



TECHNICAL SPECIFICATION

PARAMETER SPECIFICATION

Input Signal	3Ø 3 Wire / 3Ø 4Wire / 1Ø 2Wire
CT Primary	up to 6000A (Programmable)
CT Secondary	5 Amp/1 Amp selectable
PT Primary	100V to 520kV (Programmable)
PT Secondary	100V to 520V (L-L) (Programmable)
PF Avg. & Per Phase	0.100 - 1.000
Frequency (Hz)	45.00 - 60.00 Hz
Load hours	9999.59 Hrs/Min.
No load hours	9999.59 Hrs/Min.
RPM	3600 RPM @ 60 Hz & 2 pole
THD upto 32 level	

POWER

KW Total	0.000 - 9999 MW
kW Per Phase	0.000 - 9999 MW
kVA Total	0.000 - 9999 MVA
kVA Per Phase	0.000 - 9999 MVA
kVAr Total	0.000 - 9999 MVAr
kVAr Per Phase	0.000 - 9999 MVAr

ENERGY

kWH Total	000.000 - 9999999999.999 kWh
kVAh Total	000.000 - 9999999999.999 kVAh
kVArh Total	000.000 - 9999999999.999 kVArh

DISPLAY & KEY :

Display	4 Digit, 3 Line 0.57" RED
Key	SET/ENT, VAF, P/E, INC, DEC

DIMENSION :

Size	96 (H) x 96 (W) x 54 (D) mm
Panel Cutout	92 (H) x 92 (W) mm

AUXILIARY SUPPLY :

Supply voltage	100 to 270V AC, 50/60Hz
Power consumption (VA RATING)	Approx 4 VA @ 230V AC MAX

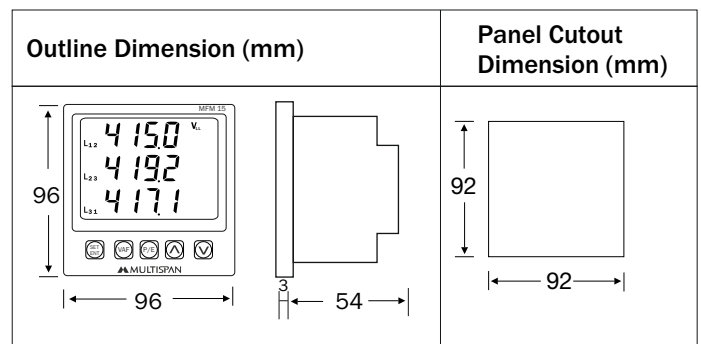
ACCURACY:

Class 0.5 (Standard)

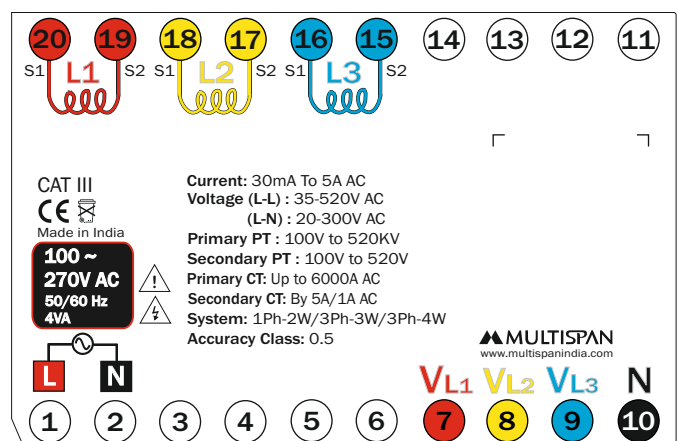
ENVIRONMENT CONDITION:

Operating Temp.	0 °C to 55 °C
Relative Humidity	UP to 95% RH (non-condensing)
Protection Level (AS Per Request)	IP-65 (Front side) As per IS/IEC 60529 : 2001









MECHANICAL INSTALLATION



TERMINAL CONNECTION



KEY OPERATION

FUNCTION	PRESS KEY
OPERATOR MODE	
To view VAF Pages	
To view Power & Energy Pages	
To scroll & hold pages	Press  +  For 5Sec
PARAMETER SETTING MODE	
To Set Parameter Value	Press  For 5 Sec
To Increment parameter value	
To Decrement parameter value	
To Exit from parameter setting	

INSTALLATION GUIDELINES

1. This equipment, being built-in-type, normally becomes a part of main control panel and in such case the terminals do not remain accessible to the end user after installation and internal wiring.
2. Do not allow pieces of metal, wire clippings, or fine metallic fillings from installation to enter the product or else it may lead to a safety hazard that may in turn endanger life or cause electrical shock to the operator.
3. Circuit breaker or mains switch must be installed between power source and supply terminal to facilitate power 'ON' or 'OFF' function. However this mains switch or circuit breaker must be installed at convenient place normally accessible to the operator.
4. Use and store the instrument within the specified ambient temperature and humidity ranges as mentioned in this manual.

