

DRM energy-meters single-phase 80A/125A

► **Direct connection 80A/125A**



These meters are used to measure the energy consumption in single-phase systems in residential, utility and industrial applications, and use a blue backlit LCD screen to give clear readings. Monitoring of the energy-consumption is via two SO pulse outputs. The products can be set up to communicate with Modbus RTU, M-Bus, KNX and SD card Datalogger interfaces, and thus can be used to analyse energy-consumption in order to reduce to a minimum the running cost for Industrial plants and buildings.

A single phase energy meter with an 8 digit, 2 decimal, display showing the total energy reading. The meters have 2 SO outputs generating pulses for remote processing of active and reactive energy and 2 Tariffs.

Features

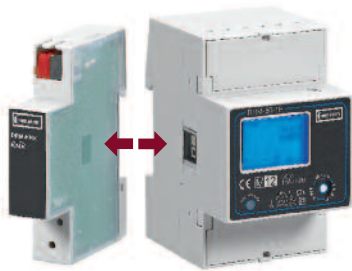
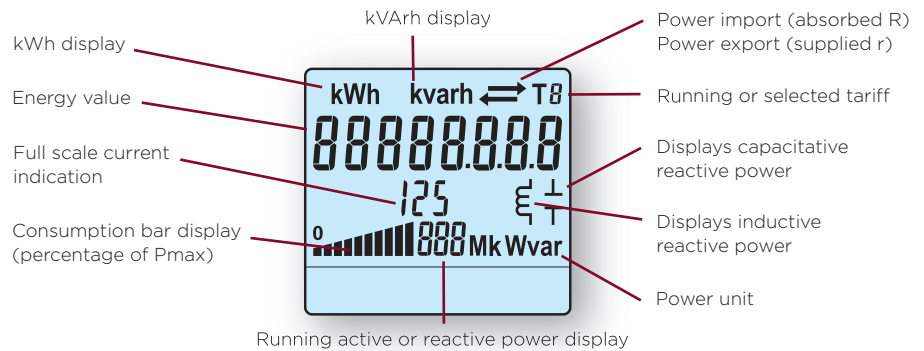
- Blue backlit LCD
- Direct connection 80A/125A
- 8 digit display
- Accuracy class 1 for active energy
- Accuracy class 2 for reactive energy
- The standard versions can be combined with the communication modules
- Energy register for import and export
- Sealable terminal covers
- 3 DIN modules wide (52mm)
- Storage of energy values and configuration digital display (EEPROM)
- Tariff identifier display for active and reactive energy

Parameters

Display	Unit		
Active energy	Tariff 1	kWh	Import, export
	Tariff 2	kWh	Import, export
Reactive energy	Tariff 1	kVArh	Import, export
	Tariff 2	kVArh	Import, export
Active power		(k-M) W	Import, export
Reactive power		(k-M) VAR	Import, export

Display

Liquid crystal display with illuminated blue background.



