

“Asian- The indicating panel meters” provides a wide range of digital panel meters for accurate & reliable measurement of almost all electrical quantities with class 1.0 & 0.5 accuracy. The series contains various models of AC/DC versions for industrial/Commercial applications with high resolution display feature. Asian Series models are compact digital meters incorporated with the unique feature of onsite CT & PT ratio programmability.

Asian Series Offer

- True RMS Measurement
- Accuracy class 0.5 and 1.0 for 5% to 120% of Input range
- Available in AC/DC Variants
- Onsite CT/PT ratio programmability.
- Onsite connection configuration from 3 phases 3wire to 4wire and vice versa in three phase meters.
- High resolution LED
- Provides range of Auxiliary supply from 80V-300V AC
- Continuous Overload of 1.2 times the nominal value display 9999 count.
- 4KV insulation withstand capability.
- Comply with international safety standards

Applications Summary

- Laboratory test benches.
- Industrial automation
- Power control panels
- Generator control panels
- Sub station panels
- Co-generation
- Switch board instruments
- Power distribution panels
- Process instruments
- Pump, Motors, Machine control



Single Phase Variants

1. Volt Meters
2. Ammeters
3. Power factor meters
4. Active power meters
5. Frequency meters

Three Phase Variants

1. Volt Meters
2. Ammeters
3. Power factor meters
4. Active power meters
5. Energy meter (kWh)

DC Variants

1. Volt Meters
2. Ammeters

Ordering Code

Models	Single Phase				Three Phase			DC	
	V	A	F	PF	V	A	kWh	A	V
AM2121	✓								
AM2123		✓							
AM2124			✓						
AM3021				✓					
AM2141					✓				
AM2043						✓			
AM3320							✓		
AM1123								✓	
AM1121									✓

Note:- Auxiliary Supply Required Except Ammeter & Voltmeter
All prices are unit prices in INR Including ED, Ex-cluding and all taxes & octroi

Technical specifications

Electrical

Auxiliary supply	80-300 V AC
Burden on aux supply	< 3VA
Burden on measuring terminals	0.5 VA

Measuring Ranges

AC Volt Meter	0-63.5 V
(Single Phase/Three Phase)	0-110V
	0-240 V
AC Ammeter	0-415V
(Single Phase/Three Phase)	1A / 5A
Frequency Meter	40 - 70 Hz
Power Factor Meter (1Ph Active)	
(3Ph Active/Reactive)	0 - 415V
	1A/5A
Power Factor Meter	
(Single Phase/Three Phase)	0 to 360°
Energy Meter	Voltage & Current values
Input Voltage	
(3Ph. 3wire/4Wire)	0 - 415V
Input Current	1A/5A site selectable
DC Voltmeter	0-200 mV, 0-2 V, 0 - 20V
	0-200 V, 0-750 V
DC Ammeter	0-200 mA, 4-20mA
	0-2A V, 0-5 V, 0-20A

Mechanical

Bezel size	96 x 96 mm
Panel cutout	92 x 92 mm
Enclosure	Polycarbonate
Terminals	Tag screw
Weight	< 300 gms

Environmental

Temperature	-10 °C to +50 °C (operating)
	-25 °C to +70 °C (storage)
Humidity	95% non-condensing
Temperature	0.01% Per °C typical
Coefficient	

Display

Digit Range	9999
	999999 (for energy meters)
Display Resolution	0.001 auto decimal
	0.000001 (for energy meter)
	auto decimal and LED indication
Digit Height	14.2 mm / 7 Segment

Safety

Protection class	IP 20 as Per IEC 60529
(for Terminals)	IP 50 as per IEC EN 60529
Device Safety	As per IEC 61010
Insulation Level	4.0 KV
EFT	2.0 KV
ESD	8.0 KV

Dealer: www.fairpowerage.com

Benefits

- Compact and easy installation
- CT/PT Ratio Programmable
- Precise Metering
- Easy to read display
- Better accuracy & reliability than analogue meter
- Color - coded terminal board label helps ensure accurate wiring.
- Safeguard access to setup parameters with unique password protection.

Features

- Accuracy class: 0.5 and 1.0
- True four quadrant metering
- Metrology LED output configurable for active, reactive and apparent energy
- Accurate readings even at very low current
- Favorite page can be selected
- Reverse polarity indication
- Support of MODBUS RTU on RS485

Asian meter and metering system comes from a state of the art metering company following ergonomics, our philosophy is to offer high quality, innovative products at reasonable price. MF Range is a 96*96 panel mounted polyphase digital energy meter. It provides multi-functional metering and online monitoring solution through MODBUS RS485. These meters are suitable for various applications like high voltage and low voltage switchgear panels, control and relay panels and online energy monitoring systems (SCADA/EMS/DAS)



Selection guide		AM2081	AM3032	AM4032	AM3071	AM4071	AM3011	AM4011
Use on LV and HV systems		—	✓	✓	✓	✓	✓	✓
Accuracy of the meter class 1.0/0.5		—	□	□	□	□	□	□
Number of samples per cycle & 50Hz		—	50	50	50	50	50	50
Instantaneous & rms values								
Current,	Total, Per phase & Neutral	✓	✓	✓	✓	✓	✓	✓
Voltage,	Average, Phase to Neutral & Phase to Phase	✓	✓	✓	✓	✓	✓	✓
Frequency,		✓	✓	✓	✓	✓	✓	✓
Active power (W)	Total & per phase	—	✓	✓	✓	✓	✓	✓
Reactive power (VAr)	Total & per phase	—	—	—	—	—	✓	✓
Apparent power (VA)	Total & per phase	—	—	—	—	—	✓	✓
Power factor,	Average & per phase	—	✓	✓	✓	✓	✓	✓
Unbalance,	Current, voltage	—	✓	✓	✓	✓	✓	✓
Phase angle,	Between V & I, Ph1, Ph2, Ph3	—	—	—	—	—	✓	✓
RPM,	For generator only, speed calculated on generator voltage output and number of machine poles.	✓	✓	✓	—	—	✓	✓
Energy values								
Active (Wh)		—	✓	✓	✓	✓	✓	✓
Reactive VARh)		—	—	—	—	—	✓	✓
Apparent energy (VAh)		—	—	—	—	—	✓	✓
Export / Import		—	—	—	—	—	✓	✓
Power quality measurements								
Total harmonic distortion %	Current, voltage, per phase	—	—	—	✓	✓	✓	✓
Other measurements								
Run hours	Operating time for load in hours	✓	—	—	✓	✓	✓	✓
ON hours	Operating time for meter in hours	—	—	—	—	—	✓	✓
INTR	Number of interrupts	—	—	—	—	—	✓	✓
Communication								
RS-485 port		□	—	✓	—	✓	—	✓
Modbus protocol		—	—	✓	—	✓	—	✓
Calibration								
LED Pulse Output		—	✓	✓	✓	✓	✓	✓

✓ By Default

□ Optional Features

— Not Available

Dealer: www.fairpowerage.com

Single & Three Phase Energy Meter

- Range 5-30Amp, 10-60Amp, 240 volt -40% to +30%, 50 Hz $\pm 5\%$
- Accuracy Class 1.0 with CBIP88 / IS:13779
- Optical Communication Port with LCD display
- Tamper Proof
- Operating Temp. -10°C to $+60^{\circ}\text{C}$
- Humidity upto 95% non Condensing
- Burden Less then 5VA



LT & HT CT Operated Trivector Meter

- Accuracy Class 0.2, 0.5s
Basic current 5Amp. And 1Amp
- Voltage 240 V (L-N), 110 V (L-L), 63.5 V (L-N)
- Frequency 50 $\pm 5\%$ Hz
- Phase to neutral, 3 element, 3phase 4wire
- Standards IS:14697 / CBIP88
- LCD Display
- Load Survey, TOD, Tamper proof, true RMS



Voltage Controller

- Protection against high & low voltage
- Voltage Levels Programable
- Safety against burning of home appliances
- Can be Connected after main meter for complete protection
- Range upto 80Amp., 50 Hz $\pm 5\%$
(Single & Three Phase)
- Accuracy Class 1.0
- Operating Temp. -10°C to $+60^{\circ}\text{C}$
- Humidity upto 95% non Condensing
- Burden Less then 5VA



Single & Three Phase Prepaid Meter

(No Money No Power)

- Dual & Single source prepaid available in single & three phase variant
- Perfect solution for commercial & residential building
- Load limiting possible on both sources
- CAM charges can be recovered from meter
- Inbuilt disconnection facility on no money & excess load
- Low balance intimation to user through emails / SMS
- Intimation of meter recharging through emails / SMS
- Tariff can be defined on both sources
- Range 5-30Amp, 10-60, 240 volt-40% to +30%, 50 Hz $\pm 5\%$
- Accuracy Class 1.0 with CBIP88 / IS13779
- Optical & RS485 Communication Port
- Tamper Proof
- Operating Temp. -10°C to $+60^{\circ}\text{C}$
- Humidity Upto 95% non Condensing
- Burden Less then 5VA



Street Light Controller

(Inbuilt Contactor, Timer and Energy Meter)

- Available in 1-Phase & 3-Phase
- Glossing boards
- ATMs
- Street Light Controlling
- Range 5-30Amp, 10-60, 240 volt-40% to +30%, 50 Hz $\pm 5\%$
- Accuracy Class 1.0 with CBIP88 / IS13779
- Optical Communication Port LCD display
- Tamper Proof
- Operating Temp. -10°C to $+60^{\circ}\text{C}$
- Humidity upto 95% non Condensing
- Burden Less then 5VA

