

PAF500F

24V & 48V Input Full Brick DC-DC Converters

- 12V output for driving non-isolated converters
- Safety Approved
- Up to 80A output current (48V models)
- Full power at 100°C baseplate
- Opto Isolated Remote On / Off
- Wide Adjustable Output Range

Key Market Segments & Applications

Central Office:	ATM, Sonet, DSL, ISDN, Frame relay
Broadband:	Switching Equipment, Routers
Wireless/Cellular:	Micro Cells (larger in size/10 sq. mi.) Pico Cells (smaller in size/1 to 2 sq. mi.)
Remote Electronics:	Fixed Local Loop, Fiber Optic Transmission, Microwave Transmission, Wireless Local Loop
Customer Premise:	PBX, PABX, Datacomm, Voice Systems, Video Conferencing

PAF500F Features and Benefits

Features	Benefits
• Wide adjustment range	• Reduces need for custom modules
• Parallel Pin	• Modules can be connected together for higher current
• ASIC Design	• Reduced component count, increased MTBF
• No potting materials	• Lower weight

Specifications

ITEMS \ MODEL		PAF500F48-3.3	PAF500F48-5	PAF500F24-12 PAF500F48-12	PAF500F24-28 PAF500F48-28
Nominal Output Voltage	VDC	3.3	5	12	28
Output Current (Max)	A	80	80	42	18
Max Output Power	W	264	400	504	504
Efficiency (Typ)	%	78	83	89	90
Input Voltage range	VDC	36-76		19-36 or 36-76	18-36 or 36-76
Input Current (Typ) (24V/48V) A	7.3	10.4	24 / 12.2	23.8 / 12.1	
Output Voltage Accuracy	%	±1			
Output Voltage Adjustment	VDC	2 - 4	3 - 6	7.2 - 13.2	16.8 - 30.8
Max Ripple & Noise	mV	100	100	200	280
Max Line Regulation	mV	10	10	24	56
Max Load Regulation	mV	10	10	24	56
Overcurrent Protection	%	105 - 140%			
Overvoltage Protection	%	130-160	125-145	115-135	115-135
Signals & Control	-	Remote sense, remote On/Off, Parallel Pin, DC Good (12, 28V models), Adjustable OVP (3.3, 5V models), 7-10V Auxiliary voltage			
Operating Temperature	-	-40°C to +100°C baseplate			
Cooling	-	Conduction (See Installation Manual for heatsink selection)			
Isolation Voltage	VDC	Input - Baseplate 1500V, Input - Output 1500V, Output-Baseplate 500V			
Shock	-	196.1m/s^2			
Vibration	-	Non Operating, 10-55Hz (sweep for 1 min.)			
Amplitude	-	0.825mm constant (Max 49m/s^2) X, Y, Z 1 hour each			
Safety Agency Approvals	-	IEC/UL/CSA/EN62368-1, 60950-1, CE Mark			
Weight (Typ)	g	250			
Size (WxHxD)	in(mm)	2.4x0.5x4.6 (61x12.7x116.8) See outline drawing			
Warranty	-	2 years			

Notes: See Installation Manual for full details, test methods of parameters and application notes.

