chanhvinh.com

TDK·Lambda

Innovating Reliable Power



- 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	10^9 Ohms 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	IEC/UL/CSA/EN 62368-1, 60950-1, CE Mark		
Size mm (L x W x H)	50.8 x 25.4 x 10.2		
Weight (g)	27		
Warranty (yrs)	3		

chanhvinh.com

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

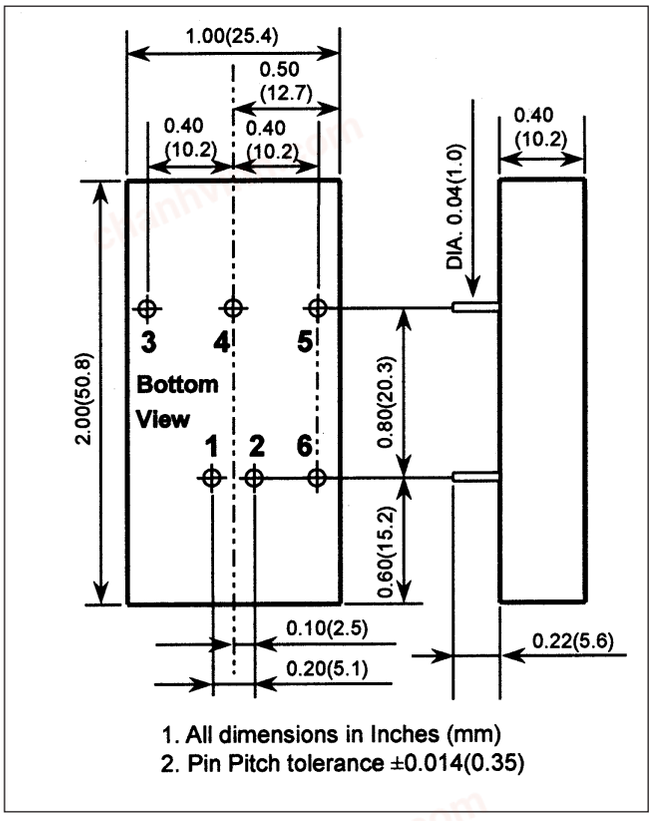
Pin#	Function	
	Single Output	**Dual Output**
1	+ Input	+ Input
2	- Input	- Input
3	+ Output	+ Output
4	Trim (20W only)	Common
5	- Output	- Output
6	Remote On/Off	Remote On/Off

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

chanhvinh.com

Outline Drawing PXD Series



1. All dimensions in Inches (mm)
2. Pin Pitch tolerance ±0.014(0.35)

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)*

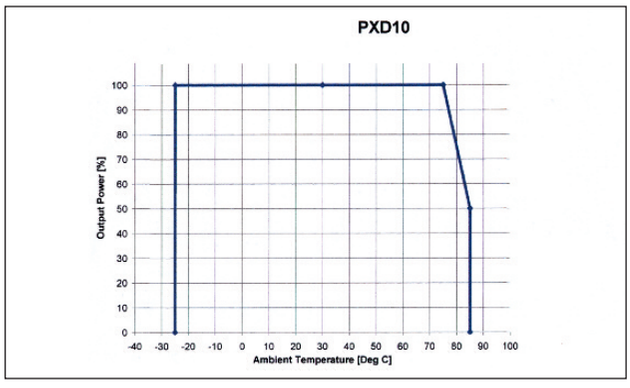
Add suffix for reguired options, Example PXD15-48S12-N