Dealer: www.fairpowerage.com

Technical specifications

Electrical

Connection type	CT/PT operated
CT/PT Programming	Primary / Secondary (1/5A)
Wiring configuration	3 phase 3/4 wire
Voltage range	240 V (L-N), 110 V (L-L), 63.5 V (L-N)
Aux. Power Supply	80 - 240V
Current range	1-1.2 A, 5-6 A
Accuracy	Class 0.5, 1.0
Main frequency	50 Hz \pm 5%
Burden	As per standards

Approvals

Standards	IS13779, IS14697
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Mechanical

Dimensions (WXHxD)	96 x 96 x 65 mm
Cut out size	92 x 92 mm
Weight	0.45 \pm 0.1 kg
Terminals	Combicon connector
Max conductor size	2.5 mm ²

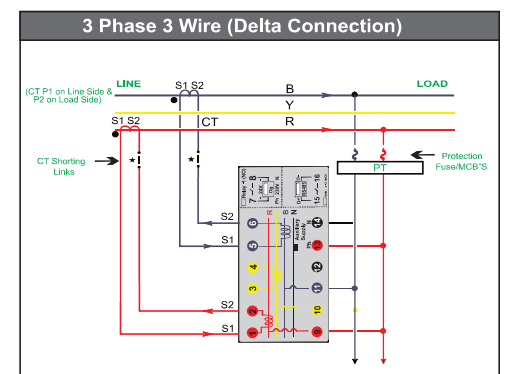
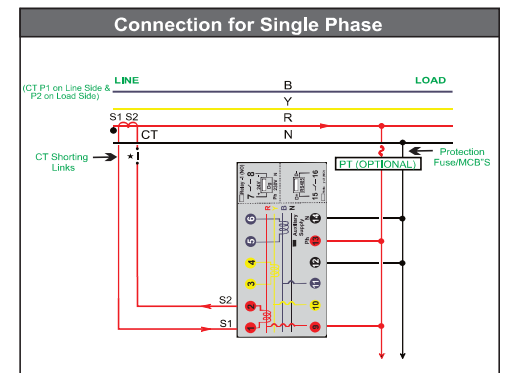
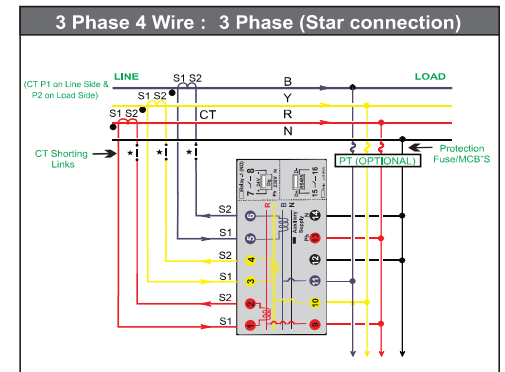
Environmental

Ingress protection	IP 50
Insulation class	4 kV RMS 50 Hz
Impulse withstand	6 kV
Temperature	-10 °C to +60 °C (operating) -25 °C to +70 °C (storage)
Humidity	95% non-condensing
Flame retardation	UL 94 VO

Features

Favourite page	Configurable through keypad
CT/VT primary	Configurable in field through keypad
Communication	RS485
Baud rate	1200-9600 bps (selectable)
(MODBUS port)	Configurable in field through keypad

WIRING CONNECTIONS



EMS System Through RS485 MODBUS Communication





COM DC (A + V)



DEMAND CONTROLLER



HOURLY METER



VAF METER



FREQUENCY METER



MULTIFUNCTION METER



1-PHASE VOLT METER



RPM METER



3-PHASE VOLT METER



1-PHASE AMP METER



3-PHASE AMP METER



TRIVECTOR METER



96 x 96 AMP. METER



48 x 96 AMP. METER



POWER FACTOR METER (COS φ)



1PH-3PH ENERGY METER (KWH)



DG CONTROLLER



AMF CONTROLLER



KW METER



VOLT METER



CBCT 30 (30mm ID)
 CBCT 100 (100mm ID)
 CBCT 150 (150mm ID)
 CBCT 200 (200mm ID)

Any Other Size Circular/Rectangular CBCT on Request

Dealer: www.fairpowerage.com



OVER CURRENT RELAY



1PH-3PH UNDER / OVER VOLTAGE RELAY



UNDER+OVER VOLTAGE RELAY



UNDER VOLTAGE+OVER CURRENT RELAY



PUMP & HEATER RELAY



REVERSE POWER RELAY



OVER FREQUENCY RELAY



1 PHASE PREVENTOR



THREE OVER CURRENT RELAY



ENGINE START RELAY



STAR DELTA TIMER



TIMER ON DELAY



TOGGLE RELAY



ON / OFF SEQUENCE TIMER



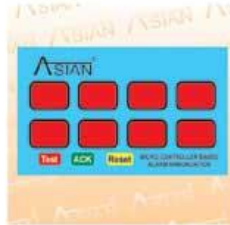
FIELD FAILURE RELAY



WATER LEVEL CONTROLLER



EARTH LEAKAGE RELAY



MICRO CONTROLLER BASED ANNUNCIATOR



4 FAULT ANNUNCIATOR RELAY



WATER LEVEL INDICATOR CUM CONTROLLER



SINGLE PHASE PREVENTER



TIMER CONTROLLER (1-PHASE)



TIMER CONTROLLER (3-PHASE)



AUTOMATIC CHANGE OVER SWITCH



AUTOMATIC MOTOR STARTER

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Asian Series Offer

- True RMS Measurement
- Accuracy class 0.5 and 1.0 for 5% to 120% of AMP Input range
- Available in AC/DC Variants
- On site CT/PT ratio programmability.
- On site connection configuration from 3 phase 3 wire & 3 Phase 4 wire and vice versa in three phase meters.
- High resolution LED
- Provides range of Auxiliary supply from 80V -300V AC
- Continuous Overload of 1.2 times the nominal value display 9999 count.
- 4KV insulation withstand capability
- Comply with international safety standards

Single Phase Variants

1. Volt Meters
2. Ammeters
3. Power factor meters
4. Active power meters
5. Frequency meters

Three Phase Variants

1. Volt Meters
2. Ammeters
3. Power factor meters
4. Active power meters
5. Energy meter (kWh)

DC Variants

1. Volt Meters
2. Ammeters

Application Summary

- Laboratory test benches.
- Industrial automation
- Power control panels
- Generator control panels
- Sub station panels
- Co-generation
- Switch board instruments
- Power distribution Panels
- Sub Stations, Machine Control
- Motor Control, Center Panels

Technical Specifications

Electrical Mechanical		Mechanical Size	96x96mm
Auxiliary supply	80-300VAC	Panel cutout	92x92mm
Burden on aux supply	< 3VA	Enclosure	Poly carbonate
Burden on measuring terminals	0.5 VA	Terminals	Tag screw
		Weight	<300gms
Measuring Ranges		Environmental	
AC Volt Meter (Single Phase/Three Phase)	0-63.5V 0-110v 0-240V 0-415V	Temperature	-10°C to +50°C (operating) -25°C to +70°C (storage)
AC Ammeter (Single Phase/Three Phase)	1A/5A	Humidity	95% non-condensing
Frequency Meter	40-70Hz	Temperature Coefficient	0.01% per C tropical
Power Factor Meter (Single phase three phase) (3Ph Active/Reactive)	0-415V 1A/5A	Display	
Multi Function Meter (Single Phase/Three Phase)	0 to 360	Digit Range	9999
Energy Meter Three Phase Active / Reactive Input Voltage (3Ph. 3 wire/4 wire) Input Current	Voltage & Current values 0-415V 1A/5A site selectable	Display Resolution	0.001 auto decimal 0.000001 (For Energy Meter) auto decimal and LED indication
DC Voltmeter	0-200mV, 0-2 V, 0-20V 0-200V, 0-75V, 0-750V	Digital Height	14.2 mm / 7 Segment
DC Ammeter	0-200mA, 4-20mA 0-2A, 0-5V, 0-20A (With Shunt) 0-9999A (External Shunt) 0-75mV	Protection class (for Terminals) Device Safety Insulation Level	IP 20 as Per IEC 60529 IP 50 as Per IEC EN 60529 As per IEC 61010 4.0 KV

Digital AVF Meter

Selection Guide

Models	Single Phase				Three Phase			DC	
	V	A	F	PF	V	A	kWh	A	V
AM2121	✓								
AM2123		✓							
AM2124			✓						
AM3021				✓					
AM2141					✓				
AM2043						✓			
AM3320							✓		
AM1123								✓	
AM1121									✓

Note:- Auxiliary Supply Required Except Anmmeter & Voltmeter

Description

Multifunction Meters are based on 32Bit, 100Pin Microprocessor, with 24 Bit Six Channel Sigma Delta Front end Analog to Digital Converters. the Measurement accuracy of Class 0.5 can be achieved on the practical range of operation. The TVM (Trivector Meter) are 4 Quadrant True RMS Meter and have advanced feature of Maximum Demand and RTC Based Load Surveys.

