



144 x 144mm

## FEATURES

- 3 CT Sensing
- Intelligent Algorithm which automatically switches between various capacitive bank
- Upto 16 stage
- Configurable Alarm Settings
- Alarm Indication on Display
- ModBus- RTU communication

## Display Specifications

Type	: LCD with color backlight
Digits	: 3 lines 3 digits to show electrical parameters

## Input Specifications

Rated Input Voltage	: 11 to 300V AC (L-N) 50 to 520V AC (L-L)
Rated Input Current	: Nominal SAAC (Min-11mA, Max 6A)
Frequency	: 45 - 65Hz
Burden	: <8VA
Accuracy	: Voltage (L-N/L-L)-0.5% Current: 0.5% Frequency: 0.2% Power (kW, kVA, kVA): +1%
Resolution	: For Power Factor: 0.1% For Voltage, Current, Power: Auto resolution
Display scrolling	: Auto / Manual / Default (Programmable) Scrolling Time: 5 Sec
Measurements	: Power Factor, Power (kW, kVA, kVA), Phase voltage and Phase current, Frequency Up to 31 order Harmonics measurement

<b>Alarm Indications</b>	: 0.8 lag - 0.8 lead : Over Voltage, Under Voltage, Over Hz, Under Hz, THD%, For Amp & Voltage
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## Resettable Parameters

CT Primary	: 5A to 5000A AC (Programmable for any value)
CT Secondary	: 5A AC (Default) or 1A(Factory Settable)
PT Primary	: 100V to 500kV AC (Programmable for any value)
PT Secondary	: 100V - 500V AC (Programmable for any value)

## Output Specifications

Output Contacts	: NO, One common point Max fuse 6A
Steps	: 1 to 16 steps
Relay Contact	: 5A @ 250V AC
Alarm Optional	: 1 Alarm optional 5A@250V AC

## Communication

Communication Interface	: RS485 & Modbus RTU
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## Auxiliary Supply Specifications

Auxiliary Supply	: 80 - 270A DC
Consumption	: 8VA max
Frequency	: 50-60 Hz

## Control Specifications

Target PF	: 0.8 lag - 0.8 lead
Switching program	: Auto / Manual
Control Sensitivity	: 5% to 100%
Step Time	: 1 to 999 sec
Control Mode	: Automatic / Manual

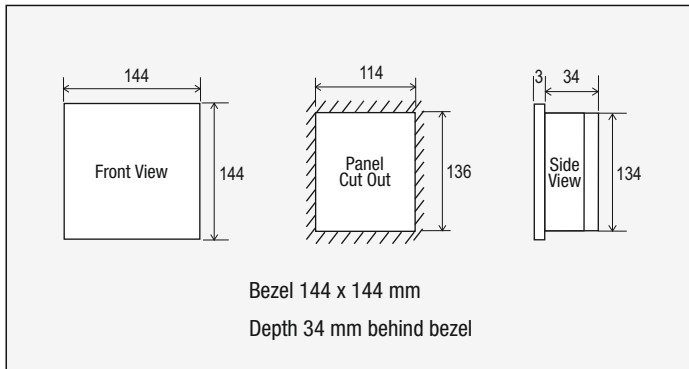
## Environmental Specifications

Temperature	: Operating Temperature : 0° to 60°C : Storage Temperature : -20° to 60°C
Humidity	: Up to 95% RH without moisture consideration

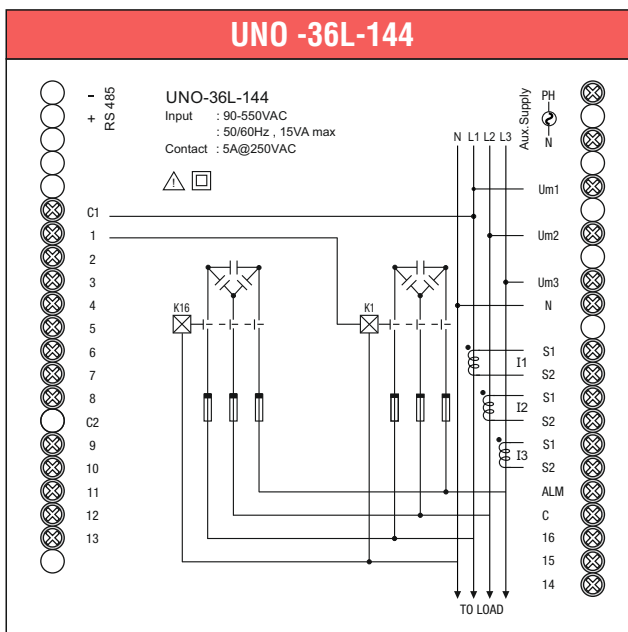
## Mechanical Specifications

Mounting	: Panel Mount
Size	: 144X144mm
Weight	: 550gms(approx)
Screw Tightening Torque	: 0.5 NM

