Технические характеристики на преобразователи напряжения DC/DC серии PXD

По вопросам продаж и поддержки обращайтесь:

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

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

Key Market Segments & Applications

Telecom
Datacom
Point of Load

PXD Series

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

PXD Features and Benefits

Features	Benefits
• UL, CSA, EN, CE Approvals	• Easier System Approvals
• Wide Range Input	• Less Parts to Inventory
• Six Sided Shielding	• 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)	2		

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 ***

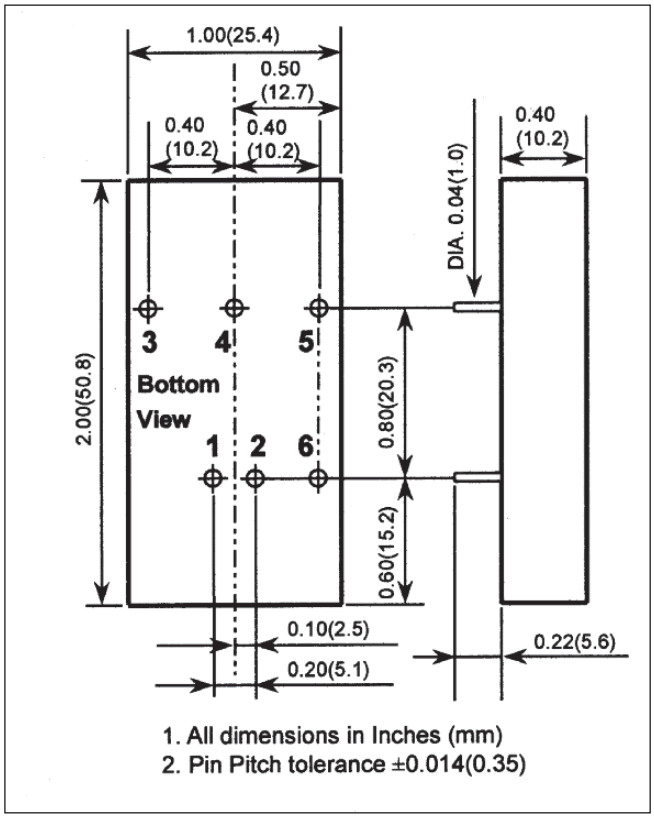
Pinout

Pin#	Function	
	Single Output	**Dual Output**
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)*

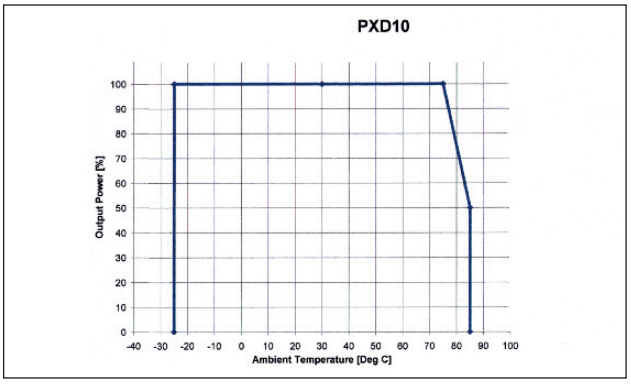
Add suffix for required options, Example PXD15-48S12-N

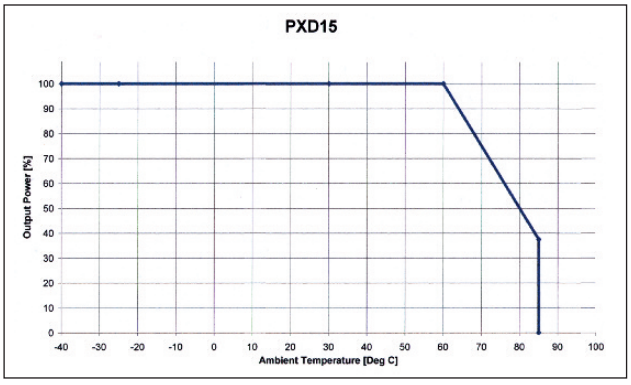
PXD20 Series

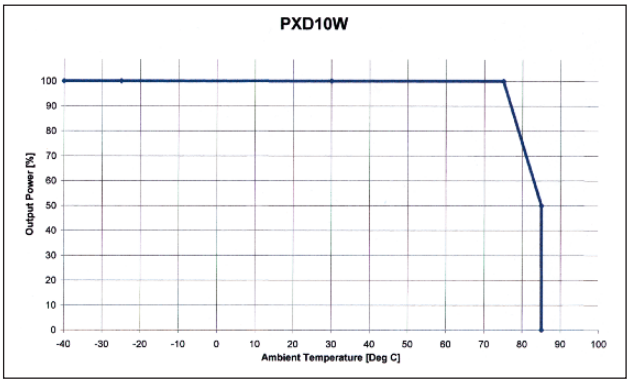
Options	Single Output	Dual Output
Suffix	Function	Function
No Suffix	Positive Logic & Output Trim	Positive Logic *(No Trim Function)*
N	Negative Logic & Output Trim	Negative Logic *(No Trim Function)*

