

Common Mode Choke 22 mm Toroid

POWER MAGNETICS

(CMT02212 Series)

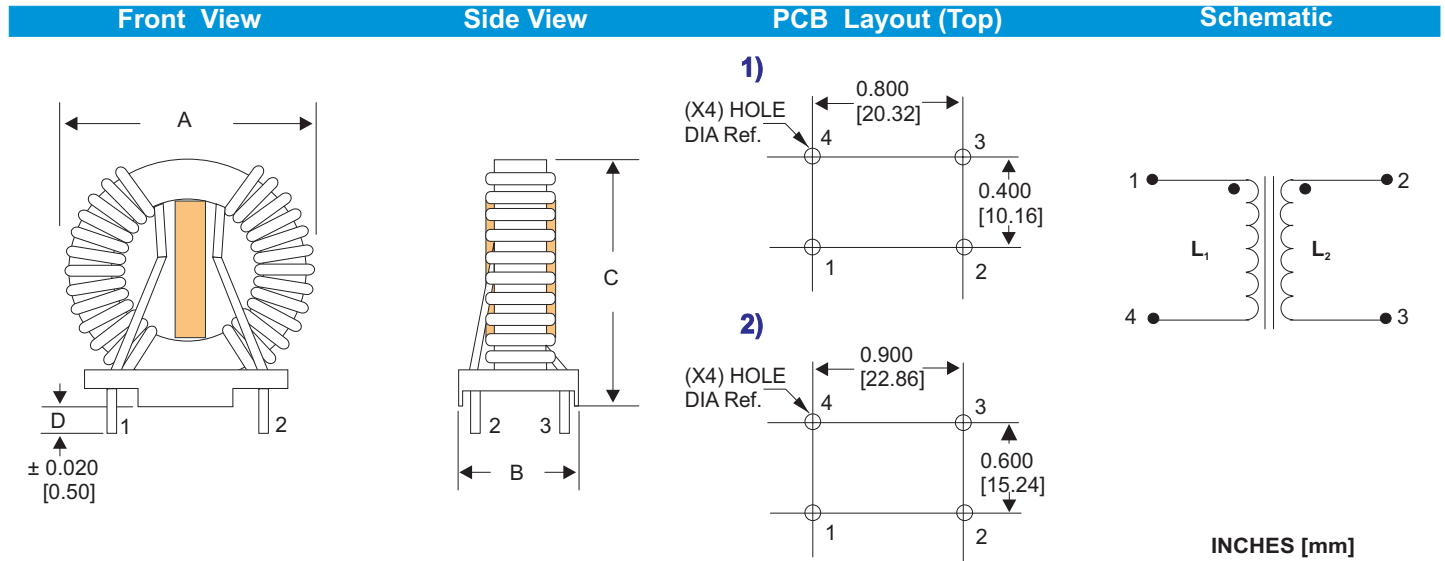
FALCO
electronics



MAX. DIM :
L = 31.75 mm
W = 24.13 mm
H = 33.02 mm

- Frequency range from 50 KHz to 500 KHz.
- Current ratings available up to 27.26 Amps
- Double stack core sized.
- Inductance values available from 0.10 mH to 12.28 mH
- Excellent coupling leakage factor and mode attenuation.
- 3 mm of creepage between windings.
- Parts meet UL, IEC & VDE safety standards.

MECHANICAL SPECIFICATIONS



ELECTRICAL SPECIFICATIONS

| FALCO PART NUMBER | L(mH) ¹ min. | Freq. (KHz) | DCR (max.) | I _{rms} (Amp) ² max. | A max. in / mm | B max. in / mm | C max. in / mm | D nom. in / mm | Hole Dia. in / mm | PCB LAYOUT |
|-------------------|----------------------------|----------------|----------------|---|-------------------|-------------------|-------------------|-------------------|----------------------|---------------|
| T87008 | 1.800 | 1.0 | 0.0850 | 3.50 | 1.250 / 31.75 | 0.700 / 17.78 | 1.100 / 27.94 | 0.250 / 6.35 | 0.052 / 1.32 | 1 |

* EITHER TIE WRAP CORD OR PAPER PHENOLIC
COULD BE USED AS SPACER.

1. Inductance tested at 0.25 V.
2. Temperature rise is 40°C Typ.
3. Operating Temp. range -40° to +105°C.
4. OCL and DCR tested at Ta=25°C.
5. These Items are wound on more than one Single Layer.

Continuation...

