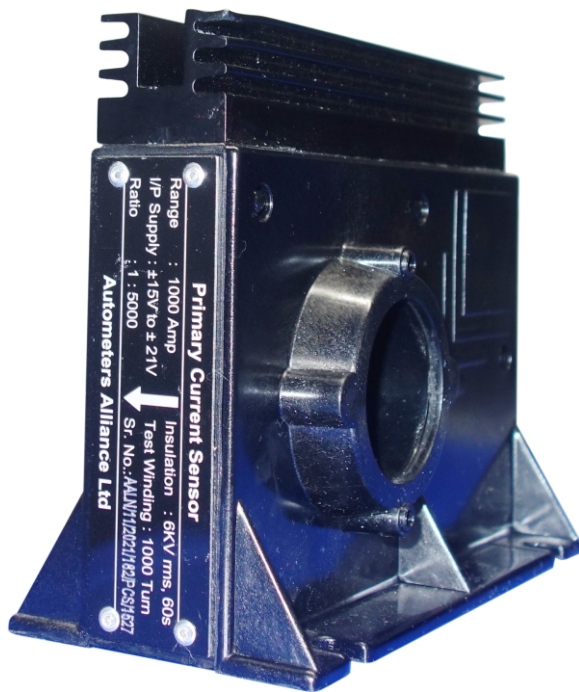




AAL[®]
Autometers Alliance Ltd

PRIMARY CURRENT SENSOR

Hall Effect for Electric Locomotives



Technical Features

- Very compact & light weight than conventional CT & Shunt
- Can measure DC, AC and impulse/surge current
- Measuring range of the current 0 to ± 1500 Amp
- Conversion ratio of primary and secondary is 1 : 5000
- Conversion ratio of primary and test circuit is 1 : 1000
- Measuring accuracy better than ± 0.3 %
- Linearity is better than ± 0.1 %
- Zero offset current within ± 0.4 mA
- Measurement response time is better than 1μ s
- Operating bandwidth 0 to 100Khz (-1db)
- Dielectric Isolation of primary & secondary 9KVAC
- Operating temperature -30°C to $+70^{\circ}\text{C}$

Hall effect principle based Current Transducer, specifically made to work in extreme atmosphere of traction application. Its measuring secondary circuit is galvanically isolated with primary circuit.



Applications

To measure the current (DC, AC and pulsating upto 100Khz) accurately in high power circuit of 3Phase, 6000HP, WAG-9 class of Locomotives for 25KVAC, 50Hz system.

Technical Specifications

Nominal Primary Current	1000A rms
Nominal out put current	200mA rms
Measuring range	0 to ± 1500 Amp.
Conversion ratio of primary & secondary	1 : 5000.
Input Power supply Voltage	+ 15VDC to + 21VDC and -15VDC to -21VDC
Measurement accuracy	$\pm 0.3\%$ of Input current
Linearity in measurement	Better than $\pm 0.1\%$
Zero Offset current	Max. ± 0.4 mA
Response time	Better than 1us
Bandwidth	0 - 100Khz (-1db)
di/dt response	Better than 50A / μ s
Current consumption	25mA + out put current
Dielectric Isolation Primary & secondary	6.0 KV AC 50Hz
Operating temperature	-30°C to +70°C.
Test Winding Ratio	1: 1000
Approximate weight	1.0Kg
Compliance Standards and	IEC 60571, IEC61373, IS 11731 Part I & II, CLW specification CLW/ES/3/0084reference specification



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