

30W Single and Dual Output DC-DC Converters

Features

- ◆ Industry Standard 2" x 1" Footprint
- ◆ Six Sided Shielding
- ◆ Safety Agency Certifications
- ◆ 9-36V or 18-75VDC Input
- ◆ Wide range input



Key Market Segments & Applications



Specifications

Model	Single Output	Dual Output
Max Output Power	30W	
Voltage Accuracy	±1%	
Voltage Adjustment	±10%	None
Minimum Load	None	
Line Regulation	±0.2%	
Load Regulation	±0.5%	±1%
Cross Regulation (25% to 100%)	-	±5%
Ripple and Noise (peak to peak)	<5.1V output: 100mV, 12-15V output: 150mV	
Start up time	30ms	
Remote on/off	Positive Logic: ON: Open or 3-12V, OFF Short or <1.2V Negative Logic: ON: Short or <1.2V, OFF: Open or 3-12V	
Temperature Coefficient	<±0.02%/°C	
Operating Temperature	-40 to +85°C, derating necessary above 50°C	
Maximum Case Temperature	105°C (Overtemperature Protection 115°C)	
Storage Temperature	-55 to 125°C	
Thermal Shock	MIL-STD-810F	
Relative Humidity (non condensing)	5 to 95%	
Transient Response (25% step load change)	250us recovery	
Overvoltage Protection (Zener clamp)	3.3V: 3.9V, 5V: 6.2V, 12V: 15V, 15V: 18V	
Overcurrent and Short Circuit Protection	Typically at 150%, hiccup with self recovery	
Input Surge Voltage (Maximum for 100ms)	24V input: 50V, 48V input: 100V	
Reflected input ripple (peak to peak)	20mA	
Isolation Voltage	1600VDC minimum	
Isolation Resistance	109 Ohms minimum	
Isolation Capacitance (max)	1500pF	
Typical Switching Frequency (Fixed)	430kHz	
MTBF (BELLCORE TR-NWT-000332)	3,163,000 hours	
Vibration	MIL-STD-810F	
Conducted and Radiated Emissions (1)	See Installation Diagrams	
Immunity (2)	EN61000-4-2, -3, -4, -5, -6 Pref Criteria A	
Safety Agency Certifications	IEC60950-1, UL60950-1, EN60950-1, CE Mark	
Size (L x W x H)	2x1x0.4"	
Weight	1.07 oz (30.5g)	
Warranty	Two Year	

Notes:

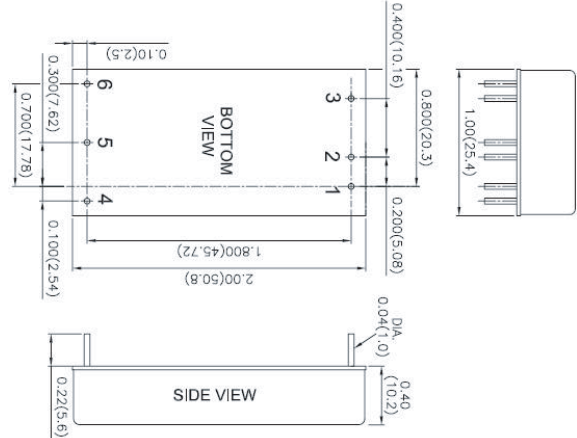
(1) With external ceramic capacitor (24V: 4.7uF, 48V: 2.2uF) connected across input pins

(2) For EN61000-4-4 & -5 compliance fit external electrolytic capacitor (24V: 330uF, 48V: 220uF) connected across input pins

Model Selector

Output Volt (V)	Output Curr (A)	Output Power (W)	Input Volt (V)	Model	Eff.(%)
Single Outputs					
3.3V	7.5A	24.75W	9 - 36VDC	PXD30-24WS3P3	86%
3.3V	7.5A	24.75W	18 - 75VDC	PXD30-48WS3P3	86%
5V	6.0A	30W	9 - 36VDC	PXD30-24WS05	88%
5V	6.0A	30W	18 - 75VDC	PXD30-48WS05	88%
12V	2.5A	30W	9 - 36VDC	PXD30-24WS12	89%
12V	2.5A	30W	18 - 75VDC	PXD30-48WS12	90%
15V	2.0A	30W	9 - 36VDC	PXD30-24WS15	89%
15V	2.0A	30W	18 - 75VDC	PXD30-48WS15	91%
Dual Outputs					
±5V	±3.0A	30W	9 - 36VDC	PXD30-24WD05	88%
±5V	±3.0A	30W	18 - 75VDC	PXD30-48WD05	88%
±12V	±1.25A	30W	9 - 36VDC	PXD30-24WD12	87%
±12V	±1.25A	30W	18 - 75VDC	PXD30-48WD12	88%
±15V	±1.0A	30W	9 - 36VDC	PXD30-24WD15	87%
±15V	±1.0A	30W	18 - 75VDC	PXD30-48WD15	88%

Outline Drawing



Pinout

Pin #	Function	Function
	Single Output	Dual Output
1	+ Input	+ Input
2	- Input	- Input
3	Remote On/Off	Remote On/Off
4	+ Output	+ Output
5	- Output	Common
6	Trim	- Output

Remote On/Off Option

Suffix	Function
No Suffix	Positive Logic
-N	Negative Logic

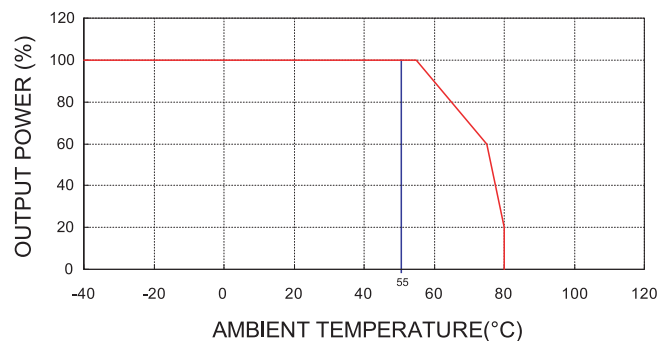
Heat Sink (0.22" high)

HAPXD	(includes thermal adhesive pad)
HAPXBDCLIP	(two clips required when used)

Other Industrial Products

PXD10, 20	10-20W, 12V, 24V, 48V input 2x1" DC-DC
PXE20, 30	20-30W, 12V, 24V, 48V input 2x1.6" DC-DC
PXF30-40	30-40W, 12V, 24V, 48V input 2x2" DC-DC
CC-E	1.5 - 25W, 5V, 12V, 24V & 48V input DC-DC
Non Wide Range Input Modes (W)	
PXD30-12Sxx	30W, 9-18VDC 2x1" DC-DC
PXD30-12Dxx	30W, 9-18VDC 2x1" DC-DC
PXD30-24Sxx	30W, 18-36VDC 2x1" DC-DC
PXD30-24Dxx	30W, 18-36VDC 2x1" DC-DC
PXD30-48Sxx	30W, 36-75VDC 2x1" DC-DC
PXD30-48Dxx	30W, 36-75VDC 2x1" DC-DC

Derating Curves



For Additional Information, please visit
us.tdk-lambda.com/lp/products/px-series.htm