5K PERMEABILITY TYPE- SINGLE LAYER WINDING

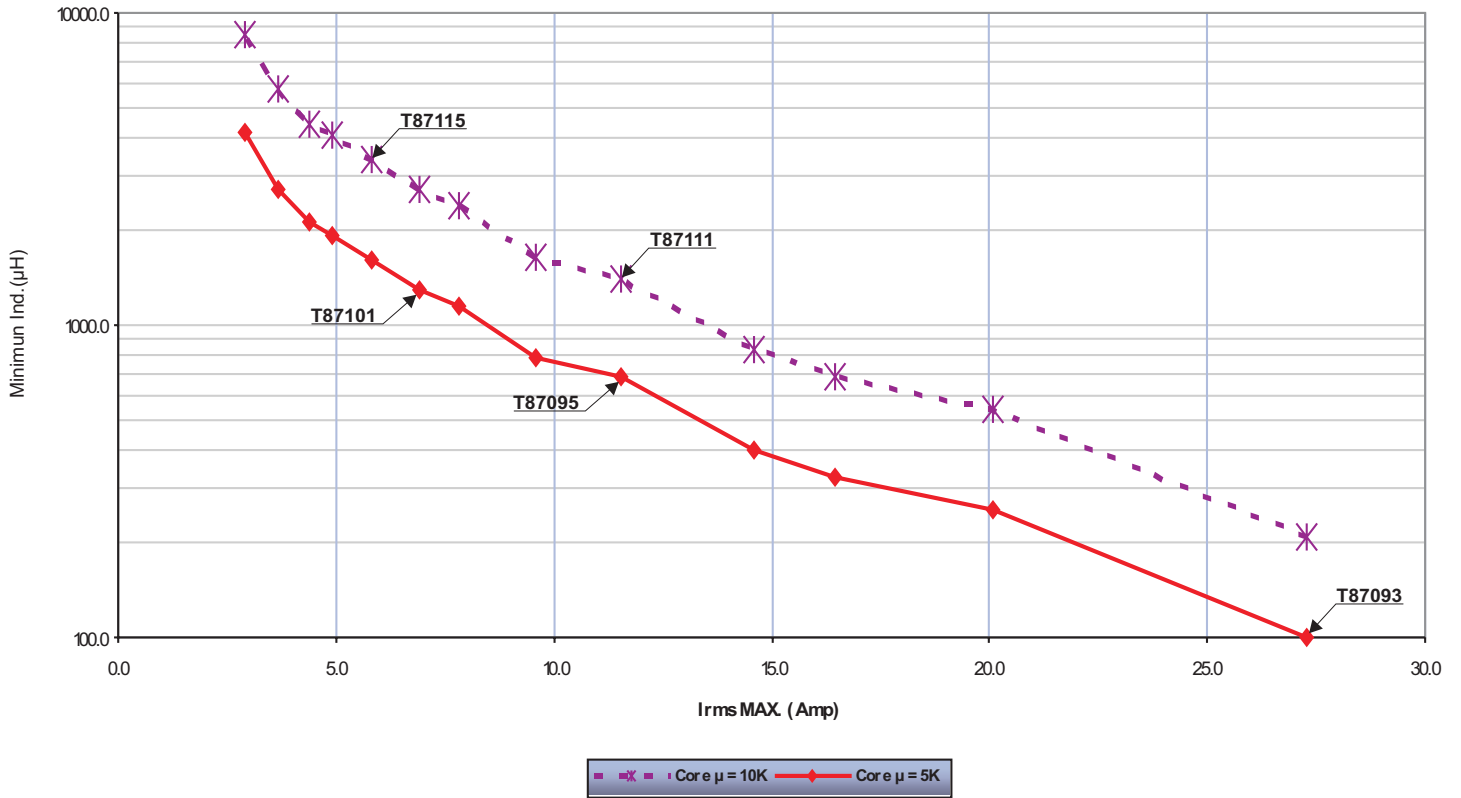
| FALCO PART NUMBER | L(mH) ¹ min. | Freq. (KHz) | DCR (mΩ) NOM. | I _{rms} (Amp) ² max. | A max. in / mm | B max. in / mm | C max. in / mm | D nom. in / mm | Hole Dia. in / mm | PCB LAYOUT |
|-------------------|----------------------------|----------------|------------------|---|-------------------|-------------------|-------------------|-------------------|----------------------|---------------|
| T87093 | 0.1005 | 10 | 1.52 | 27.3 | 1.100 / 27.94 | 0.950 / 24.13 | 1.300 / 33.02 | 0.250 / 6.35 | 0.082 / 2.08 | 2 |
| T87094 | 0.2572 | 10 | 2.80 | 20.1 | 1.100 / 27.94 | 0.950 / 24.13 | 1.300 / 33.02 | 0.250 / 6.35 | 0.074 / 1.88 | 2 |
| T87095 | 0.3255 | 10 | 4.17 | 16.5 | 1.100 / 27.94 | 0.950 / 24.13 | 1.300 / 33.02 | 0.250 / 6.35 | 0.067 / 1.70 | 2 |
| T87096 | 0.4018 | 10 | 5.31 | 14.6 | 1.100 / 27.94 | 0.950 / 24.13 | 1.300 / 33.02 | 0.250 / 6.35 | 0.061 / 1.55 | 2 |
| T87097 | 0.6790 | 10 | 8.50 | 11.5 | 1.100 / 27.94 | 0.950 / 24.13 | 1.300 / 33.02 | 0.250 / 6.35 | 0.055 / 1.40 | 2 |
| T87098 | 0.7875 | 10 | 12.24 | 9.6 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.050 / 1.02 | 2 |
| T87099 | 1.1612 | 10 | 18.48 | 7.8 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.046 / 1.17 | 2 |
| T87101 | 1.3018 | 10 | 23.60 | 6.9 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.042 / 1.07 | 2 |
| T87102 | 1.6072 | 10 | 33.15 | 5.8 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.038 / 0.97 | 2 |
| T87103 | 1.9447 | 10 | 46.44 | 4.9 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.035 / 0.89 | 2 |
| T87104 | 2.1255 | 10 | 58.92 | 4.4 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.032 / 0.81 | 2 |
| T87105 | 2.7162 | 10 | 83.53 | 3.7 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.030 / 0.76 | 2 |
| T87106 | 4.1144 | 10 | 132.40 | 2.9 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.028 / 0.711 | 2 |

