User Manual

Dual/Multi Source PrePayment Meter

Dual/Multi source Meter are advanced Energy Management and Tracking Systems designed specifically for the Building Management Systems. The instruments are based on 100pin Micro controller devices with 24 Bit Segment Delta Front end ensuring a high degree of precision in energy management.

The most suitable "cost effective" advance payment metering system offers the following features

- * 32 Bit Micro controller.
- * Inbuilt latching Relay with German Technology.
- * Online Data Monitoring through RS 485 link.
- * Optional Time of Use Tariff.
- * Deduction of Daily Utility Charges.
- * No additional cost of Token Generation.
- Direct entry of credit in rupees to meter without cumbersome keypad entries.
- * No Unwanted trip offs during working days.

The other important features of the meter include-

- * Double password protected online tariff management systems ensuring no additional cost.
- * Billing History.
- * Customer behavior pattern.
- * Point of sales (PoS) history.
- * On site programmable over load setting of DG back up.
- * Anti tamper feature of current reversal.

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Functional Features

DISPLAY FEATURES

- * Credit remaining.
- * Total kWh.
- * Current Month kWh. Total
- * Money Vended. Separate
- * Vended Money for kWh &
- * Utility Charges.
- * Previous Month's Cost & kWh.
- * Number of days before
- * disconnection.
- * Relay Cutoff Timer at
- * over load.
- * Number of attempts at over Load.

Technical Specification

FACILITIES

- * Unit cost change.
- * Tariff change.
- * Max. kVA Load Limit Change.
- * New Customer.

TAMPER/FRAUD DETECTION

- * Over Load
- * Unit cost change.
- * Tariff change.
- * Max. kVA Load Limit Change.
- * New Customer.

INPUT	3 Phase 4 Wire			
VOLTAGE	240 V (Ph-N)			
CURRENT	10 - 60Amp			
FREQUENCY	50 Hz ± 5 %			
BURDEN	Current /Voltage Circuit < 2.0 VA / 1.5W/8VA per phase			
DISPLAY	Customized LCD			
ACCURACY	Class 1.0			
ENVIRONMENTAL	Operating Temperature -10°C to +50°C			
	Storage Temperature -25°C to +70°C			
TIME CLOCK & CALENDAR	Normal Power Source Mains supply			
	RTC Backup Source Lithium Battery			
Dimensions (WxHxD)	175 x76x 225 mm (Approx)			
LOAD CONTACTOR	Rated at Imax minimum of 10000 operations at rated current for resistive loads			

Multi Source Pre Payment Meter

DISPLAY PARAMETERS

Sr. No.	Symbol	Parameter				
1	XXXXX.X	kWh Eb (R-Y-B)				
2	XXXXX.X	kWh DG (R-Y-B)				
3	XXXXX.X	kWh SL (R-Y-B)				
4	XXX.X	Voltage (L-N) RN				
5	XXX.X	Voltage (L-N) YN				
6	XXX.X	Voltage (L-N) BN				
7	XXXX.XX	R- Phase Current				
8	XXXX.XX	Y- P-hase Current				
9	XXXX.XX	B- Phase Current				
10	X.XXX	R-Power factor				
11	X.XXX	Y-Power factor				
12	X.XXX	B-Power factor				
13	XXXX.XX	kW(R-Active Power)				
14	XXXX.XX	kW(Y-Active Power)				
15	XXXX.XX	kW(B-Active Power)				
16	XX.X	Frequency				
17	X.XXX	Power factor R,Y,B				
18	XXXX.XX	Active Power R,Y,B				
19	XXXXXX $\frac{CE}{kWh}$	Current Month kWh Eb				
20	XXXXXX $\frac{Cd}{kWh}$	Current Month kWh dg				
21	$XXXXXX \frac{CS}{kWh}$	Current Month kWh SL				
22	cr XXX ^{eb}	Currrent Month Eb bill in Rs				
23	cr XXX ^{dg}	Currrent Month dg bill in Rs				
24	cr XXX ^{s2}	Currrent Month SL bill in Rs				
25	cr XXXX ^{ut}	Total utility charges				

