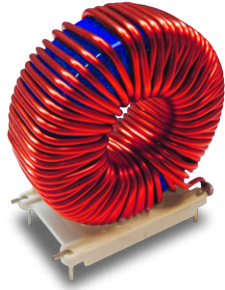


PFC Inductor Series

Power Factor Correction



- Available for use in power ratings from 200W to 1000W.
- Operate with controllers from several IC manufacturers.
- Range from 1000 μ H to 100 μ H under full load, and are designed for 100kHz operation.
- Designed using the industry standard input voltage range 85VAC - 385VAC at 50/60Hz.
- Use a toroidal geometry to allow the use of thicker wire to decrease DC resistance and yield higher current capacity.
- Use industry standard vertical through-hole mounting configurations and have an operating temperature range of -20°C to +105°C.

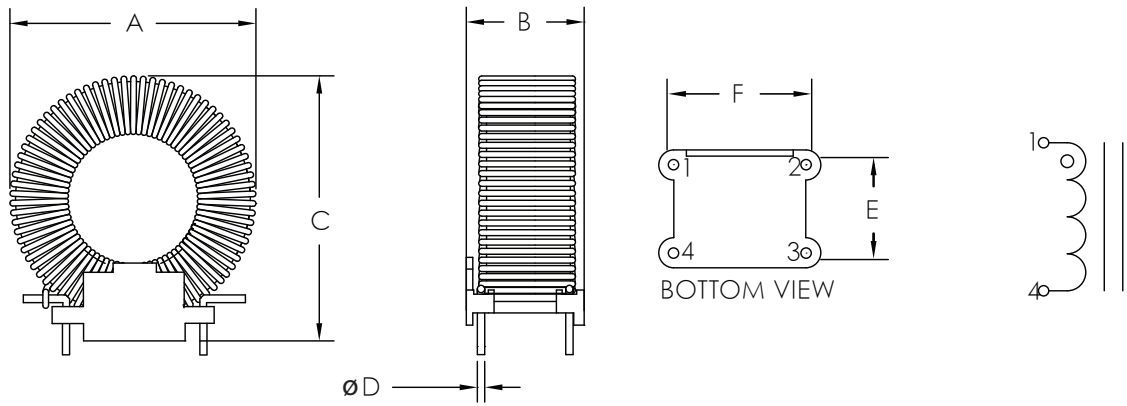


Electrical Characteristics

Part Number	Output Power (Watts)	Inductance @ 0A (μ H)	Inductance @ I _{peak} (μ H) Min	I _{rms} (Amps)	I _{ripple, p-p} (Amps)	I _{peak} (Amps)	DCR Max
PFC-01101-00	200	1980	747	2.6	1.1	4.2	0.40
PFC-01102-00	300	810	411	3.9	1.6	6.2	0.30
PFC-03100-00	500	660	350	6.1	—	10.0	0.05
PFC-03301-00	600	580	278	7.5	—	12.25	0.05
PFC-05100-00	1000	300	131	12.7	—	20.8	0.015

Physical Dimension

Mechanical

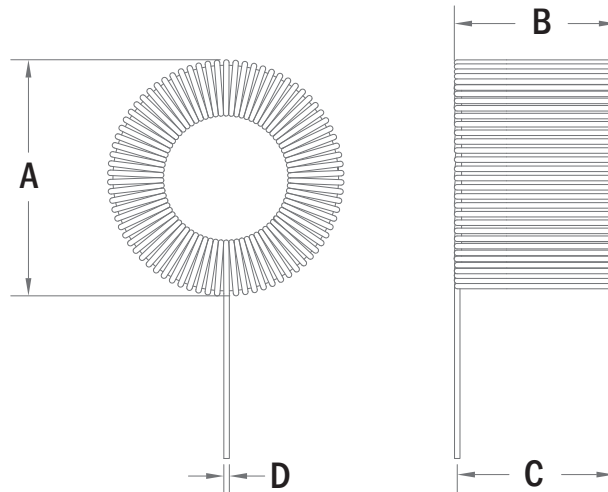


Unit: mm

Part Number	A (max)	B (max)	C (max)	D $\pm .005$	E $\pm .005$	F $+.015/ .005$
PFC-01101-00	42.5	20.3	45.0	1.3	15.2	22.9
PFC-01102-00	42.5	20.3	45.0	1.3	15.2	22.9
PFC-03100-00	54	29.9	55.9	1.3	22.9	38.1
PFC-03301-00	54	25.9	55.9	1.3	22.9	38.1

Physical Dimension

Mechanical



Unit: mm

Part Number	A (max)	B (max)	C (ref)	D (ref)
PFC-05100-00	61	42	35.5	3.05

General Information

Precision works with its customers to optimize a PFC solution for any specific application. In many cases, audible noise is not a problem. For example, when the power supply is housed in an enclosure with forced air, the PFC Inductor noise is not detectable and allows a lower cost solution. Also, if size is not the highest priority, there are many available options.

Precision can provide additional windings on the PFC Inductor to supply power for the PFC control circuitry. Using a voltage doubler circuit with this bias winding provides a semi regulated output that is quite stable over the entire duty cycle range.

Power factor is the ratio of the real power to apparent power. Power factor can vary between 0 and 1, and can be either inductive (lagging, pointing up) or capacitive (leading, pointing down). In order to reduce a capacitive (or leading) power factor, an inductor is added to make the power factor equal 1. The whole purpose of making the power factor equal to one is to make the circuit look purely resistive (apparent power equal to real power).