MECHANICAL INSTALLATION GUIDELINES

1. Prepare the panel cutout with proper dimensions as shown above.
2. Fit the unit into the panel with the help of clamp given.
3. The equipment in its installed state must not come in close proximity to any heating source, caustic vapors, oils steam, or other unwanted process byproducts.
4. Use the specified size of crimp terminal (M3.5 screws) to wire the terminal block. Tightening the screws on the terminal block using the tightening torque of the range of 1.2 N.m.
5. Do not connect anything to unused terminals.

MAINTENANCE

1. The equipment should be cleaned regularly to avoid blockage of ventilating parts.
2. Clean the equipment with a clean soft cloth. Do not use isopropyl alcohol or any other cleaning agent.
3. Fusible resistor must not be replaced by operator.



SAFETY PRECAUTION

All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If all the equipment is not handled in a manner specified by the manufacturer, it might impair the protection provided by the equipment.



Read complete instructions prior to installation and operation of the unit.



WARNING : Risk of electric shock.

WARNING GUIDELINES



WARNING : Risk of electric shock.

1. To prevent the risk of electric shock, power supply to the equipment must be kept OFF while doing the wiring arrangement. Do not touch the terminals while power is being supplied.
2. To reduce electro magnetic interference, use wire with adequate rating and twists of the same of equal size shall be made with shortest connection.
3. Cable used for connection to power source, must have a cross section of 1mm or greater. These wires should have insulations capacity made of at least 1.5kV.
4. A better anti-noise effect can be expected by using standard power supply cable for the instrument.

PARAMETER SETTING

Long Press  key

Enter Password 10

PASS
10



ntūP Network Selection

3P3ū / 3P4ū / 1P2ū



ct
Prīñ
5000
CT Primary
(5 Amp to 6000 Amp selectable)



ct
SEcd
1 A / 5 A
CT Secondary
(5 Amp/1 Amp selectable)



Pt
Prīñ
300
PT Primary
(100V to 520kV selectable)




Pt
SEcd
330
PT Secondary
(100V to 520V selectable)



n0dE Mode selection

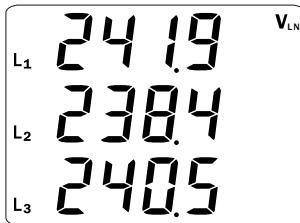
bASE / Adun
(Basic / Advance)

Press  key to save & exit from parameter setting

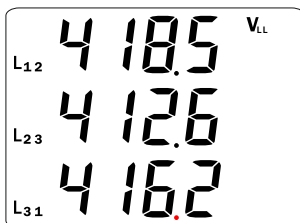
VAF Pages :

Press **VAF** key to change page

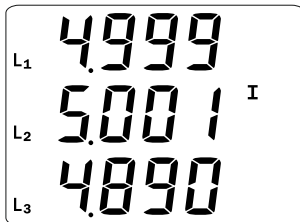
1) Voltage L-N



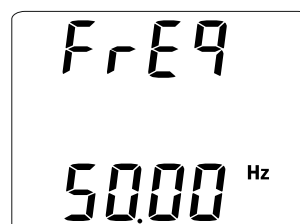
2) Voltage L-L



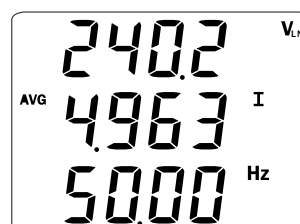
3) Current



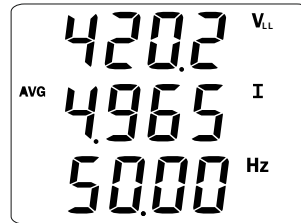
4) System Frequency



5) AVG V(L-N)-A-F



6) AVG V(L-L)-A-F



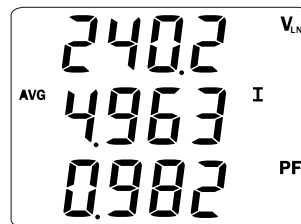
7) PF L1L2L3



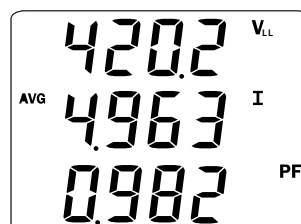
8) System PF



9) AVG V(L-N)-A-PF



10) AVG V(L-L)-A-PF



Note : In 3P-3W Page 2,3,4,6,8,10 will display

POWER & ENERGY Pages :

