TDK·Lambda PAF-F280 Series

200V to 400VDC Input Full brick DC-DC Converters

Features

- Output Voltages from 7.2V to 57V
- 450W to 600W Output Power
- Current Share
- Operation to 100°C Baseplate
- Wide Adjustable Output Range
- Parallel Pin
- High Efficiency - up to 91%



Key Market Segments & Applications

Industrial COTS Test COMM

RoHS

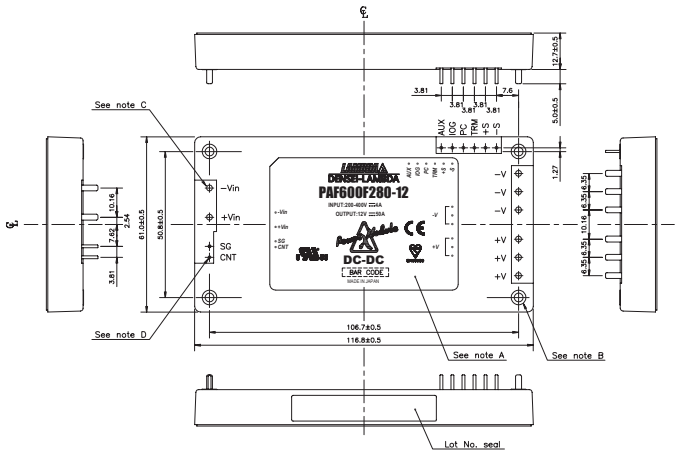
Specifications

Model			PAF450F280-12 PAF600F280-12	PAF450F280-24 PAF600F280-24	PAF450F280-28 PAF600F280-28	PAF450F280-48 PAF600F280-48
Nominal Output Voltage		VDC	12	24	28	48
Output Current (Max)	450W	A	38	19	16.5	9.5
	600W		50	25	21.5	12.5
Max Output Power	450W	W	456	456	462	456
	600W		600	600	602	600
Efficiency (Typ)		%	89-90	91	91	91
Input Voltage Range		VDC	200-400VDC			
Output Voltage Accuracy		%	±1			
Output Voltage Adjustment		VDC	7.2 - 14.4	14.4 - 28.8	16.8 - 33.6	28.8 - 57.6
Max Ripple & Noise		mV	270	240	280	480
Max Line Regulation		mV	48	56	56	96
Max Load Regulation		mV	48	56	56	96
Temperature Coefficient		°C	0.02%/°C			
Overcurrent Protection		%	105 - 140%			
Overvoltage Protection		%	125 - 145%			
Signals & Control		-	Remote Sense, Remote On/Off, Parallel Pin, Inverter Good, 11-14V Auxiliary voltage			
Baseplate Temperature		-	-40°C to +100°C Baseplate: (See derating chart)			
Humidity (non condensing)		-	5 - 95% RH Operating, 5 - 95% RH Non Operating			
Cooling		-	Conduction (See Installation Manual for heatsink selection)			
Isolation Voltage		-	Input to Baseplate: 2500VAC (20mA); Input to Output 3000VAC for 1 min.; Output to Baseplate: 500VDC for 1 min			
Shock		-	196.1m/s^2			
Vibration		-	Non Operating, 10-55Hz (sweep for 1 min.) Amplitude 0.825mm constant (Max 49 m/s^2) X,Y,Z 1 hour each			
Safety Agency Approvals		-	IEC/UL/CSA/EN62368-1, 60950-1, CE Mark			
Weight (Typ)		g	200			
Size (WxHxD)		mm	2.4 x 0.5 x 4.6 (61 x 12.7 x 116.8) See outline drawing			
Warranty		yrs	2 years			

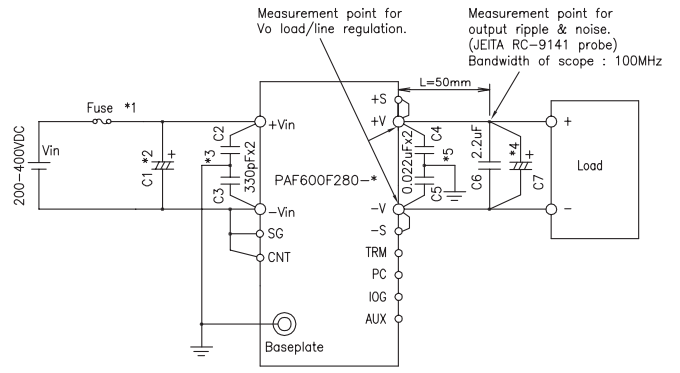
Note: See Installation Manual for full details, test methods of parameters and application notes.

PAF450F280 last time buy September 2023
PAF600F280 not recommended for new designs

PAF Outline Drawing



Connection Example



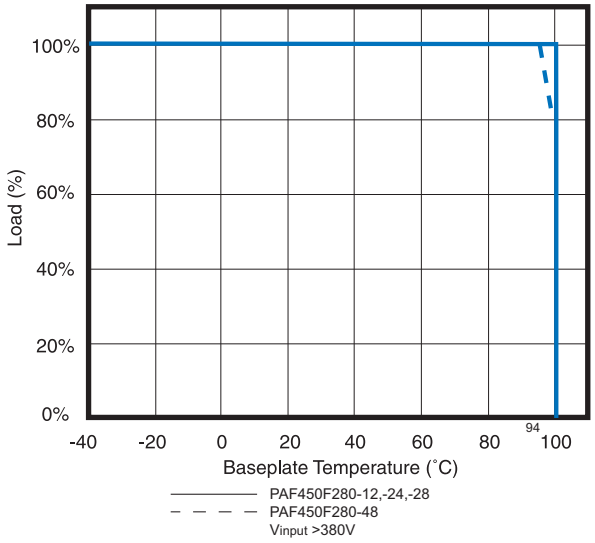
Pinout

Pin Description	Function
-Vin	Negative Input Terminal
+Vin	Positive Input Terminal
CNT	Remote On/Off
+V	Positive Output Terminal
-V	Negative Output Terminal
AUX	11-14V Aux Voltage
PC	Parallel Control Connection
TRIM	Output Adjustment Trim Pin
+S	Positive Remote Sense
-S	Negative Remote Sense
SG	Remote ON/OFF Return

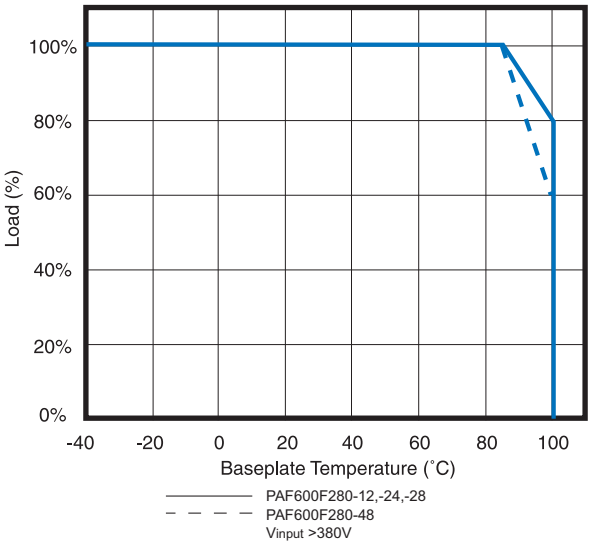
Heatsink Table

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

Derating Curve PAF450F280



Derating Curve PAF600F280



Options

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

For Additional Information, please visit
https://product.tdk.com/info/en/products/power/index.html