



- Low Profile, Small Size
- 100°C Baseplate Temperature
- High Power Density
- High Efficiency
- Suitable for conduction cooling

Key Market Segments & Applications

Custom Fanless Power Supplies

LED Signs Traffic Signalling Toll Equipment

Bulk DC Power for DC-DC Converters & POL Converters

PFE300-700 Series

300 to 714W AC-DC Power Module

PFE300-700 Features and Benefits

Features

- Low Profile
- High Efficiency
- Power Factor Corrected (PFC)
- Operation up to 100°C Baseplate

Benefits

- Assists System integration
- Easier to Cool
- Supports Global Use
- Operates in Harsh Environments

Specifications

ITEMS		MODEL	PFE300 PFE500	PFE700	PFE500F (Preliminary)
AC Input			VAC 85 to 265VAC, 47-63Hz (Operation to 440Hz possible(3))		
Input Current (100 / 220VAC)		A	4.0 / 2.0	8.8 / 4.4	6.8 / 3.4
Model dependant			6.2 / 3.2		
Inrush Current (100/200VAC) (1)		A	20 / 40 peak		
Power Factor			0.95 minimum		
Output Voltage Setpoint Accuracy		-	± 2%	± 1V	± 2%
Ripple and Noise (1)		-	1%	4V	1%
Over Current Protection		%	105 - 140% (Automatic Recovery)		
Over Voltage Protection		-	125 - 145%	60 - 69.6V	125 - 145%
Series Operation		-	Yes		
Parallel Operation		-	No	Yes (Droop mode)	Yes (Single wire)
Power On Signal (ENA)		-	Open collector (10mA sink current). Low (on) when output is present		
Auxiliary Supply		-	None	None	10 - 14V, 20mA
Remote On/Off (Opto isolated)		-	None	None	High = On
Overtemperature Protection			Yes		
Operating Baseplate Temp.		°C	-40 to +100°C (2)		
Storage Temperature		°C	-40 to +100°C		
Humidity (non condensing)			Operating: 20 - 95%RH, Non Operating: 10 - 95%RH		
Cooling			Conduction		
Withstand Voltage			Input to Output 3kVAC, Input to Baseplate 2.5kVAC, Output to Baseplate 1.5kVDC		
Isolation Resistance			Output to baseplate: 100M Ohm at 500VDC, 25°C ambient, 70%RH		
Vibration (non operating)			10-55Hz (1 min sweep), constant amplitude 0.825mm (max 49m/s ²), X, Y, Z 1 hour each		
Shock			196.1m/s ²		
Safety Certifications			UL60950-1, CSA60950-1 (cUL), EN60950-1, CE mark (LVD)		
Weight		g	250	250	300
Size (WxHxD)		mm in	61 x 12.7 x 116.8mm 2.4 x 0.5 x 4.6"		70 x 12.7 x 122mm 2.76 x 0.5 x 4.8"
Warranty		yrs	2 years		

Notes: (Consult Installation Manual for detailed specifications, test methods and application notes)

1) External components are required, consult Application Notes 2) PFE500-12 & PFE500F-12: -40 to 85°C. See instruction manuals for derating curves

3) Requires the use of an undervoltage relay or similar. Contact technical support

Model Selector

Model	Output Voltage (V)	Adjust. Range (V)	Maximum Current (A)	Maximum Wattage (W)	Load Reg. (mV)	Line Reg. (mV)	Efficiency typ (4)
PFE300-12	12	9.6 - 14.4	25	300	48	48	81 / 83
PFE500-12	12	9.6 - 14.4	33	396	48	48	82 / 83
PFE500F-12	12	9.6 - 14.4	42	504	48	48	81 / 83
PFE300-28	28	22.4 - 33.6	10.8	302	56	56	83 / 85
PFE500-28	28	22.4 - 33.6	18	504	56	56	84 / 86
PFE500F-28	28	22.4 - 33.6	18	504	56	56	84 / 86
PFE300-48	48	38.4 - 57.6	6.3	302	96	96	84 / 86
PFE500-48	48	38.4 - 57.6	10.5	504	96	96	84 / 86
PFE500F-48	48	38.4 - 57.6	10.5	504	96	96	84 / 86
PFE700-48	51	None	14	714	50 - 57V (5)		86 / 89

(4) 100 / 200VAC (5) Total regulation range

Options

Suffix	Description
Blank	M3 tapped mounting inserts (4)
/T	3.3mm non-threaded inserts (4)

Heatsink Table

Heatsink	Size (mm)	Thermal Resistance
HAF-10L	116.8 x 25.4 x 61	2.2°C/W
HAF-15L	116.8 x 38.1 x 61	1.9°C/W
HAF-15T	116.8 x 38.1 x 61	1.5°C/W

LAMBDA EUROPE

AUSTRIA

LAMBDA ELECTRONICS GmbH
Aredstraße 22
A-2544 Leobersdorf

Telephone: +43 (0) 2256 655 84
Facsimile: +43 (0) 2256 645 12
www.lambda-austria.com

FRANCE

LAMBDA SAS
ZAC des Delaches, BP1077 - Gometz le Chatel
91940 Les Ulis

Telephone: +33 (0) 1 60 12 71 65
Facsimile: +33 (0) 1 60 12 71 66
Web: www.lambda-f.com

GERMANY

LAMBDA GmbH
Karl-Bold-Straße 40
D-77855 Achern

Telephone: +49 (0) 78 41 666 0
Facsimile: +49 (0) 78 41 5000
Web: www.lambda-germany.com

ISRAEL

NEMIC LAMBDA LTD
Kibbutz Givat
Hashlosa 48800

Telephone: +972 (0) 3 902 4333
Facsimile: +972 (0) 3 902 4777
Web: www.nemic.co.il

ITALY

LAMBDA s.r.l.
Via dei Lavoratori 128/130,
20092, Cinisello Balsamo (Mi)

Telephone: +39 (0) 02 61 29 38 63
Facsimile: +39 (0) 02 61 29 09 00
Web: www.lambda-italy.com

SWEDEN

LAMBDA SCANDINAVIA
PO Box 546, Rallarvägen 41
SE-184 25. Akersberga

Telephone: +46 (0) 8 598 94 090
Facsimile: +46 (0) 8 540 66 096
Web: www.lambda-scandinavia.com

UK

LAMBDA UK
Kingsley Avenue
Ilfracombe Devon EX34 8ES

Telephone: +44 (0) 1271 856666
Facsimile: +44 (0) 1271 864894
Web: www.lambda-gb.com

LAMBDA NORTH AMERICA

visit www.lambda-power.com for a list of Lambda offices and distributors

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