

SMART METERS | SWITCHGEARS & DB's | WIRE & CABLES | SWITCHES & ACCESSORIES | LED



## MCB- MINIATURE CIRCUIT BREAKER



Meets latest Standards		
Ratings	0.5 Amp. to 63 Amp.	
Poles	1P, 1P + N, 2P, 3P, 3P+N, 4P	
Tripping Characteristic curve	B, C and D Type	
Mid Trip Feature		
Rated Short Circuit Capacity	10,000 A	
Compounded with hammer-tripping ensures low let through energy.		
Excellent discrimination with upstream and downstream breakers and fuses.		
Wide Range to suit different applications.		
Compact and Modular.		
Maintenance free as based on fuse less technology.		
Fire Retardant Body		



## RCCB- RESIDUAL CURRENT CIRCUIT BREAKER



Meets latest Standards IS 12640 Part 1		
Module	Double Pole and Four pole	
Current Ratings	10A, 16A, 25A, 32A, 40A and 63A	
Sensitivity Rating	30,100 and 300 mA	

Breaking capacity 10kA with short circuit protection device.

Highly sensitive, detects earth leakage current as low as 30mA in less than 40mS

Made of fire retardant, anti tracking non hygroscopic impact resistant material and can with stand high temperature.

Incorporates advanced neutral, making it suitable to use a main switch.

Opening and closing of all three phrases simultaneously due to rugged toggle mechanism.

Fast acting and long life trip free mechanism due to self lubricating and high quality components.

Incorporates 'T' button for periodic checking.



# RCBO- RESIDUAL CURRENT CIRCUIT BREAKER WITH OVER CURRENT PROTECTION



Conforms to IS 12640-2 and IEC 61009-1		
Module	Double Pole and Four pole	
Current Ratings	16, 25, 32, 40 and 63A	
Sensitivity Rating	30, 100 and 300mA	
Rated voltage 240/415V AC Rated Impulse voltage 4kV		
Tripping Curve 'C type, AC Class, IP 20		
Breaking capacity 10kA with short circuit protection device		
Line & Load reversibility available		
Electrical endurence 2000 switching cycles		
Incorporates advanced neutral, making it suitable to use as a main switch		
Highly sensitive, detects earth leakage current as low as 30mA in less than 40mS		
Made of fire retardant, anti tracking, non hygroscopic impact resistant material and can withstand high temperatures		
Opening and closing of all three phases simultaneously due to rugged toggle mechanism		
Fast acting and long life trip free mechanism due to sell lubricating and high quality components		
Incorporates 'T' button for periodic checking.		
Din rail mounting		



## **ACCL - AUTOMATIC CHANGEOVER WITH CURRENT LIMITER**



Range: 0.6Amp - 30Amp in SPN

Specification: IEC - 60947-6-1

Rated Voltage: 240V AC, 50Hz

Microcontroller based DIN rail mountable

with neutral Isolation

Operational status indication through LED

Automatic generator on/off facility

Built-in time delay for fall safe changeover

## **MCO - MCB Changeover**



Available in Double Pole & Four Pole

3-position DIN rail clip, permits removal from existing busbar system

Range-25, 32,40 & 63 A

Conforms to IS/IEC 60947-3

Voltage Rating 240 / 415V (AC), 50Hz

Front Operation with three stable positions I-O-II



## **DB'S-DISTRIBUTION BOARDS**



Protection up to IP-43 as required.

Resistant against scratch, impact, weather and chemicals.

Easy cable entry and very spacious for wiring.

Suitable for surface or flush mounting.

Best quality sheet used for manufacturing.

Painted by hi-tech powder coating process.

Gasket to ensure weather proofness.

Provided with bus bar, neutral Link, earth bar, wire kits and blank plates.

Superior Finish to suit the style of your home decor.

Standard single/three phase DB: single phase neutral, transparent/acrylic, double door, consumer unit, three phase neutral, vertical, AC box.

Customized DB: phase selector, TV/telephone DB,flexy tier and socket box.