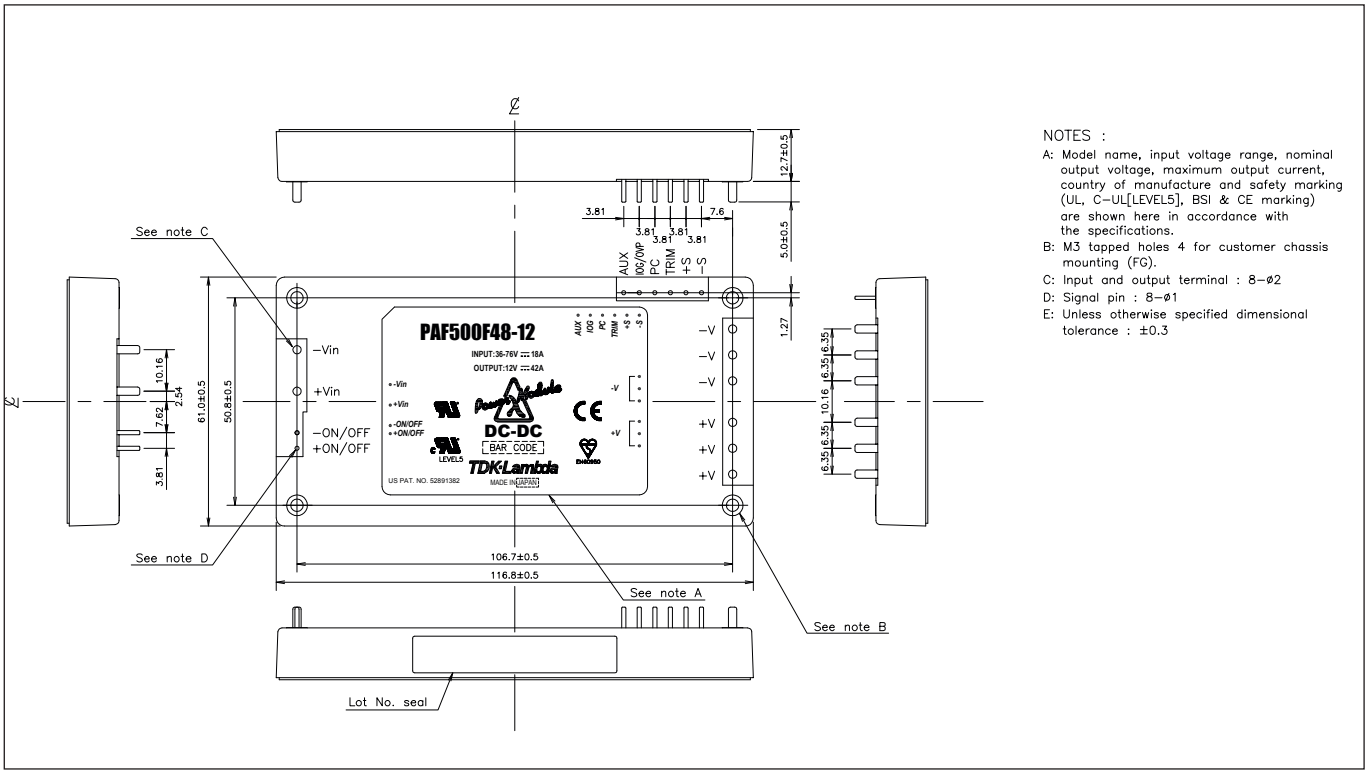
Pinout

Pin Description	Function
-Vin	Negative Input Terminal
+Vin	Positive Input Terminal
- ON/OFF	Remote On/Off negative terminal
+ON/OFF	Remote On/Off positive terminal
+V	Positive Output Terminal
-V	Negative Output Terminal
AUX	7-10V Aux voltage
IOG/OVP	DC Good / OVP adjustment
PC	Parallel control connection
TRIM	Output adjustment Trim pin
+S	Positive Remote sense
-S	Negative Remore sense