Special Features:-

- 32Bit, 100 Pin, Processor
- SMT Technology
- Various choice of Bright FND/LCD STN display
- 2-4 keys for programming input
- Higher Class of Accuracy
- 2 Quadrant to 4 Quadrant
- Provision of RTC based Load Survey
- RS 232/RS485 interface
- MODBUS Protocol
- Integration of 1 or 2 Potential free contacts

Application:-

- Industrial Control Panels
- Power Project Control Panels
- Energy Auditing and Data Logging
- Industrial Automization
- Smart Building Control Panels
- Energy Managing and Monitoring Equipments
- Testing Laboratories
- Diesel Generator Control Panels



Asian meter and metering system comes from a state of art & metering company following ergonomics, our philosophy is to offer high quality, innovative products at reasonable price. MF Range is a 96*96 panel mounted polyphase digital energy meter. It provides multi-functional metering and online monitoring solution through MODBUS RS485. These meters are suitable for various applications like high voltage and low voltage switchgear panels, control and relay panels and online energy monitoring systems (SCADA/EMS/DAS)



Features

- Compact and easy installation
- CT/PT Ratio Programmable
- Precise Metering
- Easy to read display
- Better accuracy & reliability than analogue meter
- Color-coded terminal board label helps ensure accurate wiring.
- Safeguard access to setup parameters with unique password protection
- Accuracy class: 0.5 and 1.0
- True four quadrant metering
- Metrology LED output configurable for active, reactive and apparent energy.
- Accurate readings even at very low current
- Favorite page can be selected
- Reverse polarity indication
- Support of MODBUS RTU on RS 485 / RS 232

Selection Guide

Use on LV and HV systems	—	✓	✓	✓	✓	✓	✓
Accuracy of the meter class 1.0/0.5	—	□	□	□	□	□	□
Number of samples per cycle & 50Hz	—	50	50	50	50	50	50
Instantaneous & rms values							
Current, Total, Per phase & Neutral	✓	✓	✓	✓	✓	✓	✓
Voltage, Average, Phase to Neutral & Phase to Phase	✓	✓	✓	✓	✓	✓	✓
Frequency,	✓	✓	✓	✓	✓	✓	✓
Active power (W) Total & per phase	—	✓	✓	✓	✓	✓	✓
Reactive power (Var) Total & per phase	—	—	—	—	—	✓	✓
Apparent power (VA) Total & per phase	—	—	—	—	—	✓	✓
Power factor, Average & per phase	—	✓	✓	✓	✓	✓	✓
Unbalance, Current, voltage,	—	✓	✓	✓	✓	✓	✓
Phase angle, Between V & I, Ph1, Ph2, Ph3	—	—	—	—	—	✓	✓
RPM, For generator only, speed calculated on generator voltage output and number of machinepoles.	✓	✓	✓	—	—	✓	✓
Energy values							
Active (Wh)	—	✓	✓	✓	✓	✓	✓
Reactive VARh)	—	—	—	—	—	✓	✓
Apparent energy (Vah)	—	—	—	—	—	✓	✓
Export /Import	—	—	—	—	—	✓	✓
Power quality measurements							
Total harmonic distortion % current, voltage, per phase	—	—	—	✓	✓	✓	✓
Other measurements							
Run hours Operating time for load in hours	✓	—	—	✓	✓	✓	✓
ON hours Operating time for meter in hours	—	—	—	—	—	✓	✓
INTR Number of interrupts	—	—	—	—	—	✓	✓
Communication							
RS-485 port	□	—	✓	—	✓	—	✓
Modbus protocol	—	—	✓	—	✓	—	✓
Calibration							
LED, Pulse out put	—	—	—	—	—	—	—
By Default-Not Available	—	✓	✓	✓	✓	✓	✓

✓ By Default

□ Optional Features

— Not Available



The kVR Controller is used to control the demand of a system. The Application is use to secure the system at overload conditions and also helps in saving the MD penalties.

Unique Features

- Programmable kVR Setting
- Programmable CTR Ratio
- Password Protected
- Alarms & Controls
- Dual Relay Outputs
- Meter Reset Option
- Bright Three Line FND / LCD Display

Technical Specification

Family	Am4011
Rating/phase/Class	3X230V, 3Ph ,3X -/5Amp, CI-1,50Hz
Size	96X96
Display Type	FND Display
CT Ratios	Password Protected Field Programmable CT
Auxiliary Supply	230Vac / 24V DC
Power Supply	Switch Mode Power Supply with Dual Isolated Output
Parameters	Auto & Manual Scroll
	1 Vr/Vy/Vb
	2 Vry/Vyb/Vbr
	3 Ir/Iy/Ib
	4 Frequency In Hz
	5 PFr/PTy/PPb/Pf
	6 KWr/Kwy/KWb/KW
	7 KVAr/KVAy/KVArb/KVAr
	8 KVAr/KVAy/KVAb/KVA
Annunciators	Customized on LCD
Customization of parameters	Single Line Customized FND is optional

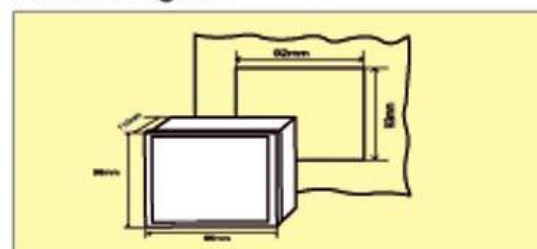
Special Features

Sampling Rate	3 per second
Communication Rs485	optional
Protocol	Modbus
Relays	OEN 6V Operated DC relay
Potential free Contacts	2 Nos
Controlling Triacs	NA
Microprocessor	32 Bit Micro
Memory Load Survey	256KB
Password Protection	Hard Coded / Password protected Load setting
Error Display	NA
RTC	NA
IS	Accuracies as per IS 13779
PCB	Paper Phenolic FR4 Grade
IP	51
Insulation	2KV (IS13779)

Programable Features

CT Ratios	Field Programmable upto 3500/5
PT Ratios	NA
Demand Setting	Programmable above which the Relay switches from NO to NC
Wait Time Settings	In Sec before which the buzzer starts hooting
Buzzer Time Setting	In sec after which the entire load is disconnected
Setting 1	Occurrence Time In Sec
Setting 2	Restoration Time In Sec

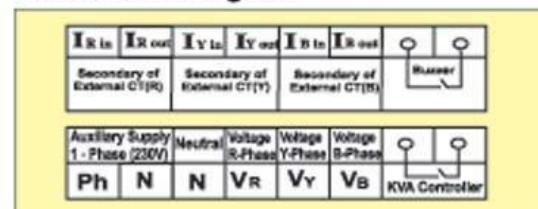
Cutout Diagram



Application

Demand in KVA is an important parameter for a particular organization, since if the KVA demand is exceeded then penalties are levied by the Electricity Utility. The KVA controller is a Hi end Programmable Device which allows the flexibility of setting up a limit to KVA, above which the hooter starts operating. In the absence of any action taken for reducing the load, the controller disconnects the total load.

Connection Diagram





The Asian Energy Meter series are easy to operate, compact in size, cost effective meters that offer the basic measurement capabilities required to monitor an electrical installation.

Characterized by their rugged construction, compact size, and low installation costs, these state-of-the-art energy meters are ideal for control panel, residential apartments, malls and housing society.

The Asian Energy Meter series are available in four different versions to better fit specific applications:

- AM Series - AM 3320, AM 3310
- AM Series - AM 3041, AM 3011

Applications

- Single Source Metering.
- Dual Source Metering
- Separate Load Control Limits for EB & DG

Energy Savings

- Measure efficiency, reveal opportunities and verify savings.
- Sub-bill tenants for energy costs.
- Allocate energy costs to departments or processes.
- Reduce peak demand surcharges.
- Reduce power factor penalties.
- Leverage existing infrastructure capacity and avoid over-building.

Main characteristics

Accurate metering

the meter conforms to accuracy class 1.0/0.5

Easy to read display

The bright, alphanumeric, 15mm high LED display provides 2 lines for measurement values with 4 digits per line. The display auto-scales for Kilo, Mega and Giga values. Auto scrolling mode allows for easy reading.

Quick and easy installation

Setup is done through the front panel keys. Direct connection for metering voltage inputs up to 480 Vac L-L.

Color-coded terminal board labeling

The color-coded label on the terminal board helps ensure accurate wiring.

Secure settings

Safeguard access to setup parameters with unique password protection. A key pad lock lets you display a user selected page by default.

Description

DG Controller is a 3 phase Automatic Generator Controller module that includes protection for GENSETS. Use of advanced micro controller in the design platform provides easy and trouble free control and operation mechanism of GENSETS in case of failure of mains power. Values of over/under voltage, frequency and overload current, cooling-down time are programmable and can be changed in field.

Special Features

- Over & Under Voltage
- Over & Under Frequency
- Over Load
- Load Unbalance
- Over & Under Speed
- Low Lube Oil Pressure (LLOP)
- HCT / HWT
- Radiator Water Low
- Charging Alt Failure / V-Belt Failure
- Emergency Stop
- Canopy Temp High
- Cranking Lockout
- Mains Phase Reverse

Parameters - AM 3300

R-Phase Voltage DG , Frequency DG, RPM DG, Run Hour DG
Oil Pressure, Water Temperature / Cylinder Temp., Fuel Level in %
Dc Battery Voltage Service Hour, Seven Segment, 4 Switch, LED Indication

Parameters - AM 5600

R-Y-B Phase Current / Voltage DG , Frequency DG, Ph to Ph Voltage DG
R-Y-B Phase PF / KW DG, Combined PF / KW DG
KWH DG , RPM DG, Run Hour DG, Oil Pressure DG, Water Temp/ Cylinder Temp. Fuel Level in % , DC Battery Voltage , Service Hour, System Setting
16x2 LCD Display, 6 Switch LED Indication

Parameters - AM 9900

R-Y-B Phase Current / Voltage DG / EB , Frequency DG / EB, Ph to Ph Voltage EB / DG, R-Y-B Phase PF / KW DG / EB, Combined PF / KW DG / EB
KWH DG / EB , RPM DG, Run Hour DG, Oil Pressure DG, Water Temp/ Cylinder Temp. Fuel Level in % , DC Battery Voltage , Service Hour, System Setting
16x2 LCD Display, 8 Switch LED Indication

Programmable Features

- Over & Under Speed
- Mains Over & Under Voltage
- Mains Over & Under Frequency
- Over Load
- Mains Load Unbalance in %
- Mains Restore Time
- Crank Time (Sec)
- Crank Rest Time
- Crank Attempt
- Engine Warm Up Time
- DG Tun Time
- DG Rest Time

Other Features

- Fault History Log
- Service Due Prompt
- SMS Configuration (Optional)

LED Indication

- DG Battery Low
- DG ON
- Mains ON
- Load on DG
- Load on Mains
- Low Lube Oil Pressure (LLOP)
- HCT / HWT
- Emergency Stop
- Over & Under Speed
- Over & Under Voltage

Servo Controller

The Servo Controller is used to control the forward and reverse motion of stepper motor and used extensively in servo stabilizers & servo control voltage regulators.