**Mechanical Specifications**



**Connection Diagram**



**Ordering Information**

PRODUCT NAME	DESCRIPTIONS
APFC36L-144-6R	APFC 3CT-144X144 LCD 6 STAGE
APFC36L-144-8R	APFC 3CT-144X144 LCD 8 STAGE
APFC36L-144-12R	APFC 3CT-144X144 LCD 12 STAGE
APFC36L-144-16R	APFC 3CT-144X144 LCD 16 STAGE
APFC36L-144-6R-RS	APFC 3CT-144X144 LCD 6 STAGE- RS485
APFC36L-144-8R-RS	APFC 3CT-144X144 LCD 8 STAGE- RS485
APFC36L-144-12R-RS	APFC 3CT-144X144 LCD 12 STAGE- RS485
APFC36L-144-16R-RS	APFC 3CT-144X144 LCD 16 STAGE- Rs485
APFC36L-144-6R-AL	APFC 3CT-144X144 LCD 6 STAGE-ALARM
APFC36L-144-8R-AL	APFC 3CT-144X144 LCD 8 STAGE-ALARM
APFC36L-144-12R-AL	APFC 3CT-144X144 LCD 12 STAGE-ALARM
APFC36L-144-16R-AL	APFC 3CT-144X144 LCD 16 STAGE-ALARM
APFC36L-144-6R-AL-RS	APFC 3CT-144X144 LCD 6 STAGE-ALARM-RS485
APFC36L-144-8R-AL-RS	APFC 3CT-144X144 LCD 8 STAGE-ALARM-RS485
APFC36L-144-12R-AL-RS	APFC 3CT-144X144 LCD 12 STAGE-ALARM-RS485
APFC36L-144-16R-AL-RS	APFC 3CT-144X144 LCD 16 STAGE-ALARM-RS485



96 x 96mm

## FEATURES

- 1CT-3 phase sensing
- Intelligent Algorithm which Automatically switches between capacitor banks.
- Auto CT Polarity detection.
- Auto Aging Detection & Correction of Capacitor Value.
- 4,6,8,12 steps.
- Under compensation alarm (optional).
- User selection of Auto/ Manual/ Off individual of Capacitor mode.
- Auto detection of kVAr values.
- Universal Auxillary supply.

## Display Specifications

Type7	: 7 Segment LED
Digits	: 4 digits 1 Row

## Input Specifications

Rated Input Voltage	: 40-300V AC (L-N) or 90-550V AC (L-L)
Rated Input Current	: Nominal 5A/AC (Min 50mA, Max 6A)
Frequency	: 45-65 Hz
Burden	: <8VA
Wiring Input	: L-L
Accuracy	: Voltage, Current, kVAr $\pm 1.0\%$ & Power factor $\pm 1.0\%$

## Measurement Range

Power Factor	: 0.8 lag to 0.8 lead
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**Alarm Indications** (Optional) : Under compensation

## Settable Parameters

CT Primary	: 5A-5000A AC (Selectable)
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## Output Specifications

Output Contacts	: NO, One common point Max fuse 6A
Steps	: Upto 12 steps (Max)
Relay Contact	: 5A @ 415VAC (Max)

## Auxiliary Supply Specifications

Input voltage range	: 85 - 270VAC/DC
Consumption	: 7VA max
Frequency	: 50-60 Hz

## Control Specifications

Target PF	: 0.8 lag to 0.8 lead
Control Sensitivity	: 5 to 100%
Discharge & Reconnection	: 1 to 999 sec
Control Mode	: Automatic / Manual

