



- Industry Standard 2" x 1" Footprint
- Six Sided Shielding
- Agency Approved
- 12V, 24V and 48V Inputs

## PXD Series

Single and Dual Output 10 to 20W  
DC-DC Converters

### Key Market Segments & Applications

- Telecom
- Datacom
- Point of Load

### PXD Features and Benefits

#### Features

- UL, CSA, EN, CE Approvals
- Wide Range Input
- Six Sided Shielding

#### Benefits

- Easier System Approvals
- Less Parts to Inventory
- Reduced Radiated Noise

### Specifications

ITEMS	PXD10	PXD15	PXD20
Max Output Power	10W	15W	20W
Voltage Accuracy	±2%	±1%	±1%
Voltage Adjustment (Single O/P Only)	None	None	±10%
Minimum Load, each output (1)	10%	10%	Single 0%; Dual 10%
Line Regulation	±1%	±1%	±0.2%
Load Regulation (10% to 100%)	Single Output: ±1% Dual Output: ±2%	Single Output: ±1% Dual Output: ±2%	±0.5%
Cross Regulation (25% to 100%)		±5%	-
Ripple and Noise	Single 50mV, Dual 75mV		Single 75mV, Dual 100mV
Start up time	20ms		10ms
Remote on/off (3)	Positive Logic: ON: Open or 3.5-12V, OFF Short or <1.2V Negative Logic: ON: Short or <1.2V, OFF: Open or 3.5-12V		
Temperature Coefficient	<±0.02%/°C		
Operating Temperature	-40°C to +85°C (model dependent - see derating curves)		
Maximum Case Temperature	+100°C		
Storage Temperature	-55°C to +105°C		
Thermal Shock	MIL-STD-810D		
Relative Humidity	5 to 95% (non condensing)		
Transient Response (25% step load chg.)	500µS recovery	500µS recovery	300µS recovery
Overvoltage Protection (Zener clamp)	1.5-3.3V: 3.9V, 5V: 6.2V, 12V: 15V, 15V: 18V		
Overcurrent & Short Circuit Protection	Typically at 150%, hiccup with self recovery		
Input Surge Voltage (Max. for 100ms)	12V input: 36V, 24V input: 50V, 48V input: 100V		
Reflected input ripple (peak to peak) (2)	30mA	20mA	20mA
Isolation Voltage	1600VDC minimum		
Isolation Resistance	109 Ω minimum		
Isolation Capacitance (max)	300pF		1000pF
Typical Switching Frequency (Fixed)	300kHz	Single: 500kHz Dual: 300kHz	500kHz
MTBF (BELLCORE TR-NWT-000332)	1,976,000 hours	2,041,000 hours	1,791,000 hours
Vibration	10 - 55Hz, 2G, 30 minutes each X, Y, Z axis		
Conducted and Radiated Emissions	EN55022 Level A		
Immunity	EN61000-4-2, -3, -4, -5, -6 Pref Criteria 2		
Safety Agency Approval	IEC606950, UL1950, EN60950, CE Mark (48V input only)		
Size mm (L x W x H)	50.8 x 25.4 x 10.2		
Weight (g)	27		
Warranty (yrs)	3		

**Specification Notes:** (1) To meet regulation & noise specifications. Operation at zero load will not damage the device.  
 (2) 12μH source impedance in series with + input (3) Positive logic standard on 20W (see options table). Input current 2.5mA

