

Технические характеристики на преобразователи напряжения DC/DC серии PAF

По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72
Брянск (4832)59-03-52
Вологда (8172)26-41-59
Иваново (4932)77-34-06
Калининград (4012)72-03-81
Киров (8332)68-02-04
Курск (4712)77-13-04
Москва (495)268-04-70
Нижний Новгород (831)429-08-12
Орел (4862)44-53-42
Пермь (342)205-81-47
Самара (846)206-03-16
Смоленск (4812)29-41-54
Тверь (4822)63-31-35
Тюмень (3452)66-21-18
Челябинск (351)202-03-61

Астана +7(7172)727-132
Владивосток (423)249-28-31
Воронеж (473)204-51-73
Ижевск (3412)26-03-58
Калуга (4842)92-23-67
Краснодар (861)203-40-90
Липецк (4742)52-20-81
Мурманск (8152)59-64-93
Новокузнецк (3843)20-46-81
Оренбург (3532)37-68-04
Ростов-на-Дону (863)308-18-15
Санкт-Петербург (812)309-46-40
Сочи (862)225-72-31
Томск (3822)98-41-53
Ульяновск (8422)24-23-59
Череповец (8202)49-02-64

Белгород (4722)40-23-64
Волгоград (844)278-03-48
Екатеринбург (343)384-55-89
Казань (843)206-01-48
Кемерово (3842)65-04-62
Красноярск (391)204-63-61
Магнитогорск (3519)55-03-13
Набережные Челны (8552)20-53-41
Новосибирск (383)227-86-73
Пенза (8412)22-31-16
Рязань (4912)46-61-64
Саратов (845)249-38-78
Ставрополь (8652)20-65-13
Тула (4872)74-02-29
Уфа (347)229-48-12
Ярославль (4852)69-52-93



PAF400F

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

- Up to 100A Output Current
- Fast Transient Response
- Current Share
- Full power at 85°C baseplate
- Wide Adjustable Output Range

Key Market Segments & Applications

Servers & Rail System
High End Computers
Customer Power Supplies:

PAF400F Features and Benefits

Features

- Wide adjustment range
- Parallel Pin
- ASIC Design

Benefits

- Reduces need for custom modules
- Modules can be connected together for higher current
- Reduced component count, increased MTBF