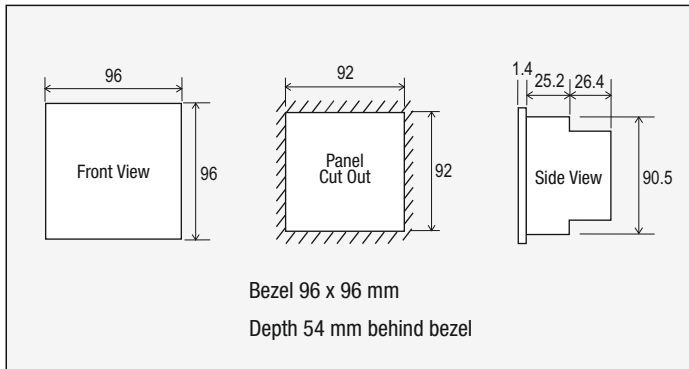
## Environmental Specifications

Temperature	: Operating Temperature : 0° to 60°C Storage Temperature : -20° to 60°C
Humidity (non- Condensing)	: 0% to 95%

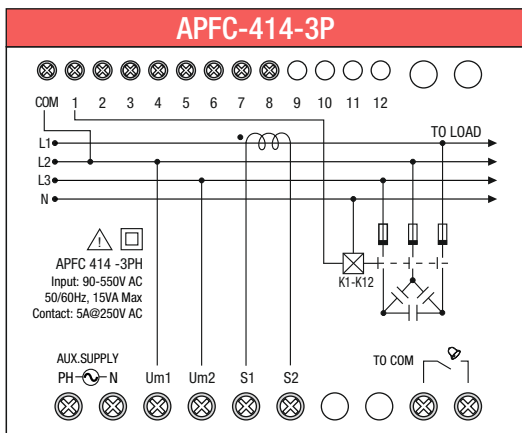
## Mechanical Specifications

Mounting	: Panel Mount
Size	: 96X96mm
Weight	: 300gms
Screw Tightening Torque	: 0.5 NM

**Mechanical Specifications**



**Connection Diagram**



**Ordering Information**

Product Name	Discriptions
APFC414-3CT-3PH-4R	APFC 414-96X96 1CT 3PH 4 STAGE-415V
APFC414-3CT-3PH-6R	APFC 414-96X96 1CT 3PH 6 STAGE-415V
APFC414-3CT-3PH-8R	APFC 414-96X96 1CT 3PH 8 STAGE-415V
APFC414-3CT-3PH-12R	APFC 414-96X96 1CT 3PH 12 STAGE-415V
APFC414-3CT-3PH-4R-AL	APFC 414-96X96 3CT 3PH 4 STAGE-415V ALARM
APFC414-3CT-3PH-6R-AL	APFC 414-96X96 3CT 3PH 6 STAGE-415V ALARM
APFC414-3CT-3PH-8R-AL	APFC 414-96X96 3CT 3PH 8 STAGE-415V ALARM
APFC414-3CT-3PH-12R-AL	APFC 414-96X96 3CT 3PH 12 STAGE-415V ALARM



144 x 144mm

**FEATURES**

- 1CT-1 phase sensing
- Intelligent Algorithm which Automatically switches between capacitor banks
- 6,8,12 steps
- Under compensation alarm (optional)
- User selection of auto/manual mode
- Auto detection of kVAr values.
- Universal auxiliary supply.

**Display Specifications**

Type	: 7 Segment LED
Digits	: 4 digits 1 Row

**Input Specifications**

Rated Input Voltage	: 40-300V AC(L-N)
Rated Input Current	: Nominal 5A/AC (Min 50mA, Max 6A)
Frequency	: 45-65 Hz
Burden	: <8VA
Wiring Input	: L-N
Accuracy	: Voltage, Current, kVAr $\pm$ 1.0% & Power factor $\pm$ 1.0%
<b>Measurement Range</b>	
Power Factor	: 0.8 lag to 0.8 lead
<b>Alarm Indications</b>	
	: Under compensation
<b>Settable Parameters</b>	
CT Primary	: 5A - 5000A AC (Selectable)

**Output Specifications**

Output Contacts	: NO, One common point Max fuse 6A
Steps	: Upto 12 steps (Max)
Relay Contact	: 5A @ 250VAC (Max)

**Auxiliary Supply Specifications**

Input voltage range	: 85 - 270V AC/DC
Consumption	: 7VA max
Frequency	: 50-60 Hz

**Control Specifications**

Target PF	: 0.8 lag to 0.8 lead
Control Sensitivity	: 5% to 100%
Discharge & Reconnection	: 1 to 999 sec
Switching program	: Intelligent Algorithm Switching
Control Mode	: Automatic / Manual