Cement guard



## **MCCB - MOULDED CASE CIRCUIT BREAKERS**







Conforms to IS / IEC 60947-2

Wide Range: 10A to 800A

Wide Range Breaking Capacity available from 10kA to 50kA

Both fixed and adjustable magnetic setting

Available in various frames sizes rated current from 10A to 800A

Line load reversibility available

High repeat accuracy-reliable protection

Push to trip button provision

**Compact Dimensions** 

Type tested at Various labs

Positive isolation

Wide range of accessories

Current limiting design



## ON LOAD CHANGEOVER SWITCH



Range 32 A- 3150A in 6 frame sizes Conforming to IS 60947 part 3

Available in 3P & 4P versions

4P with 100% Neutral and TPSN staggered neutral

Arc Chute plates to quench arc within the switch and also enhance contacts

Total safety with Terminal cover, Source Separator and Phase Barrier as standard feature

Mounting possible in both horizontal and vertical position

Available in Open Execution and Sheet Steel enclosures

Prewired Auxiliary contacts with 1NO 1NC

## SWITCH DISCONNECTOR FUSE

Range: 32A to 800A, TP, TPN & 4 Pole, 415V, 50Hz

Confirms to latest IS 13947-3 / IEC 947-3

AC-23A duty

Multiple Roller Contact Mechanism for long life performance

Available in open execution and sheet steel enclosure

Available in BS & DIN type HRC fuse links

Excellent performance for capacitor duty applications.





## **LOAD BREAK SWITCH**



Compact Design.

quick make and quick break mechanism.

Available in open execution & sheet steel enclosure.

Range 63A-630A | 4 Pole | AC-23A | 415V

Confirms to IS-60947 Part -3

## **HRC FUSES AND BASES**



Range 2A-630A

Conforms to IS: 13703:IEC 269

Breaking Capacity>80KA 415V, 50Hz AC

Low Watt Loss

Best Protective device at economical price.

Immediate fault indication.

Inter changeable with all compatible brands.



## MAIN SWITCH

Range 16A, 32A, & 63A SPN 240Vac.

16A, 32A SPN 240Vac and 32A & 63A DP 415Vac.

32A, 63A, 100A, 200A & 320A, 500A TPN 415Vac.

Conforming to IS 60947 part 3

Surface mounting switch units for industrial & commercial applications

The Quick make-break mechanism independent of operators speed & provided with door interlock

Terminal Cover Shroud to prevent any accidental contact with live parts

Electrical contacts are made of Electrolytic Grade Copper, Silver Plated

The enclosures are surface mounted, made of thick gage CRCA sheets, Rust protected, Phosphatised



## **BUSBAR**



Specifications—As per IEC : 61439-3/ IS-8623 & IEC-60529/ IS-2147

Rated operational voltage Ue415/440 V AC

Incoming Current Rating (A)16 A TO 300 A

Rated frequency (Hz)50/60 Hz.

Rated S. C. Capacity withstand current (I cw) up to 120kA

Rated peak withstand current up to 264kA

Degree of ProtectionIP-31



## SINGLE PHASE & THREE PHASE ELECTRONIC ENERGY METER

#### Introduction

BENTEC has developed a range of advanced energy meters designed to cater various needs within residential, commercial and industrial segment consumers. These meters are characterized by their precision, reliability and advanced features that support modern energy management and conservation practices for Single phase & Three

phase consumers.