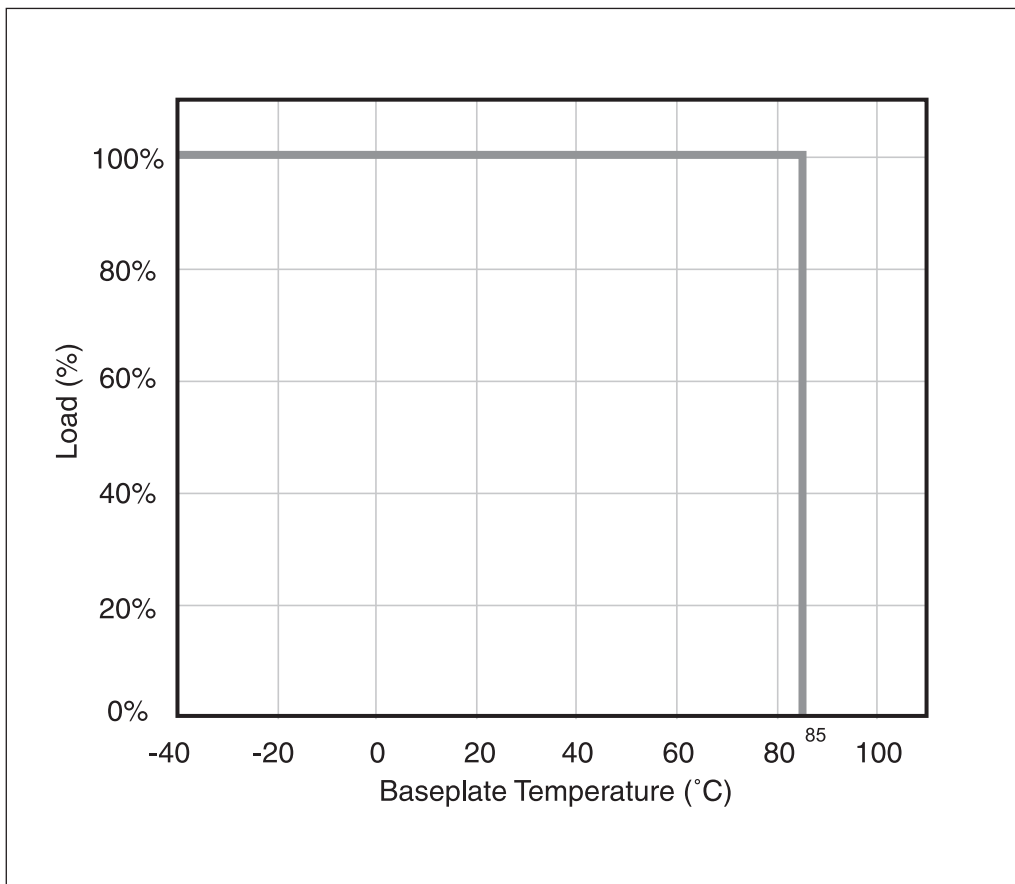
Specifications

MODEL		PAF400F280-1.8	PAF400F280-3.3	PAF400F280-5
ITEMS				
Nominal Output Voltage	VDC	1.8	3.3	5.0
Output Current (Max)	A	100	100	80
Max Output Power	W	240	390	450
Efficiency (Typ)	%	76	83	85
Input Voltage range	VDC	200-400VDC		
Output Voltage Accuracy	%	±2		
Output Voltage Adjustment	VDC	1.0 - 2.6	2.2 - 4.2	2.9 - 6.0
Max Ripple & Noise	mV	200 (0 - 85°C)		
Max Line Regulation	mV	6	10	15
Max Load Regulation	mV	6	10	15
Temperature Coefficient	°C	0.01%/°C		
Overcurrent Protection	A	115 - 130%		
Overvoltage Protection	VDC	1.0 - 2.8	2.5 - 4.5	3.3 - 6.3
Signals & Control	-	Remote sense, remote On/Off, Parallel Pin, Inverter Good, 11-14V Auxiliary voltage		
Baseplate Temperature	°C	-20°C to +85 Baseplate: 100% load		
Humidity (non condensing)	-	20 - 95% RH Operating, 10 - 95% RH Non Operating		
Cooling	-	Conduction (See Installation Manual for heatsink selection)		
Isolation Voltage	-	Input to Baseplate: 2500VAC (20mA); Input to Output 3000VAC (20mA) 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	-	UL1950, CSA950, EN60950, CE LVD		
Weight (Typ)	g	250		
Size (WxHxD)	mm	61x12.7x116.8 (See outline drawing)		
Warranty	-	2 Years		

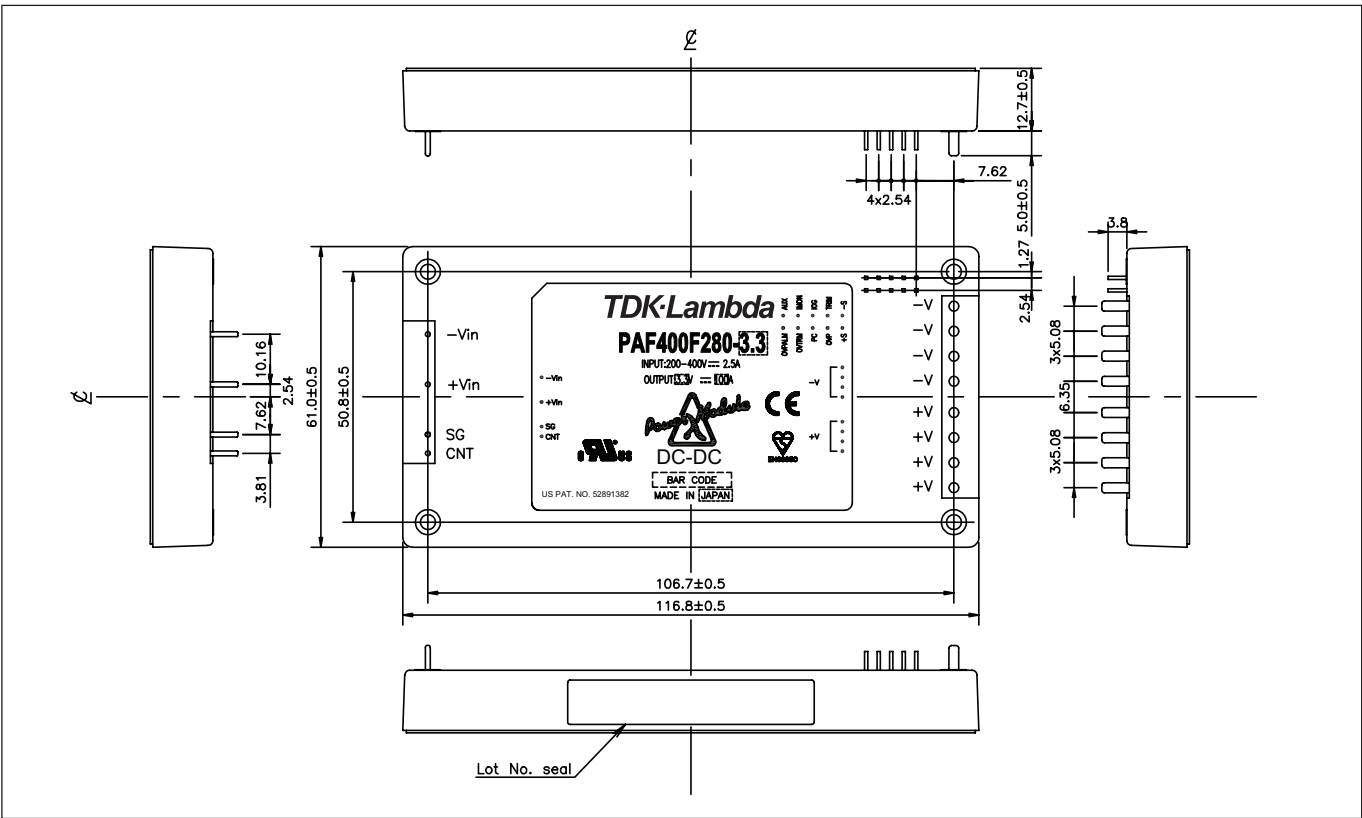
Note: See Installation Manual for full details, test methods of parameters and application notes.