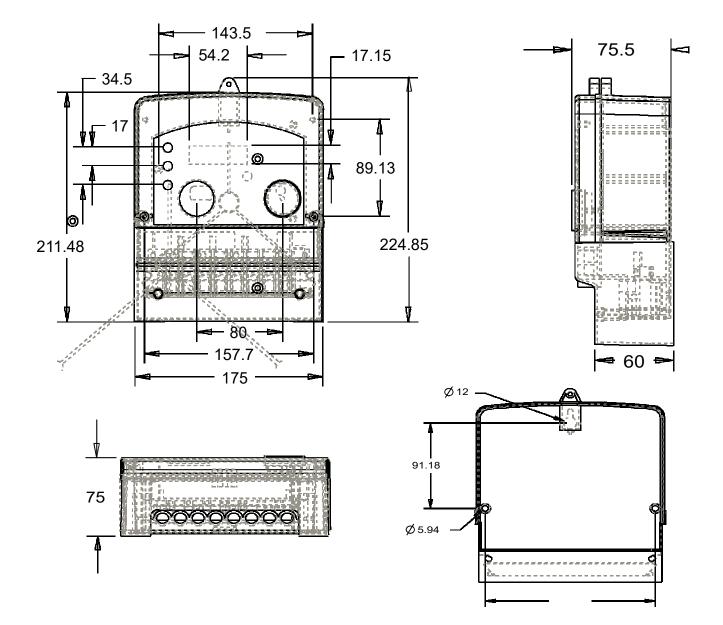
Multi Source Pre Payment Meter

DISPLAY PARAMETERS

Sr. No.	Symbol	Parameter			
26	trXXXX ^{cr}	Current Month total bill in Rs.			
27	PP XXX ^{rs}	Cumulative Recharge			
28	A XXXX	Balance Amount			
29	XX.X $\frac{Eb}{kW}$ MD	Current Month Eb MD			
30	T XX:XX:XX Eb	Current Month Eb MD Time			
31	D XX:XX:XX Eb	Current Month Eb MD Date			
32	XX.X $\frac{E1}{kW}$ MD	Current Month E1 MD			
33	E1Time XX:XX:XX	Eb MD 1 Time			
34	E1Date XX:XX:XX	Eb MD 1 Date			
35	XX.X $\frac{DG}{kW}$ MD	Current Month dg MD			
36	DG Time XX:XX:XX	Current Month dg MD Time			
37	DG Date XX:XX:XX	Current Month dg MD Date			
38	$XX.X \frac{G1}{kW} MD$	DG MD 1			
39	G1 Time XX:XX:XX	DG MD Time 1			
40	XXXXXX $\frac{1E}{kWh}$	Eb kWh bill 1			
41	XXXXXX $\frac{1d}{kWh}$	DG kWh bill 1			
42	XXXXXX $\frac{1S}{kWh}$	SL kWh bill 1			
43	lr XXX ^{Eb}	Eb Rs Bill 1			
44	lr XXX ^{dg}	DG Rs Bill 1			
45	lr XXX ^{sl}	SL Rs Bill 1			
46	lr XXX ^{ut}	Utility Rs bill 1			
47	Time XX:XX:XX	Present Time			
48	Date XX:XX:XX	Present Date			
49	ID XXX	Meter ID			
50	Sr XXXXXX	Meter Sr.No.			
51	UEr X.X	Version			

Multi Source Pre Payment Meter

Dimension Details



157.8

Connection Diagram

R-P	hase	Y-P	hase	B-P	hase	Ne	utral
RIn(1S)	ROut(1L)	YIn(2S)	YOut(2L)	BIn(3S)	BOut(3L)	NIn(NS)	NOut(NL)

PUSH BUTTON PROGRAMMING:-

We can only set Meter ID thru PUSH Button.

- 1. To set Meter ID press both key simultaneously, meter shall prompt for password. (Password is 1000)
- 2. Press down key, display shows P 0000^{-1} , now press down key again, Display shows P 1000^{-1} .
- 3. Now press up key 4 times, Display Shows ID 001, now press down key, Display shows ID 001¹.
- 4. Now press down key set value of first digit from 0-9, press up key to shift next digit.