

recdigit POWER

POWER MONITOR RANGE FOR THREE-PHASE MV/LV ELECTRICAL NETWORKS

Characteristics adapted to MV networks:
measurement cl. 0.2; metering cl.1 ; THD V and I

3 high-readability 10,000-point display units
with automatic calibre management

Standard alarm relay with
programmable hysteresis and delay

Meter-pulse outputs, 0/4...20 mA analogue outputs
and RS232/485 ModBus/JBus™



With **recdigit POWER** you get:

- a power monitor for all the measurement, display, metering and supervision applications on Medium-Voltage electrical installations,
- a digital sensor for all the applications supervising and managing electrical power,
- high-technology equipment that provides top performance while remaining elegant.

There are three products in the range, with extensive display possibilities, capable of handling all the most frequent applications:

Energy
D
Display

recdigit POWER Energy Display, for your requirements in terms of measurement and main / divisionary metering in the two positive quadrants, on all types of three-phase networks (3 or 4 wires, balanced or not).

Energy
Q
Quality

recdigit POWER Energy Quality, for measurement and metering in all four quadrants, monitoring of the supply quality (THD V and I) and supervision: time-stamping of events, RS485 digital communication (ModBus/JBus mode RTU protocol).

Energy
M
Management

As well as these functions, **recdigit POWER Energy Management** also offers functions for energy management: recording of the load curves over the last 8 days (base 10 min.).

The 3 models measure the instantaneous, maximum, minimum and average parameter values and possess programmable alarm thresholds on the Phase/Phase voltages and the currents per phase, the total active power and the $\cos \phi$ (PF), with relay output.

Choice guide

	recdigit POWER	Energy Display D	Energy Quality Q	Energy Management M
MEASUREMENTS ①	Basic accuracy	MV/LV networks	MV/LV networks	MV/LV networks
3xU, 3xV and 3xI (r.m.s. value)	0.2%	●	●	●
3xP and P _{total}	0.5%	4 quadrants	4 quadrants	4 quadrants
3xQ and Q _{total}	0.5%	4 quadrants	4 quadrants	4 quadrants
3xS and S _{total}	0.5%	●	●	●
PF _{total}	± 0.01	●	●	●
3xPF	± 0.01	-	②	②
Frequency	± 0.1 Hz	●	●	●
3xTHD V and 3xTHD I	2%	-	●	●

METERING AND ENERGY MANAGEMENT

Total E _{active}	cl. 1 (IEC 1036)	2 quadrants	4 quadrants	4 quadrants
Total E _{reactive}	cl. 2 (IEC 1268)	2 quadrants	4 quadrants	4 quadrants
Total E _{apparent}	1%	2 quadrants	4 quadrants	4 quadrants
Load curves	-	-	-	③

COMMUNICATION

Alarm threshold relay	-	④	④	④
Recording of alarms	-	-	⑤	⑤
ModBus/JBus link (300 to 19,200 bds, even, odd, RTU mode)	-	-	RS485	RS485 & RS232C

OPTIONS

Option ①	-	two metering-pulse outputs (Ea & Er)		
or Option ②	-	two 0/4...20 mA analogue outputs		
or Option ③	-	equal to Option ① + Option ②		
or Option ④	-	-	four metering-pulse outputs (Ea+, Ea- & Er+, Er-)	

- ① Measurements available as an instantaneous, minimum, maximum or average value over a programmable Δt of 1 to 99 minutes
 ② Accessible via the digital ModBus/JBus™ link
 ③ Recording of 1200 active power values and 1200 reactive power values, average over a programmable Δt , accessible via the digital link
 ④ Simultaneous monitoring of the 3 x U, 3 x I, P_{tot} and FP_{tot}. n.o. 5 A - 250 V_{AC} relay with 5% hysteresis (adjustable via RS485) and delay programmable from 1 to 99 s
 ⑤ The data recorded (date, time, duration, max. value reached, mean value of excess) can be accessed via the digital link

Main characteristics

Voltage measurement inputs (3 phases + neutral)	100 or 400 V nominal. Voltage ratio programmable from 1 to 9999,9999
Intensity measurement inputs (3 phases isolated)	1 A and 5 A nominal. CT primary programmable from 1 to 20,000 A
Display	Red LED on black background, 12-mm figures
Auxiliary power supply	20...90 V _{DC} / 20...70 V _{AC} or 90...360 V _{DC} / 70...260 V _{AC} or 190...460 V _{AC}
Connection	on terminal strip with screws that can be pulled out and locked (for the measurement and supply circuits)
Dimensions	front: DIN 144 x 144 mm ; panel cut: 138 x 138 mm ; depth: 92.5 mm with terminal strips
Fastening	by metal strips for panels between 1 and 5 mm

To order :

recdigit POWER	□	□	□	□	□
	<i>Model</i>	<i>Aux. power supply</i>	<i>U input</i>	<i>I input</i>	<i>Option</i>
	D Energy Display	1 20...90 V _{DC} / 20...70 V _{AC}	100 V	1 A	0 none
	Q Energy Quality	2 90...360 V _{DC} / 70...260 V _{AC}	400 V	5 A	1 option 1
	M Energy Management	3 190...460 V _{AC}			2 option 2
					3 option 3
					4 option 4

Several coded stations are kept in stock