Press **P/E** key to change page

1) kW PER PHASE

L₁ 1.184
L₂ 1.168
L₃ 1.152 kW

5) kWh Total

1549
0935 kWh

2) kVA PER PHASE

L₁ 1.209 kVA
L₂ 1.192
L₃ 1.176

6) kvah Total

KVAh
1908
2034

3) kvar PER PHASE

L₁ 0.296
L₂ 0.239 kVAR
L₃ 0.236

7) kvarh Total

KVAh
8452
0.176

4) TOTAL kVA,kvar,kW

3577 kVA
0.257 kVAR
Σ 3504 kW

Note : In 3P-3W
Page 4,5,6,7 will display

1Phase 2 wire Pages

1) V(L-N)-A-F

L₁ 230.6 V_{LN}
5.06 I
50.06 Hz

2) V(L-N)-A-PF

L₁ 230.6 V_{LN}
5.06 I
0.98 PF

3) TOTAL kVA,kvar,kW

3577 kVA
0.257 kVAR
Σ 3504 kW

4) kWh Total

1549
0935 kWh

5) kvah Total

KVAh
1908
2034

6) kvarh Total

KVAh
8452
0.176

ADVANCE MODE PAGES

VAF Pages :

Press **VAF** key to change page

1) Voltage L-N

L₁ 2419 V_L
L₂ 2384
L₃ 2405

2) Voltage L-L

L₁₂ 4185 V_L
L₂₃ 4126
L₃₁ 4162

3) Current

L₁ 4999 I
L₂ 5001
L₃ 4890

4) System Frequency

FrEg
5000 Hz

5) Line 1 V(L-N)-A-F

L₁ 2306 V_L
L₂ 5963 I
L₃ 5065 Hz

6) Line 2 V(L-N)-A-F

L₁ 2346 V_L
L₂ 4967 I
L₃ 5035 Hz

7) Line 3 V(L-N)-A-F

L₁ 2406 V_L
L₂ 4732 I
L₃ 4964 Hz

8) AVG V(L-N)-A-F

AVG 2402 V_L
L₁₂ 4963 I
L₃₁ 5005 Hz

9) Line 12 V(L-L)-A-F

L₁₂ 4325 V_L
L₂₃ 5746 I
L₃₁ 5045 Hz

10) Line 23 V(L-L)-A-F

L₂₃ 4356 V_L
L₃₁ 4962 I
L₁₂ 5045 Hz

11) Line 31 V(L-L)-A-F

L₃₁ 4299 V_L
L₁₂ 3657 I
L₂₃ 5045 Hz

12) AVG V(L-L)-A-F

AVG 4202 V_L
L₁₂ 4965 I
L₂₃ 5045 Hz

13) PF L1 L2 L3

L₁ 0982 PF
L₂ 0983
L₃ 0981

14) System PF

54Eñ
PF
Σ 0982

15) Line 1 V(LN)-A-PF

L₁ 2306 V_L
L₂ 5963 I
L₃ 0951 PF

16) Line 2 V(LN)-A-PF

L₁ 2346 V_L
L₂ 4967 I
L₃ 0982 PF

17) Line 3 V(LN)-A-PF

L₁ 2406 V_L
L₂ 4732 I
L₃ 0964 PF

18) AVG V(LN)-A-PF

AVG 2402 V_L
L₁₂ 4963 I
L₃₁ 0983 PF

19) Line12 V(LL)-A-PF

L₁₂ 4325 V_L
L₂₃ 5746 I
L₃₁ 0987 PF

20) Line23 V(LL)-A-PF

L₂₃ 4356 V_L
L₃₁ 4962 I
L₁₂ 0952 PF

21) Line31 V(LL)-A-PF

L₃₁ 4299 V_L
L₁₂ 3657 I
L₂₃ 0961 PF

22) AVG V(LL)-A-PF

AVG 4202 V_L
L₁₂ 4963 I
L₂₃ 0983 PF

POWER & ENERGY Pages :

Press **P/E** key to change page

1) kW PER PHASE

L₁ 1184 kW
L₂ 1168
L₃ 1152

2) kVA PER PHASE

L₁ 1209 kVA
L₂ 1192
L₃ 1176

3) kvar PER PHASE

L₁ 0296 kvar
L₂ 0239
L₃ 0236

4) Line 1 kVA,kvar,kW

L₁ 1209 kVA
L₂ 0296 kvar
L₃ 1184 kW

5) Line 2 kVA,kvar,kW

L₁ 1192 kVA
L₂ 0239 kvar
L₃ 1168 kW

6) Line 3 kVA,kvar,kW

L₁ 1176 kVA
L₂ 0236 kvar
L₃ 1152 kW

7) TOTAL kVA,kvar,kW

Σ 3577 kVA
L₁₂ 0257 kvar
L₃₁ 3504 kW

8) kWh Total

1549 kWh
0935

9) kvah Total

1908 kvah
2034

10) kvarh Total

8452 kvarh
0.176

Note :
In 3P-3W Page
7,8,9,10 will display

Press **▲** OR **▼** to View Load Hour & RPM

1) Load Hour

LHrS
213
53

2) No Load Hour

nHrS
150
01

3) RPM

rPñ
3000

4) Voltage THD%

THD%
12
23
15

5) Current THD%

THD%
402
363
305

1Phase 2 wire Pages

VAF Pages :

