

# Split-core Current Transducers/Sensors

Models BB-JC10F50-V, BB-JC24S250-V, BB-JC36S500-V

**B+B SMARTWORX**

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BB-JC10F50-V

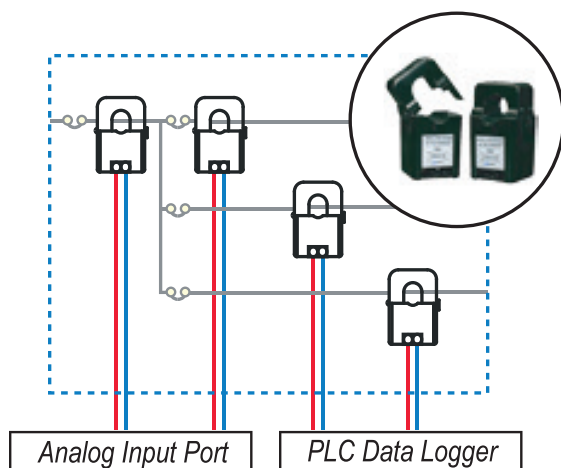
- + All-in one structure in a small size
- + Connect directly to PLCs
- + Sense motor stalls and short circuits
- + Industrial instrumentation
- + Process control loops
- + Phased fired-controlled heaters
- + UL, CSA, CE and RoHS available

## OVERVIEW

These split-core current transducers are designed for energy management with a convenient connection to electronic sub-metering. They may also be applied for current measurement in a system of distributed power line carriers (PLCs) or remote controls such as SCADA software for automation and supervision. Other applications include security and condition monitoring, load monitoring, protection systems, and predictive maintenance of conveyors, pumps, HVAC motors and more.

## LOAD TREND MONITOR PER DISTRIBUTION PANEL

When a sensor outputting analog instrumentation signals in proportion to load current, is clamped directly onto the main or branch wiring of the distribution panel, direct input into analog port as PLC or data logger becomes available without a converter in the middle.



## ORDERING INFORMATION

| MODEL NUMBER         | CURRENT RANGE (50/60 HZ) | OUTPUT IMPEDANCE | WEIGHT |
|----------------------|--------------------------|------------------|--------|
| <b>BB-JC10F50-V</b>  | 50 Arms                  | 6.2K $\Omega$    | 45g    |
| <b>BB-JC24S250-V</b> | 250 Arms                 | 5.8K $\Omega$    | 200g   |
| <b>BB-JC36S500-V</b> | 500 Arms                 | 5.8K $\Omega$    | 290g   |

## SPECIFICATIONS – All Models

| TECHNOLOGY                |                                                                                               |
|---------------------------|-----------------------------------------------------------------------------------------------|
| Output Voltage            | 0~5V DC (average) / 0 ~ rated current, 7.5V DC limiter built-in                               |
| Maximum Allowable Current | 100% (continuous) 150% (1 min.)                                                               |
| Accuracy/Linearity        | $\pm 2\%$ FS.dynamic range 1:100 (50/60 Hz sinewave)                                          |
| Output Ripple Voltage     | Within 5% of output voltage                                                                   |
| Response Time             | 300 ms                                                                                        |
| Insulation Resistance     | DC500V / 100M $\Omega$ or more (between core and output terminals)                            |
| Dielectric Strength       | AC 2000V / 1 min. (between core and output terminals)                                         |
| MECHANICAL                |                                                                                               |
| Sensing Aperture          | 10mm (clamp-on type)                                                                          |
| Latch/Unlatch             | About 150 times                                                                               |
| Output Terminals          | 2 x M3-screw with terminal covers                                                             |
| Tightening Torque         | 0.3 Nm                                                                                        |
| ENVIRONMENTAL             |                                                                                               |
| Operating Conditions      | -20 ~ +50 $^{\circ}$ C, $\leq 85\%$ RH, No condensation, In-house & any direction installable |
| Storage Conditions        | -30 ~ +90 $^{\circ}$ C, $\leq 85\%$ RH, No condensation                                       |

All product specifications are subject to change without notice.

BB-JCxFx-V\_CurrentSensors\_3718ds

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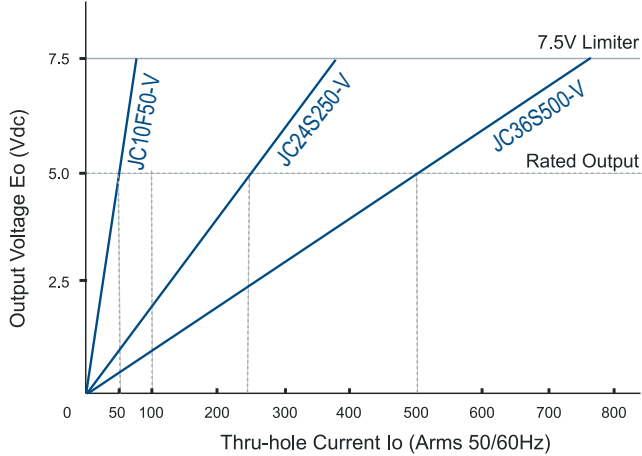
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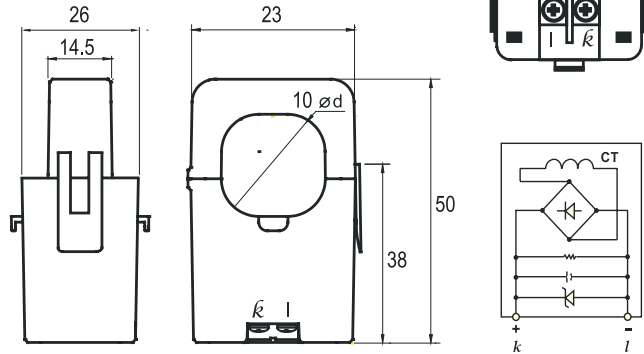
BB-JC24S250-V

## OUTPUT VOLTAGE DATA



## DIMENSIONS – BB-JC10F50-V

Unit = mm

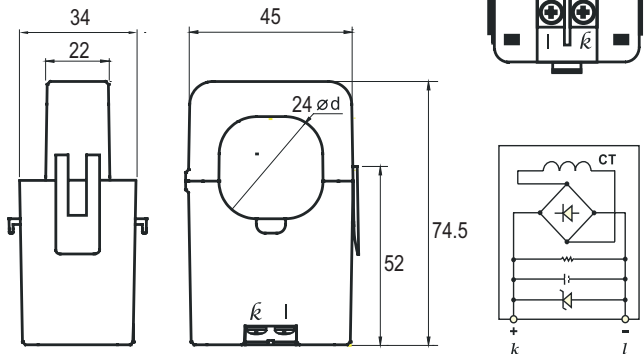


## CONNECTING THE LEAD WIRE



## DIMENSIONS – BB-JC24S250-V

Unit = mm



## DIMENSIONS – BB-JC36S500-V

Unit = mm

