

Through Hole Current Sense Transformers

VDE Approved



- Meet IEC950 insulation requirements
- 4250V_{RMS} primary to secondary breakdown voltage
- Frequency range 10kHz to 200kHz

Electrical Specifications @ 25°C - Operating Temperature -40°C to +130°C

Part Number	I _{PK} (Amps)	R _T (Ω)	Droop (%)	K _{VI} (Volt/Amp)	L _S (mH MIN)	DCR R _S (ΩMAX)	Turns (N _S ± 1%)	K _B	K _{CL}	R _{EO} (mΩ)
PE-67050NL	35	15	2.4	0.30	5.0	0.70	50	.269 x 10 ⁶	51.2 x 10 ⁻⁶	.95
PE-67100NL	37	56	2.2	0.56	20	1.40	100	.0671 x 10 ⁶	1.56 x 10 ⁻⁶	.85
PE-67200NL	38	200	2.0	1.00	80	4.50	200	.0168 x 10 ⁶	47.3 x 10 ⁻⁹	.82
PE-67300NL	37	510	2.2	1.70	180	11.0	300	.00746 x 10 ⁶	6.13 x 10 ⁻⁹	.84

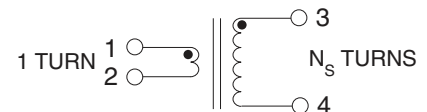
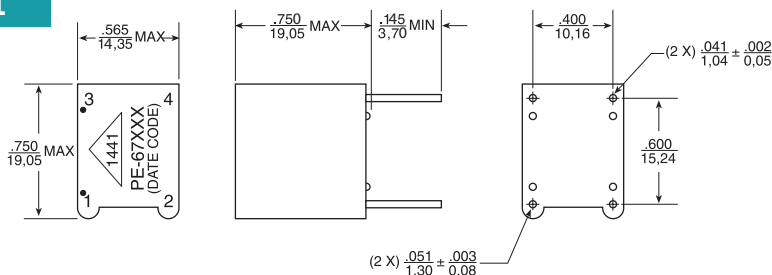
Notes:

- These current sense transformers have a 1 turn primary winding, secondary turns (N_S) as indicated in the table, and a 130°C insulation system.
- The reference values are for unipolar operation, 50kHz, 40% duty factor, and an estimated 55°C temperature rise.
- The maximum useable peak sense current (I_{PK}) depends on the temperature rise or core saturation, which should be evaluated for the operating conditions.
- These Current Sense Transformers are recommended for switch mode power supply applications, unipolar or bipolar, operating at frequencies from 10kHz to 200kHz.
- The maximum recommended operating flux density (B_{OP}) is 2000 gauss to prevent saturation at an operating temperature of 105°C.
- The core loss factor (K_{CL}) is valid from 10kHz to 200kHz at 105°C.
- The terminating resistor (R_T) may be varied to adjust operating flux (B_{OP}), droop, or scale factor (K_{VI}).
- The scale factor (K_{VI}) is proportional to the terminating resistor (R_T) and is equal to 1 volt/amp when R_T=N_S.
- The secondary inductance (L_S) is measured at 15kHz and .5V for PE-67050, 1V for PE-67100, 2V for PE-67200 and 3V for PE-67300.

Mechanical

Schematic

PE-XXXXNL



Parts per package80

Dimension: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are $\pm \frac{.010}{0.25}$

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