

# SERIES CSHPB

## ENGINEERING DATA SHEET

### HALL EFFECT CURRENT SENSOR FOR BATTERY BUS DIRECT AND RETURN PROTECTION



#### FEATURES AND CHARACTERISTICS

- Electronic module in association with a contactor to provide bi-directional protection adapted to current flow direction.
- Designed for direct mounting on bus bar contactors.
- Provide an I<sup>2</sup>t trip law, with accelerated trip time at currents higher than 10 I<sub>n</sub> in the direction battery to bus. In the reversed direction, trip current and law may be defined at different level.
- No voltage drop in protected line.
- Trip status provided by an internal latching device.
- Override input to avoid inadvertent trip during start process.
- IBIT circuit for high reliability operation.
- Weight: 110 grams ± 5%.
- Temperature range: -50°C To +85°C

#### GENERAL ELECTRICAL SPECIFICATIONS

Supply voltage according to MIL Std 704	16 to 32 Vdc
Current supply at 28 Vdc	30 mA max + contactor coil supply
Cold weather supply voltage operation	10.5 Vdc
Low voltage protection by immediate trip	< 9 V ± 10%
Output current	1 amp permanent 6 Amps inrush (30ms)
Dielectric strength (All secondary terminal to ground)	1000 Vdc
Insulation resistance (All secondary terminal to ground)	100 MΩ at 50 Vdc

**Esterline** Power Systems

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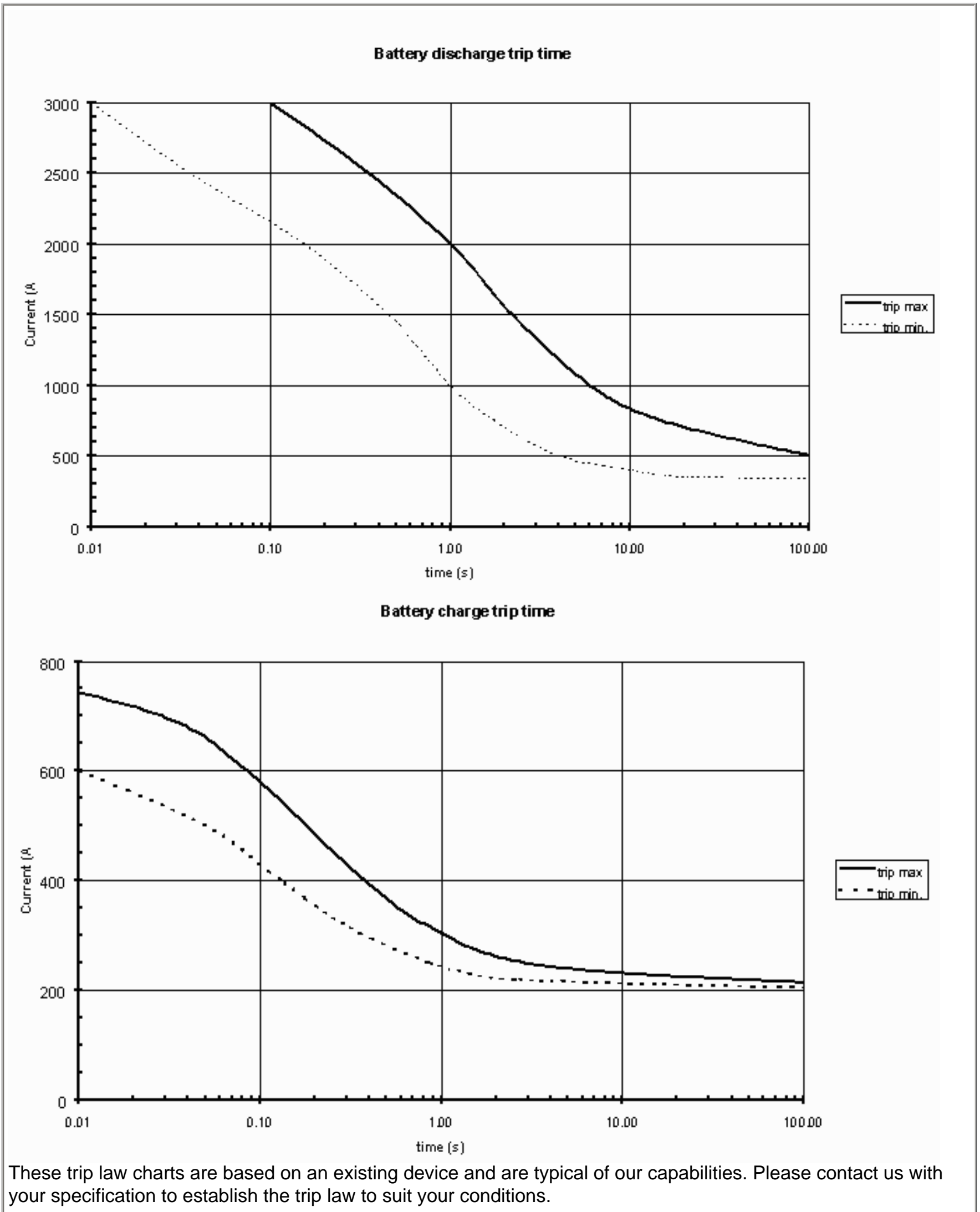
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Data sheets are for initial product selection and comparison. Contact Esterline Power Systems prior to choosing a component.