Model Selector						
Output Volt (V)	Output Current (A)	Output Power (W)	Input Volt (V)	Model	Efficiency (%)	
3.3	2.0	6.6	9 - 18VDC	PXD10-12S3P3	80	
3.3	2.0	6.6	18 - 36VDC	PXD10-24S3P3	80	
3.3	2.0	6.6	36 - 75VDC	PXD10-48S3P3	79	
3.3	5.0	16.5	9 - 18VDC	PXD20-12S3P3	84	
3.3	5.0	16.5	18 - 36VDC	PXD20-24S3P3	86	
3.3	5.0	16.5	36 - 75VDC	PXD20-48S3P3	87	
5	2.0	10	9 - 36VDC	PXD10-24WS05	80	
5	2.0	10	18 - 75VDC	PXD10-48WS05	80	
5	4.0	20	9 - 18VDC	PXD20-12S05	87	
5	4.0	20	18 - 36VDC	PXD20-24S05	89	
5	4.0	20	36 - 75VDC	PXD20-48S05	89	
12	0.83	10	9 - 36VDC	PXD10-24WS12	82	
12	0.83	10	18 - 75VDC	PXD10-48WS12	84	
12	1.67	20	9 - 18VDC	PXD20-12S12	85	
12	1.67	20	18 - 36VDC	PXD20-24S12	87	
12	1.67	20	36 - 75VDC	PXD20-48S12	88	
15	0.67	10	9 - 36VDC	PXD10-24WS15	80	
15	0.67	10	18 - 75VDC	PXD10-48WS15	84	
15	1.33	20	9 - 18VDC	PXD20-12S15	85	
15	1.33	20	18 - 36VDC	PXD20-24S15	87	
15	1.33	20	36 - 75VDC	PXD20-48S15	87	
Dual Outputs						
±5	±1.0	10	18 - 75VDC	PXD10-48WD05	82	
±5	±1.0	10	9 - 36VDC	PXD10-24WD05	82	
±5	±1.5	15	9 - 18VDC	PXD15-12D05	83	
±5	±1.5	15	18 - 36VDC	PXD15-24D05	84	
±5	±1.5	15	36 - 75VDC	PXD15-48D05	85	
±12	±0.416	10	9 - 36VDC	PXD10-24WD12	80	
±12	±0.416	10	18 - 75VDC	PXD10-48WD12	78	
±12	±0.833	20	9 - 18VDC	PXD20-12D12	86	
±12	±0.833	20	18 - 36VDC	PXD20-24D12	87	
±12	±0.833	20	36 - 75VDC	PXD20-48D12	88	
±15	±0.333	10	9 - 36VDC	PXD10-24WD15	80	
±15	±0.333	10	18 - 75VDC	PXD10-48WD15	81	
±15	±0.667	20	9 - 18VDC	PXD20-12D15	86	
±15	±0.667	20	18 - 36VDC	PXD20-24D15	87	
±15	±0.667	20	36 - 75VDC	PXD20-48D15	87	

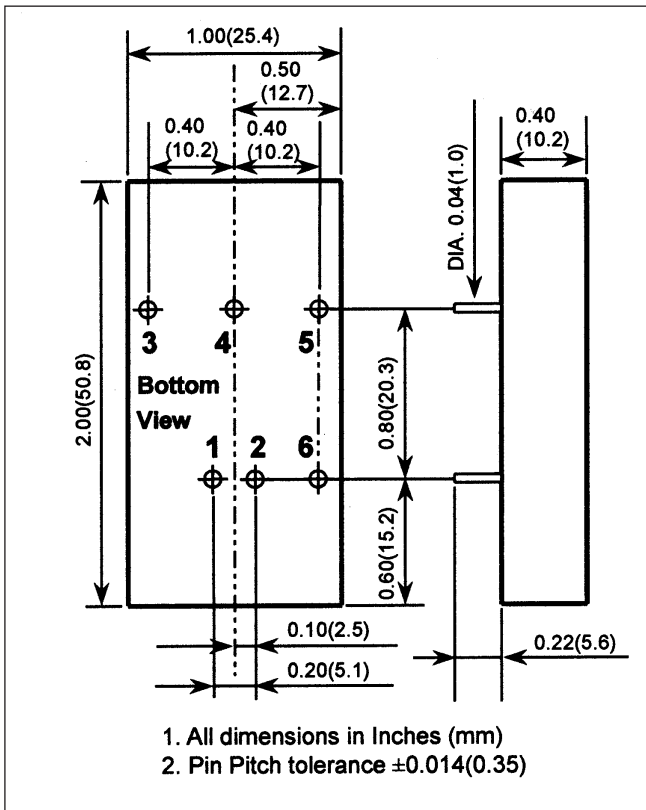
\* OTHER MODELS AVAILABLE ON REQUEST \*

Pinout		
Pin#	Function	
	<b>Single Output</b>	<b>Dual Output</b>
1	+ Input	+ Input
2	- Input	- Input
3	+ Output	+ Output
4	Trim (20W only)	Common
5	- Output	- Output
6	Remote On/Off	Remote On/Off