Pinout	
Pin Description	Function
-Vin	Negative Input Terminal
+Vin	Positive Input Terminal
CNT	Remote On/Off terminal
+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
IMON	Current Monitor
OVTRM	Overvoltage Trim
OVPALM	Overvoltage Alarm Signal
OVP	Overvoltage Sense Point

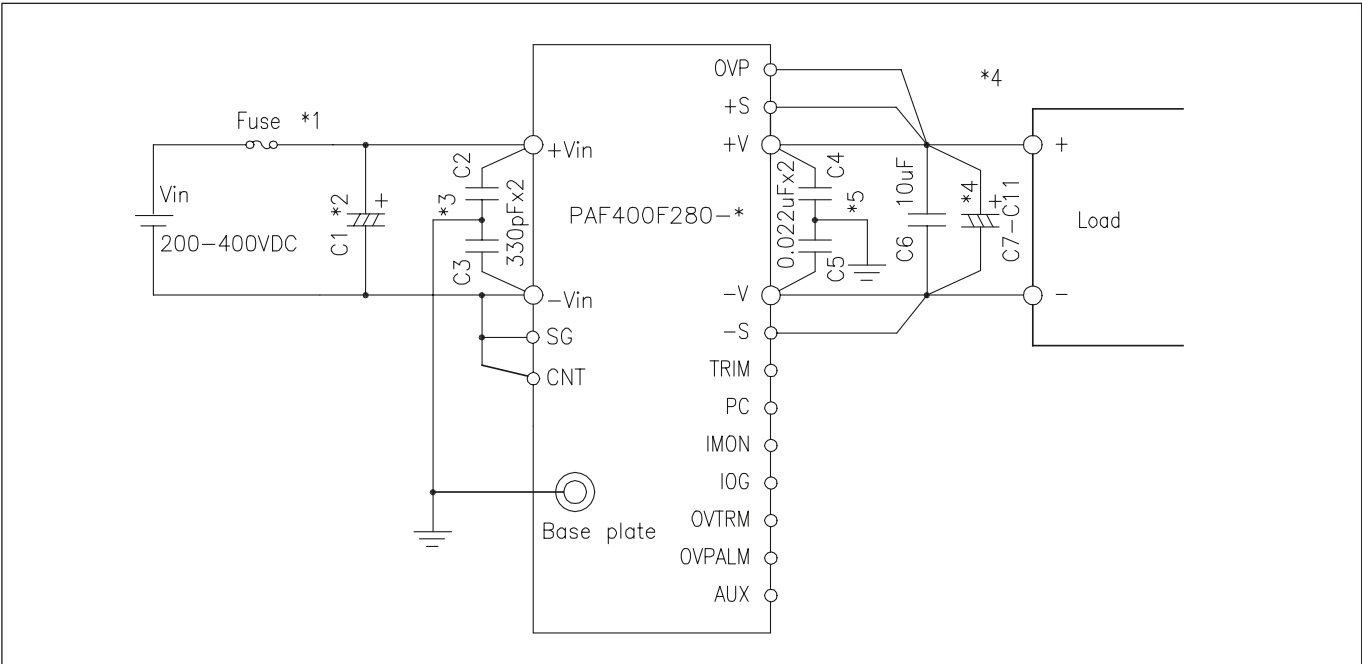
Derating Curve PAF400F Series



Outline Drawing PAF400F Series



Connection Example PAF400F Series





- Output Voltages from 7.2V to 57V
- Current Share
- Operation to +100°C Baseplate
- Wide Adjustable Output Range

Key Market Segments & Applications

Servers & Rail Systems
High End Computers
Customer Power Supplies

PAF450F280 & PAF600F280

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

PAF450F280 & PAF600F280 Features and Benefits

Features

- Wide adjustment range
- Parallel Pin
- High efficiency - up to 91%

Benefits

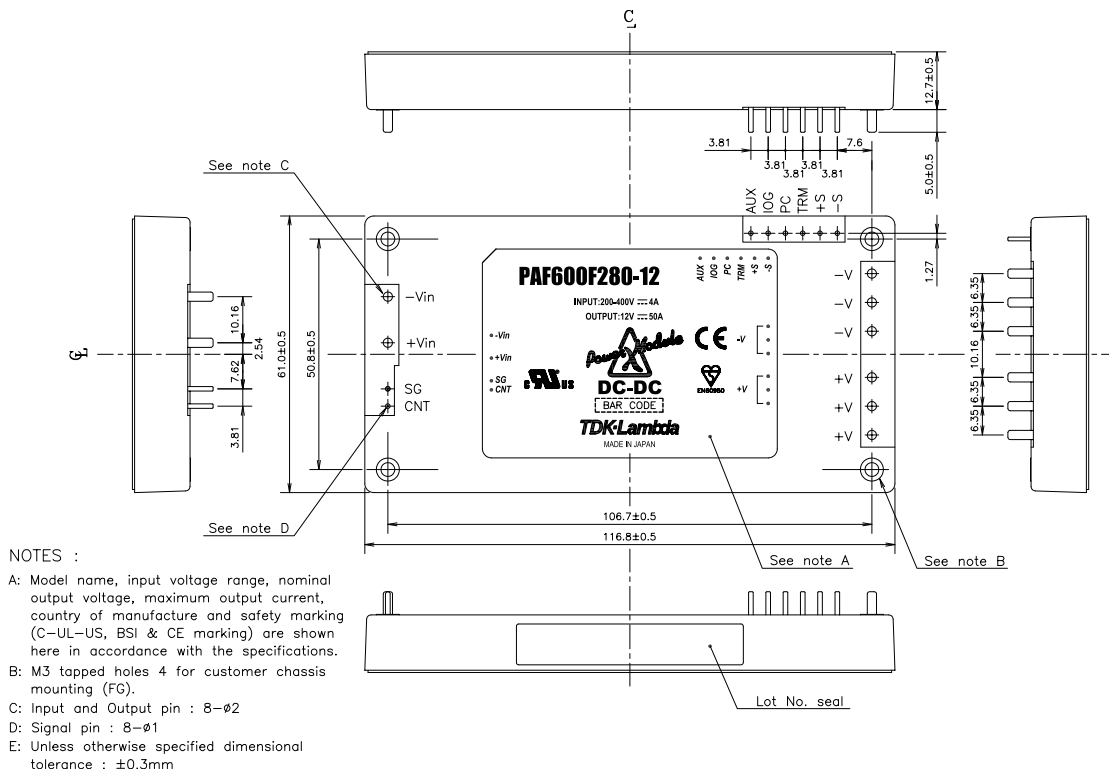
- Reduces need for custom modules
- Modules can be connected together for higher current
- Reduces Heat Loss