Options

Suffix	Description
Blank	
/T	No thread in mounting holes

Outline Drawing PAF500F

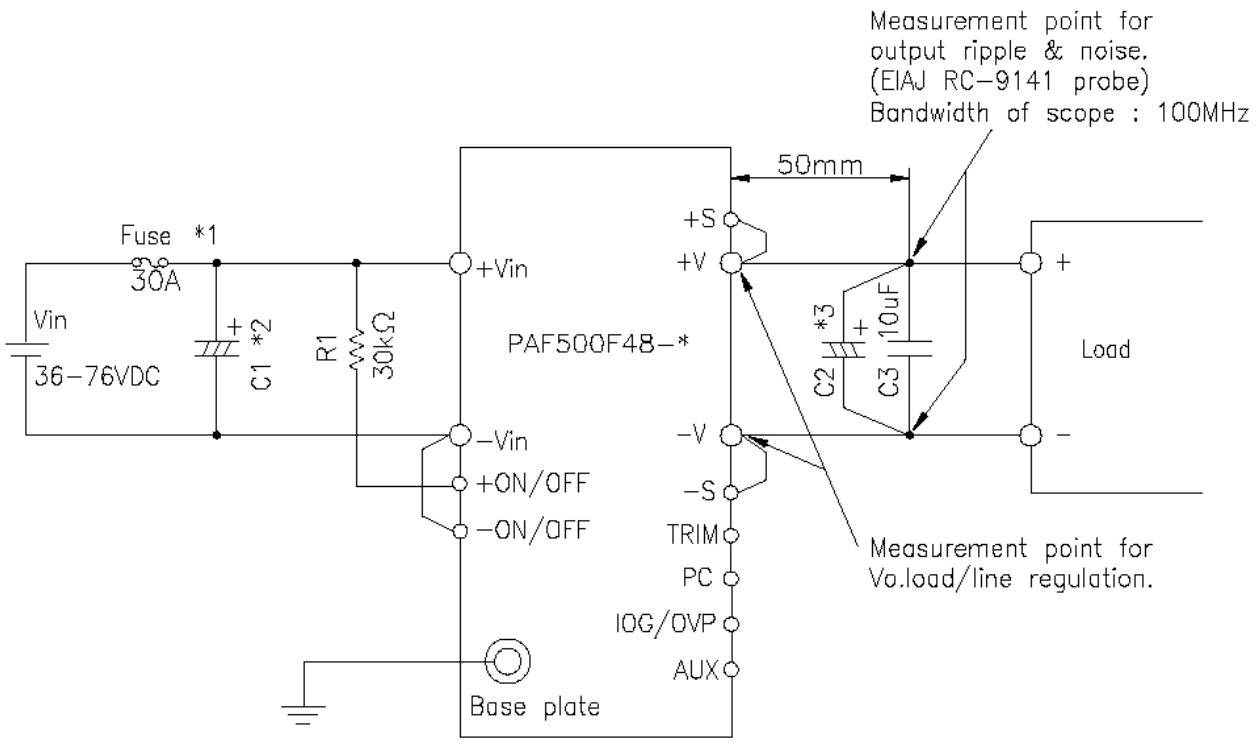


NOTES :
A: Model name, input voltage range, nominal output voltage, maximum output current, country of manufacture and safety marking (UL, C-UL[LEVEL5], BSI & CE marking) are shown here in accordance with the specifications.
B: M3 tapped holes 4 for customer chassis mounting (FG).
C: Input and output terminal : 8-ø2
D: Signal pin : 8-ø1
E: Unless otherwise specified dimensional tolerance : ±0.3

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

Connection Example



For full data and drawings please visit
www.emea.tdk-lambda.com/www/paf



TDK-Lambda France SAS
Tel: +33 1 60 12 71 65
tlf.fr.powersolutions@tdk.com
www.emea.lambda.tdk.com/fr



Italy Sales Office
Tel: +39 02 61 29 38 63
tlf.it.powersolutions@tdk.com
www.emea.lambda.tdk.com/it



Netherlands
tlf.nl.powersolutions@tdk.com
www.emea.lambda.tdk.com/nl



TDK-Lambda Germany GmbH
Tel: +49 7841 666 0
tlg.powersolutions@tdk.com
www.emea.lambda.tdk.com/de



Austria Sales Office
Tel: +43 2256 655 84
tlg.at.powersolutions@tdk.com
www.emea.lambda.tdk.com/at



Switzerland Sales Office
Tel: +41 44 850 53 53
tlg.ch.powersolutions@tdk.com
www.emea.lambda.tdk.com/ch



Nordic Sales Office
Tel: +45 8853 8086
tlg.dk.powersolutions@tdk.com
www.emea.lambda.tdk.com/dk



TDK-Lambda UK Ltd.
Tel: +44 (0) 12 71 85 66 66
tlu.powersolutions@tdk.com
www.emea.lambda.tdk.com/uk



TDK-Lambda Ltd.
Tel: +9 723 902 4333
tli.powersolutions@tdk.com
www.emea.lambda.tdk.com/il-en



TDK-Lambda Americas
Tel: +1 800-LAMBDA-4 or 1-800-526-2324
tla.powersolutions@tdk.com
www.us.lambda.tdk.com



TDK Electronics do Brasil Ltda
Tel: +55 11 3289-9599
sales.br@tdk-electronics.tdk.com
www.tdk-electronics.tdk.com/en



TDK-Lambda Corporation
Tel: +81-3-6778-1113
www.jp.lambda.tdk.com



TDK-Lambda (China) Electronics Co. Ltd.
Tel: +86 21 6485-0777
tlc.powersolutions@tdk.com
www.lambda.tdk.com.cn



TDK-Lambda Singapore Pte Ltd.
Tel: +65 6251 7211
tls.marketing@tdk.com
www.sg.lambda.tdk.com



TDK India Private Limited, Power Supply Division
Tel: +91 80 4039-0660
mathew.philip@tdk.com
www.sg.lambda.tdk.com