Features

- Programmable Vref Voltage
- Programmable Low & High Voltage Setting
- Programmable CTR Ratio
- Manual Control Setting
- Password Protected
- Single Relay & Two Triac Control
- Over Load Protection



ASIAN[®]

AN ISO 9001 : 2008 CERTIFIED COMPANY

BUSBAR INSULATOR - HANDLES - LOCKS & LATCHES - HINGES



Salient Features

- Validates Current through CT continuously
- Precise circuits enable high accuracy
- Rugged design suitable for 24 hrs
- Filtering & harmonic suppression to Enable precise comparison of Measurement
- Built in timer for delay applications
- Suitable for mounting inside panel

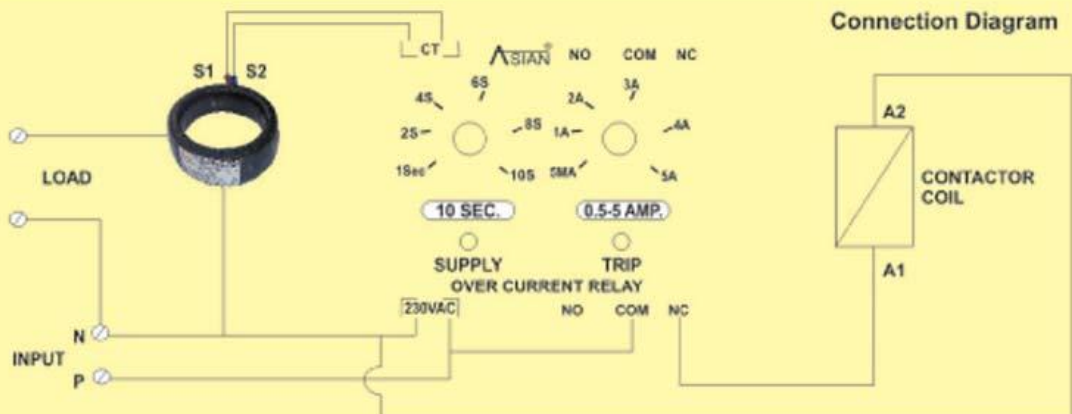
General Description

Asian series of over current relays are ideal for sensing over current faults in any one phase for protection of AC machines, Transformers, Feeders, Generators etc. the relay monitors the current passing in any feeder secondary of the CT in that phase. Over currents in any phase can be measured by appropriately connecting the CTs. The resultant current thus sensed is converted through sensitive electronic circuits and digitally compared to the preset reference also suitable through a potentiometer on the face. A higher than limit condition triggers a timer which can be set from 0-10 sec. also on the face. If the Over current condition persists for more than the time duration a contact changeover occurs and an led on face glows to indicate a trip condition. This can be used to trip the breaker. The time trip helps to ward of transient currents so the time must be set according to the system requirements. Two sets of changeover contacts are available.



Specifications

Voltage (aux) rating	230VAc
Frequency	50Hz
CT secondary Current	5A max
Over Current setting	0.5-5A
Time setting	0-10Sec
Burden Voltage Coil	2 VA at setting
Current coil	3VA at setting
Temperature range	-20+55°C
Repeat time accuracy	+/-2% of setting
Contact rating	5A max
Thermal rating	Relay will withstand continuously rated voltage. Surge capacity is twice rated voltage.



Three Phase Over Current Relay

ASIAN®

Salient Features

- Validates Current through CT continuously
- Precise circuits enable high accuracy
- Rugged design suitable for 24 hrs
- Filtering & harmonic suppression to Enable precise comparison of Measurement
- Built in timer for delay applications
- Suitable for mounting inside panel

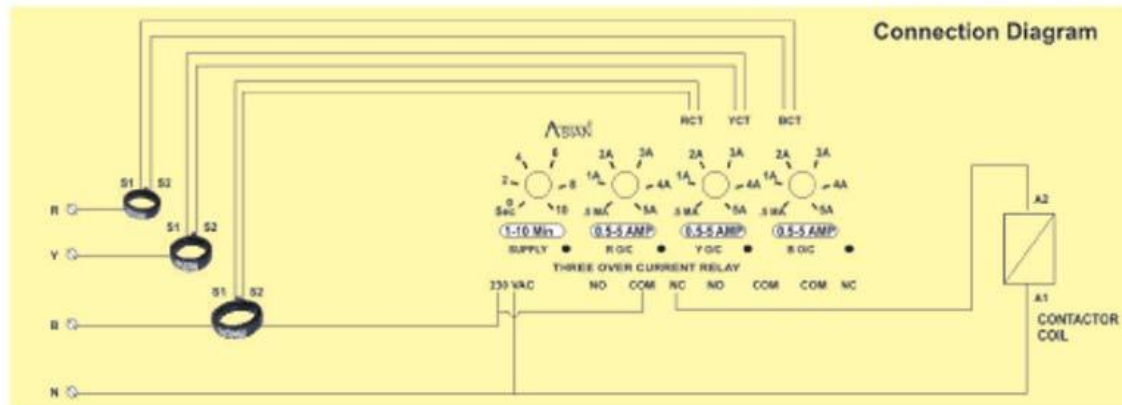
General Description

Asian series of over current relays are ideal for sensing over current faults in any one phase for protection of AC machines, Transformers, Feeders, Generators etc. the relay monitors the current passing in any feeder secondary of the CT in that phase. Over currents in any phase can be measured by appropriately connecting the CTs. The resultant current thus sensed is converted through sensitive electronic circuits and digitally compared to the preset reference also suitable through a potentiometer on the fascia. A higher than limit condition triggers a timer which can be set from 0-10 sec. also on the fascia. If the Over current condition persists for more than the time duration a contact changeover occurs and an led on fascia glows to indicate a trip condition. This can be used to trip the breaker. The time trip helps to ward of transient currents so the time must be set according to the system requirements. Two sets of changeover contacts are available.



Specifications

Size	100x70x110mm
Voltage (aux) rating	230VAc
Frequency	50Hz
CT secondary Current	5A max
Over Current setting	0.5-5A Per Phase
Time setting	0-10Sec
Burden Voltage Coil	2 VA at setting
Current coil	3VA at setting
Temperature range	-20+55°C
Repeat time accuracy	+/-2% of setting
Contact rating	5A max
Thermal rating	Relay will withstand continuously rated voltage. Surge capacity is twice rated voltage.



Salient Features

- Validates Frequency through Frequency of Voltage Supplied (Self Powered)
- Precise circuits enable high accuracy
- Rugged design suitable for 24 hrs
- Filtering & harmonic suppression to Enable precise comparison of Measurement
- Built in timer for delay applications
- Suitable for mounting inside panel

General Description

AE 700 series frequency relay are used for sensing frequency supplied in the supply network, and tripping in case the frequency goes above the desired limit. These relays are used for protection of sensitive equipments due to under or over frequency when the equipments is being supplied from a source whose frequency may be erratic. The relay monitors the frequency of the supply / signal and digitally compares the measured frequency with the presettable limit governed by a potentiometer on the facia. A lower or higher than limit condition triggers a timer which is internally set between 1-2 sec to ward of transients. If the under or over condition persists for more than 1 or 2 sec a contact changover occurs and an led on facia glows to indicate a trip condition. This can be used to trip the breakers / supply. Two sets of changover contact are available. The relay auto resets on normal signal / supply. AM 700 has three models
 Type 1 : over 50-55Hz
 Type 2 : under 45-50 Hz
 Type 3 : under 45-55 Hz.



Specifications

Size	100x70x110mm
Voltage (aux) rating	230VAc
Frequency	50Hz
Frequency sensing Range	
Frequency setting	Over 50-55 Hz. Under 45-50Hz. Under / Over 45-55 Hz.
Burden Voltage coil	2VA at setting
Temperature Range	-20 + 55C
Contract rating	5A max
Thermal rating	Relay will withstand continuously rated voltage. Surge capacity is twice rated voltage.

