



	Err	The entering information is wrong. The operation fails.
1	PR5 0000	Password To get into Set-up mode, it asks a password confirmation. Default password: 1000
2	Add 001	Address For Modbus: Default ID is 001 Range: 001~247 For Mbus: Primary address ID Default ID is 001 Range:001~250
2-1	Add 001	Press the "Enter" button, the first digit flash. Press the "Scroll" button to change the value. After choosing the new address value, the user needs to press the "Enter" button to confirm the setting.
2-2	1dH 0000	High bit of Mbus secondary address (for SDM230-Mbus only)
2-2	1dL 0001	Low bit of Mbus secondary address Example: if the secondary address high bit is 0000, low bit is 0001, the integral Secondary address is 00 00 00 01 (for SDM230-Mbus only)
3	bd 9600	Baud rate for Modbus Default value: 9600bps Range: 1200, 2400, 4800, 9600, 19200, 38400bps. Baud rate for Mbus: Default value: 2400bps Range:300, 600, 1200, 2400, 4800, 9600bps.
3-1	bd 9600	Press the "Enter" button, the red part flash. Press the "Scroll" button to change the value. After choosing the new baud rate, the user needs to press the "Enter" button to confirm the setting.
4	Prty n	Parity Default: None Option : None, Even, Odd
4-1	Prty n	Press the "Enter" button, the red part flash. Press the "Scroll" button to change the option. After choosing the new parity, the user needs to press the "Enter" button to confirm the setting.
5	PLS out kWh	Pulse output 1 Default: Exp kWh Option:kWh / KVAh / Imp. kWh / Exp.kWh / Imp.kVAh / Exp.kVAh
5-1	PLS out kWh	Press the "Enter" button, the red part flash. Press the "Scroll" button to change the option. After choosing the new pulse output option, the user needs to press the "Enter" button to confirm the setting.
6	PLS cSt	Pulse constant Default: 1000 Option: 1000 / 100 / 10 / 1
6-1	cSt 1000	Press the "Enter" button, the red part flash. Press the "Scroll" button to change the option. After choosing the new pulse constant option, the user needs to press the "Enter" button to confirm the setting.
7	PLS t	Pulse duration Default: 100mS Option: 200 / 100 / 60mS
7-1	PLSt 200	Press the "Enter" button, the red part flash. Press the "Scroll" button to change the option. After choosing the new pulse duration option, the user needs to press the "Enter" button to confirm the setting.
8	dIt 5Et	Demand integration time Default: 15 min Option: off(0) / 5 / 10 / 15 / 30 / 60

8-1	dIt 15	Press the "Enter" button, the red part flash. Press the "Scroll" button to change the option. After choosing the new DIT option, the user needs to press the "Enter" button to confirm the setting.
9	Scrl t	Automatic scroll time interval Default: 0 S Option: 0 ~ 30S
9-1	t 30 5	Press the "Enter" button, the red part flash. Press the "Scroll" button to change the option. After choosing the new "Scroll" option, the user needs to press the "Enter" button to confirm the setting.
10	LP 5Et	Backlit lasting time Default: 60 min Option: 0(off) / 5 / 10 / 20 / 30 / 60 Long press "Enter" button to enter set-up mode.
10-1	LP 60	Press the "Enter" button, the red part flash. Press the "Scroll" button to change the option. After choosing the new "Scroll" option, the user needs to press the "Enter" button to confirm the setting.
11	clr	Clear Long press "Enter" button to enter the clear interface.
11-1	MD clr	Clear Max. demand of active power Long press the "Enter" button to confirm the operation.
12	Σr clr kWh	Clear the resettable energy Long press the "Enter" button to confirm the operation.
13	SEt PR55	Password Default: 1000
13-1	PR5 1000	Press the "Enter" button, the red part flash. Press the "Scroll" button to change the option. After choosing the new "Scroll" option, the user needs to press the "Enter" button to confirm the setting.
14	dI FLtP	DI-filtering time Default: 100ms
15	FLtP 100	Press the "Enter" button, the red part flash. Press the "Scroll" button to choose the filter time . Options 100ms/200ms.
16	Good	Press & hold the "Enter" button to confirm the change to the option you have selected.

### 3. Specifications

#### 3.1 General Specifications

Voltage AC (Un)	230V
Voltage range	176~276V AC
Base current (Ib/Iref)	10A
Max. current (Imax)	100A(65A for ETL version)
Mini current (Imin)	0.5A
Starting current	0.4% of Ib/Iref
Power consumption	<2W/10VA
Frequency	50Hz(for MID version) 50/60Hz ± 2% (for non-MID version)
AC voltage withstand	4KV for 1 min
Impulse voltage withstand	6KV-1.2uS waveform
Over current withstand	30Imax for 0.01s
Pulse 1 output rate	configurable, default 1000i/kWh
Pulse 2 output rate	non-configurable,1000i/kWh
Display	LCD with backlight
Max. reading	999999.9kWh

#### 3.2 Accuracy

Voltage	0.5% of range maximum
Current	0.5% of nominal
Frequency	0.2% of mid-frequency
Active power	1% of range maximum
Reactive power	1% of range maximum
Apparent power	1% of range maximum
Active energy	Class 1 IEC62053-21 Class B EN50470-1/3 Class 2 IEC62053-23
Reactive energy	

### 3.3 Environment

Operating temperature	-25°C to +55°C
Storage/transportation temperature	-40°C to +70°C
Reference temperature	23°C ± 2°C
Relative humidity	0 to 95%, non-condensing CAT III

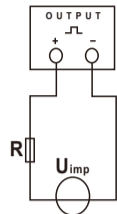
Installation category	M1
Mechanical environment	E2
Electromagnetic environment	2

\*Maximum operating and storage temperatures are in the context of typical daily and seasonal variation.

