

**DRM energy-meters single-phase 32A/40A**

► **Direct connection 32A**

► **Direct connection 40A**

The energy-meters use an LCD display to give a clear reading and are used to measure single-phase systems in residential, utility and industrial applications. 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.

Active energy-meters for single-phase alternating current with a, 7 digits counter. These meters have 1 SO output generating pulses for remote processing of the active energy measurements for 1 tariff.



**Parameters**

Display		Unit	ID
Active energy	Tariff	kWh	Energy imported and exported
Active power	Tariff	kW	Instantaneous value imported and exported
Current		A	
Voltage		V	
Power factor		cosφ	
Frequency		Hz	

**Features**

- Display LCD
- For direct connection 32A and 40A
- 7 digits for energy and other values indication
- Accuracy class 1 for active energy and power according to EN 50470-3 (B)
- Operating range current (Ist ... I<sub>max</sub>) for direct connection 32A and 40A = 0.020 ... 32A or 40A
- Sealable terminal covers
- The standard versions are designed to be combined with the communication module
- 1 DIN modules wide (18mm)

**Display**

Liquid crystal display

- 1 kWh display and other parameters
- 2 Power export (supplied r)
- 3 Power import (absorbed R)



**1 standard module housing, suitable for DIN-rail mounting**  
**Direct connection 32A and 40A**

Terminals connection neutral network

Terminals for SO pulse output

Optic control IR for external communication

Precision control LED

Supply terminals 32A and 40A direct connection L↑- L↓

Space for the certification data can be provided on request MID

CE M12 0051 054 / MID ECSEM116MID

Display easy to read

Readout selection push button kWh and other parameters



**Parameters**

Display	Version
Active energy register in T1 import/export	32A and 40A
Instantaneous power active import/export	32A and 40A
Current RMS	- 40A
Voltage RMS	- 40A
Power factor	- 40A
Frequency	- 40A
FW release	32A and 40A
FW checksum	32A and 40A

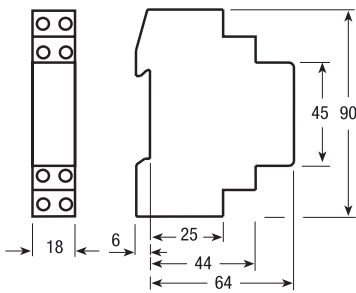
## Technical Data

Display		Units	DRM - 32 - 1P direct connection 32A	DRM - 40 - 1P direct connection 40A
<b>Supply</b>				
Rated control supply voltage Un		V AC	230	230
Operating range voltage		V AC	184 ... 276	184 ... 276
Rated frequency fn		Hz	50 ±2%	50 ±2%
Rated power dissipation (max.) Pv		VA (W)	≤8 (0.6)	≤8 (0.6)
<b>Overload capability</b>				
Voltage Un		continuous	276	276
		momentary (1 s)	300	300
Current Imax		continuous	32	40
		momentary (10 ms)	960	1200
<b>Display (readouts)</b>				
Display type		LCD	7 (2 decimals)	7 (2 decimals)
digit dimensions		n° digits mm x mm	6 x 3	6 x 3
Active energy: 1 display, 7-digit		kWh	0.00 ... 999999.9	0.00 ... 999999.9
Instantaneous tariff measurement		-	1	1
1 display, 1-digit		-	T1	T1
Display period refresh		s	1	1
<b>Measuring accuracy</b>				
Active energy and power		at 23 ±1°C, referred to nominal values acc.to EN 50470-3	class 1	B (±1)
<b>Measuring input</b>				
Type of connection		phase/N	-	direct
Operating range voltage		phase/N	V AC	184 ... 276
Current Iref			A	5
Current Imin			A	0.25
Operating range current (Ist ... Imax)		direct connection	A	0.02 ... 32
Frequency			Hz	50 ±2%
Input waveform			-	alternating
Starting current for energy measurement (Ist)			mA	20
<b>Pulse output SO</b>				
Pulse output		acc.to EN 62053-31 for active energy	-	yes
Pulse quantity			imp/kWh	1000
Pulse duration			ms	90
Required voltage		min. (max.)	V AC (DC)	5 ... 230 ±5% (5 ... 300)
Permissible current		pulse ON (max. 230V AC/DC)	mA	90
Permissible current		Impulse OFF (leakage cur. max. 230V AC/DC)	µA	1
<b>Optical interface</b>				
Front side (accuracy control)		LED	imp/kWh	5000
<b>Safety acc. to EN 50470-1</b>				
Indoor meter			-	yes
Degree of pollution			-	2
Operational voltage			V AC	300
AC voltage test (EN 50470-3, 7.2)			kV	4
Impulse voltage test			1.2/50 µs-kV	6
Protection class (EN 50470)			class	II
Housing material		UL 94	class	V0
flame resistance				V0

**Product Codes**

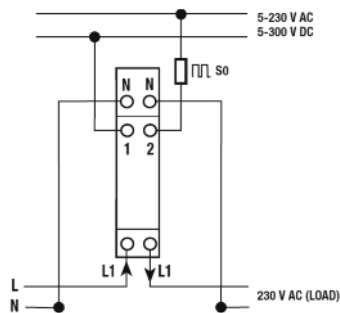
Description	Comm	DIN mod.	Part number
LCD kWh, 1 tariff, 1SO, non resettable, 32 Amp - MID	pulse	1	DRM-32-1P
LCD kWh, 1 tariff, 1SO, non resettable, 40 Amp - MID	pulse	1	DRM-40-1P
Optional communication Interfaces	M-BUS	1	DRM-M
	Modbus-RTU RS485	1	DRM-MOD
	SD card datalogger	1	DRM-LOG
	Power supply transformer for datalogger	1	DRM-LOG-PS

**Dimensions**



**Circuit diagrams**

**DRM-32-1P  
DRM-40-1P**



32A or 40A fuses are recommended for line protection.