

# THT POWER INDUCTORS

## Toroid - Vertical, Low Profile and *KlipMount*™



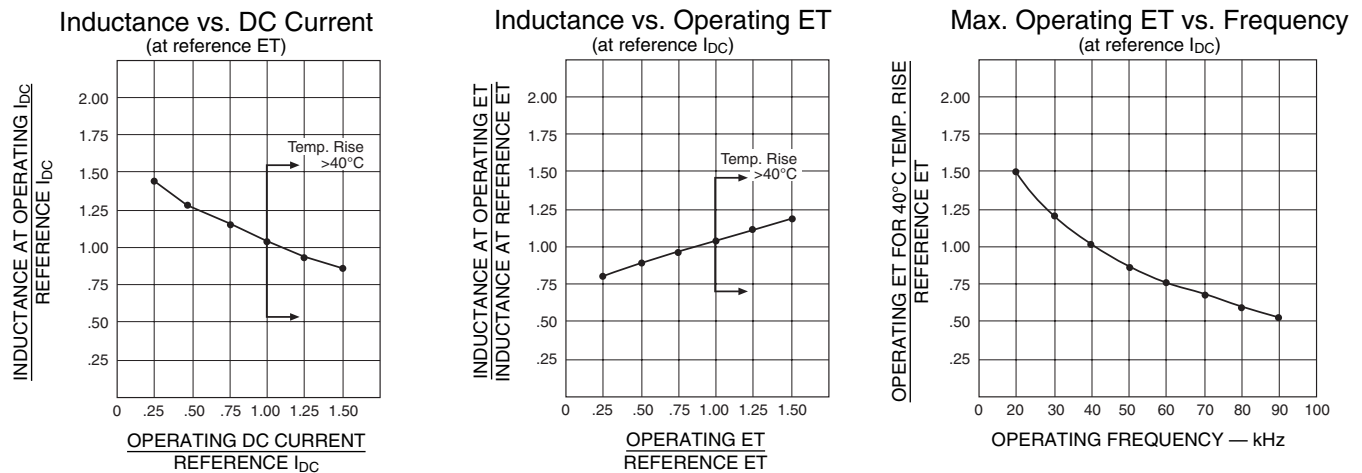
- Available in vertical, low profile and *KlipMount*™
- SMPS averaging filter
- Characterized for general purpose use and ripple filters
- Single-layer designs
- Can be used as differential mode inductors in EMI filters<sup>3</sup>

