

Standard inductors for active PFCs are the most immediate solution for the PFC pre-regulators design.

They are usually in stock and they are best suited to a wide range of needs, covering the whole power range where the TM mode is the most effective solution. They have been designed for "Transition mode" PFCs (TM, sometimes called "Boundary" or "Critical" mode), however they are often also used in "Continuous mode" PFCs (CCM) with moderate power.

The multiple inductor is a component with various inductance values and consequent operating frequencies, allowing a flexible use in both applications and test environments.

Any other PFC inductor can be supplied as custom product, we also design inductors for continuous mode (CCM) PFC.

Our experience and proprietary softwares enable a fast service and an accurate design allowing

- Excellent power/dimensions ratio .
- Low losses, with benefits on temperature and efficiency.
- use with all popular PFC controllers.
- use for both World-Wide or European mains voltage ranges.

For a customized design of PFC inductors, please, request and fill in the [PFC Inductor Request form](#)



Our PFC Inductors have been successfully used with all the most common PFC controllers*:



L6585
L6561
L6562x
L6563x
L6564
L4981x



FAN7930
FAN7530
FAN7527B
FAN7529
FAN6961
FAN9611
FAN9612



TEA19162T
TEA1755x
TEA1742T
TEA1751x
TEA1752x
TEA1713T
TEA1716T
SSL4120T



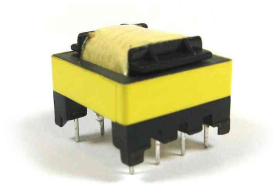
UCC28060
UCC28061
UCC28064A
UCC28063A
UCC28063
UCC28061-Q1
UCC28061
UCC28060
UCC28056
UCC38051
UCC28051
UCC38050
UCC28050
UC3852
UC2852



NCP1601x
NCP1607x
NCP1608x
NCP1631x
MC33262x
MC34262x
MC33368x

*All brands and trademarks mentioned are property of their respective owners.

- **Inductors for active PFC Transition-Critical-Boundary Mode**
- Suited for PFC converters based on the chips shown in the introduction page
- Excellent power/dimensions ratio
- Low power loss for high PFC efficiency and negligible inductance drop for best THD
- Suitable for Wide range and European range mains voltage
- Auxiliary winding for bias and zero current detect
- Also suitable for buck and boost converters
- Custom versions on request



Code	Inductance ¹	DCR Typ @20 °C Main winding	DCR Typ @20 °C Aux winding	Main/Aux Turns ratio	Main/Aux Dielectric Strength
SFLE2001	610 μH	690 mΩ	425 mΩ	10:1	1,0KV

Dimensions	mm	Layout (bottom view)	Drawing	.stp file Download
A max	22,2			
B max	21,5			
H max	16,6			
X typ	5,0			
Y typ	15,0			
L min	2,5			
D typ (∅)	0,7			

PFC inductor selection table for Transition Mode - Critical Mode - Boundary Mode pre-regulators

mains voltage range (50-60Hz)	Max Output Power ²	Output Voltage Range
85...264Vac	50W	395...450Vdc
180...264Vac	100W	395...450Vdc

The PCB layouts are referred to the standard products. The same are strongly suggested for customized products too.

- Our experience and proprietary software allow an optimal inductor design, considering skin effect, proximity effect, and actual core loss in spite of the complex current wave shape. This allows the best efficiency, size and so on.
- For customized products, fill in the "PFC inductor request form", we will support you for the best inductor definition, considering every detail including skin effect, proximity effect and size.
- Windings temperature should not exceed 100°C continuous, 115°C for brief times.

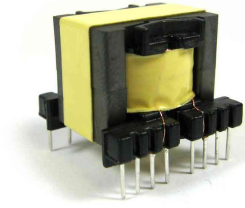
¹ Tolerances ±10% - Measured @10KHz-100mV

² Referred to 40°C max ambient temperature. Dependently to working conditions, actual max power could be higher than rated. Working with actual output power very lower than rated in combination with some input/output voltages, the power factor correction could result unsatisfactory. Contact our technical service for more info. Output power is related to each inductor (doubled on two phase interleaved configuration).

^{nb} The necessary tests and verifications of compliance with the technical and safety standard requirements lie within the exclusive competence of the customer.

SFL series - PFC inductors - transition mode 95-170W

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Code	Inductance ¹	DCR Typ @20°C Main winding	DCR Typ @20°C Aux winding	Main/Aux Turns ratio	Main/Aux Dielectric Strength
SFLPQ201601	330 µH	335 mΩ	295 mΩ	10:1	1,0KV

Dimensions	mm	Layout (bottom view)	Drawing	.stp file Download
A max	24,5			
B max	24,2			
H max	20,3			
X typ	5,0			
X1 typ	3,8			
X2 typ	2,5			
X3 typ	20,2			
X4 typ	20,0			
Y typ	20,3			
L min	3,0			
D typ (Ø)	0,6			

PFC inductor selection table for Transition Mode - Critical Mode - Boundary Mode pre-regulators

mains voltage range (50-60Hz)	Max Output Power ²	Output Voltage Range
85...264Vac	95W	395...450Vdc
180...264Vac	170W	395...450Vdc

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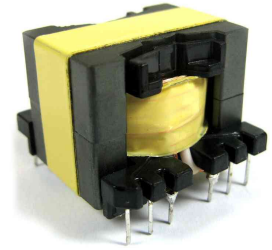
-Windings temperature should not exceed 100°C continuous, 115°C for brief times.

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Code	Inductance ¹	DCR Typ @20°C Main winding	DCR Typ @20°C Aux winding	Main/Aux Turns ratio	Main/Aux Dielectric Strength
SFLPQ262001	175 µH	105 mΩ	250 mΩ	8,5:1	1,0KV

Dimensions	mm	Layout (bottom view)	Drawing	.stp file Download
A max	28,0			
B max	30,5			
H max	21,8			
X typ	7,5			
X1 typ	3,8			
X2 typ	22,7			
Y typ	25,5			
L min	3,0			
D typ (Ø)	0,6			

PFC inductor selection table for Transition Mode - Critical Mode - Boundary Mode pre-regulators

mains voltage range (50-60Hz)	Max Output Power ²	Output Voltage Range
85...264Vac	200W	395...450Vdc
180...264Vac	400W	395...450Vdc

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