Specifications

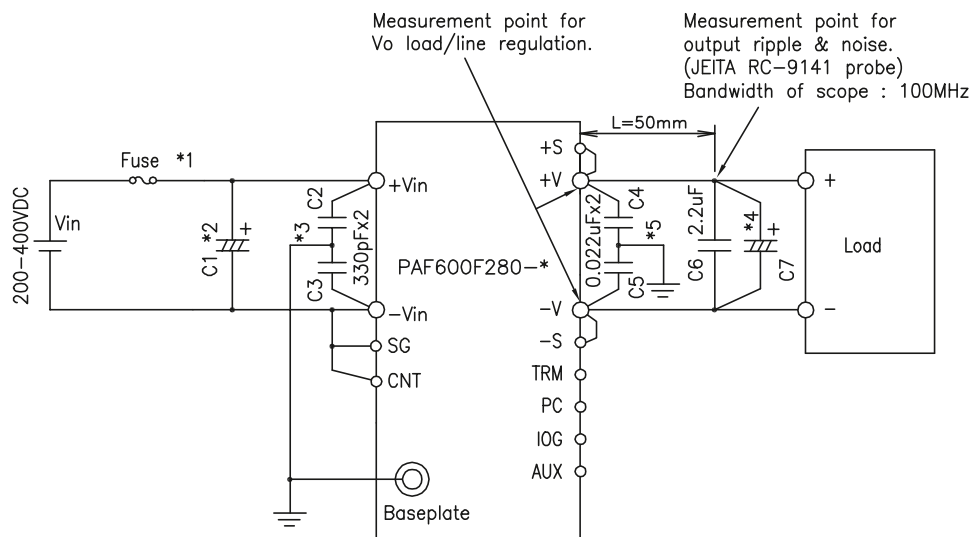
MODEL		PAF600F280-12 /PAF450F280-12	PAF600F280-24 /PAF450F280-24	PAF600F280-28 /PAF450F280-28	PAF600F280-48 /PAF450F280-48
ITEMS					
Nominal Output Voltage	VDC	12	24	28	48
Output Current (Max)	A	50/38	25/19	21.5/16.5	12.5/9.5
Max Output Power	W	600/456	600/456	602/462	600/456
Efficiency (Typ)	%	89/90	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, 10-14V 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	-	UL60950-1, CSA60950-1, EN60950-1, CE LVD			
Weight (Typ)	g	200			
Size (WxHxD)	mm	61 x 12.7 x 116.8			
Warranty	yr	2			

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

Outline Drawing PAF600F280



Connection Example





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

- Wide adjustment range
- Parallel Pin
- ASIC Design
- No potting materials

Benefits

- Reduces need for custom modules
- Modules can be connected together for higher current
- Reduced component count, increased MTBF
- Lower weight

Specifications

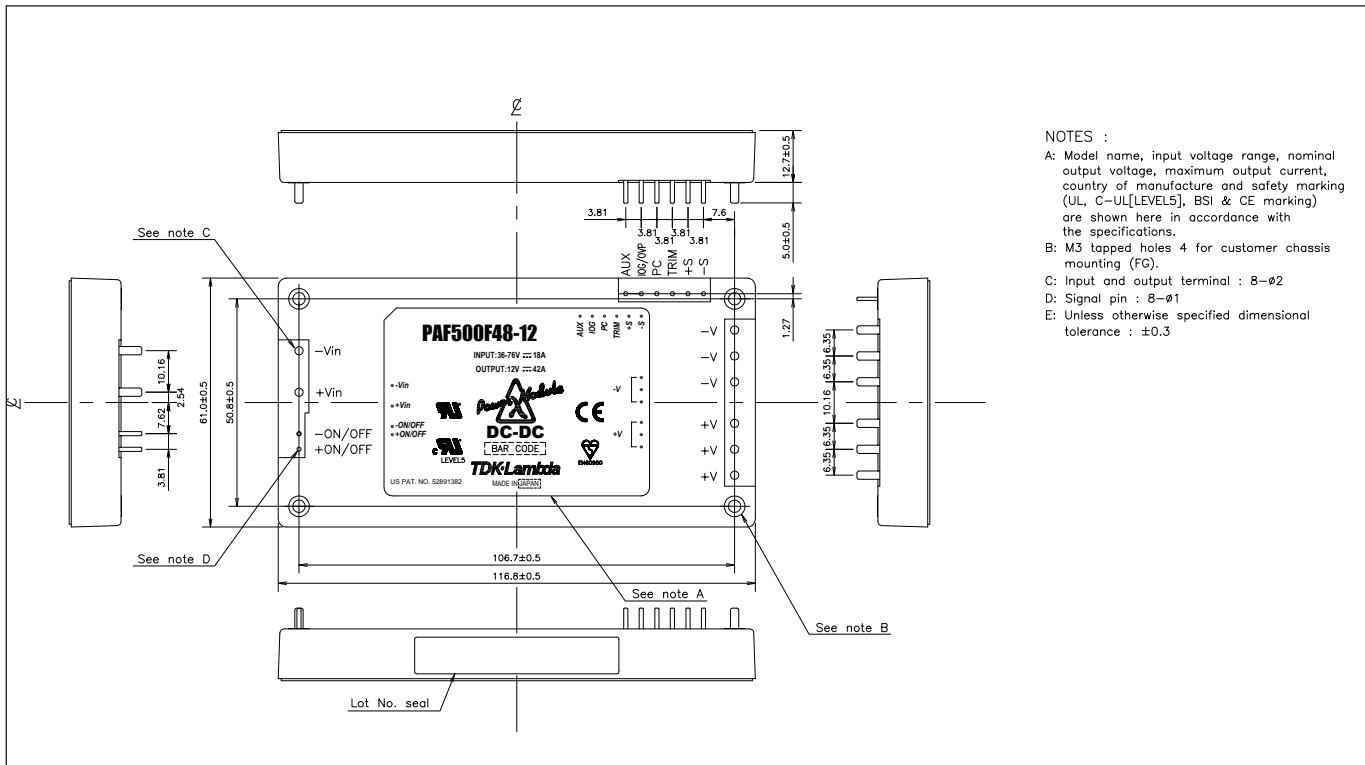
MODEL		PAF500F48-3.3	PAF500F48-5	PAF500F24-12 PAF500F48-12	PAF500F24-28 PAF500F48-28
ITEMS					
Nominal Output Voltage	VDC	3.3	5	12	28
Output Current (Max)	A	80	80	42	18
Max Output Power	W	264	400	504	504
Efficiency (Typ)	%	78	83	89	90
Input Voltage range	VDC	36-76		19-36 or 36-76	18-36 or 36-76
Input 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/s²			
Vibration	-	Non Operating, 10-55Hz (sweep for 1 min.)			
Amplitude	-	0.825mm constant (Max 49m/s²) X, Y, Z 1 hour each			
Safety Agency Approvals	-	UL60950-1, CSA60950-1, EN60950-1, CE LVD			
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 Remote sense

