

## 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

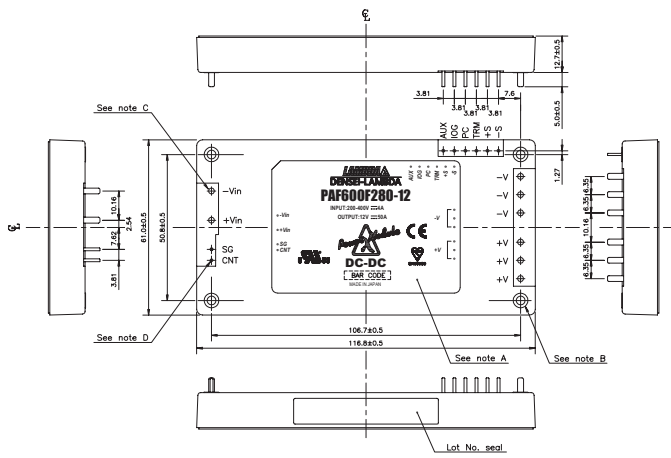


Specifications			PAF450F280-12		PAF450F280-24		PAF450F280-28		PAF450F280-48		
Model			PAF600F280-12		PAF600F280-24		PAF600F280-28		PAF600F280-48		
Nominal Output Voltage	VDC		12	24	28	48					
Output Current (Max)	A	450W	38	19	16.5	9.5					
		600W	50	25	21.5	12.5					
Max Output Power	W	450W	456	456	462	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		120	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 <sup>2</sup>								
Vibration	-		Non Operating, 10-55Hz (sweep for 1 min.)								
			Amplitude 0.825mm constant (Max 49 m/s <sup>2</sup> ) 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								

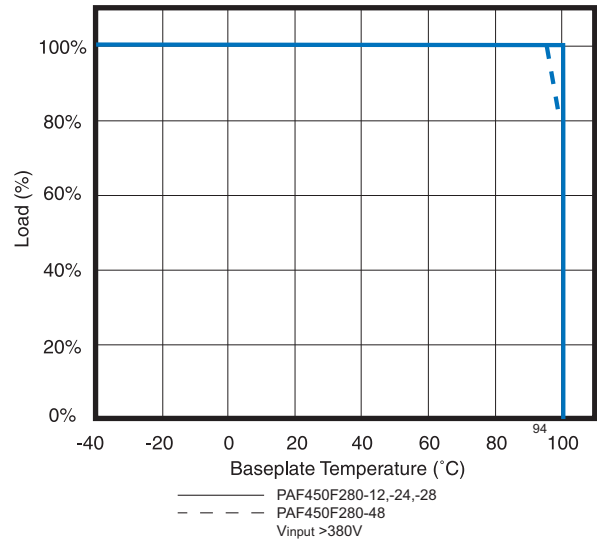
Note: See Installation Manual for full details, test methods of parameters and application notes.

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

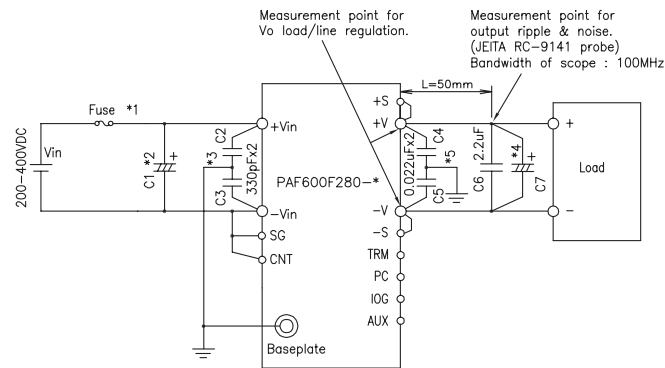
## PAF Outline Drawing



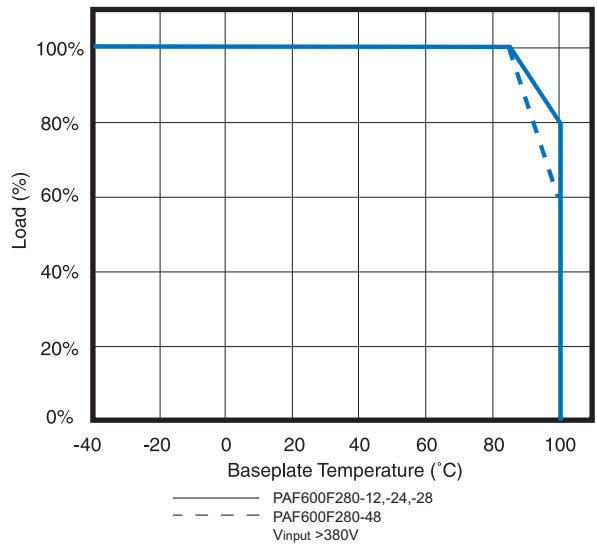
## Derating Curve PAF450F280



## Connection Example



## Derating Curve PAF600F280



## 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

## Other DC-DC Products

PAF	400-700W Full brick DC-DC
PAH300/450	300-450W Half Brick 24 & 48V Input
PH-F	Full function 200-400V Input DC-DC
PH-S	Simple function 200-400V Input DC-DC
PF	Power factor AC - 380VDC Front End
PFE	300-1000W, AC-DC Power module

## 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

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

