SINGLE PHASE ELECTRONIC ACTIVE ENERGY METER
BUILD-IN ENERGY LIMITER METER

Introduction

This is a single-phase two-wire electronic active Energy Limiter Meter, front board, wall mounting, with build-in Energy Limiter inside. It can set the daily maximum load limit. Besides Energy Limiter function, other common functions of this Energy Limiter Meter (eg: measuring accuracy) completely accord with relevant technical requirements of class 1 single phase active energy meter, stipulated in international standard IEC 62053-21.

There are 50Hz or 60Hz 2 type meters available which can accurately and directly measure 50Hz or 60Hz active energy consumption from single phase AC electricity net. It can be installed to use indoor.

Application

This Energy Limiting Meter is ideal in SOLAR,WIND or HYBRID POWER etc some new power plants. It's suitable for applications where the amount of energy is limited or rationed per day.

It's useful for tenants, rugged or remote villages, isolated islands. It also can be equipped for requiring subsidized billing.

General Function

The simplest Energy Limiting Meter is a unique new energy meter that limits energy consumed per day to prevent energy over use.

The built-in MCU handles all metering and control function.

This Energy Limiting Meter is equipped with a real time clock and a load relay.

This Energy Limiting Meter also has warning LED indicator to show the status of load relay. And it is equipped with Overload Current Protection to make it more safer.

Operation Overview

Each Energy Limiting Meter can set the starting time (eg: 6:00pm) everyday when the new allocation will begin. As soon as the designated time (6:00pm) is reached, the new allocation will take effect.

Each Energy Limiting Meter can set daily limit of energy consumed.
When the daily limit is reached, the buzzer will beep for alarm first (beep 1 sec after 4 sec), then the meter will automatically cut off the load power, until the next day, a new kWh allocation is provided and take effect when the designated starting time (6:00pm) is reached. It runs in circle this way.

Features

- Daily Energy Limiter
- Overload Current Protection
- Buzzer Beep Alarm
- 6-digits LED display
- Bluetooth Hand Held Unit or Program via Smartphone Android
- Build-in Real Time Clock
- Build-in MCU, Standalone Operation
- Accuracy Class 1.0
- Front Board/Wall Mounting
- Wide Rage Current Measurement
- Easy Installation & Easy Setup
- Light Weight & Good Reliability

Overload Protection

1. Overload Protection
Usually the maximum current for the Energy Limiting Meter is 10A only. When the current reach 20A, the meter will turn off in 30 second ; When the current reach 30A, the meter will turn off in 15 second ; When the current reach 40A, the meter will turn off in 5 second.
If the meter overload, LED is blinking "P_OV".

2. Restore
The Energy Limiting Meter will restore after 30 seconds for over-load off. If overload is still there, it will perform the over-load protection process. After 10 attempts, it will stop the restore operation. At this time, the users have to restore it manually.
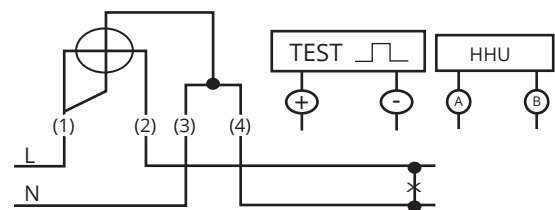
Buzzer Function

Buzzer will beep when alarm energy (Watt hour) is reached, beep 1 second, after 4 second beep 1 second again, in 5 second cycle, till the limit is used up.

Dimensions

68
177
127
116
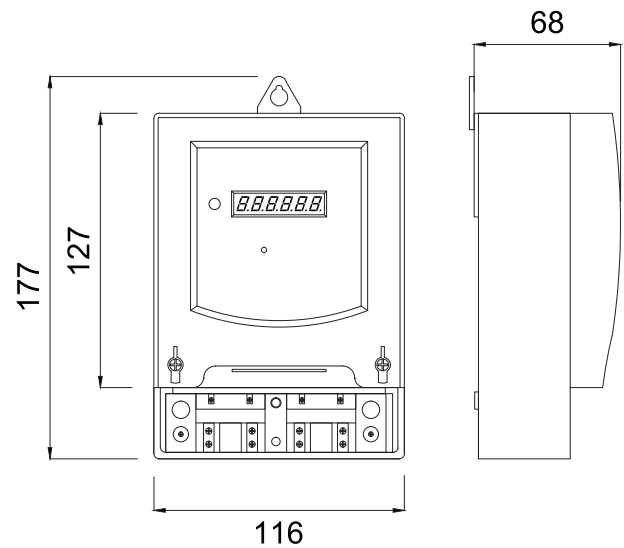
Installation

Terminal No	Descriptions
1	Inlet Phase Line
2	Outlet Phase line
3	Inlet Neutral Line
4	Outlet Neutral line
(+) & (-)	Pulse Output port
A & B	Comm. port for HHU

Technical Specification

Connection	Direct Connections
Accuracy Class	Class 1.0
Reference Voltage	220-240 V AC
Network	1 Phase 2 Wire
Operating Voltage	187-288 VAC
AC Voltage withstand	2 KV for 1 minute
Impulse Voltage	6kV-1.2/50µS waveform
Rate Current (Ib)	5 A direct connection
Maximum Rates Current (Imax)	20A & 40A direct connection
Operating Current Range	0.4%Ib ~ Imax
Operating Frequency Range	50Hz ±10%
Internal Power Consumption	<3W/5VA
Operating Humidity Range	<75%
Storage Humidity Range	<95%
Operating Temperature Range	-20 ºC ~ +55 ºC
Storage Temperature Range	-30 ºC ~ +65 ºC
Meter Constant	4000 imp/kWh
Display	6-Digits Register, LED Display (L)
Reference Standard	IEC62053-21
Overall Dimensions (WxHxD)	W: 177 mm x H: 166 mm x D: 66mm

Application