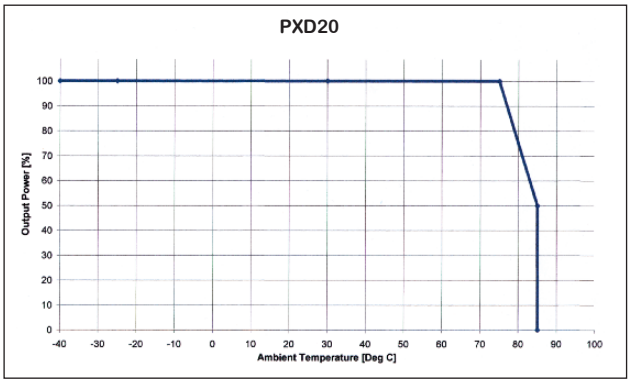
Add suffix for N option, Example PXD20-48S12-N

Derating Curves PXD Series









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

Key Market Segments & Applications

Telecom
Datacom
Process Control

PXD20W Series

Single and Dual Output
20W DC-DC Converters

PXD20W Features and Benefits

Features	Benefits
• Safety Certification	• Easier system approvals
• Wide range input	• Less parts to inventory
• Six sided shielding	• Reduced radiated noise

Specifications		Single Output	Dual Output
ITEMS			
Max Output Power		20W	
Voltage Accuracy		±1%	
Voltage Adjustment		±10%	None
Minimum Load		None	
Line Regulation		±0.2%	±0.5%
Load Regulation		±0.5%	±1%
Cross Regulation (25% to 100%)		-	±5%
Ripple and Noise		See table	
Start up time		20ms	
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°C to +66°C, derating necessary above 66°C	
Maximum Case Temperature		+105°C	
Storage Temperature		-55°C to +125°C	
Thermal Shock		MIL-STD-810F	
Relative Humidity (non condensing)		5 to 95%	
Transient Response (25% step load change)		250μs recovery	
Overvoltage Protection (Zener clamp)		3.3: 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		10^9 Ω minimum	
Isolation Capacitance (max)		1500pF	
Typical Switching Frequency (Fixed)		400kHz	
MTBF (BELLCORE TR-NWT-000332)		1,620,000 hours	
Vibration		MIL-STD-810F	
Conducted and Radiated Emissions	(1)	EN55022 Level A	
Immunity	(2)	EN61000-4-2, -3, -4, -5, -6	
Safety Agency Certifications		IEC60950-1, UL60950-1, EN60950-1, CE Mark	
Size mm (L x W x H)		50.8 x 25.4 x 10.2	
Weight (g)		27	
Warranty (yrs)		2	

Model Selector

Model	Output Volt (V)	Output Curr (A)	Output Power (W)	Input Volt (V)	Ripple & Noise (note 3)	Max Output Capacitance (note 4)	Eff.(%)
PXD20-24WS3P3	3.3V	5.5A	18W	9 - 36VDC	60mVp-p	18000μF	85%
PXD20-24WS05	5V	4.0A	20W	9 - 36VDC	75mVp-p	9600μF	88%
PXD20-24WS12	12V	1.67A	20W	9 - 36VDC	75mVp-p	1650μF	86%
PXD20-24WS15	15V	1.33A	20W	9 - 36VDC	75mVp-p	1050μF	86%
PXD20-24WD05	±5V	±2.0A	20W	9 - 36VDC	100mVp-p	±4800μF	88%
PXD20-24WD12	±12V	±0.83A	20W	9 - 36VDC	100mVp-p	±825μF	87%
PXD20-24WD15	±15V	±0.67A	20W	9 - 36VDC	100mVp-p	±525μF	87%
PXD20-48WS3P3	3.3V	5.5A	18W	18 - 75VDC	60mVp-p	18000μF	85%
PXD20-48WS05	5V	4.0A	20W	18 - 75VDC	75mVp-p	9600μF	88%
PXD20-48WS12	12V	1.67A	20W	18 - 75VDC	75mVp-p	1650μF	87%
PXD20-48WS15	15V	1.33A	20W	18 - 75VDC	75mVp-p	1050μF	87%
PXD20-48WD05	±5V	±2.0A	20W	18 - 75VDC	100mVp-p	±4800μF	89%
PXD20-48WD12	±12V	±0.83A	20W	18 - 75VDC	100mVp-p	±825μF	88%
PXD20-48WD15	±15V	±0.67A	20W	18 - 75VDC	100mVp-p	±525μF	88%

