



AUTOMATIC POWER FACTOR CONTROLLER (3-CT Based APFC Relay)

APFC-308

APPLICATIONS

Energy Monitoring System

DG Set Panels

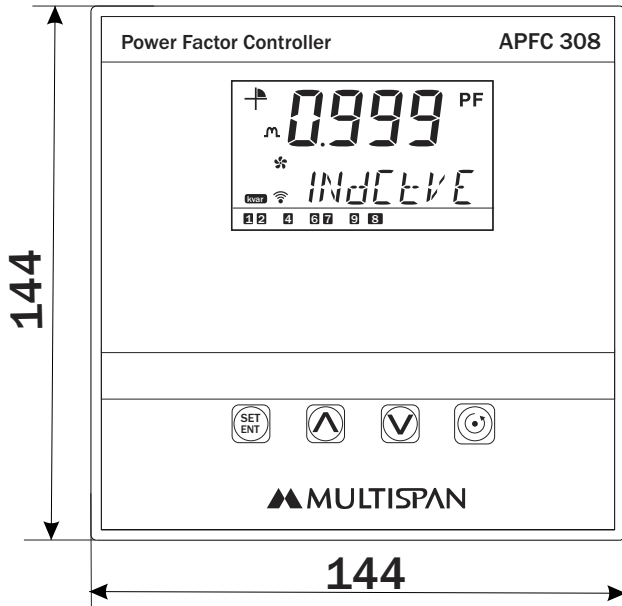
Power Factor Correction Panels

Commercial Buildings

PF Management using 1CT Method
For 3Phase Industrial loads

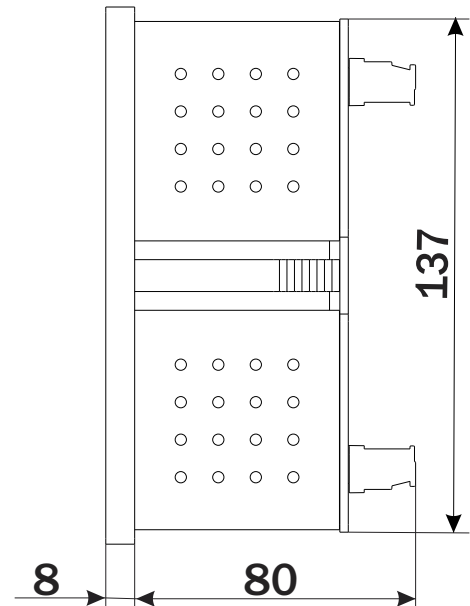
Mechanical Dimensions

Body Dimensions



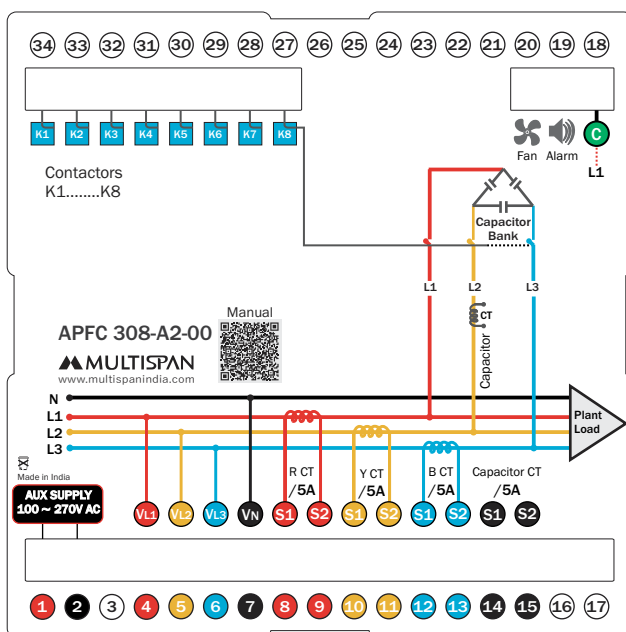
FRONT VIEW

All dimensions are in mm

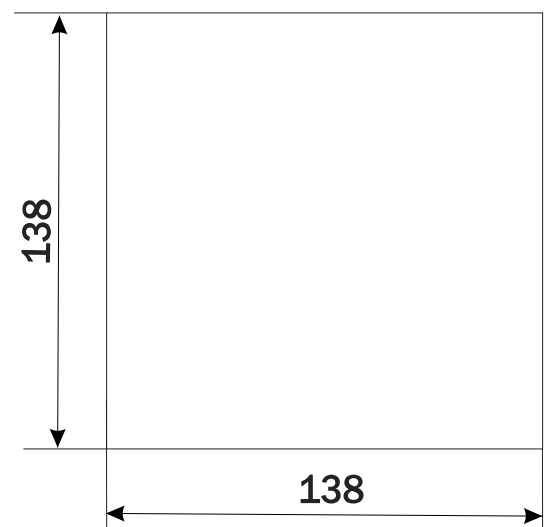


RIGHT SIDE VIEW

Connection Diagram



Panel Cutout



TECHNICAL DATA

| | |
|--|--|
| Input Current Range | 10mA to 5Amp AC (Without CT) (CT Ratio Selectable 5/5A AC to 9999/5A) for Main CT & Capacitor CT |
| Minimum Operating Current For Working of APFC | Selectable range 1mA to 500mA (By Default 30mA) |
| Input Voltage Range | 20 to 300 V AC (L-N) 35 to 520 V AC (L-L) CAT |
| Set Target PF | -1.000 (Lead) To 1.000 (Lag) |
| Power Supply | 100V to 270V AC , 50/60Hz |

Meter Type

| | |
|-----------------------|---|
| 3 Phase 4 Wire | 3 Phase of Voltage & 3CT Sensing of Current |
|-----------------------|---|

Auxiliary power supply

| | |
|---------------------|------------------------|
| Power supply | 100 to 270V AC,50/60Hz |
| Burden | Approx 5VA |

Signal Input Parameter

| | |
|--|--|
| Input Voltage AC | 20 to 300 V AC (L-N) 35 to 520 V AC (L-L) CAT |
| Current AC(3 CT Sensing) | 5 to 9999Amp Selectable |
| Primary CT Ratio | 5 to 9999Amp Selectable |
| Secondary Current AC | 10mA to 5Amp (Without CT) |
| Capacitor CT Ratio | 5 to 9999Amp Selectable |
| Capacitor & Main CT Over Load | 6A |

Display, Led & Keys

| | |
|-----------------------|---|
| Display | Upper: 4 Digit,7 seg,0.60"White Lower: 7 Digit,7 seg,0.38"Green |