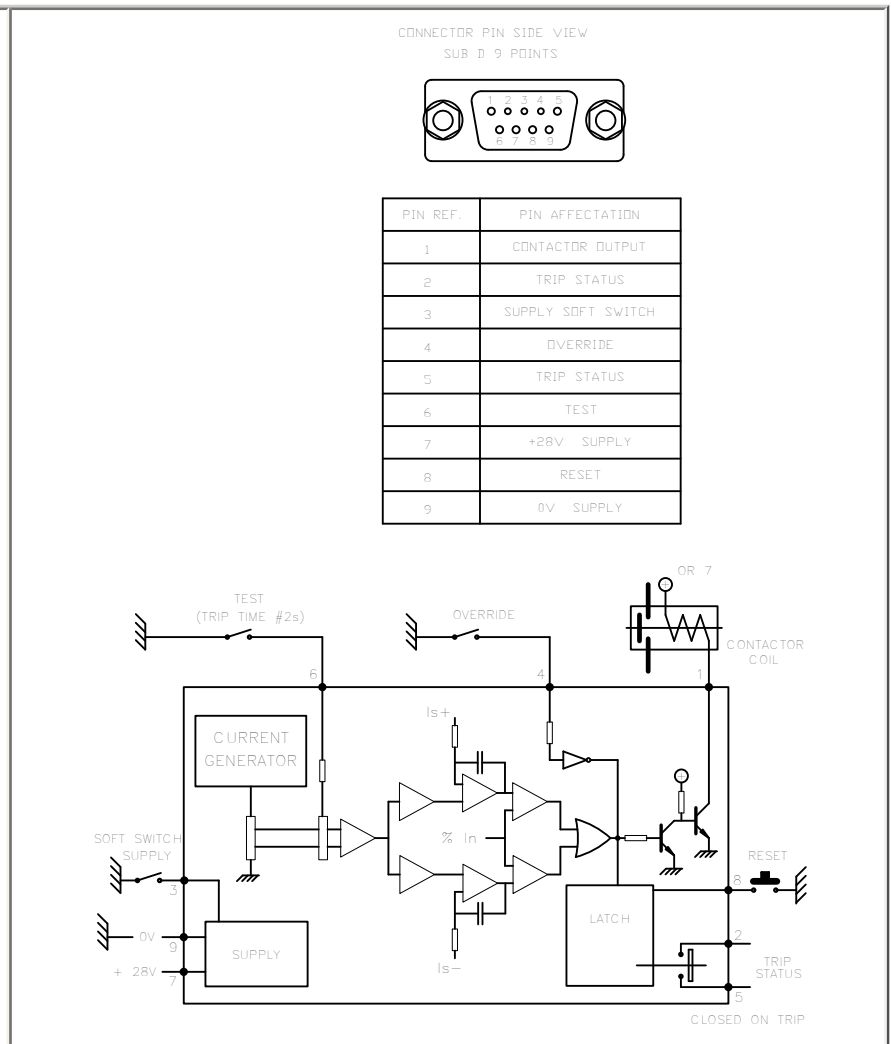
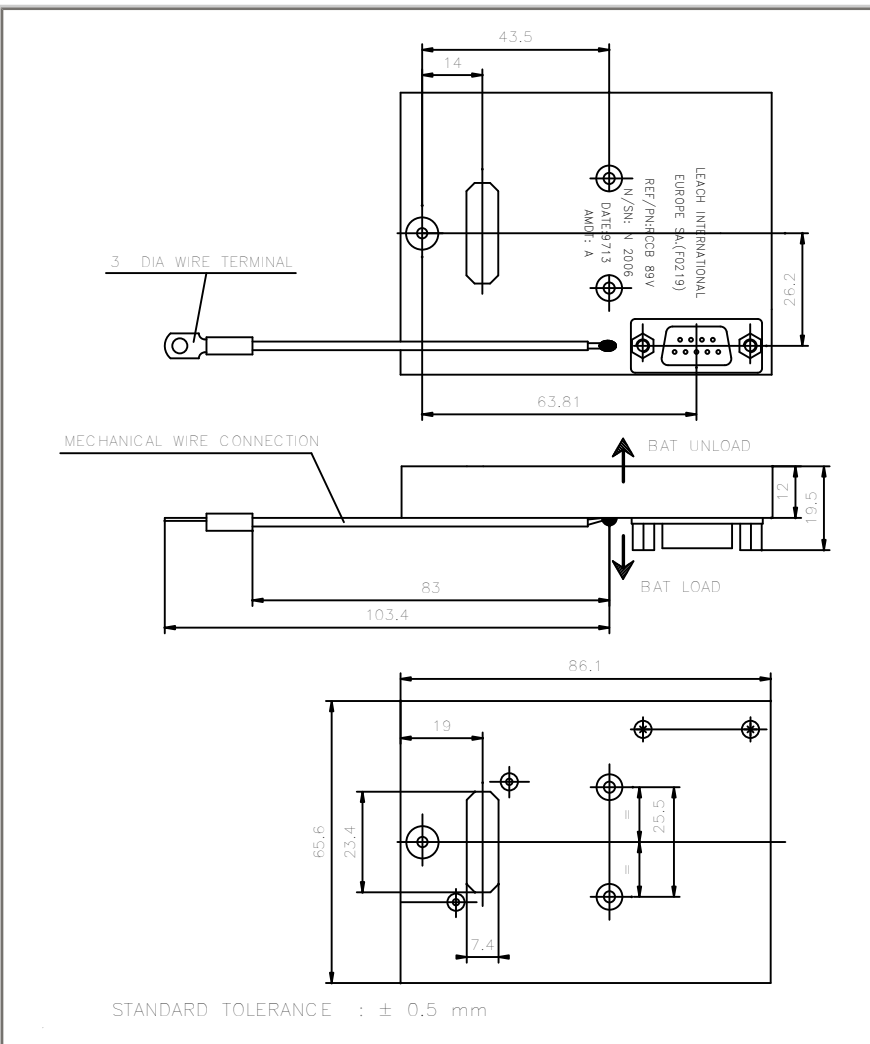
# ENVIRONMENTAL CONDITIONS

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Vibrations - Sinusoidal per MIL Std 202 Method 204 : 20-2000 Hz - Random 10-2000 Hz	10 G 0.15 g <sup>2</sup> /Hz
Shock: Structure per MIL Std 202 method 213	30 G
Salt Spray: per MIL Std 202 method 101	96 H
Humidity: per MIL Std 202 method 106 - HR 95%	240H
Altitude	45000 ft max.
Voltage spikes: DO160 section 17 category A	
Audio frequency conducted susceptibility: DO160 section 18 category Z	
Induced signals: DO160 section 19 category Z	
Radio frequency: DO160 section 20 category W	
Lightning: DO160 section 22 category B2F2. (B4F4 with additional module)	

## MOUNTING

## SCHEMATIC AND WIRING DIAGRAM



## NUMBERING SYSTEM

CSHPB XXX
-----Specific number for your application (consult factory).
-----Basic family current sensor for protection bi-directional