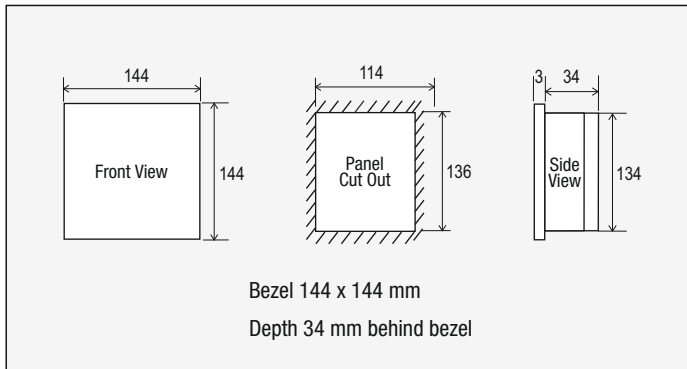
**Environmental Specifications**

Temperature	: Operating Temperature : 0° to 60°C
	: Storage Temperature : -20° to 60°C
Humidity	: 0% to 95% without moisture consideration

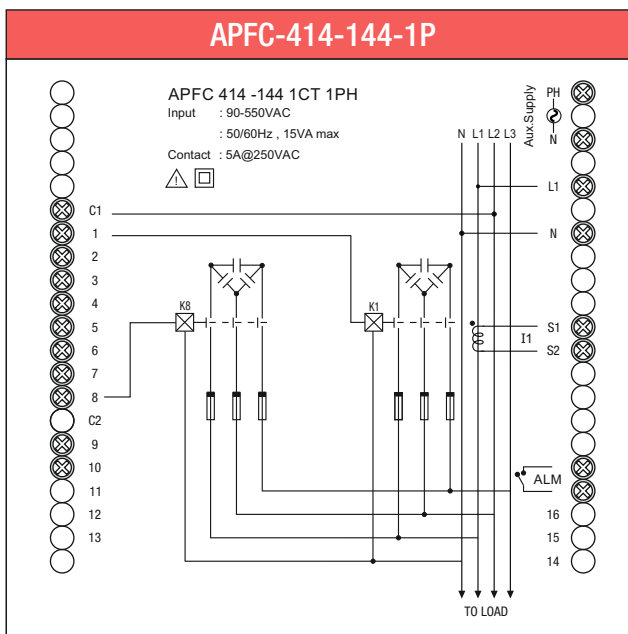
**Mechanical Specifications**

Mounting	: Panel Mount
Size	: 144X144mm
Weight	: 500gms
Screw Tightening Torque	: 0.5 NM

**Mechanical Specifications**



**Connection Diagram**



**Ordering Information**

PRODUCT NAME	DESCRIPTIONS
APFC414-144-1PH-6R	APFC 414-144X144 1CT 1PH 6 STAGE-230V
APFC414-144-1PH-8R	APFC 414-144X144 1CT 1PH 8 STAGE-230V
APFC414-144-1PH-12R	APFC 414-144X144 1CT 1PH 12 STAGE-230V
APFC414-144-1PH-6R-AL	APFC 414-144X144 1CT 1PH 6 STAGE-230V ALARM
APFC414-144-1PH-8R-AL	APFC 414-144X144 1CT 1PH 8 STAGE-230V ALARM
APFC414-144-1PH-12R-AL	APFC 414-144X144 1CT 1PH 12 STAGE-230V ALARM



96 x 96mm

**FEATURES**

- 1CT-3 phase sensing
- Intelligent Algorithm which Automatically switches between capacitor banks.
- 4,6,8,12 steps.
- Auto detection of kVAr values.
- Universal Auxillary supply.

**Display Specifications**

Type	: 7 Segment LED
Digits	: 4 digits 1 Row

**Input Specifications**

Rated Input Voltage	: 40-300V AC (L-N)
Rated Input Current	: Nominal 5A/AC (Min 50mA, Max 6A)
Frequency	: 45-65 Hz
Burden	: <8VA
Wiring Input	: L-N
Accuracy	: Power factor $\pm$ 1.0%
<b>Settable Parameters</b>	
CT Primary	: 5A or 1A (Factory Settable)

**Output Specifications**

Output Contacts	: NO / NC One common point Max fuse 6A
Steps	: Upto 12 steps (Max)
Relay Contact	: 5A @ 230VAC (Max)

**Auxiliary Supply Specifications**

Input voltage range	: 85 - 270V AC/DC
Consumption	: 7VA max
Frequency	: 50-60 Hz

**Control Specifications**

Target PF	: Units (Already Set)
Control Sensitivity	: 5 to 100%
Discharge & Reconnection	: .020 sec (Fixed)
Control Mode	: Automatic