### 3.4 Pulse Output

\*Not for SDM230M-DI

The pulse output 1 can be set to generate pulses to represent total kWh, total kVAh, import kWh, export kWh, import kVAh, export kVAh.  
Constant can be set to 1000/100/10/1 impulse per kWh or kVAh.  
Pulse width 200/100/60mS.

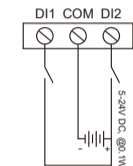


ATTENTION: Pulse output must be fed as shown in the wiring diagram on the left. Scrupulously respect polarities and the connection mode. Opto-coupler with potential-free SPST-NO Contact.

Contact range:5-27VDC  
Max. current input:27mA DC.

### 3.5 Digital Inputs

\*For SDM230M-DI only



The meter equipped with two digital inputs. An input signal is detected on a digital input if a voltage of at least 5V and maximum 24V DC@0.1W is applied.

### 3.6 RS485 Output for Modbus RTU

\*Not for SDM230-Pulse or SDM230-Mbus

The meter provides a RS485 port for remote communication. Modbus RTU is the protocol applied. For Modbus RTU, the following RS485 communication parameters can be configured from the set-up menu.  
Baud rate: 1200, 2400, 4800, 9600, 19200, 38400 bps  
Parity: NONE/ODD/EVEN  
Stop bits: 1 or 2  
Modbus Address: 1 to 247

### 3.7 Mbus

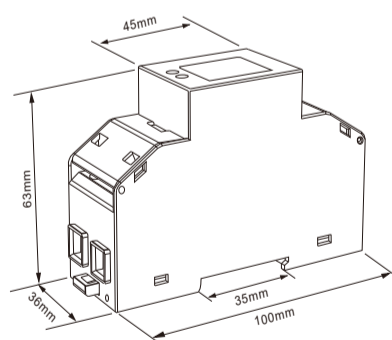
\*For SDM230-Mbus only

The meter provides a Mbus Port for remote communication. the meter adopts EN13757-3 Mbus communication protocol. The communication parameters can be configured via the set-up mode.  
Baudrate: 300,600,1200,2400,4800,9600 bps  
Parity: NONE/ODD/EVEN  
Stop bits: 1 or 2  
Primary address: 001~250  
Secondary address: 00000001~99999999

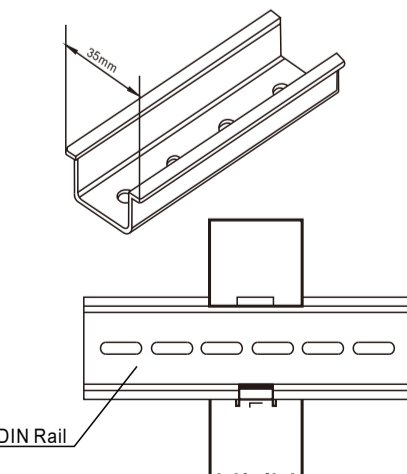
### 3.8 Mechanics

Din rail dimensions	36x100x63 (WxHxD) Per DIN 43880
Mounting	DIN rail 35mm
Ingress protection	IP51 (indoor)
Material	Self-extinguishing UL94V-0

### 4. Dimensions



### 5. Installation and Sealing

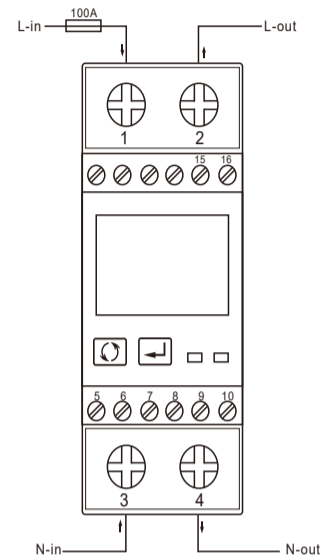


### Declaration of Conformity(for the MID approved version meter only)

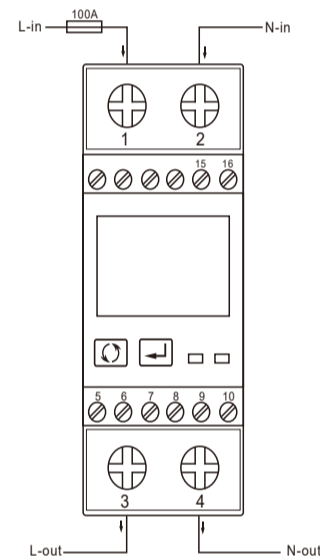
We Zhejiang Easton Electronic Co.,Ltd.  
Declare under our sole responsibility as the manufacturer that the single phase multi-funton electrical energy meter "SDM230 Series" correspond to the production model described in the EU-type examination certificate and to the requirements of the Directive 2014/32/EU type examination certificate number 0120/SGS0206.  
Identification number of the NB0598

### 6. Wiring Diagram

#### 6.1 SDM230-V1

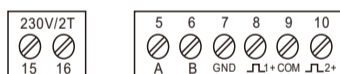


#### 6.2 SDM230-V2



#### 6.3 Definitions of other terminals

SDM230-2T



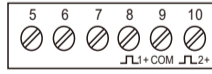
SDM230-Modbus/Std



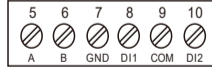
SDM230-Mbus



SDM230-Pulse



SDM230M-DI



Terminals Capacity	COMM / Pulse / 2T	0.5~1.5mm²
	Load	4~25mm²
Screw Torque	COMM / Pulse / 2T	0.2Nm
	Load	2.5Nm

IMPORTER: Prima Group 2004 LTD,  
Bulgaria, 1784 Sofia, Mladost 1, bl. 144,  
Ground Floor; Phone: +359 2 988 45 72;



DH-SMS-0240