| Key | SET/ENT, INC, DEC, EXIT |
| LED Indication | Amp, Volt, Set CosØ, PF, Mode, Manual, Intel, Fan, Kvar, Quadrant, Capacitive, Inductive, Tune Symbol |

Memory

| | |
|-------------------------|----------|
| Memory Retention | 10 Years |
|-------------------------|----------|

Accuracy

Class 0.5 (Standard)

Output

Relay

- ▶ 08 Relay with 1 NO-C for capacitor bank
- ▶ Switching Voltage :- 250V AC
- ▶ Current (Resistive load) :- 5A
- ▶ Expected Electrical Life :- 2,00,000 Operation
- ▶ Expected Mechanical Life :- 5,00,0000 Operation Min

Calculated Parameters

| | |
|---------------------|--|
| Voltage | V _{LN} (Phase to Neutural) |
| Current | ▶ Main CT Current ▶ Capacitor CT Current |
| Power Factor | -1.000 (Lead) to 1.000 (Leg) |
| Power | KW (Individual and Total) KVA (Individual and Total) Kvar (Individual and Total) |

Setting Parameter

| | |
|---------------------------------|------------------------------|
| Set COSϕ | -1.000 (Lead) to 1.000 (Lag) |
| Scan Time | 1 to 999.9 Second |
| Hysteresis | 0 to 25 KVAR |
| Operating Mode | Manual, KVAR, Intel |
| Capacitor Bank Sensing | Manual / Capacitor CT |

Environmental Characteristics

| | |
|------------------------------|-----------------------|
| Humidity | 95% RH Non-condensing |
| Operating Temperature | 0 to 55 °C |

Mechanical Characteristics

| | |
|------------------------------|--------------------------------|
| Mounting Type | Panel Mount |
| Dimension (HxWxD) mm | 144 x 144 x 80 |
| Panel Cutout (HxW) mm | 138 x 138 |
| Material | Body Polycarbonate (PC) |
| Terminal Screw Size | M3 |
| Screw Torque (N.m) | 1 |
| Wire Gauge (AWG) | 28-12 |
| Weight (Approx) gms | Unpacked : 583 Packed : 763 |
| Accessories | 2 Pair of Clamps |