10K PERMEABILITY TYPE- SINGLE LAYER WINDING

| FALCO PART NUMBER | L(mH) ¹ min. | Freq. (KHz) | DCR (mΩ) NOM. | I _{rms} (Amp) ² max. | A max. in / mm | B max. in / mm | C max. in / mm | D nom. in / mm | Hole Dia. in / mm | PCB LAYOUT |
|-------------------|----------------------------|----------------|------------------|---|-------------------|-------------------|-------------------|-------------------|----------------------|---------------|
| T87107 | 0.2100 | 10 | 1.52 | 27.3 | 1.100 / 27.94 | 0.950 / 24.13 | 1.300 / 33.02 | 0.250 / 6.35 | 0.082 / 2.08 | 2 |
| T87108 | 0.5376 | 10 | 2.80 | 20.1 | 1.100 / 27.94 | 0.950 / 24.13 | 1.300 / 33.02 | 0.250 / 6.35 | 0.074 / 1.88 | 2 |
| T87109 | 0.6804 | 10 | 4.17 | 16.5 | 1.100 / 27.94 | 0.950 / 24.13 | 1.300 / 33.02 | 0.250 / 6.35 | 0.067 / 1.70 | 2 |
| T87110 | 0.8400 | 10 | 5.31 | 14.6 | 1.100 / 27.94 | 0.950 / 24.13 | 1.300 / 33.02 | 0.250 / 6.35 | 0.061 / 1.55 | 2 |
| T87111 | 1.4196 | 10 | 8.50 | 11.5 | 1.100 / 27.94 | 0.950 / 24.13 | 1.300 / 33.02 | 0.250 / 6.35 | 0.055 / 1.40 | 2 |
| T87112 | 1.6464 | 10 | 12.24 | 9.6 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.050 / 1.02 | 2 |
| T87113 | 2.4276 | 10 | 18.48 | 7.8 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.046 / 1.17 | 2 |
| T87114 | 2.7216 | 10 | 23.60 | 6.9 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.042 / 1.07 | 2 |
| T87115 | 3.3600 | 10 | 33.15 | 5.8 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.038 / 0.97 | 2 |
| T87116 | 4.0656 | 10 | 46.44 | 4.9 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.035 / 0.89 | 2 |
| T87117 | 4.4436 | 10 | 58.92 | 4.4 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.032 / 0.81 | 2 |
| T87118 | 5.6784 | 10 | 83.53 | 3.7 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.030 / 0.76 | 2 |
| T87119 | 8.6016 | 10 | 132.40 | 2.9 | 1.100 / 27.94 | 0.930 / 23.62 | 1.300 / 33.02 | 0.250 / 6.35 | 0.028 / 0.711 | 2 |

1. Inductance tested at 0.25 V.
2. Temperature rise is 40°C Typ.
3. Operating Temp. range -40° to +105°C.
4. OCL and DCR tested at Ta=25°C.

**Minimum Inductance vs Rms Current Max.
for the Same Core Size**



Core Size (mm)

| $\mu = 10K$ | $\mu = 5K$ |
|-------------|------------|
| OD = 22 | OD = 22 |
| ID = 14 | ID = 14 |
| HT = 12.7 | HT = 12.7 |