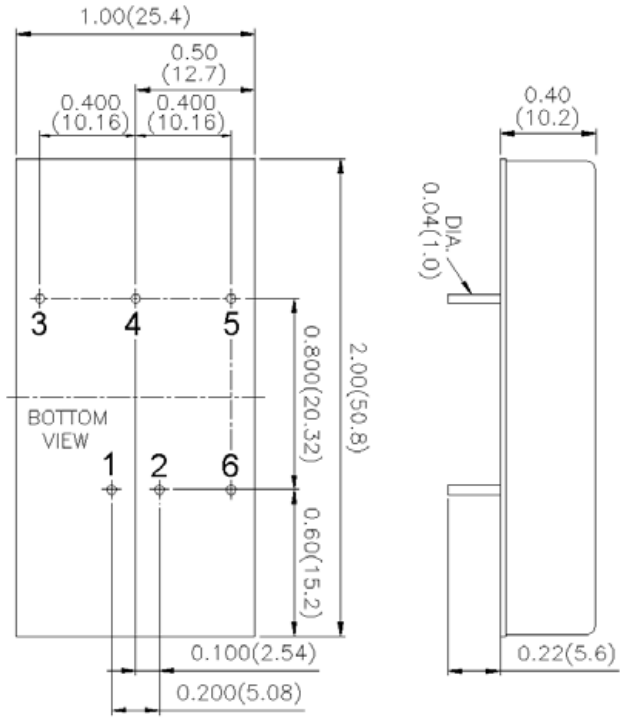
Specification Notes:

(1) With external ceramic capacitor (24V: N/A, 48V: 1μF/100V) connected across input pins
(2) For EN61000-4-4 & -5 compliance, fit external electrolytic capacitor 220μF/100V, ESR 48MΩ connected across input pins
(3) Typical value @ nominal input/output
(4) Value with minimum Vin and constant resistive load

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 PXD20-48WS12-N

Outline Drawing PXD20W Series

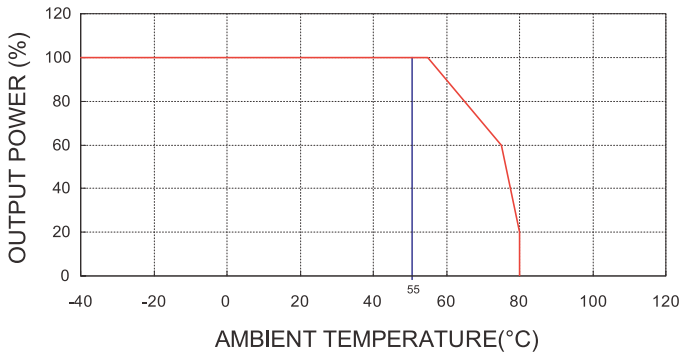


1. All dimensions in Inches (mm)
   Tolerance: X.XX±0.02 (X.X±0.5), X.XXX±0.01 (X.XX±0.25)
2. Pin pitch tolerance ±0.01(0.25)
3. Pin dimension tolerance ±0.004 (0.1)

Pinout

Pin#	Function	
	Single Output	**Dual Output**
1	+ Input	+ Input
2	– Input	– Input
3	+ Output	+ Output
4	Trim	Common
5	– Output	– Output
6	CTRL	CTRL

Derating Curve PXD20W Series



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

Key Market Segments & Applications

Telecom
Datacom
Process Control

PXD30W Series

Single and Dual output 30W
DC-DC converters

PXD30W Features and Benefits

Features	Benefits
• Safety Certification	• Easier system approvals
• Wide range input	• Less parts to inventory
• Six sided shielding	• Reduced radiated noise

