet & smaller selection on display

Dont let the simple looks of the Rail 350 fool you, this is a powerful, feature-rich multi-function meter. The Rail 350's 'Right First time' setup includes the Auto-Rotation functionality for CTs for right first time set-up. This effort to minimize and correct any installation issues, married to the 5 year warranty and extensive data sets available via the MODBUS & IP Ethernet communications options make this a perfect meter for sub-metering roll-outs.



The Rail 350's communication options are pulse output only, RS485 MODBUS & IP Ethernet offering TCP/IP protocols such as HTTP, FTP, TFTP, SNMP. The various TCP/IP protocols make this the ideal meter to interface directly with energy management software and building control solutions, without the need for data loggers or concentrators. The web pages on the IP Ethernet enabled Rail 350 allow the user to view important instantaneous values and access the setup pages should the need arise to change any of the parameters.

Parameters on Display, MODBUS & TCP/IP		
*Parameters over MODBUS & TCP/IP only		
	All Ø	Sum
Volts, L-N & L-L	•	
Amps	•	
Power Factor	•	•
Import kWh, kVArh		•
kW	•	•
Frequency		
Hours run (on load)		•
*Export kWh, kVArh		•
* Inductive and capacitive kVArh		•
*Peak Volts, L-N	•	
*Peak Amps	•	
*Neutral Amps		•
*kW, kVA & kVAr	•	•
*kW, kVA & kVAr Demand		•
*Peak kW, kVA, & kVAr Demand		•
*Average Volt & Peak	•	
*Amp, Demand & Peak	•	
*(Option) % THD Volts & Amps Individual Harmonics 2nd - 15th	•	
True RMS measurement of Volts & Amps - and true Power Measurement - to the 30th Harmonic at 50Hz (>25th@60Hz).		

Accreditations: CB, CE, UL, C-Tick

Warranty: ND Metering 5 Year Warranty

INPUTS	
System	3 Ø 3 or 4 Wire Unbalanced Load
Voltage U	480/277V
Current I	5Amp, 1 Amp or 0.333V
Measurement Range	Voltage 20% to 120%
	Current 0.2% to 120%
Frequency Range	Fundamental 45 to 65 Hz
-option with comms	Harmonics THD to 30th Harmonic at 50Hz
-option with comms	Individual Harmonics to 15th
Auxiliary Supply options	230V 50/60Hz at 5W max
Pulse Output & MODBUS	110V 50/60Hz at 5W max
Auxiliary Supply IP Ethernet	100VAC - 240VAC
ACCURACY	
kWh	Class 1 per EN 62053-21 & BS 8431 ANSI C12.20 Class 0.5
kVArh	Class 2 per EN 62053-23 & BS 8431
kW & kVA	Class 0.25 IEC 60688
kVAr	Class 0.5 IEC 60688
Amps & Volts	Class 0.1 IEC 60688
Power Factor	±0.2°
Neutral Current	Class 0.5 IEC 60688
PULSE OUTPUTS	
Function	1 pulse per unit of energy
Scaling	Configurable
Pulse Duration	0.1 second default (other durations configurable)
Type	N/O volt free contact. Optically isolated
Contacts	100mA ac/dc max; 70Vdc/33Vac max; 5W max. load
Isolation	3.5 kV 50Hz 1 minute
GENERAL	
Operating	-10° to +55°C
Storage	-25°C to + 70°C
Humidity	<75% non-condensing
Environment	IP20
MECHANICAL	
Terminals	Rising Cage. 4mm ² (AWG) cable max
Enclosure	DIN 43880, 6 modules wide
Material	Noryl® with fire protection to UL94-V-O. Self extinguishing
Dimensions	106X90X58mm (4.2"x3.5"x2.3")
Weight	150gms (0.33lbs)