1) V(L-N)-A-F

L₁ 2306 V_L
L₂ 506 I
L₃ 5006 Hz

2) V(L-N)-A-PF

L₁ 2306 V_L
L₂ 506 I
L₃ 0982 PF

Power & Energy Pages :

1) TOTAL kVA,kvar,kW

Σ 3577 kVA
L₁₂ 0257 kvar
L₃₁ 3504 kW

2) kWh Total

1549 kWh
0935

3) kvah Total

1908 kvah
2034

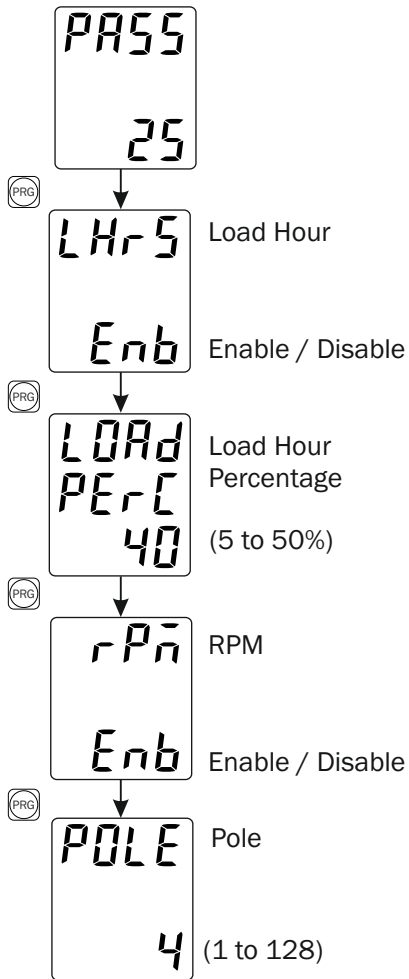
4) kvarh Total

8452 kvarh
0.176

Note : In 3P-3W Page 2,3,4,9,10,11,12,14,
22 will display

LOAD HOUR & RPM

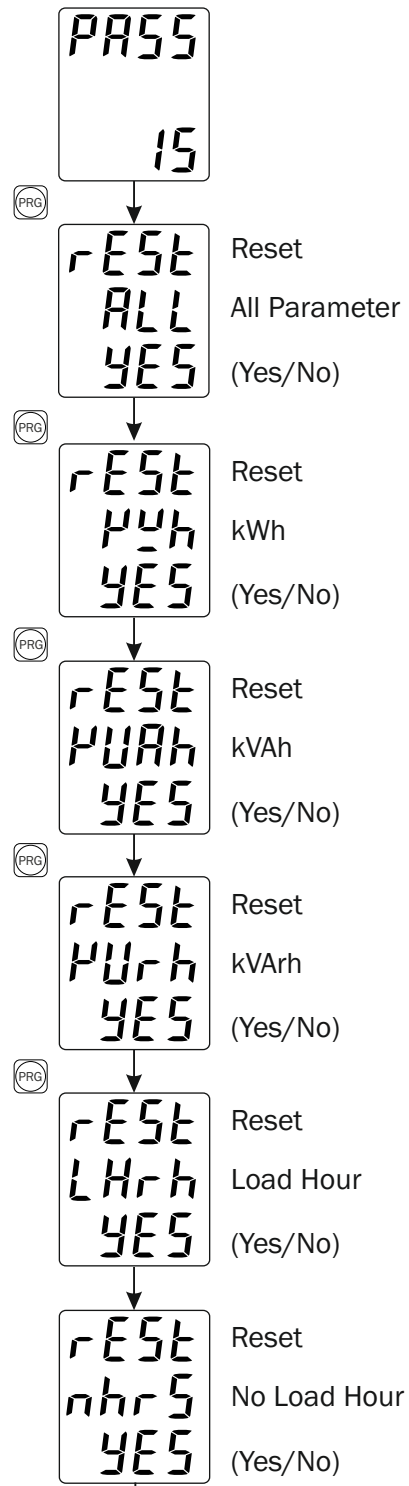
Enter Password 25



Press key to save & exit from parameter setting

RESET SETTINGS

Enter Password 15



Press key to save & exit from parameter setting