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

| REFERENCE OPERATING VALUES              |                               |                                            |                           |                              |                                        | DESIGN CONTROL VALUES            |                                        |                             |                      |                           |                                |
|-----------------------------------------|-------------------------------|--------------------------------------------|---------------------------|------------------------------|----------------------------------------|----------------------------------|----------------------------------------|-----------------------------|----------------------|---------------------------|--------------------------------|
| Vertical <sup>6</sup><br>Part<br>Number | Low Profile<br>Part<br>Number | Inductance <sup>1</sup><br>Typical<br>(μH) | I <sub>DC</sub><br>(AMPS) | ET <sub>OP</sub><br>(V-μSec) | Energy <sup>4</sup><br>Storage<br>(μJ) | Inductance<br>No DC (μH)<br>±20% | 20kHz<br>Test mV<br>No DC <sup>2</sup> | DCR <sup>5</sup><br>(Ω MAX) | Coil<br>Size<br>Code | Klip*<br>Mount<br>Package | Lead<br>Diameter<br>(In) ±.003 |
| PE-51591                                | —                             | 20                                         | 2.0                       | 52                           | 40                                     | 32.8                             | 33                                     | .060                        | H                    | —                         | .020                           |
| PE-92100                                | —                             | 25                                         | 2.6                       | 30                           | 85                                     | 20.7                             | 22                                     | .043                        | A                    | KM1                       | .020                           |
| PE-92101                                | PE-92401                      | 50                                         | 2.6                       | 50                           | 169                                    | 45.7                             | 45                                     | .071                        | B                    | KM2                       | .020                           |
| PE-92102                                | PE-92402                      | 100                                        | 2.6                       | 90                           | 338                                    | 94.1                             | 90                                     | .100                        | C                    | KM3                       | .020                           |
| PE-92103                                | —                             | 35                                         | 2.6                       | 55                           | 118                                    | 28.4                             | 36                                     | .037                        | B                    | KM2                       | .025                           |
| PE-92104                                | PE-92404                      | 70                                         | 3.0                       | 85                           | 315                                    | 61.0                             | 73                                     | .052                        | C                    | KM3                       | .025                           |
| PE-92105                                | PE-92405                      | 145                                        | 3.0                       | 140                          | 653                                    | 141.8                            | 140                                    | .087                        | D                    | KM4                       | .025                           |
| PE-92106                                | —                             | 285                                        | 3.0                       | 300                          | 1283                                   | 264.1                            | 340                                    | .140                        | E                    | KM5                       | .025                           |
| PE-92107                                | —                             | 450                                        | 3.0                       | 425                          | 2025                                   | 436.3                            | 500                                    | .200                        | F                    | —                         | .025                           |
| PE-92108                                | PE-92408                      | 67                                         | 3.6                       | 130                          | 648                                    | 90.7                             | 110                                    | .045                        | D                    | KM4                       | .032                           |
| PE-92109                                | —                             | 165                                        | 4.0                       | 240                          | 1320                                   | 152.0                            | 260                                    | .070                        | E                    | KM5                       | .032                           |
| PE-92110                                | —                             | 270                                        | 4.0                       | 350                          | 2160                                   | 263.9                            | 400                                    | .100                        | F                    | —                         | .032                           |
| PE-92111                                | —                             | 40                                         | 4.0                       | 70                           | 320                                    | 37.9                             | 57                                     | .027                        | C                    | KM3                       | .032                           |
| PE-51590                                | —                             | 22                                         | 5.0                       | 44                           | 275                                    | 20.3                             | 37                                     | .020                        | G                    | —                         | .032                           |
| PE-92112                                | PE-92412                      | 100                                        | 5.0                       | 200                          | 1250                                   | 90.7                             | 180                                    | .034                        | E                    | KM5                       | .042                           |
| PE-92113                                | —                             | 170                                        | 5.0                       | 300                          | 2125                                   | 159.7                            | 310                                    | .050                        | F                    | —                         | .042                           |
| PE-92114                                | PE-92414                      | 35.6                                       | 5.0                       | 100                          | 688                                    | 55.6                             | 88                                     | .023                        | D                    | KM4                       | .042                           |
| PE-92115                                | —                             | 95                                         | 7.0                       | 225                          | 2328                                   | 96.0                             | 200                                    | .025                        | F                    | —                         | .051                           |
| PE-92116                                | PE-92416                      | 55                                         | 7.0                       | 150                          | 1348                                   | 49.1                             | 100                                    | .017                        | E                    | KM5                       | .051                           |
| PE-92117                                | —                             | 55                                         | 10.0                      | 175                          | 2750                                   | 55.9                             | 120                                    | .013                        | F                    | —                         | .064                           |

\*Parts available with *KlipMount* option can be ordered by adding a "K" suffix to the part number (i.e. PE-92100K).

### Relationships Between Reference and Operating Conditions



# THT POWER INDUCTORS

## Toroid - Vertical, Low Profile and *KlipMount™*



### Mechanicals

- Base material meets flammability requirements of UL 94V-0
- Mechanically rigid mount
- PC board — automatic insertability
- Lowest cost

| Standard Package | A             | B             | C             | D             | E            |
|------------------|---------------|---------------|---------------|---------------|--------------|
|                  | Maximum       |               |               | Typical       |              |
| KM-1             | .340<br>8,64  | .580<br>14,73 | .650<br>16,51 | .29<br>7,37   | .110<br>2,79 |
| KM-2             | .450<br>11,43 | .650<br>16,51 | .700<br>17,78 | .325<br>8,26  | .150<br>3,81 |
| KM-3             | .450<br>11,43 | .850<br>21,59 | .950<br>24,13 | .415<br>10,54 | .150<br>3,81 |
| KM-4             | .620<br>15,50 | .970<br>24,64 | 1.10<br>27,94 | .475<br>12,07 | .225<br>5,72 |
| KM-5             | .700<br>17,78 | 1.30<br>33,02 | 1.40<br>35,56 | .625<br>15,88 | .250<br>6,35 |