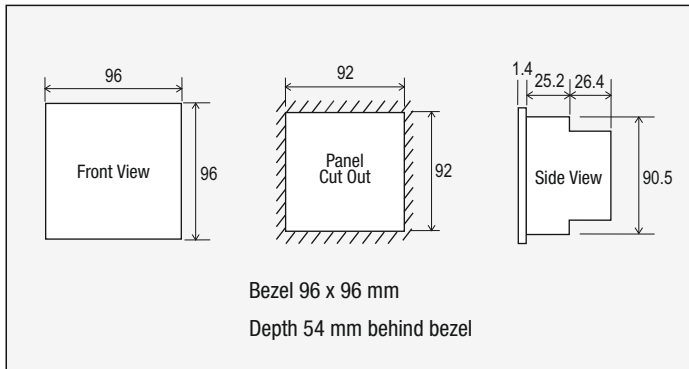
**Environmental Specifications**

Temperature	: Operating Temperature : 0° to 60°C
	: Storage Temperature : -20° to 60°C
Humidity (non- Condensing)	: 0% to 95%

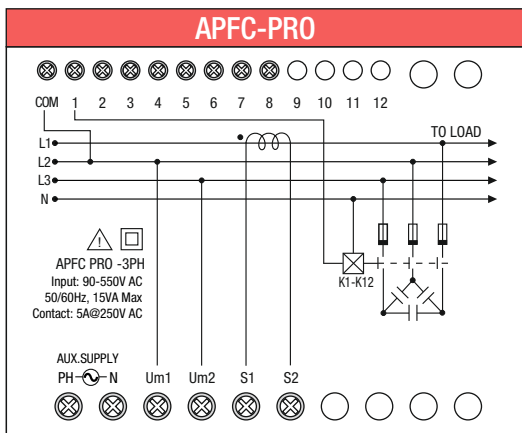
**Mechanical Specifications**

Mounting	: Panel Mount
Size	: 96X96mm
Weight	: 300gms
Screw Tightening Torque	: 0.5 NM

**Mechanical Specifications**



**Connection Diagram**



**Ordering Information**

Product Name	Discriptions
APFC-PRO-3CT-3PH-4R	APFC PRO-96X96 1CT 3PH 4 STAGE-415V
APFC-PRO-3CT-3PH-6R	APFC PRO-96X96 1CT 3PH 6 STAGE-415V
APFC-PRO-3CT-3PH-8R	APFC PRO-96X96 1CT 3PH 8 STAGE-415V
APFC-PRO-3CT-3PH-12R	APFC PRO-96X96 1CT 3PH 12 STAGE-415V





96 x 96mm

## FEATURES

- 3 CT Sensing
- Intelligent Algorithm which automatically switches between various capacitive bank
- Upto 12 stage
- Configurable Alarm Settings for Voltage / Current / THD
- ModBus - RTU communication

## Display Specifications

Type	: 7 Segment LED
Digits	: 3 lines 3 digits to show electrical parameters
Relay Indications	: 15 LED for parameter & upto 12 LED for Relay status

## Input Specifications

Rated Input Voltage	: 11 to 300V AC (L-N) 50 to 520V AC (L-L)
Rated Input Current	: Nominal SAAC (Min-11mA, Max 6A)
Frequency	: 45 - 65Hz
Burden	: 8 VA max.
Accuracy	: Voltage (L-N / L-L) : $\pm 0.5\%$ of F.S. Current : $\pm 0.5\%$ of F.S. Power Factor : $\pm 1.0\%$ Frequency : $\pm 0.2\%$ Power (Active, Reactive, Apparent) : $\pm 1.0\%$ Energy (Active, Reactive, Apparent) : Class $\pm 1.0\%$
Resolution	: For energy : 0.01k, 0.1k, 1k, 0.01M, 0.1M, 1M (depending Upon CT ratio x PT ratio) For Power, Voltage, Current : Auto Resolution For Power Factor : 0.001, Harmonics 0.1%
Display scrolling	: Automatic / Manual / Default
Memory Retention	: 10 Years (for Energy)
Measuring Parameters	: Voltage (L-L / L-N) (Individual / Average), Current (Individual / Average), Frequency, Power Factor (Individual / Total), Active, Reactive & Apparent Power (Individual / Total), Active, Reactive & Apparent Energy (Total) % THD upto 31 <sup>st</sup> Harmonic for Voltage & Current / Maximum (Rising) Demand, Auxiliary interrupt, Phase Sequence Detection

