

Features:

- ▶ 1 Line 4 Digit ultra bright LED display
- ▶ Site Programmable CT and PT ratio (Primary and Secondary)
- ▶ True RMS measurement
- ▶ Password protection
- Optional features
 - a) RS485 Computer Interface
 - b) 60A direct current (External CT module available)
- ▶ Harmonic measurement (Total & Individual)
- ▶ Auto ranging
- ▶ Universal Auxiliary supply



Advantages:

- ▶ Cost-effective
- ▶ Accurate reading
- ▶ Long life compared to Analog, as no moving parts
- ▶ Reduce panel space, wiring and installation time
- ▶ Precise onsite display

Applications:

- ▶ Industrial application and Automation
- ▶ Control Panel
- ▶ Equipment Monitoring
- ▶ Distribution Systems
- ▶ Test bench

Measuring Parameters

- ▶ Voltage (L-L) and Average Voltage (L-L)
- ▶ Voltage (L-N) and Average Voltage (L-N)
- ▶ Current (line) and Average Current (line)
- ▶ Power factor (phase) and System Power factor (phase)
- ▶ Power (Active, Reactive and Apparent)
- ▶ System Energy (active)
- ▶ System Frequency
- ▶ Total Harmonic Distortion (Phase wise): Voltage and Current
- ▶ Load hour

Supply Voltage

Auxiliary Supply 90-270V AC/DC ($\pm 15\%$)
 Frequency 50/60 Hz

Display

Display 1 row 4 digits, 7 segment LED display
 Digit Height 0.56 (14.3mm)
 Display Scrolling Automatic/Manual

Settable Parameters

C.T. Primary 1/5A to 5000A (Programmable)
 C.T. Secondary 1/5A (Programmable)
 P.T Ratio Programmable upto 132 kV
 Display Reset Energy

Input Specifications

Electrical Connection 3Ø-4 wire/1Ø-2 wire
 Input Voltage Range 0-500V AC (L-L)
 Input Current Range 0.015A-6A AC
 Frequency 45-65 Hz
 Resolution

- ▶ Energy 0.1 kWh
- ▶ Power factor: 0.001
- ▶ Frequency: 0.01 Hz
- ▶ Voltage: Autoranging
- ▶ Current: Autoranging
- ▶ Power: Autoranging
- ▶ Voltage $\pm 0.5\%$ of F.S.
- ▶ Current $\pm 0.5\%$ of F.S.
- ▶ Power Factor $\pm 0.5\%$ of F.S.
- ▶ Frequency $\pm 0.1\%$ of F.S.
- ▶ Power (Active, Reactive and Apparent): 1%
- ▶ Energy (Active, Reactive and Apparent): Class 1

 Accuracy
 Burden Voltage: 0.2 VA max. per input
 Current: 0.2 VA max. per input
 Aux. supply: 3 VA max.

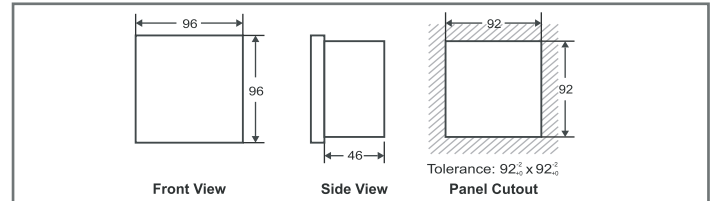
Environmental Specifications

Temperature Operating : -10° to 55° C
 Storage : -20° to 75° C
 Humidity < 95% RH

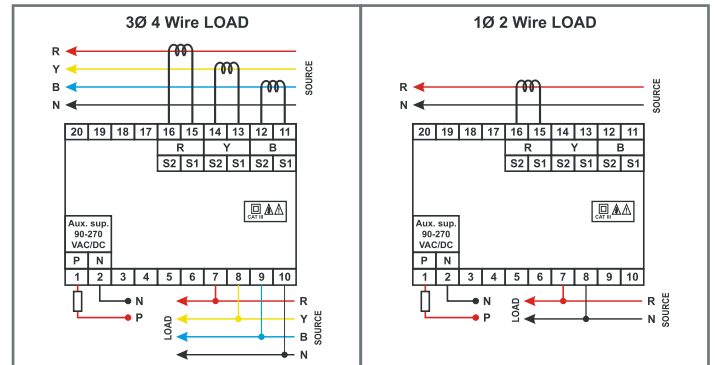
Mechanical Specifications

Mounting Flush Mounting with Side Clamps
 Weight 280 g
 Enclosure Material ABS Thermoplastic

Dimension




Connection Diagram



Ordering Information

Ordering Code	Description	Comm. RS485
KDE 89	0-5A, CT programmable	
KDE 89-C	0-5A, CT programmable	✓
KDE 89-60A-3P-N	0-60A, external CT for 1 phase(N)	

Accessories

Description	Code	Photo
for external CT of 60A programmed for three phase	60A-3P	

Preference of Accessories

The above module to be supplied with 1 meter long Leads	N
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