**Note:** Units with large wire sizes may exceed B dimension.  
*KLIPMOUNT™* is a trademark of Pulse Engineering, Inc.

**Dimensions:**  $\frac{\text{Inches}}{\text{mm}}$  Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0,25}$

| Coil Size | P (MAX)        | N (MAX)       | L (+.125/-.025) | M             | K                            |
|-----------|----------------|---------------|-----------------|---------------|------------------------------|
| A         | .550<br>13,97  | .250<br>6,35  | .375<br>9,53    | .180<br>4,57  | —                            |
| B         | .700<br>17,78  | .380<br>9,65  | .375<br>9,53    | .280<br>7,11  | .530 ± .050<br>13,46 ± 1,27  |
| C         | .850<br>21,59  | .410<br>10,41 | .375<br>9,53    | .280<br>7,11  | .720 ± .050<br>18,29 ± 1,27  |
| D         | 1.050<br>26,67 | .550<br>13,97 | .375<br>9,53    | .400<br>10,16 | .840 ± .020<br>21,24 ± 0,51  |
| E         | 1.400<br>35,56 | .700<br>17,78 | .375<br>9,53    | .500<br>12,7  | 1.100 ± .100<br>27,94 ± 2,54 |
| F         | 1.650<br>41,91 | .700<br>17,78 | .375<br>9,53    | .500<br>12,7  | —                            |
| G         | .850<br>21,59  | .330<br>8,38  | .875<br>22,23   | .330<br>8,38  | —                            |
| H         | .640<br>16,26  | .280<br>7,11  | .875<br>22,23   | .280<br>7,11  | —                            |

#### NOTES:

1. Typical Inductance occurs at  $I_{DC}$  and  $E_{TOP}$  values shown.
2. Design control test voltage is critical. Inductance increases with voltage.
3. For line filter applications, RMS line current is limited to specified reference DC Current.
4.  $\frac{LI^2}{2}$  rating is the ability of the inductor to store energy.
5. DCR for vertical part measured close to coil. Add 10% more for low profile part.
6. RoHS compliant parts are available. Order RoHS compliant parts by adding the suffix "NL" to the part number (i.e. PE-51591 becomes PE-51591NL).

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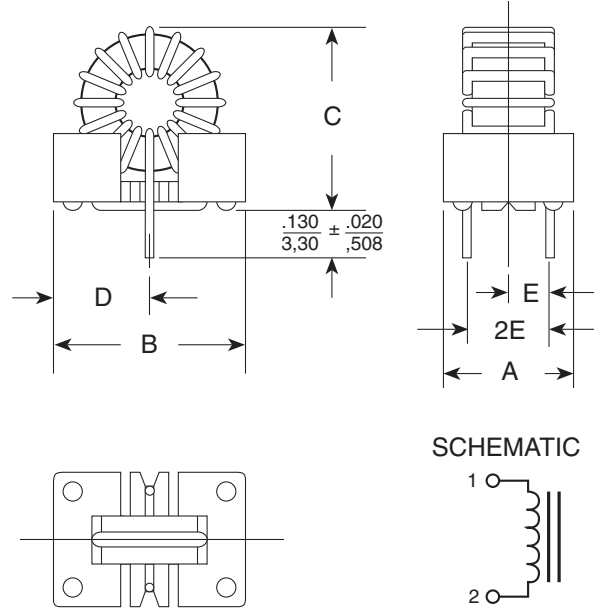
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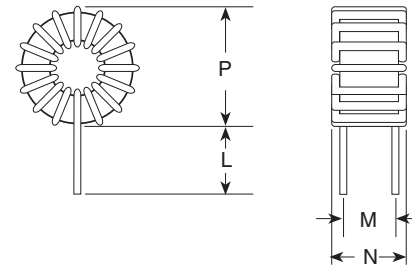
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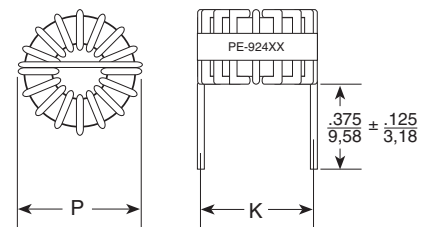
### *KlipMount™* Package



### Vertical Package



### Low Profile Package





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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