## Measurement Range

Power Factor	: 0.8 lag - 0.8 lead
Alarm Indications	: Over Voltage, Under Voltage, Over Current, Under Current, OVER Hz, Under Hz, THD% for Amp & Voltage

## Settable Parameters

CT Primary	: 5A to 5000A AC (Programmable for any value)
CT Secondary	: 5A AC (Programmable)
PT Primary	: 100V to 500kV AC (Programmable for any value)
PT Secondary	: 100V - 500V AC (Programmable for any value)

## Output Specifications

Output Contacts	: NO, One common point Max fuse 6A
Steps	: 1 upto 12 steps
Relay Contact	: 5A @ 250V AC (SPST)

## Communication

Communication Interface	: RS485 & Modbus RTU
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## Auxiliary Supply Specifications

Input voltage range	: 90 - 550VAC
Consumption	: 15VA max
Frequency	: 50-60 Hz

## Control Specifications

Target PF	: 0.8 lag - 0.8 lead
Switching program	: Auto / Manual
Control Sensitivity	: 5% to 100%
Step Time	: 1 to 999 sec
Control Mode	: Automatic / Manual
Auto initialization	: Yes / No

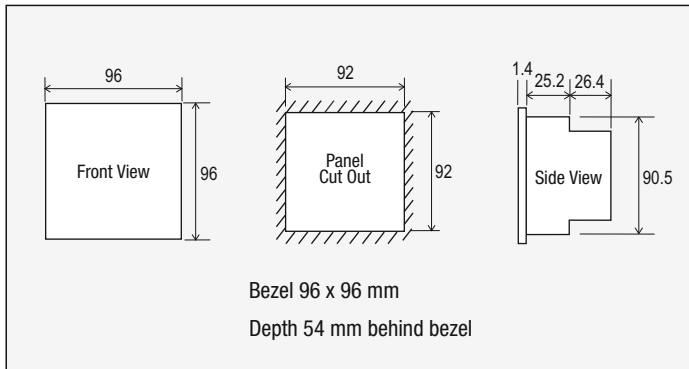
## Environmental Specifications

Temperature	: Operating Temperature : 0° to 60°C Storage Temperature : -20° to 60°C
Humidity	: Upto 95% RH without moisture consideration

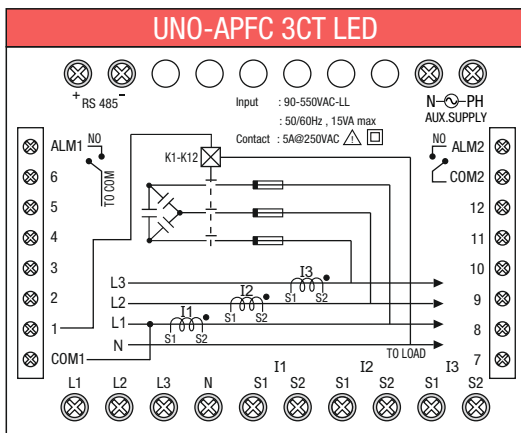
## Mechanical Specifications

Mounting	: Panel Mount
Size	: 96X96mm
Weight	: 350gms (approx)
Screw Tightening Torque	: 0.5 NM

**Mechanical Specifications**



**Connection Diagram**



**Ordering Information**

PRODUCT NAME	DESCRIPTIONS
APFC UNO-6R	APFC UNO 6 RELAY
APFC UNO-8R	APFC UNO 8 RELAY
APFC UNO-12R	APFC UNO 12 RELAY
APFC UNO-6R-ENERGY	APFC UNO 6 RELAY ENERGY
APFC UNO-8R-ENERGY	APFC UNO 8 RELAY ENERGY
APFC UNO-12R-ENERGY	APFC UNO 12 RELAY ENERGY
APFC UNO-6R-RS	APFC UNO 6 RELAY RS485
APFC UNO-8R-RS	APFC UNO 8 RELAY RS485
APFC UNO-12R-RS	APFC UNO 12 RELAY Rs485
APFC UNO-6R-ENERGY-RS	APFC UNO 6 RELAY ENERGY RS485
APFC UNO-8R-ENERGY-RS	APFC UNO 8 RELAY ENERGY RS485
APFC UNO-12R-ENERGY-RS	APFC UNO 12 RELAY ENERGY Rs485

**6 Relay- 1 Alarm Output Std**

**8 Relay & 12 Relay- 2 Alarm Output Std**