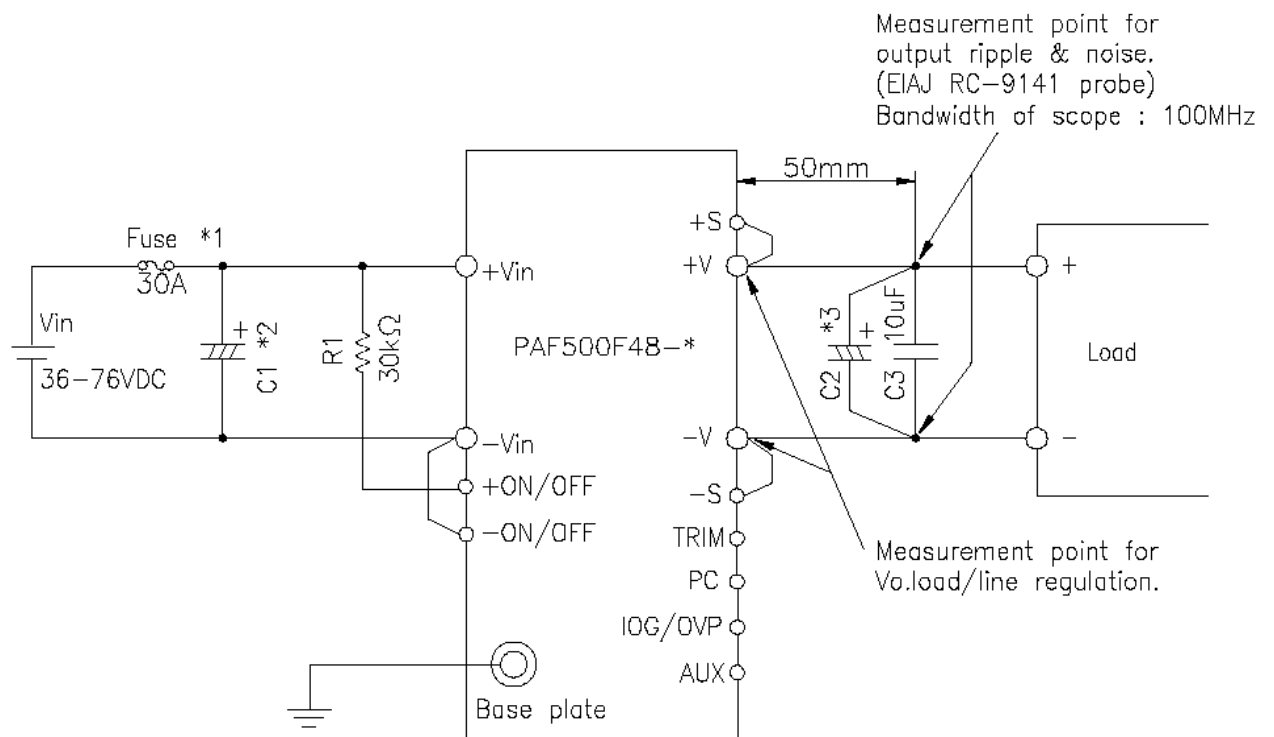
Options	
Suffix	Description
Blank	
/T	No thread in mounting holes

Outline Drawing PAF500F



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





PAF600F

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

- 12V output for driving non-isolated converters
- Safety Approved
- 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 Base Station Power Amplifiers