#### **TECHNICAL SPECIFICATION**

Meter Type	Single Phase (Direct & Bi- Directional for Solar Rooftop)	Three Phase ( Direct & Bi- Directional for Solar Rooftop)	Three Phase CT Operated
Rating	240V AC, 5-30A, 10-60A	3x240V AC, 5-30A, 10-60A, 20-100A	3x240V, -/5A
Standard Applicable	IS13779:2020, CBIP Report 325, IEC Standards	IS13779:2020, CBIP Report 325, IEC Standards	IS13779:2020, IS 14697 : 2021, CBIP Report 325,IEC Standards
Starting Current	0.4% of basic current (lb)	0.4% of basic current (lb)	0.2% of basic current
Accuracy	Class 1.0	Class 1.0	Class 1.0, Class 0.5
Display type	LCD Display	LCD Display	LCD Display
Power Consumption	As per IS13779	As per IS13779	As per IS13779 for CL 1.0 As per IS14697 for CL 0.5
Power Factor	Zero lag - Unity - Zero Lead	Zero lag - Unity - Zero Lead	Zero lag - Unity - Zero Lead
Temperature Range	-25°C to +55°C	-25°C to +55°C	-25°C to +55°C
Humidity	≤ 95% non-condensing	≤ 95% non-condensing	≤ 95% non-condensing
Frequency	50Hz ± 5%	50Hz ± 5%	50Hz ± 5%

#### **ENERGY PARAMETERS**

As per Customer Requirement

- ▶ Energy Parameters (kWh, kVArh, kVAh)
- Maximum Demand ( kW, kVAr, kVA )
- ▶ TOU : Up- to 8 Time Zones and Rate registers

#### **ELECTRICAL PARAMETERS**

As per Customer requirement

- Instantaneous Voltage
- ▶ Instantaneous Current
- Instantaneous Frequency
- Instantaneous Power Factor

#### **KEY FEATURES**

- ► Communication Protocol : As per IS15959 (DLMS)
- ▶ Communication Port : Optical Port & RJ11
- Daily (midnight) & every 30/15 Min Load profile Data for 30/45/60 Days
- Power On-OFF event logging
- Meter reading provision in power OFF condition
- Anti-tamper Features : As per Indian Standards and Customer Requirement
- Four quadrant energy measurements
- ▶ 6/12 months billing history



## SINGLE PHASE & THREE PHASE SMART METER

#### Introduction

Single Phase two wires and Three Phase four Wires Static Smart Meter are designed for residential and small commercial energy consumers. It offers accurate measurement, multifunction capabilities and robust antitamper features. The smart meter supports WAN (4G/NBIOT) or NAN (RF) communication technology in line with relevant BIS, ensuring seamless data transmission and integration with Advanced Metering Infrastructure (AMI) systems.





### **TECHNICAL SPECIFICATION**

Rated Voltage: 3 x 240V (-40% to +20%)

Current Range: 5-30A, 10-60A, 20-100A

Accuracy Class : Class 1.0

Load Switch : UC1 or Better

Storage Temperature : -25°C to +70°C

Operating Temperature : -10°C to +55°C

Communication Protocol: IS15959/ DLMS

Communication Interface: Optical port, RS232, Bluetooth, NBIoT /4G (WAN) or RF (NAN)

Event Logging: As per IS 15959 and Customer Requirement

Metering: Four quadrant energy measurements

ToU: Up-to 08 Time Zones and Rate registers

#### **KEY FEATURES**

- Accurate Measurement : Complies with IS16444 Part-1, CBIP-325 and IEC standards
- Multifunction Display : LCD Display
- Alarms: Alert for power events, tamper events etc.
- Interoperability: Standard Communication protocol as per IS 15959 for seamless Integration
- Remote Communication: Enable remote bi-directional communication (Push & Pull method)
- > OTA Updating: Enables updates remotely ensuring latest features and regulations compliances
- Real-Time Monitoring: Instantaneous insights of demand & quality help in load forecasting & Planning
- Anti-Tamper Features: Measure, Detect, record and report tampers to ensure data integrity & Accuracy
- > Two-way Communication: Remote bi-directional communication enables on Demand and Push Mode
- Data Profile: Electrical energy multiple profiles helps in data monitoring, recording & optimization
- ▶ Remote Connect/Disconnect Facility
- ▶ 6/12 Month billing history
- Daily(Midnight) & Every 15/30Min. Load profile for 45/60 days



## **WIRES AND CABLES**



#### ISI marked

Multistrand of 99.99% pure electrolytric grade annealed copper with 100% conductivity