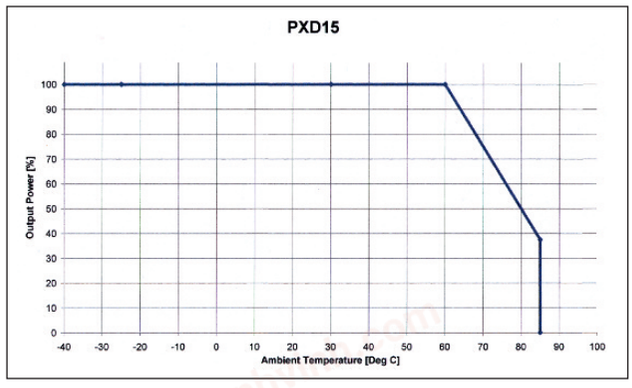
PXD20 Series

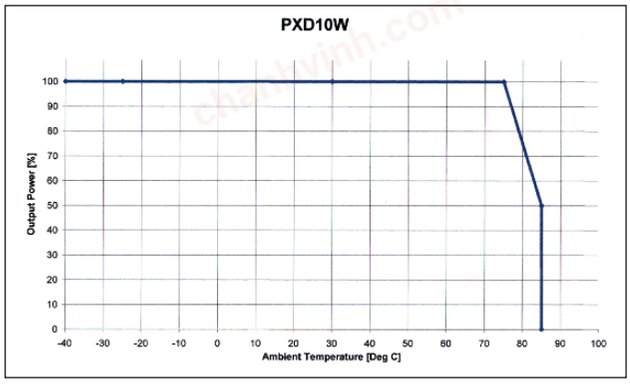
Options	Single Output	Dual Output
Suffix	Function	Function
No Suffix	Positive Logic & Output Trim	Positive Logic *(No Trim Function)*
N	Negative Logic & Output Trim	Negative Logic *(No Trim Function)*

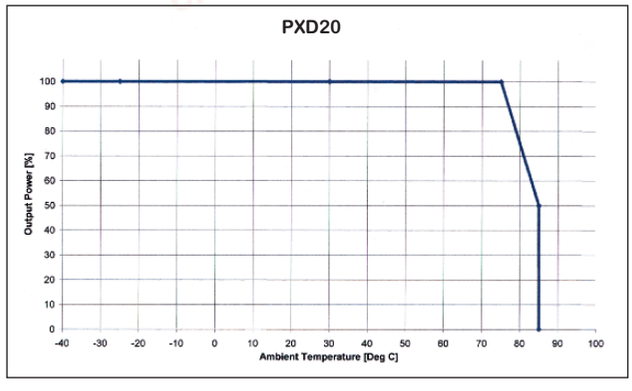
Add suffix for N option, Example PXD20-48S12-N

Derating Curves PXD Series









chanhvinh.com

TDK·Lambda



TDK-Lambda France SAS
Tel: +33 1 60 12 71 65
tlf.fr.powersolutions@tdk.com
www.emea.lambda.tdk.com/fr



Italy Sales Office
Tel: +39 02 61 29 38 63
tlf.it.powersolutions@tdk.com
www.emea.lambda.tdk.com/it



Netherlands
tlf.nl.powersolutions@tdk.com
www.emea.lambda.tdk.com/nl



TDK-Lambda Germany GmbH
Tel: +49 7841 666 0
tlg.powersolutions@tdk.com
www.emea.lambda.tdk.com/de



Austria Sales Office
Tel: +43 2256 655 84
tlg.at.powersolutions@tdk.com
www.emea.lambda.tdk.com/at



Switzerland Sales Office
Tel: +41 44 850 53 53
tlg.ch.powersolutions@tdk.com
www.emea.lambda.tdk.com/ch



Nordic Sales Office
Tel: +45 8853 8086
tlg.dk.powersolutions@tdk.com
www.emea.lambda.tdk.com/dk



TDK-Lambda UK Ltd.
Tel: +44 (0) 12 71 85 66 66
tlu.powersolutions@tdk.com
www.emea.lambda.tdk.com/uk



TDK-Lambda Ltd.
Tel: +9 723 902 4333
tli.powersolutions@tdk.com
www.emea.lambda.tdk.com/il-en



TDK-Lambda Americas
Tel: +1 800-LAMBDA-4 or 1-800-526-2324
tla.powersolutions@tdk.com
www.us.lambda.tdk.com



TDK Electronics do Brasil Ltda
Tel: +55 11 3289-9599
sales.br@tdk-electronics.tdk.com
www.tdk-electronics.tdk.com/en



TDK-Lambda Corporation
Tel: +81-3-6778-1113
www.jp.lambda.tdk.com



TDK-Lambda (China) Electronics Co. Ltd.
Tel: +86 21 6485-0777
tlc.powersolutions@tdk.com
www.lambda.tdk.com.cn



TDK-Lambda Singapore Pte Ltd.
Tel: +65 6251 7211
tls.marketing@tdk.com
www.sg.lambda.tdk.com



TDK India Private Limited, Power Supply Division
Tel: +91 80 4039-0660
mathew.philip@tdk.com
www.sg.lambda.tdk.com

chanhvinh.com