PAF600F Features and Benefits

Features

- Wide adjustment range
- Parallel Pin
- ASIC Design
- 24V & 48V Inputs

Benefits

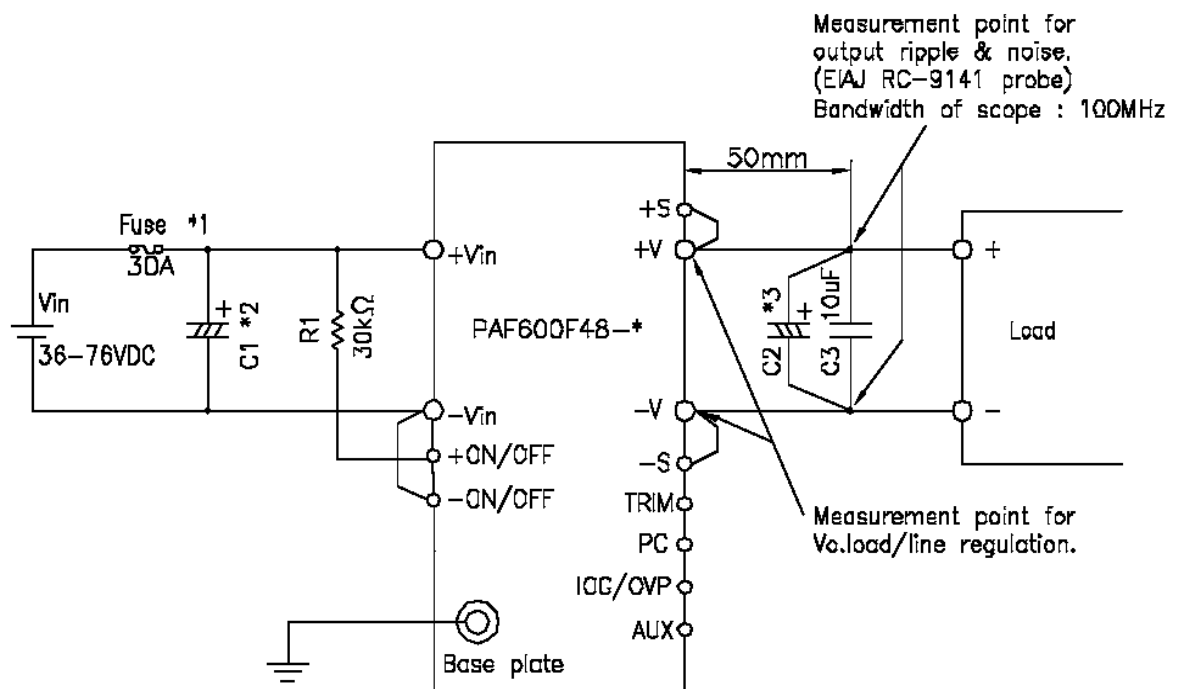
- Reduces need for custom modules
- Modules can be connected together for higher current
- Reduced component count, increased MTBF
- Suitable for remote & central office applications

Specifications

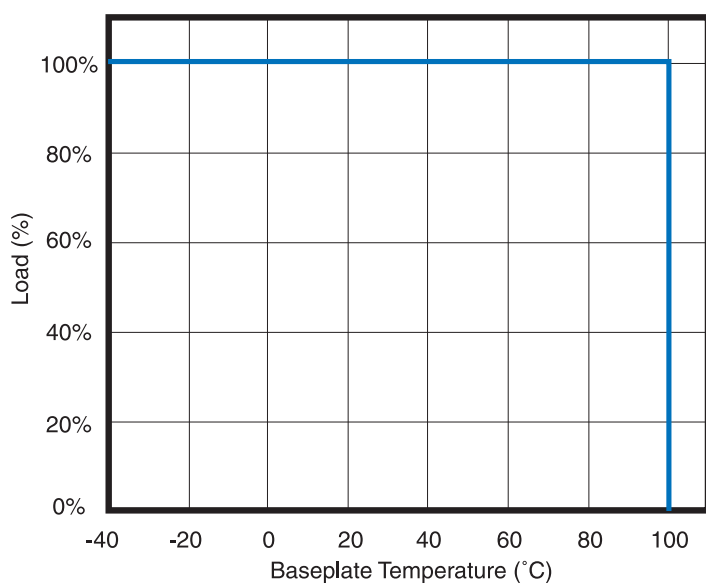
MODEL		PAF600F24-12 PAF600F48-12	PAF600F24-28 PAF600F48-28
ITEMS			
Nominal Output Voltage	VDC	12	28
Output Current (Max)	A	50	21.5
Output Power (Max)	W	600	602
Efficiency (Typ)	%	89 to 90%	
Input Voltage Range	VDC	20-36 / 36-76	19-36 / 36-76
Input Current(Typ) 24/48V input	A	28.9 / 14.2	28.9 / 14.1
Output Voltage Accuracy	%	±1	
Output Voltage Adjustment	VDC	7.2 - 13.2	16.8 - 30.8
Ripple & Noise (Max)	mV	200	280
Line Regulation (Max)	mV	24	56
Load Regulation (Max)	mV	24	56
Temperature Coefficient	-	0.02%/°C	
Overcurrent Protection	%	105 - 140%	
Overvoltage Protection	%	115-135%	
Signals & Control	-	Remote sense, remote On/Off, Parallel Pin, DC Good, 7-10V Auxiliary voltage	
Operating Temperature	-	-40°C to +100°C baseplate	
Humidity (operating)	-	30-95% RH Non condensing	
Humidity (storage)	-	10-95% RH Non condensing	
Cooling	-	Conduction (See Installation Manual for heatsink selection)	
Isolation Voltage	VDC	Input - Baseplate 1500V, Input - Output 1500V, Output-Baseplate 500V (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	-	UL60950-1, CSA60950-1, EN60950-1, CE LVD (48V model only)	
Weight (Typ)	g	250	
Size (WxHxD)	in(mm)	2.4 x 0.5 x 4.6 (61 x 12.7 x 116.8) See outline drawing	
Warranty	-	2 years	

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

Connection Example



Derating Curve PAF600F Series





PAF700F Series

700W 48V Input

Full Brick DC-DC Converters

- 12V output for driving non-isolated converters
- 12V, 28V output for BTS amps
- Full power at +85°C baseplate, operation to +100°C
- 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, Fibre Optic Transmission, Microwave Transmission, Wireless Local Loop
Base Station Power Amplifiers	
Intermediate Bus Architectures	

