



SDM72CT Series

Three Phase 4 Wire Energy Meter



- CT operated
- 4 module wide
- Active energy (kWh) + active power (W)
- Bi-directional measurement (Import & export)
- Resettable energy
- Pulse output
- IEC62053-21 Class 1.0
- Din rail mounted

User Manual V1.1

2016

Introduction

The SDM72CT series is digital three phase 4 wire energy meter with a white back-lighted LCD screen for perfect reading. It provides an economical solution for active energy and active power measurement in three phase applications. It is high accurate, durable and reliable. SDM72CT-DR provides a separate register for resettable energy, which allows use to monitor the energy consumption happens in a certain period. SDM72CT-Bi measures both import and export energy, is an ideal product for bi-directional applications.

PART 1 Specification

General Specifications

Voltage AC (Un)	3x230(400)V (110V is optional)
Voltage Range	80~120% Un
Base Current (Ib)	100mA, 333mV, 5A CT input
Max. Current (Imax)	120% of Ib AC
Mini Current (Imin)	5% of Ib AC
Starting current	0.4% of Ib
Power consumption	<2W/10VA
Frequency	50/60Hz
AC voltage withstand	4KV for 1 minute
Impulse voltage withstand	6KV-1.2uS waveform
Overcurrent withstand	20max 0I for 0.5s
Pulse output rate	1000imp/kWh (default)
Display	LCD with backlit
Max. Reading	999999.9kWh
Active energy	Class 1 IEC62053-21 Class B EN50470-3

Environment

Operating temperature	-25℃ to +55℃
Storage and transportation temperature	-40℃ to +70℃
Reference temperature	23℃ ± 2℃
Relative humidity	0 to 95%, non-condensing
Altitude	up to 3000m
Warm up time	10s
Installation category	CAT III
Mechanical Environment	M1
Electromagnetic environment	E2
Degree of pollution	2

Mechanics

Din rail dimensions	72x100x66 (WxHxD) DIN 43880
Mounting	DIN rail 35mm
Sealing	IP51 (indoor)
Material	self-extinguishing UL94V-0

PART 2 Operation

Initialization Display





When it is powered on, the meter will initialize and do self-checking.






	Full Screen (3S)
	Software Version (2S)
	Pulse constant (2S)
	Total active energy(kWh) Total=Import+ Export

Scroll display

There are two buttons on the front panel of the meter, can be used to scroll display and reset the partial energy. If click the button, the user can scroll down the display for data checking.

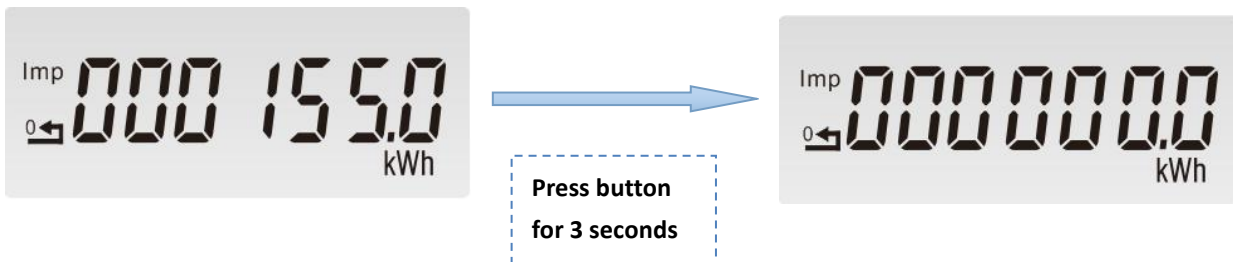
Model	Data displayed
SDM72CT-D	Active energy → CT ratio
SDM72CT-DR	Active energy → resettable active energy → active power → CT ratio
SDM72CT-BI	total energy → import energy → export energy → total resettable energy → resettable import energy → resettable export energy → total power → import power → export power → CT ratio

