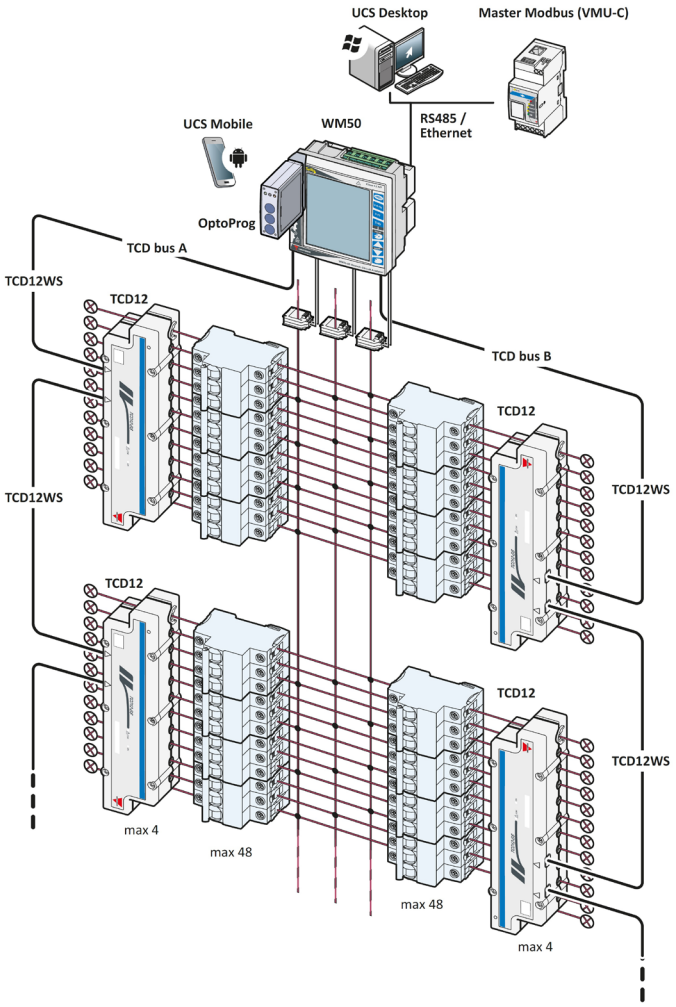
Branch circuit monitoring system

Multichannel Power Analyser For Single,
Two and Three-Phase Systems

SMART DISTRIBUTION



Main features and benefits

- Monitors and analyses any combination of single-phase, two-phase and three-phase loads for a maximum of 96 channels, up to 32A per channel
- The TCD12's quick connect plug saves on installation time and provides a safer alternative to traditional CTs
- Time-stamped data available for overall system variables down to the individual channel level
- Analyse total harmonic distortion of the system up to the 32nd harmonic (current and voltage)
- Detachable terminal blocks for quick expansion of monitoring, control and communication functionality
- Monitor data locally and remotely via UCS software
- Alarm Management for up to 16 alarms
- View up to six different energy consumption tariffs
- View up to three water, gas, and heat totalizers
- Can be used as a standalone energy management system for small applications or import data into a larger system via Modbus TCP or RTU

WM50 Branch Circuit Monitoring

The WM50 is a multifunction power analyser, datalogger and powerful addition to any energy management system offering flexible scaling through detachable terminal block accessories.

This branch monitoring solution connects directly to the load side of circuit breakers for simultaneous monitoring of numerous single and/or three-phase loads. Its compact size and ability to monitor up to 96 channels with its respective split core current sensor TCD12 makes it ideal for high-density monitoring within a Power Distribution Unit (PDU).