Connection Diagram



Salient Features

- Validates Current through CT continuously
- Precise circuits enable high accuracy
- Rugged design suitable for 7x24 hrs
- Filtering & harmonic suppression to Enable precise comparison of Measurement
- Built in timer for delay applications
- Suitable for mounting inside panel

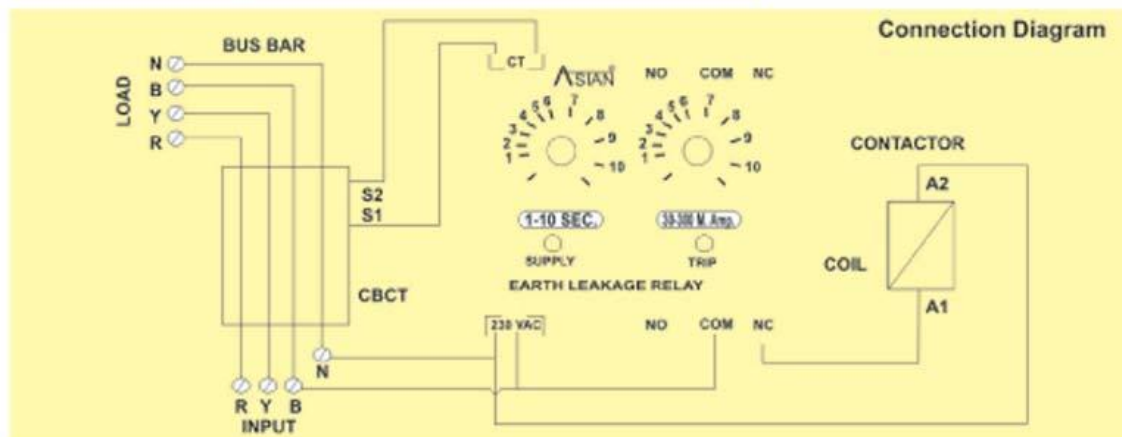
General Description

Asian series of Earth Leakage relays are ideal for sensing leakage currents flowing through the systems for protection of AC machines just as Transformers, Feeders, Generators, electrical current passing through an entire system. Leakage currents in the system can be measured by appropriately connecting the Ct's. The resultant current thus sensed is converted through sensitive electronic circuits and digitally compared to the preset reference also settable through a potentiometer on the facia. A higher than limit condition triggers a timer which can be set from 0-10 sec also on the facia. If the leakage currents persist for more than the time duration a contact changeover occurs and an led on facia glows to indicate a trip condition. This can be used to trip the breaker. The time trip helps to ward of transient currents so the time must be set according to the system requirements. Two sets of changeover contacts are available.



Specifications

- Voltage (aux) rating 230 VAC
- Frequency 50Hz
- CT secondary Current 5A max
- Earth Leakage current Setting 1-10% IE 50mA-500mA
- Time setting 0-10 sec
- Burden Voltage coil 2VA at setting
- Current coil 3VA at setting
- Temperature range -20 C to 55 C
- Repeat time accuracy +/-2% of setting
- Contact rating 5A max
- Thermal rating Relay will withstand continuously rated voltage. Surge capacity is twice rated voltage





Asian Toggle Relay Suitable To Operated Two Or Three Devices, Toggles Power Supply, Each Output Electronically Interlocked To Prevent Simultaneous Outputs, Ideal For Fire Fighting Pumps, Water Pumps And Air Conditioners Etc. All Contacts Are 5a Potential Free

Single Phase Preventer

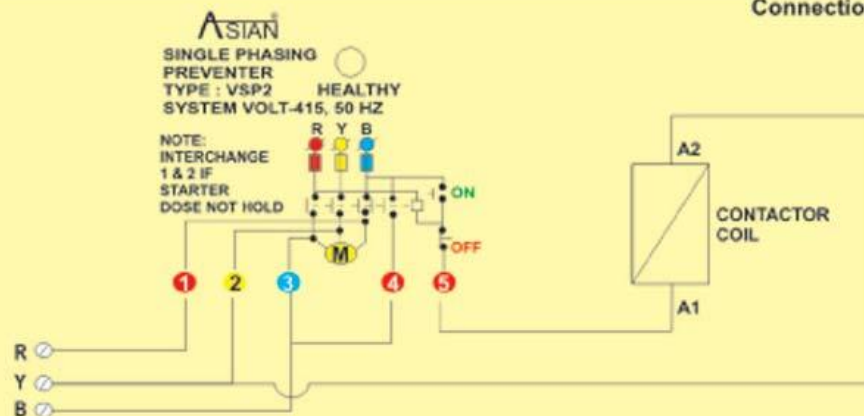


Description / Specification
Smallest size of single phasing, reverse phasing, unbalanced supply. Auto reset, 1 No output contact suitable for any HP/KW rating

Applications:

- Agricultural pump starters
- 3 ph split machines
- Hoist motor control
- Valve Actuator motor
- Machine tools
- Injection molding machine

Connection Diagram



8 Fault Annunciation Unit



Salient Features

- Integrated unit having full feature set
- Additional lamp test provision enables diagnostics
- Incorporates digital technology
- Rugged design suitable for 7x24 hrs operation
- Any number of units can be wired in parallel to increase the number of fault points.

General Description

These annunciation units TE931 are digital units with front end lit by LED's. Applications are in monitoring fault conditions in any process, equipments etc. A fault condition then triggers a buzzer, trip contact and additional contact for Additional hooter in case an external hooter is desired.

On receipt of a potential free fault signal, the corresponding window flashes, two changeover contacts changeover to signal trip indication and an internal electronic buzzer beeps to signal fault condition. One additional contact is provided for hooter in case external hooter is desired.

When the acknowledge pushbutton on TE931 is pressed the flashing becomes steady, the buzzer stops and the hooter contact is released. After the removal of the fault the unit can be reset by the reset pushbutton.

On pressing lamptest all the windows glow simultaneously and the buzzer sound. This is a diagnostics tool.

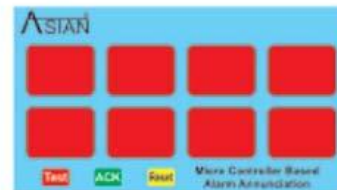


Specifications

- Voltage rating 12V, 24V DC
- Voltage range +/-20% of rated voltage
- Frequency 50 HZ
- Buzzer rating Continuous
- Lamp rating LED's continuous
- Window flash time 1 sec on, 1 sec off
- Pushbuttons Test, Ack, Reset on front facia of annunciator
- Temperature range -20 + 55°C
- Trip Contact rating 5A max
- Thermal rating Relay will withstand continuously

Application

These units can be used for fault annunciation in any environment. Being solid state digital units rating are 7x24 hrs operation. These units are also available as standard 4 Fault, 8 Fault, 10 Fault units. (Multi Fault Unit Standard Unit) Refer to separate catalogue for each



Connection Diagram



Salient Features

- Validates all three phases simultaneously
- Precise circuits enable high accuracy
- Rugged design suitable for 7x24 hrs
- Filtering & harmonic suppression to Enable precise comparison of Measurements
- Built in timer for delay applications
- Suitable for mounting inside panel

General Description

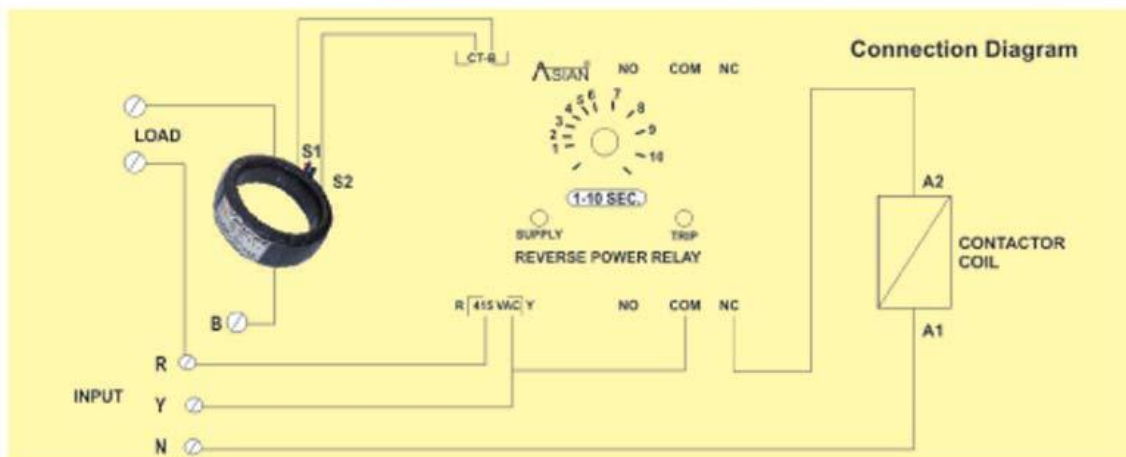
TE 800 series RPR relay monitors the power flowing in the line. The direction of the power is checked. The relay essentially monitors the current supplied by / flowing through the alternator on B phase through the secondary of metering CT. Current is squared with the voltage output of the alternator in RY phase and motoring condition detected if it exists. The squared output is compared to a preset level and a timer is triggered above limit. Timer can be set 0-10 sec. Contacts changeover occurs on timeout and an led indication signals closure. Relay gets reset automatically if the prime mover is stopped. The reverse power is typically set between 6 - 10% but fixed internally. This setting can be changed on demand but will not be variable. Setting cannot be changed once set.

These relays are ideal for generator, transformer etc. reverse power protection and to prevent motoring in prime movers.



Specifications

- Voltage rating	3 ph 415 Vac
- Frequency	50 Hz
- Current	5A max
- Time setting	0 - 10 sec
- Reverse power	6 - 10% fixed
- Burden	5VA at setting
- Temperature range	- 20 + 55° C
- Repeat time accuracy	+/- 2% of setting
- Contact rating	5A max
- Thermal rating	Relay will withstand



Water Level indicator are home automation product which helps a customer to completely eliminate manual intervention that is required everyday in every home to fill water. Now no more losing sleep over filling your water tank Be it night or day or you are away, Water Level Controller ensures your water tank is filled at the right time & not even a single drop is wasted.