Made with latest state-of-the-art technology giving total safety and consistent quality

Perfect stripping to crimping during installation due to uniform layup of conductor strands

Uniform centering of conductor wire in the PVC insulation, preventing short circuit occurrences due to uneven thickness and eccentricity of PVC insulation

Double layer virgin natural PVC insulation for better protection

All cables subject to high voltage spark test for elimination of weak spots in the insulation

High dielectric strength and resistance to DC Voltage effects

High mechanical strength and resistance to abrasion, vibration & ageing

Flame retardant, does not support combustion and self extinguishing

Specially formulated insulation that restrict toxic gases and smoke.

Suitable for use in conduit and for fixed protected installation in fire-prone areas.



## **LED**



Input voltage range - 100V-300V

Elegant Structure to dissipate heat

Driver efficiency > 85%

Surge protection min 4KV to 10KV

High voltage Protection upto 440VAC

High Power factor > 0.90 To 0.98

High Lumen efficacy 100lm-120lm/W

Colour Rending Index (CRI) > 70

CCT available 6500K, 5700K, 3000K,4000K

Total Harmonic Distortion (THD) >20% For Indoor and >10% for Out Door Products

Average Life upto 50000 Hours

All product is IP protected IP20 to IP66



## **SWITCHES**



Positive action rocker switches with soft switching mechanism

Switches with X rating: designed for inductive and resistive loads

Arc Shield encloure - Minimizes the visibility of arc

Switches with silver cadmium contacts for long life and continuity

All Socket designed with Child Safety Shutters

Solid Brass terminals for better conductivity

Captive Brass Screws for easy and fast installation

In regulators - Ergonomically designed knob with 360 Deg. Rotation

In regulators - 4 and 5 step fan controller with incremental steps across all steps

In regulator No radio frequency interference

Plates are engineered with front loading and removal features

High Grade flame retardent engineering plastic.

## **BENTEC**

# OUR MANUFACTURING FACILITIES OF PRODUCTS AT VARIOUS LOCATIONS AROUND THE COUNTRY



BEHALA, KOLKATA Products Energy Meters



KASBA, KOLKATA
Products
Distribution Boards,
Bus Bar, Main Switches
and Change over



LILUAH, HOWRAH
Products
Wires & Cabls



FARIDABAD, HARYANA
Products
LED Liights,
Smart Meters



BADDI (HP)
Products
MCB, RCCB, MCCB, Tiny Trip,
MCB Changeover, Switch DIS connector,
Fuse, Load Break Switch,
HRC Fuse and bases. Motor Starter



LILUAH, HOWRAH
Products
Fabrication and
Powder Coating Unit



VASAI, MAHARASHTRA Products Modular Switches



Corporate Office BENTEC INDIA LIMITED 150, Upen Banerjee Road, Kolkata, West Bengal, Pin: 70060



info@bentecindia.com



Customer Care No. 033-24 01 74 21



bentecindia.com

#### **BRANCH OFFICE**

AHEMDABAD: 9669 099 969 | ASANSOL: 8250 552 792 | BANGALORE: 9845 007 857 | BHAGALPUR: 8789 817 707 BHUBANESWAR: 9831 281 573 | CHENNAI: 9748 013 248 | GUWAHATI: 9831 111 030 | HYDERABAD: 9831 194 283 INDORE: 9329 027 210 | JAIPUR: 9314 033 313 | JALANDHAR: 9915 800 483 | LUCKNOW: 9336133 222

MUMBAI : 9324287968 | NAGPUR : 9604 052 882 | NASIK : 9324 287 968 | NOIDA : 9950 227 722 | PATNA : 9903 000 780 PUNE : 9405 006 489 | RAIPUR: 9109 108 886 | RANCHI : 9386 588 496 | ROHTAK : 9315 326 004 | RAIKOT : 9669 099 969

**SILIGURI**: 9940 084 022 | **SURAT**: 9374 141 524 | **VARANASI**: 9554 966 555