



AUTOMATIC POWER FACTOR CONTROLLER (1-CT Based APFC Relay)

APFC-114

APPLICATIONS

Energy Monitoring System

DG Set Panels

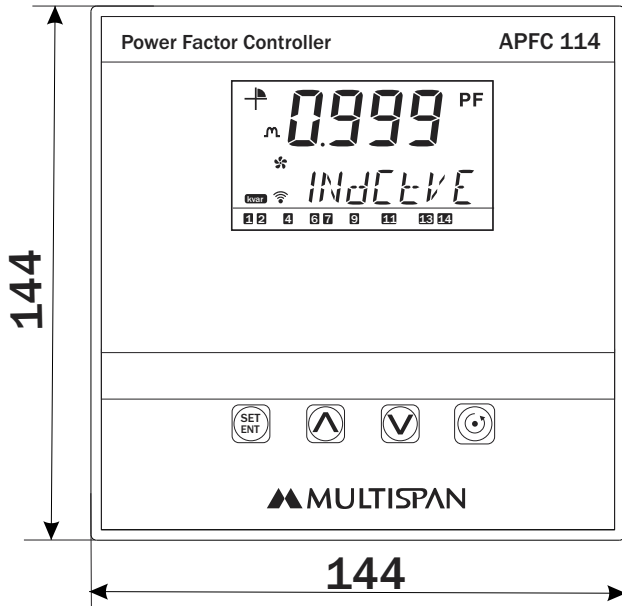
Power Factor Correction Panels

Commercial Buildings

PF Management using 1CT Method
For 3Phase Balance Industrial loads

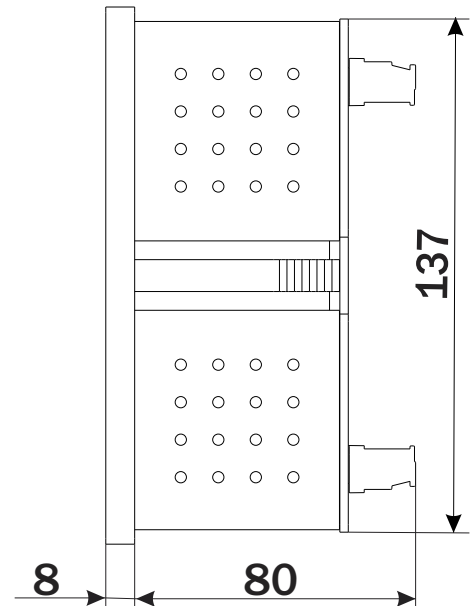
Mechanical Dimensions

Body Dimensions



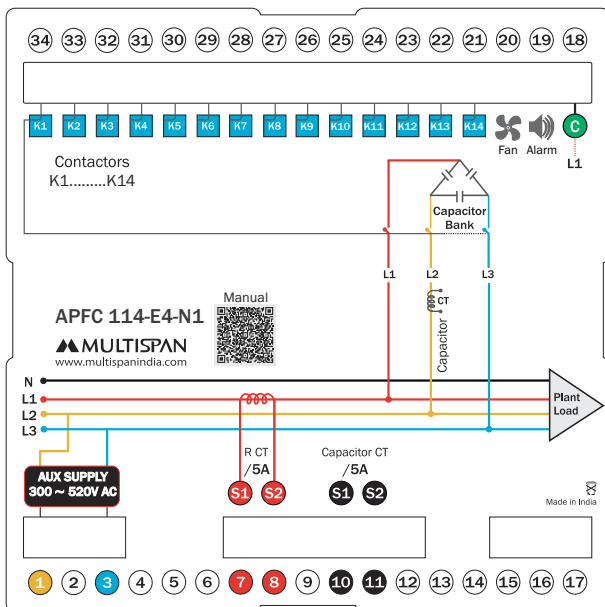
FRONT VIEW

All dimensions are in mm

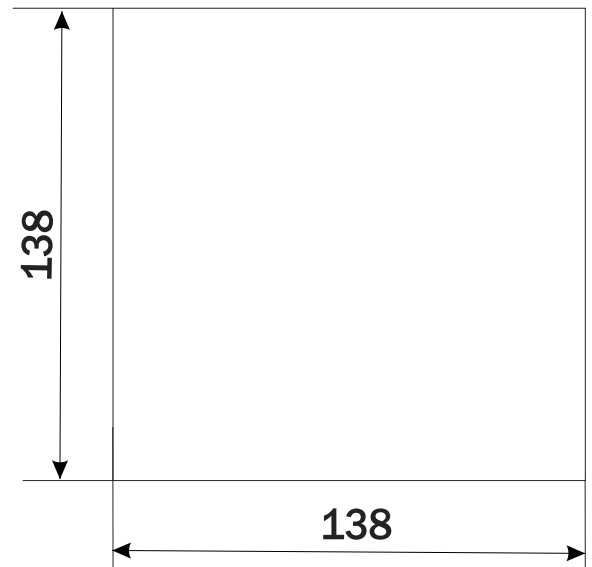


RIGHT SIDE VIEW

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	300 to 520 V AC (P-P) CAT
Set Target PF	-1.000 (Lead) To 1.000 (Lag)
Power Supply	300V to 520V AC , 50/60Hz

Meter Type	
3Phase 3Wire	2 Phase of Voltage & Current Of Remaining Phase

Auxiliary power supply	
Power supply	300 to 520V AC,50/60Hz
Burden	Approx 8VA

Signal Input Parameter	
Input Voltage AC	300 to 520V AC (L-L)
Current AC (1 CT Sensing)	
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, UP, DOWN, 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	▶ 14 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 _{LL} (Phase to Phase)
Current	▶ Main CT Current ▶ Capacitor CT Current
Power Factor	-1.000 (Lead) to 1.000 (Lag)

Setting Parameter

Set COSØ	-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