(Fully Automatic Water Level Controller)

- Auto Start when Water comes to reserve level.
- Auto off when tank gets Full.
- Automatic off when upper tank full
- Auto on when lower tank Empty
- Auto on when water comes in corporation line
- Auto off when water supply interrupts
- It controls all types of Single Phase / Submersible Phase / Submersible and all other motors.

Features & Benefits

- Motor switches on automatically when less water in tank and water is available at source.

Daily water filling convenience-No worries/Tensions when to fill water tank

Motor is switched ON only if water is available at source-

No dry run allowed.

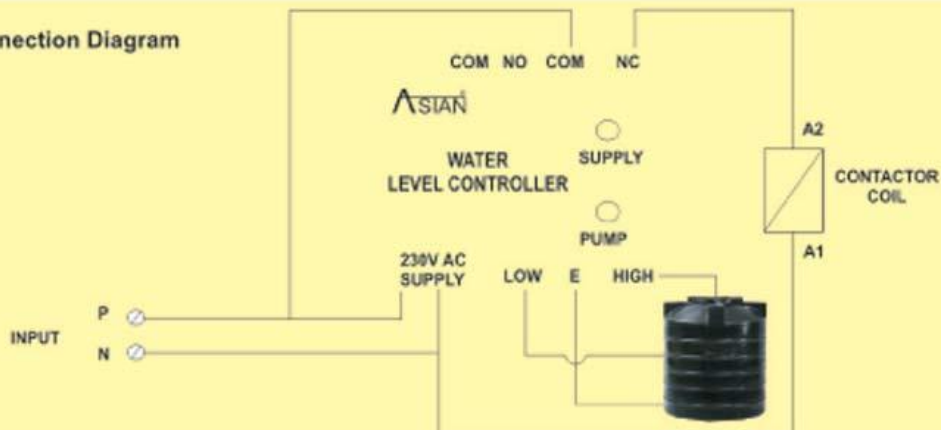
- Motor switches off automatically when tank is full

No worries of water overflow-preserves construction quality as there is no water spread.

- Water Level & Control display installed at a convenient location in the house.



Connection Diagram





Dealer: www.fairpowerage.com



Description

Data Loggers are intelligent with networking capabilities on RS 485 Bus and MODBUS Protocols. Additionally the meters have an inbuilt memory and RTC to record the stamp of electrical parameters on a specific date & time. Energy Audit Software "Tarang" can be used to download the data from the meters memory to laptop and can be utilized for data analysis and control.

Special Features

- Compact with integration of external CT/PT inputs
- Customized recording of parameters through RS 485 Modem
- Choice of recording intervals
- High accuracy RTC
- User interactive "Tarang" Software

ASIAN ELECTRICAL & ELECTRONICS
 AN ISO 9001 CERTIFIED COMPANY
 A 1/8, Sec B1, Tronica City, UPSIDC Ind. Area, Loni Ghaziabad
 Print Date : 18-7-2013

		KW				KvAr				System Parameters			
Date	Time	Kw R	Kw Y	Kw B	Kw C	KvAr.R	KvAr.Y	KvAr.B	KvAr.C	KWH	CTR	Pf Sign	PF
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
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OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
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OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
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OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

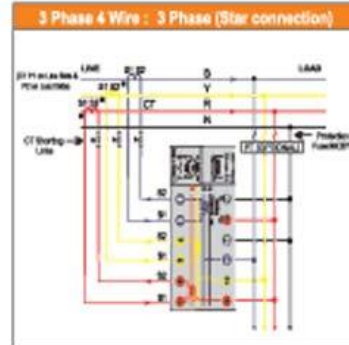
Rs. 485 Multi Point Communication (MODBUS)

9 object(s)



Technical specifications

Electrical	LT/HT
Connection type	CT/PT operated
CT/PT Programming	Primary/Secondary (1/5A)
Wiring configuration	3 phase 3/4 wire
Voltage range	240V(L-N), 110V(L-L), 63.5(L-N)
Aux. Power Supply	80-240V
Current range	1-1.2A, 5-6A
Accuracy Class	0.5, 1.0
Main frequency	50 Hz+5%
Burden	As per standards

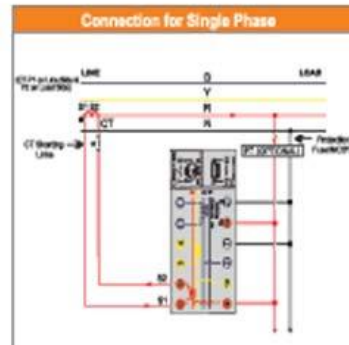


Approvals

Standards	IS13779, IS14697
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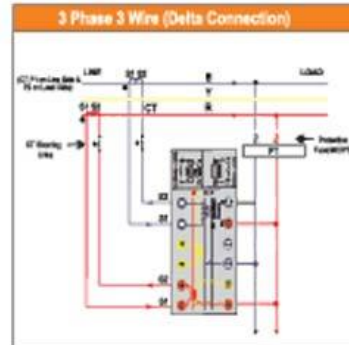
Mechanical

Dimensions (WXHXD)	96x96x65mm
Cut out size	92x92mm
Weight	0.45+0.1kg
Terminals	Combicon connector
Max conductor size	2.5mm ²



Environmental

Ingress protection	IP 50
Insulation class	4kVRMS 50 Hz
Impulse withstand	6kV
Temperature	-10°C to + 60°C (operating) -25°C to + 70°C (storage)
Humidity	95% non -condensing
Flame retardation	UL 94 VO



Features

Favorite page	Configurable through keypad
CT/VT primary	Configurable in field through keypad
Communication	Rs485
Baud rate	1200-9600bps(Selectable)
(MODBUS port)	Configurable in field through keypad



The DIN series consists of meters in sizes of (1) 72 x 72 (2) 96 x 96 (3) 144 x 144 mm The wide view meters are in sizes of 2½, 3½ and 4½ sizes. Meters M065 and M065 having round barrels.

These meters are of moving iron or moving coil type and their variants. All these meters have inter changeable dial, protection cover, different scale patterns and suppressions. These are type tested as per IS 1248. The normal class of accuracy is 1.5 (1.0 optional).

Moving Iron / Coil / Circular Scale / Double Scale

- Oil damped movement with recessed jewels
- Shock & vibration Proof
- Very high torque to weight ratio
- Shielded movement
- As per IS standard
- Range 50mA to 100A (Direct) & CTR / 5A or 1A & 50V - 600V/PTR



Street Light Controller

Features

- Available in 1-Phase & 3 Phase
- Glossing boards
- ATMs
- Street Light Controlling
- Range 5-30Amp, 10-60, 240 volt-40% to 30%, 50 Hz+5%
- Accuracy Class 1.0 with CBIP88/IS13779
- Optical Communication Port LCD display
- Tamper Proof
- Operating Temp-10°C to +60°C
- Humidity upto 95% non Condensing
- Burden Less then 5VA

Parameters

Amp. , Voltage, Power Factor, Frequency, KWH Run Hour Meter, Single Phase Weekly Calender & Three Phase Yearly Calender.

Euro 1P & Euro 3P 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 dual source function ensures that meter records the energy for both Electricity Boards as well as the Diesel Generator Power Backup Systems.

The Euro series of meters eliminate the disadvantage of cumbersome loading of 20 digit token into the meter and eliminate the requirements of changing tariff by going near to the meter

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.



Recharge amount of customer is deducted automatically by the meter on daily basis according to their uses and the end of amount information is forwarded to the customers via message. If the customer does not pay his recharge amount and the meter does not get the information of recharge, then it will automatically disconnects the power supply to the customer.

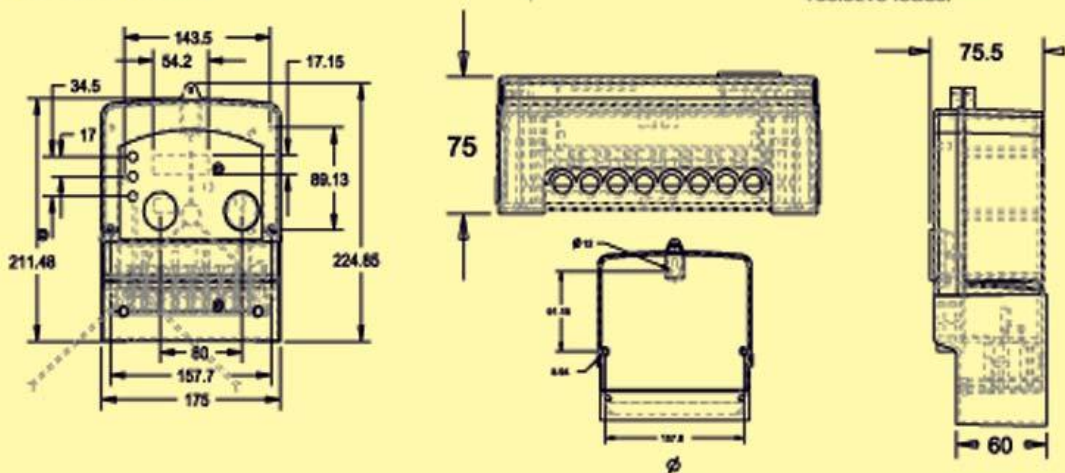
Euro Series of meter ensures load monitoring, load management, load limiting and maximum demand through advanced embedded & high level software and the building utility benefits for the improved cash flows and automatic tariff implementation.