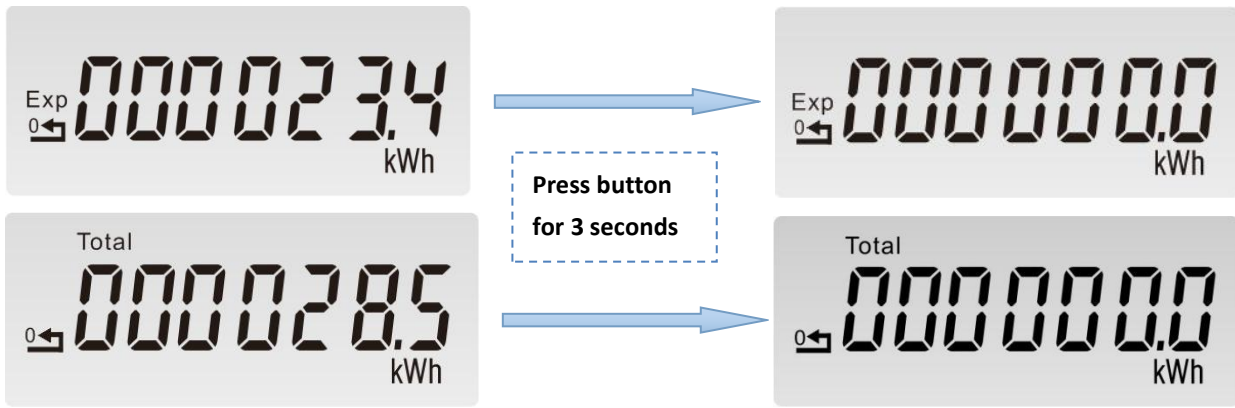
	Total active energy(kWh) Total=Import+ Export
	import energy
	export energy
	Total partial energy(kWh) Total=Import+ Export

	Import partial energy
	export partial energy
	Total power
	Active power
	Reactive power

Reset energy

The button can be used to reset the partial energy. If pressing the button for 3 seconds, the partial energy will be reset to zero.

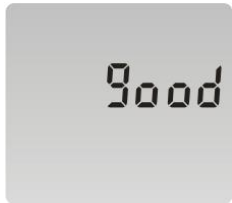
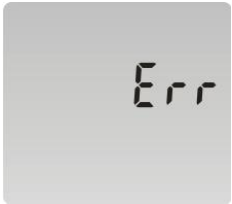









Set-up Mode

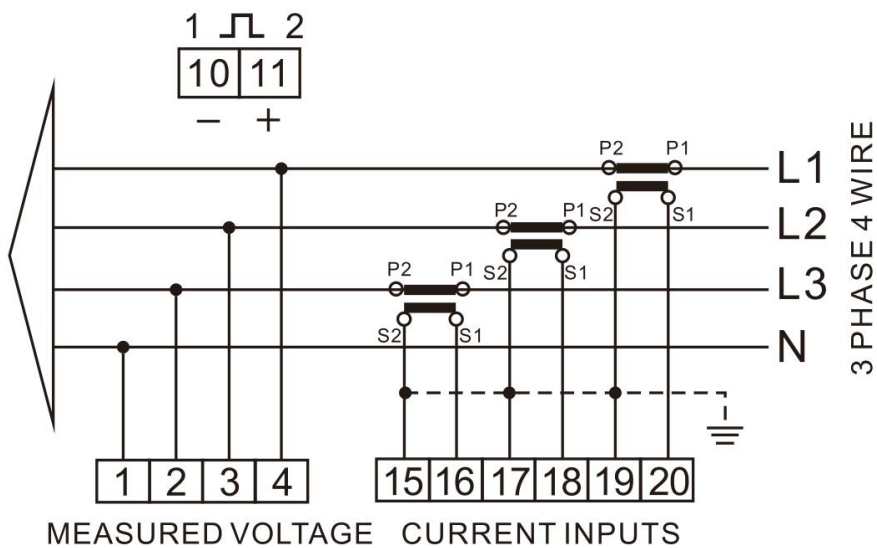


To get into Set-up Mode, the user need press the “Enter” button for 3 second.

Page	Display	Descriptions
		The setting is done correctly
		The entering information is wrong. The operation fails.
1		Password To get into Set-up mode, it asks a password confirmation. Default password: 1000
2		Ct ratio Default :0001
2-1		Press the “Enter” button, the red part flash. Press the “Scroll” button to change the value. After choose the Ct ratio, the user need pressing the “Enter” button to confirm the setting.

3		Password Default: 1000
3-1		Press the "Enter" button, the red part flash. Press the "Scroll" button to change the value. After choose the new password, the user need pressing the "Enter" button to confirm the setting.

Wiring diagram



Dimensions