PAF700F Features and Benefits

Features

- Wide adjustment range
- Parallel Pin
- ASIC Design

Benefits

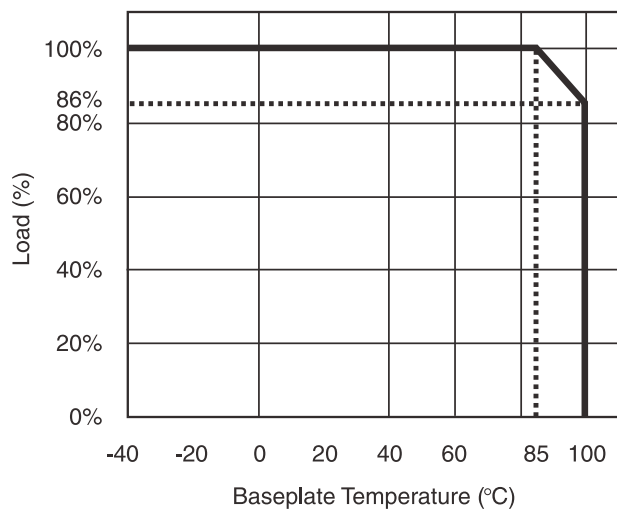
- Reduces need for custom modules
- Modules can be connected together for higher current
- Reduced component count, increased MTBF

Specifications

MODEL		PAF700F48-12	PAF700F48-28
ITEMS			
Nominal Output Voltage	VDC	12	28
Output Current (Max)	A	58.5	25
Output Power (Max)	W	702	700
Efficiency (Typ)	%	90%	91%
Input Voltage Range	VDC	36-76	
Input Current(Typ)	A	16.5	16.4
Output Voltage Accuracy	%	±1	
Output Voltage Adjustment	VDC	7.2 - 13.8	16.8 - 32.2
Ripple & Noise (Max)	mV	200	280
Line Regulation (Max)	mV	24	56
Load Regulation (Max)	mV	24	56
Temperature Coefficient	-	0.02%/°C	
Overcurrent Protection	%	105 - 140%	
Overvoltage Protection	%	120 - 135%	
Parallel Operation		Yes	
Series Operation		Yes	
Signals & Control	-	Remote sense, remote On/Off, Parallel Pin, DC Good, 7-10V Auxiliary voltage	
Operating Temperature	-	-40°C to +100°C baseplate	
Humidity (operating)	-	20 - 95% RH Non condensing	
Humidity (storage)	-	10 - 95% RH Non condensing	
Cooling	-	Conduction (See Installation Manual for heatsink selection)	
Isolation Voltage	VDC	Input - Baseplate 1500V, Input - Output 1500V, Output-Baseplate 500V (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	-	UL60950-1, CSAC22.2 No. 60950-1, EN60950, CE LVD	
Weight (Typ)	g	200	
Size (WxHxD)	mm (in)	61 x 12.7 x 116.8 (2.4 x 0.5 x 4.6) See outline drawing	
Warranty	yrs	2	

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

Derating Curve



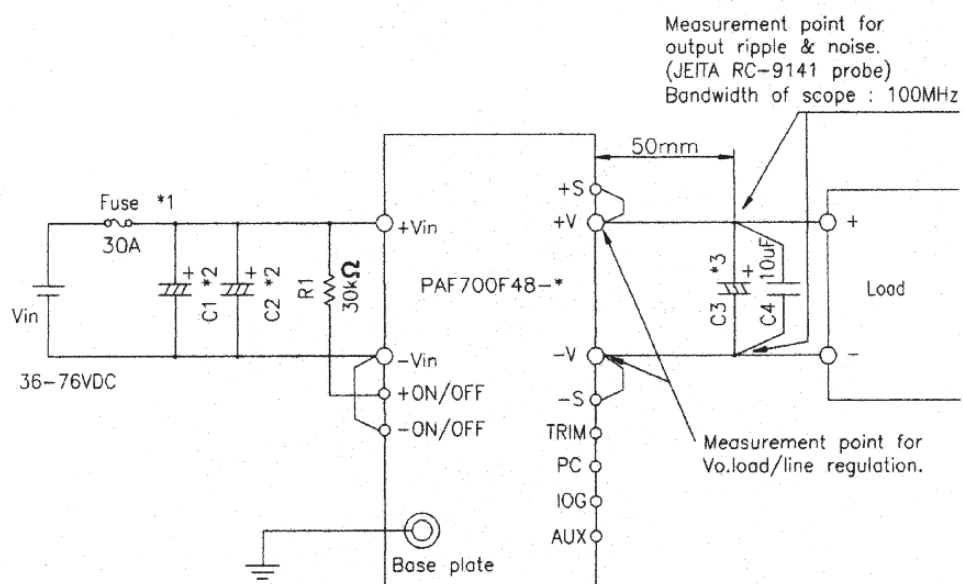
Part Number Scheme

Full Brick	Max Power Watts	Full Function	Nominal Input Voltage	Output Voltage	Option Suffix
PAF	700	F	48	12 or 28	Blank = M3 Tapped inserts T = 3.3mm Non-threaded through hole