**3 standard module housing, suitable for DIN-rail mounting
Direct connection 80A and 125A**



Technical Data

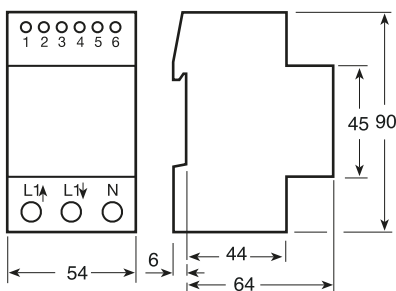
Display	Units	DRM - 80 - 1P, DRM - 125 - 1P	DRM - 125 - 1P - MOD	DRM - 125 - 1P - M
Supply				
Certified voltage range Un	V AC	230 ±20%	230 ±20%	230 ±20%
Operating voltage range	V AC	110 ... 276	110 ... 276V	110 ... 276
Certified frequency fn	Hz	50 ±2%	50 ±2%	50 ±2%
Operating frequency range	Hz	48 ... 62	48 ... 62	48 ... 62
Rated power dissipation (max.) Pv	VA (W)	<8 (0.6)	≤8 (0.6)	≤8 (0.6)
Overload capability				
Voltage Un continuous	V AC	276	276	276
momentary (1 s)	V AC	300	300	300
Current Imax continuous	A	80 or 125	125	125
momentary (10 ms)	A	2400 or 3750	3750	3750
Display (readouts)				
Display type LCD	n° digits	8 (2 decimal)	8 (2 decimal)	8 (2 decimal)
Digit dimensions	Mm	6.00 x 3	6 x 3	6 x 3
Active energy: 1 display, 7-digit tariffs 2	kWh	0.01	0.01	0.01
+ display import or export (arrow) overflow	kWh	999999.99	999999.99	999999.99
Reactive energy: 1 display, 7-digit tariffs 2	kVArh	0.01	0.01	0.01
+ display import or export (arrow) overflow	kVArh	999999.99	999999.99	999999.99
Instantaneous active power: 1 display, 3-digit	W, kW, MW	000 ... 999	000 ... 999	000 ... 999
Instantaneous reactive power: 1 display, 3-digit	VAr, kVAr, MVA	000 ... 999	000 ... 999	000 ... 999
Instantaneous tariff measurement		1	1	1
Display period refresh	s	1	1	1
Measuring accuracy at 23 ±31°C, referred to nominal values				
Active energy and power acc.to EN 50470-3		B (1%) class 1	B (1%)	B (1%)
Reactive energy and power acc. to EN 62053-23		2% class 2	2%	2%
Measuring input				
Type of connection	phase/N	direct	direct	direct
Operating range voltage	V AC	110 ... 276	110 ... 276	110 ... 276
Current Iref	A	5A	5	5
Current Imin	A	0.25A	0.25	0.25
Operating range current (Ist ... Imax) direct connection	A	0.020 ... 80 or 125	0.020 ... 125	0.020 ... 125
Frequency	Hz	48 ... 62Hz	48 ... 62	48 ... 62
Pulse output SO acc.to EN 62053-31				
Pulse output for active and reactive energy T1 and T2		yes		
Pulse quantity	imp/kWh	500		
Pulse duration	ms	30 or 50		
Required voltage	V AC (DC)	5 ... 230 35% (5 ... 300)min. (max.)		
Permissible current pulse ON (max. 230V AC/DC)	mA	90		
Permissible current Impulse OFF (leakage cur. max. 230V AC/DC)		1		
Embedded communication				
Modbus RTU RS-485 - 3 wires	µA bps	up to 38.400	-	
M-Bus RS-485 - 2 wires	bps	-	up to 9.600 bps	
Safety acc. to EN 50470-1				
Degree of pollution		2	2	2
Operational voltage	V AC	300	300	300
AC voltage test (EN 50470-3, 7.2)	kV	4	4	4
Impulse voltage test	1.2/50 µs-kV	6	6	6
Protection class (EN 50470)	class	II	II	II
Housing material flame resistance UL 94	class	VO	VO	VO
Environmental conditions				
Operating temperature	°C	-10 ... +55	-10 ... +55	-10 ... +55
Limit temperature of transportation and storage	°C	-25 ... +70	-25 ... +70	-25 ... +70
Relative humidity (not condensation)	%	≤80	≤80	≤80
Degree protection housing when mounted in front (terminal)		IP51(*)/IP20	IP51(*)/IP20	IP51(*)/IP20

(*) For the installation in a cabinet at least with IP51 protection.

Product Codes

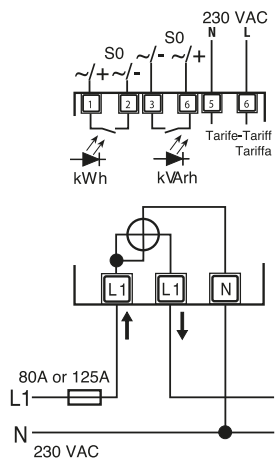
Description	Comm	DIN mod.	Part number
LCD kWh/kVArh, 2 tariffs, 2SO, 80A - MID	pulse	3	DRM-80-1P
LCD kWh/kVArh, 2 tariffs, 2SO, 125A - MID	pulse	3	DRM-125-1P
LCD kWh/kVArh, 2 tariffs, 2SO, 125 Amp - MID Modbus	Modbus RTU	3	DRM-125-1P-MOD
LCD kWh/kVArh, 2 tariffs, 2SO, 125 Amp - MID M-Bus	M-Bus	3	DRM-125-1P-M
Optional communication Interfaces	M-Bus	1	DRM-M
	EIB-KNX	1	DRM-KNX
	Modbus-RTU RS485	1	DRM-MOD
	SD card datalogger	1	DRM-LOG
	Power supply transformer for datalogger	1	DRM-LOG-PS

Dimensions

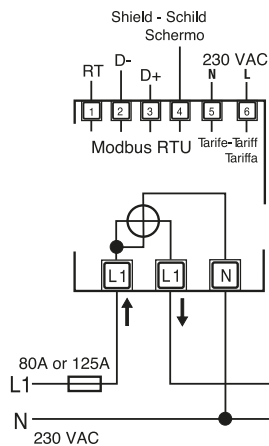


Connections

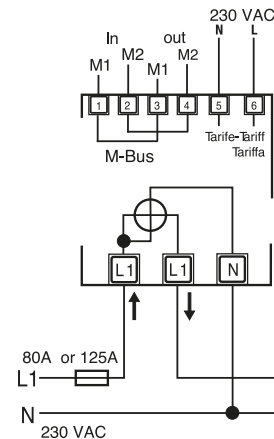
DRM-80-1P
DRM-125-1P



DRM-125-1P-MOD



DRM-125-1P-M



DRM - 80 - 1P (-*) - 80A fuse is recommended for the line protection.
 DRM - 125 - 1P (-*) - 125A fuse is recommended for the line protection.