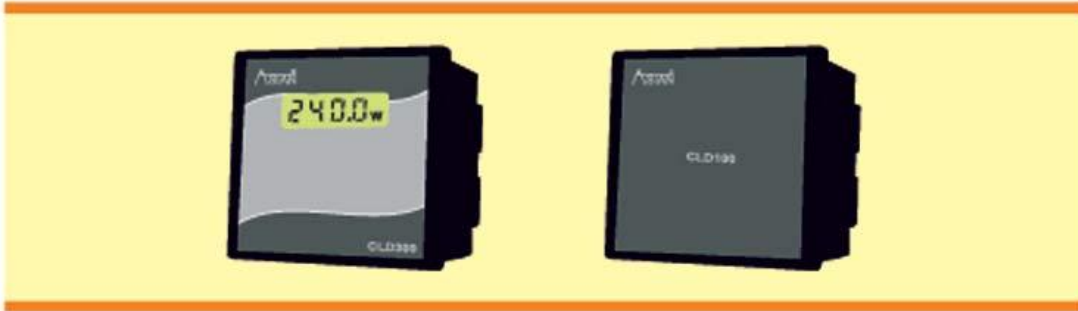
The other important features of the meter include-

- * Double password protected online tariff management systems ensuring no additional cost.
- * Recharge 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.

The Central System Maintain a database of meter installation including customer specific details & generates the management information system report.

Functional		Technical	
METERED	<ul style="list-style-type: none"> * Active kWh 	VOLTAGE	240 V (Ph-N)
ADDITIONAL PARAMETERS	<ul style="list-style-type: none"> * Voltage * Current * Power Factor * Apparent Power * Frequency 	CURRENT	I Basic 10 A I Max 60 A
DISPLAY FEATURES	<ul style="list-style-type: none"> * Credit remaining. * Total kWh. * Current Month kWh. * Total Money Vended. * Separate Vended Money for kWh & Utility Charges. * Previous Month's Cost & kWh. * Maximum Demand * Relay Cutoff Timer at over load. * Number of attempts at over Load. * Over load setting in kVA. 	FREQUENCY	50 Hz \pm 5 %
TAMPER/FRAUD DETECTION	<ul style="list-style-type: none"> * Over Load 	BURDEN	Current Circuit < 2.0 VA per phase Voltage Circuit < 1.5 W/8 VA per phase
FACILITIES	Meter supports the following: <ul style="list-style-type: none"> * Unit cost change. * Tariff change. * Max. kVA Load Limit Change. * New Customer. 	METROLOGY	IS&IEC61036 Class 1.0
		TIME CLOCK & CALENDAR	Normal Power Source Mains supply RTC Backup Source Lithium Battery
		DATA RETENTION	Unpowered 10 years (minimum)
		DISPLAY	Format Customized LCD
		ACTIVITY INDICATOR	Format Red LED
		ENVIRONMENTAL	Operating Temperature -10°C to +50°C Storage Temperature -25°C to +70°C
		MECHANICAL	Dimensions (WxHxD) Meter 175 x76x 225 mm (Approx). Load Contactor Rated at I _{max} minimum of 10000 operations at rated current for resistive loads.

Dimension Details




Smart Current Limiting Devices (FND) Has Been Specially Designed to Measure and control the Current / Load Levels of the DG Sets.

Unique Features

- 32 Bit Microprocessor Based Design
- Programmable Load Setting For LCD Based Controller or Fixed Load for LCD Less Controller
- Password Protected

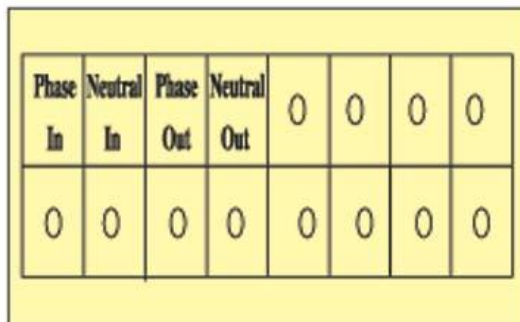
Technical Specification

Family	Am2043
Rating/phase/Class	1Ph ,230V, 5Amp, 50Hz
Size	96X96X65
Display Type/Lines/Digits	Without Display
Load Setting	Password Protected (FND Model Only)
Auxiliary Supply	230Vac (+/- 20%)
Power Supply	Switch Mode Power Supply
Class of Accuracy	1.0

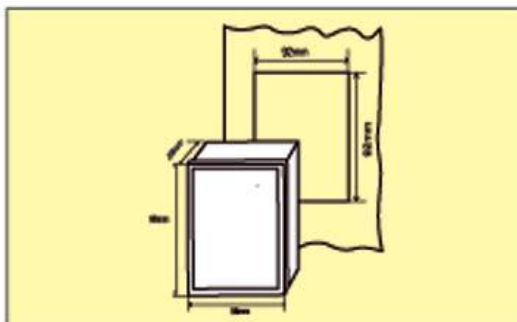
Special Features

Sampling Rate	3 per second
IP	51
Microprocessor	32 Bit Micro
Memory Load Survey	Optional
Password Protection	Available
Error Display	Optional
RTC	Optional
IS	Accuracies as per IS 13779
PCB	Paper Phenolic FR4 Grade
Insulation	2KV (IS13779)

Connection Diagram



Cutout Diagram



ASIAN INDOOR TAPE WOUNDED RING TYPE LOW TENSION CURRENT TRANSFORMERS



RATIO	APPROXIMATE DIMENSION IN MM			RATED BURDEN IN VA	ACCURACY CLASS
	I.D.(A)	O.D.(B)	HEIGHT (C)		
25/5	30	65	45	5	5
30/5	30	65	45	5	5
40/5	30	65	45	5	5
50/5A	30	65	45	5	5
60/5A	30	65	45	5	5
75/5A	30	65	45	5	5
100/5A	30	65	45	5	1
100/5A	30	65	45	15	1
150/5A	30	65	45	5	1
150/5A	30	65	45	15	1
200/5A	45	85	33	10	1
200/5A	45	85	38	15	1
250/5A	45	85	33	10	1
250/5A	45	85	38	15	1
300/5A	55	105	30	10	1
300/5A	55	105	35	15	1
400/5A	65	110	30	15	1
500/5A	65	110	30	15	1
600/5A	65	110	30	15	1
800/5A	85	120	30	15	1
1000/5A	100	140	30	15	1
1200/5A	100	140	30	15	1
1500/5A	115	140	30	15	1
1600/5A	115	140	30	15	1
2000/5A	120	160	30	15	1
2400/5A	130	150	30	15	1
3000/5A	130	150	30	15	1
3200/5A	130	150	30	15	1
4000/5A	200	180	40	15	1
5000/5A	200	180	40	15	1

NOTE : 1. The Accuracies Listed above are as per I.S.S. 2705 / 1992
 2. The general tolerance for dimension A, B & C Shall be + be 3mm
 3. 1 Amp. Secondary Current Can Also Supplied

TYPE

Block Type (Wound Primary), Bar Type (Embedded)

OPERATING VOLTAGE (MAXIMUM)

3.6 KV, 7.2 KV, 12 KV, 24 KV, 36 KV

PRIMARY CURRENT

Upto 8000 Amps.

SECONDARY CURRENT

5 A OR 1 A (Others on request)

SHORT TIME THERMAL CURRENT & ITS DURATION

Upto 40 KA for 1 Second (Others on request)

RATED BURDEN

5, 10, 15, 20, 30 VA (Others on request)

ACCURACY CLASS

0.2, 0.5, 1.0, 5P10, 5P15 (others on request). For Differential Protection Bus Bar Protection, CT with accuracy class PS can be offered

FREQUENCY

50Hz

REFERENCE STANDARD

IS-2705 I.E.C.60044.1



Voltage Transformer

TYPE

Single Pole insulated & Double Pole insulated Type.

OPERATING VOLTAGE (MAXIMUM)

Single Pole insulated: 3.6 KV, 7.2 KV, 12 KV, 24 KV, 36KV Secondary.

SECONDARY VOLTAGE

Double Pole insulated 3.6 KV, 7.2 KV, 12 KV, 24 KV

110V, 110V/3, 110V/3 (Others on request)

RATED BURDEN

50VA, 100VA, 150VA, 200VA (Others on request)

ACCURACY CLASS

0.2, 0.5, 1.0, 3P, 6P

FREQUENCY

50Hz

SYSTEM EARTHING

Earthed / Unearthed

REFERENCE STANDARD

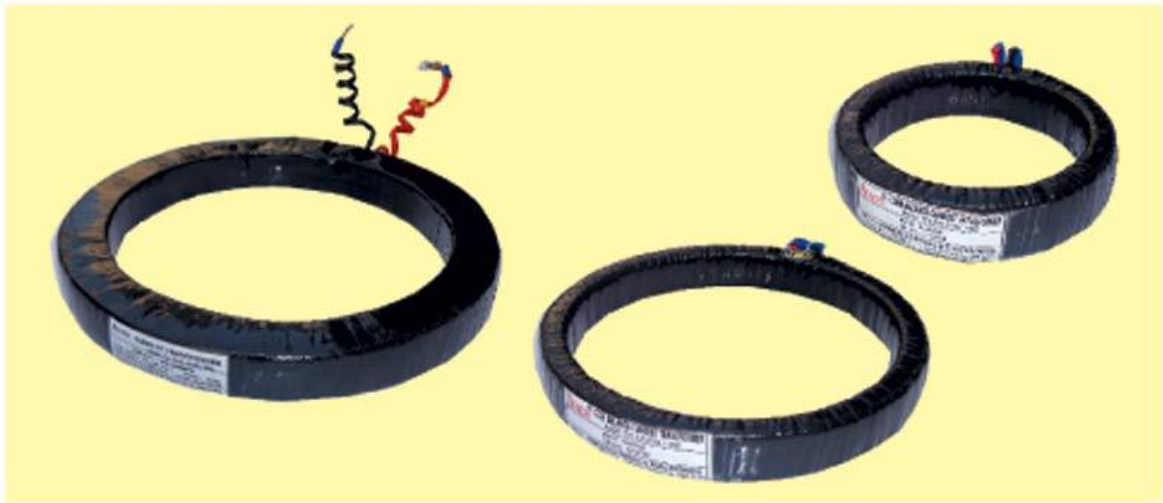
IS-3156/I.E.C. 60044.2.