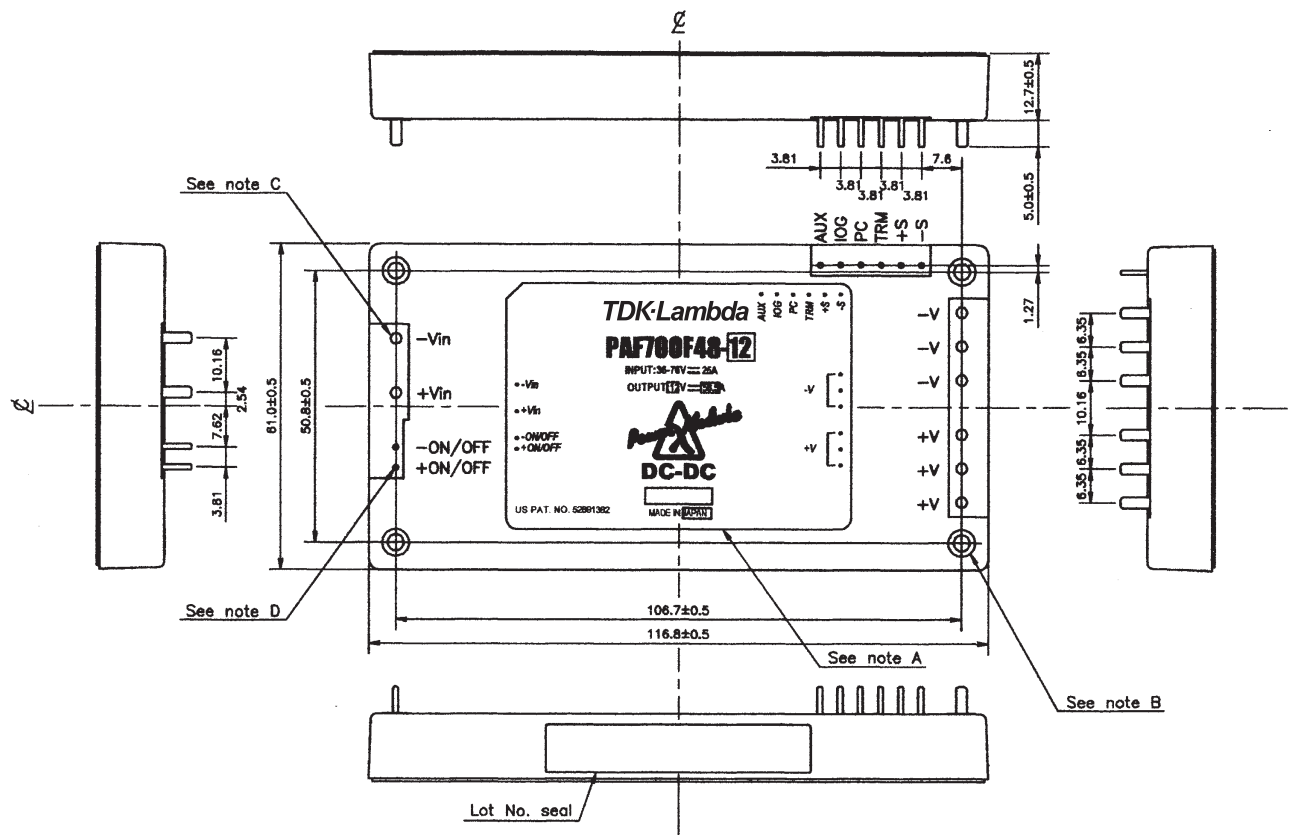
Connection Example

Note

- 1 Use external fuse of fast blow type, for each unit
- 2 Put input capacitor, C1 and C2, greater than 220uF for each. If the impedance of input line is high, C1 and C2 capacitance must be greater than above.
- 3 Put output capacitor, C3 (12v: more than 470uF, 28V: greater than 220uF). If the ambient temperature is less than -20C, use 4 pieces of the recommended capacitor above.
- 4 Refer to instruction manual for further details.



Outline Drawing PAF700F



Note

- A: Model name, input voltage range, nominal output voltage, maximum output current, country of manufacture are shown here in accordance with the specifications
- B: M3 tapped holes for customer chassis mounting (FG)
- C: Input and output pin: 8-02
- D: Signal pin : 8-01
- E: Unless otherwise specified dimensional tolerance $\pm 0.3\text{mm}$

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	DC Good
PC	Parallel Control Connection
TRIM	Output Adjustment Trim Pin
+S	Positive Remote Sense
-S	Negative Remote Sense

По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72
Брянск (4832)59-03-52
Вологда (8172)26-41-59
Иваново (4932)77-34-06
Калининград (4012)72-03-81
Киров (8332)68-02-04
Курск (4712)77-13-04
Москва (495)268-04-70
Нижний Новгород (831)429-08-12
Орел (4862)44-53-42
Пермь (342)205-81-47
Самара (846)206-03-16
Смоленск (4812)29-41-54
Тверь (4822)63-31-35
Тюмень (3452)66-21-18
Челябинск (351)202-03-61

Астана +7(7172)727-132
Владивосток (423)249-28-31
Воронеж (473)204-51-73
Ижевск (3412)26-03-58
Калуга (4842)92-23-67
Краснодар (861)203-40-90
Липецк (4742)52-20-81
Мурманск (8152)59-64-93
Новокузнецк (3843)20-46-81
Оренбург (3532)37-68-04
Ростов-на-Дону (863)308-18-15
Санкт-Петербург (812)309-46-40
Сочи (862)225-72-31
Томск (3822)98-41-53
Ульяновск (8422)24-23-59
Череповец (8202)49-02-64

Белгород (4722)40-23-64
Волгоград (844)278-03-48
Екатеринбург (343)384-55-89
Казань (843)206-01-48
Кемерово (3842)65-04-62
Красноярск (391)204-63-61
Магнитогорск (3519)55-03-13
Набережные Челны (8552)20-53-41
Новосибирск (383)227-86-73
Пенза (8412)22-31-16
Рязань (4912)46-61-64
Саратов (845)249-38-78
Ставрополь (8652)20-65-13
Тула (4872)74-02-29
Уфа (347)229-48-12
Ярославль (4852)69-52-93

Эл. почта: adm@nt-rt.ru || Сайт: <http://lambda.nt-rt.ru/>