Specifications		Single Output	Dual Output
ITEMS			
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		<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°C to +85°C, derating necessary above 50°C	
Maximum Case Temperature		+105°C (Overtemperature Protection +115°C)	
Storage Temperature		-55°C to +125°C	
Thermal Shock		MIL-STD-810F	
Relative Humidity (non condensing)		5 to 95%	
Transient Response (25% step load change)		250μs recovery	
Overvoltage Protection (Zener clamp)		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		10^9 Ω 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)	EN55022 Level A	
Immunity	(2)	EN61000-4-2, -3, -4, -5, -6 Pref Criteria A	
Safety Agency Certifications		IEC60950-1, UL60950-1, EN60950-1, CE Mark	
Size mm (L x W x H)		50.8 x 25.4 x 10	
Weight (g)		30.5	
Warranty (yrs)		2	

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%

Specification Notes:

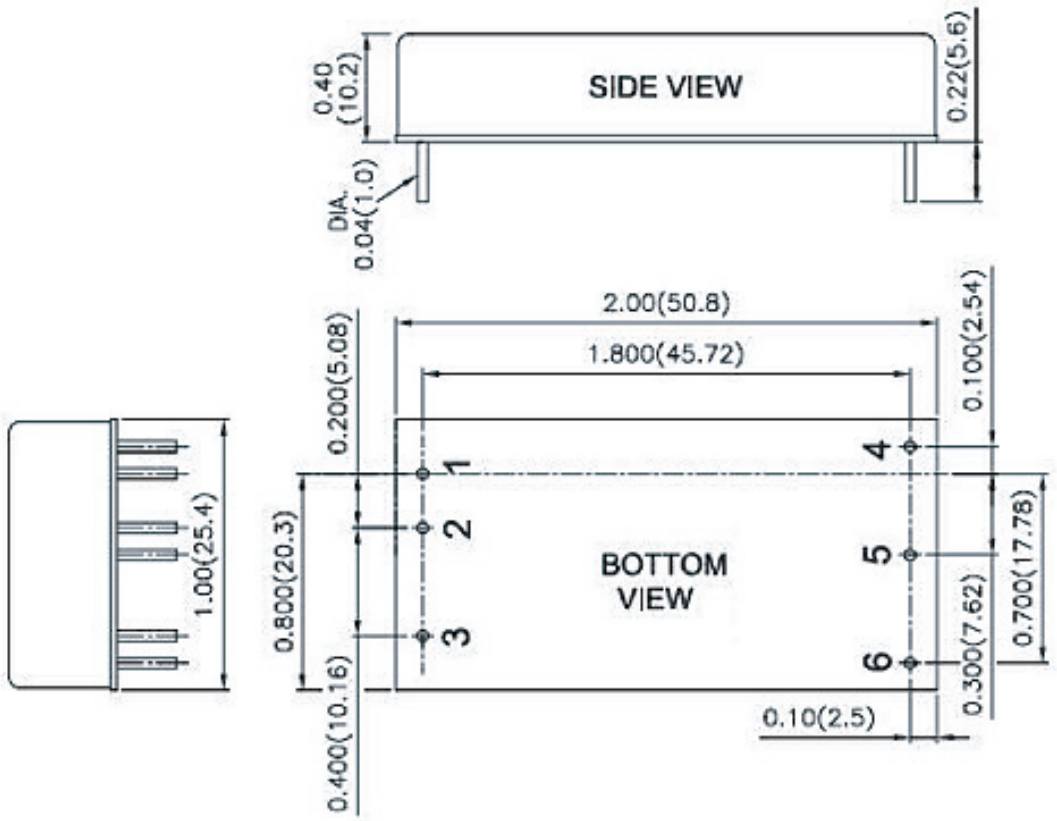
(1) With external ceramic capacitor (24V: 4.7uF, 48V: 2.2uF) connected across input pins

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

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 PXD30-48WS12-N

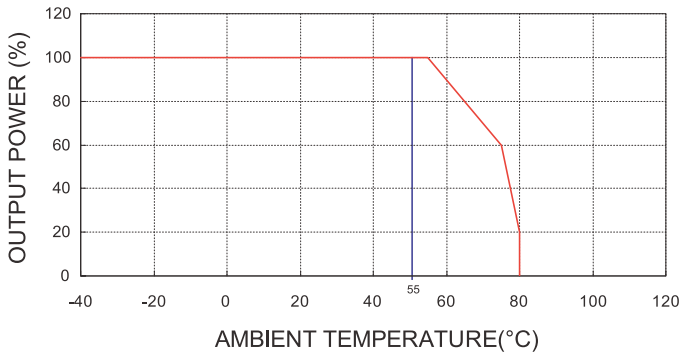
Outline Drawing PXD30W Series



Pinout

Pin#	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

Derating Curve PXD30W Series



По вопросам продаж и поддержки обращайтесь:

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