Accuracy Class.

Features:

- Manually operated control transformer (Variable auto-transformer) with zero interlock facility.
- Double range (0-2kV/0-5kV) voltmeter provided to read H. T. Voltage.
- Double range (0-100mA) A. C. Milliammeter provided in the earth end of the H. T. winding to read H. T. Current.
- Automatic tripping circuit is provided for isolation of supply, in the event of failure of the object under test.
- Rotary switch with four different settings of 5,10,50 & 100mA is provided on front panel with LED indication.
- M. C. B. for short circuit protection.
- H. T. On push button. Mains ON & H. T. On LED indication.
- Range selection switch to select 2.5kV or 5kV range with LED indication
- Two spring loaded test prods with 1 metre long cable for safe & easy connection of high voltage to test object.
- Applications - Testing of Insulation of electrical apparatus at high voltage values recommended by applicable relevant.

CBCT



MODELS

- CBCT 30 (30mm ID)
- CBCT 100 (100mm ID)
- CBCT 150 (150mm ID)
- CBCT 200 (200mm ID)
- Any other Size circular/rectangular
CBCT on request.

Features

All current ratios available to match commonly available ELR's
 Slim Design
 Lightweight
 Encapsulated CBCT
 Terminals are finger proof touch as per IEC class
 Highly Cost effective
 Compact in size.

Specification

System Voltage: 720 V maximum
 Insulation Voltage: 3kV for 1 minute
 System Frequency: 50Hz or 60 Hz
 Max. permissible Current: 1KA continuous
 5KA for 1.5 sec.
 Terminal Conductor: <math>< 2.5 \text{ mm}^2</math>
 Current ratio: 1/1000, 1/600 any other on request
 Distance Between Toroid and relay : 50 meters
 Operation Temperature: - 20°C to + 70°C
 Humidity: 95%RH(non condensing)
 Enclosure: Flame retardant glass filled ABS
 Complaint with: IEC 44-1 and IEC 185
 Mounting: Four Fixing Slot

- On and Off times individually settable
- Calibrated knob for accurate On time and Off time setting
- Rugged design suitable for 24 hrs
- Wide temperature withstand range
- Accurate timing & repeat cycle accuracy
- Suitable for mounting inside panel

General Description

Asian Electronic timer find application in automatic starting and stopping of Diesel priming pumps Gensets, fire engines. Also used in continuous on & off cycles of motors, pumps, etc in pumping or any industrial use Also used in all Industrial timing applications. The internal system is derived from a series of clocks which when triggered start the timing cycle and trip after the present time as follows

On timing initially on and after preset time settable on facia timer turns off.
 Off timing after on time is over the off time timer takes over settable by knob on facia.

Two sets of changeover contacts changeover at end of every timing cycle i.e. on or off.

Time delay is as per orders which are

- 0 - 10 sec 0 - 100 sec
- 0 - 60 sec 0 - 3 min
- 0 - 10 min 0 - 1hrs.

Any of these times can be specified while ordering Two models:

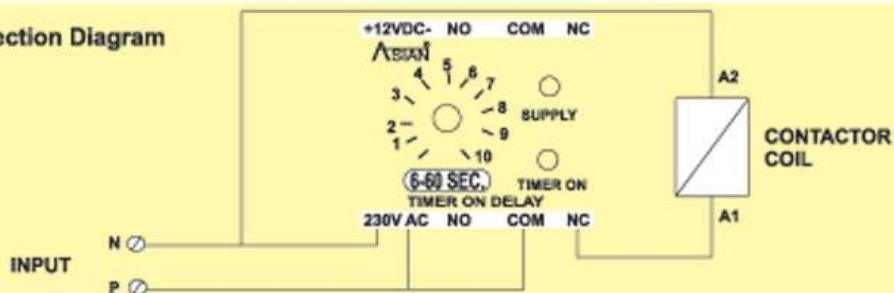
- (1) 230V/12V DC timers using either 230 Vac or
- (2) 24 V DC using 24 V DC supply.



Specifications

Size	70x45x110mm
Voltage rating	230 V AC / 12 V DC 24 V DC
On/Of Time setting	as per order 0-10, 0-100, 0-60 sec 0-3, 0-10 min, 0-60 min
Off / Time setting	same as on above
Burden	5VA at setting
Temperature range	-20+55° C
Repeat time accuracy	+/- 2% of setting
Contact rating	5A max
Thermal rating	Relay will withstand continuously rated voltage.
Surge capacity	

Connection Diagram



Salient Features

- Three Kick attempt timer relay
- Auto lockout after three kicks
- Rugged design suitable for 24 hrs
- Wide temperature withstand range
- Accurate timing & repeat cycle accuracy
- Suitable for mounting inside panel

General Description

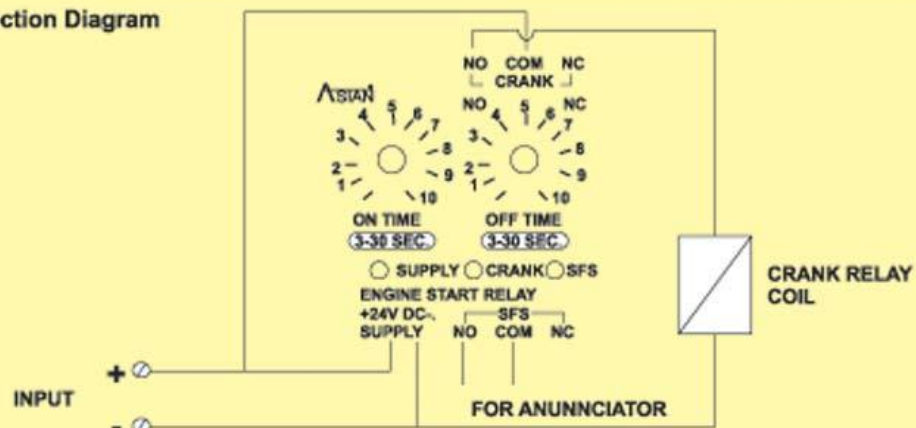
Asian Engine starting relays find application in automatic starting of Diesel / petrol engines or Genets and fire engines. Also used in AMF panels for captive power plants. The internal system is derived from a series of clocks which remain on for duration and then go off for duration. Each of this on time and off time durations is stable by two calibrated potentiometers settable from 0-30 seconds. Two sets of changeover contacts are provided. One set is used for cranking or sequencing operation to start the diesel or petrol engine/ genset. The other set of contacts is provided for lockout in case the engine/genset does not start in three attempts. After the lockout phase the relay stops functioning. The external supply is required to be cut to reset the relay after lockout.



Specifications

- Voltage rating 12 or 24 Vdc Specify During Order
- On Time setting 0-30 sec
- Off Time setting 0-30 sec
- Burden 5VA at setting
- Temperature range -20 + 55° C
- Repeat time accuracy +/-2% of setting
- Contact rating 5A max
- Thermal rating Relay will withstand continuously rated voltage. Surge capacity is twice rated voltage

Connection Diagram



Under + Over Voltage Relay (3 Phase)

ASIAN®

Salient Features

- Validates all three phases simultaneously
- Precise circuits enable high accuracy
- Rugged design suitable for 24 hrs.
- Filtering & harmonic suppression to Enable precise comparison of Measurement
- Built in timer for delay applications
- Suitable for mounting inside panel

General Description

Asian under + over voltage relay find application in effective protection of equipments such as gensets, motors, pumps, trans, shunt capacitors etc. from damage due to transient under voltages. These are also used to sense blackouts and brownouts and to control auto start stops of engines and gensets e.g. in AMF panel. The input voltage is continuously checked and the value measured is compared against a preset generates a changeover signal. Two sets of potential free changeover contacts are provided for breaker tripping. The relay resets automatically when the input is within limits. A fixed time delay of 2-4 sec on low and high signal is also given after comparison to suppress false tripping as in case of transients. Under and over voltage are externally settable on front facia by two potentiometers. A hysteresis of about 5 - 15 volts between dropout and pickup is provided to avoid sharp cutoffs. The Relay remains off when voltage is low or zero or high than set limit and when voltage is healthy the relay is on. (This takes care of no volt operation) LED indicator Displays the status



Specifications

- Voltage rating 3 ph 415Vac, 110V ac
- Frequency 50 Hz
- Voltage setting Under 70-90%
Over 100-130%
Under 300-400V
Over 420-500V
- Time setting 2-4 sec fixed
- Burden 5VA at setting
- Temperature range - 20+55° C
- Repeat accuracy +/- 3% of setting
- Contact rating Relay will withstand continuously rated voltage. Surge capacity is twice rated voltage.

Connection Diagram