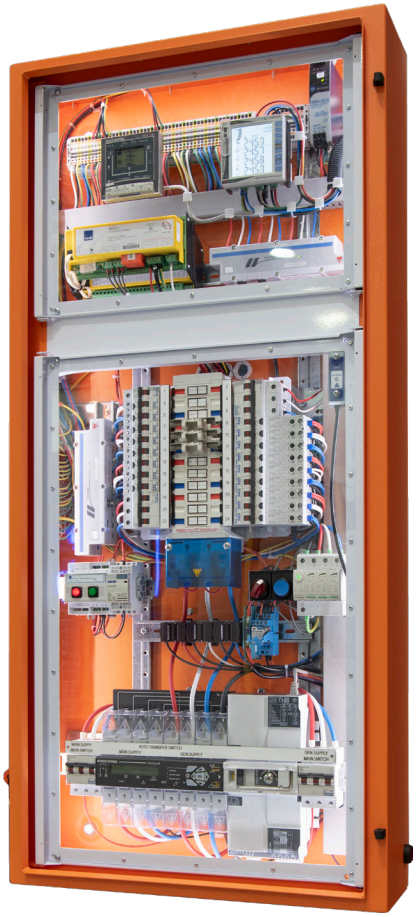
Software Interface

The WM50 is easily configured through the free to download software UCS. The software also allows for data storage, analysis and exporting. It gives users flexibility to analyse trending graphs, set up alarms and monitor events, allowing the WM50 to act as its own standalone energy management system for the connected circuits, digital and analogue inputs.

Ordering Information

Description	Part number
BRANCH CIRCUIT METER WM50 BASE	WM50AV53HBC
12 CHANNEL SPLIT-CORE CURRENT TRANSFORMER	TCD12BS32AE
PLUGIN MODBUS RTU COMMS MODULE	MC485232
PLUGIN MODBUS TCP COMMS MODULE	MCETH
PLUGIN DIGITAL I/O 6 IN 6 STATIC OUT	MFI6O6
PLUGIN ANALOG INPUT 3 IN	MATPN
ACCESSORY CONNECTION CABLE FOR TCD12 30 cm, 50 cm,100 cm, 200 cm, 300 cm, or 500 cm	TCD12WSS2TIXXX

Note: Change the "XXX" according to the length required.



NHP SMART Low Voltage Panelboard
with WM50 Branch Monitoring

Technical data

WM50

Housing (H x W x D)	96mm x 96mm x 67mm
Accuracy	kWh - Class 0.5 (IEC 62053-22), kVArh - Class 2 (IEC 62053-23)
Refresh rate	0.25 s
Meter type	Multifunctional Branch circuit meter
Voltage inputs	1phase 120V – 277V AC, 3phase 208V – 480V AC
Current inputs (I_{sn})	Isn 5A
Inputs	6 digital 3 analogue
Outputs	6 Digital Ethernet ModBus RTU
Alarms	16 managable
Measurement Electrical Variables	**Sys:** V L-L, V L-N, A, VA, W, VAr, PF, Hz, Voltage Phase-sequence **Phase:** V L-L, V L-N, A L, An, VA, W, VAr, PF, **All sys and phase variables:** mix max, average measurement, Total & Partial (±kWh, ±kvarh), THDI, THDV, and dmd calculations ±kWh, ±kvarh
Harmonic distortion	THD up to 32nd Harmonic, Single channel THD up to 15th harmonic
Power supply	From 100 to 277 V AC/DC ± 10%
Configuration Mode	Via keypad or UCS software
Protection degree	Front: IP65 Terminals: IP20
Operating Temperature, Min.	25 °C min
Operating Temperature, Max.	40 °C max

TCD12

Housing (H x W x D)	49mm x 221mm x 58mm
Accuracy	kWh - Class 0.5 (IEC 62053-22), kVArh - Class 2 (IEC 62053-23)
CT Type	Split-core Transformer
Primary Current (I_{pn}), Rated	32A
Primary Current (I_{pn}), Min	0.5A
Primary Current (I_{pn}), Max	62A
Pollution degree	2
Power supply	Self-powered via TCD bus
Operating Temperature, Min.	25 °C min
Operating Temperature, Max.	40 °C max
IP Rating, Front	IP50

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