**Notes:**

- (1) With external ceramic capacitor (24V: 4.7μF, 48V: 2.2μF) connected across input pins
- (2) For EN61000-4-4 & -5 compliance fit external electrolytic capacitor (24V: 330μF, 48V: 220μF) connected across input pins

## Outline Drawing PXD Series



## PXD10 & 15 Series

Options	Single Output	Dual Output
Suffix	Function	Function
No Suffix	No Logic & No Trim	No Logic & No Trim
P	Positive Logic (No Trim Function)	Positive Logic (No Trim Function)
N	Negative Logic (No Trim Function)	Negative Logic (No Trim Function)

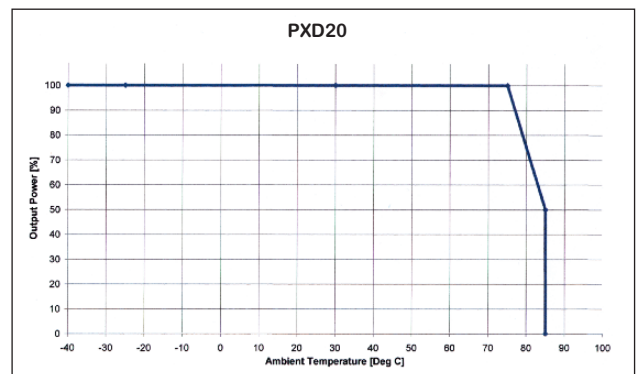
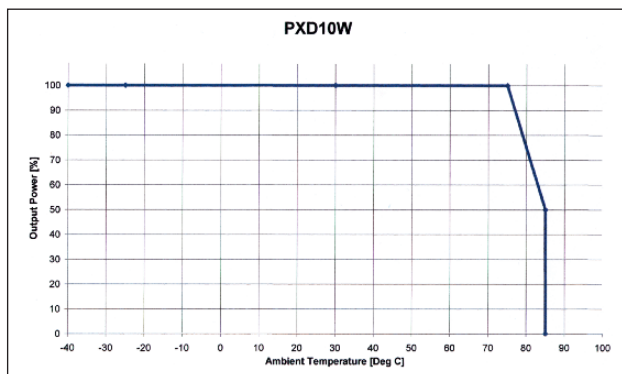
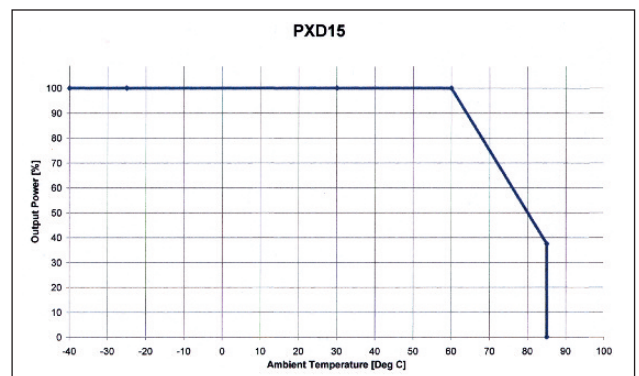
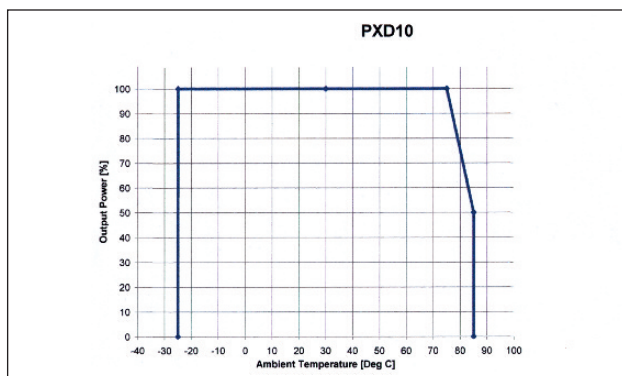
Add suffix for required options, Example PXD15-48S12-N

## PXD20 Series

Options	Single Output	Dual Output
Suffix	Function	Function
No Suffix	Positive Logic & Output Trim	Positive Logic (No Trim Function)
N	Negative Logic & Output Trim	Negative Logic (No Trim Function)

Add suffix for N option, Example PXD20-48S12-N

## Derating Curves PXD Series





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