



- Industry Standard 2" x 2" Footprint
- Six Sided Shielding
- Agency Approved
- 12, 24 and 48V Inputs
- 4:1 Wide Range Input Models

PXF Series

Single, Dual, Triple Output 40W & 60W
DC-DC Converters

Key Market Segments & Applications

Telecom
Datacom
Point of Load

PXF 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

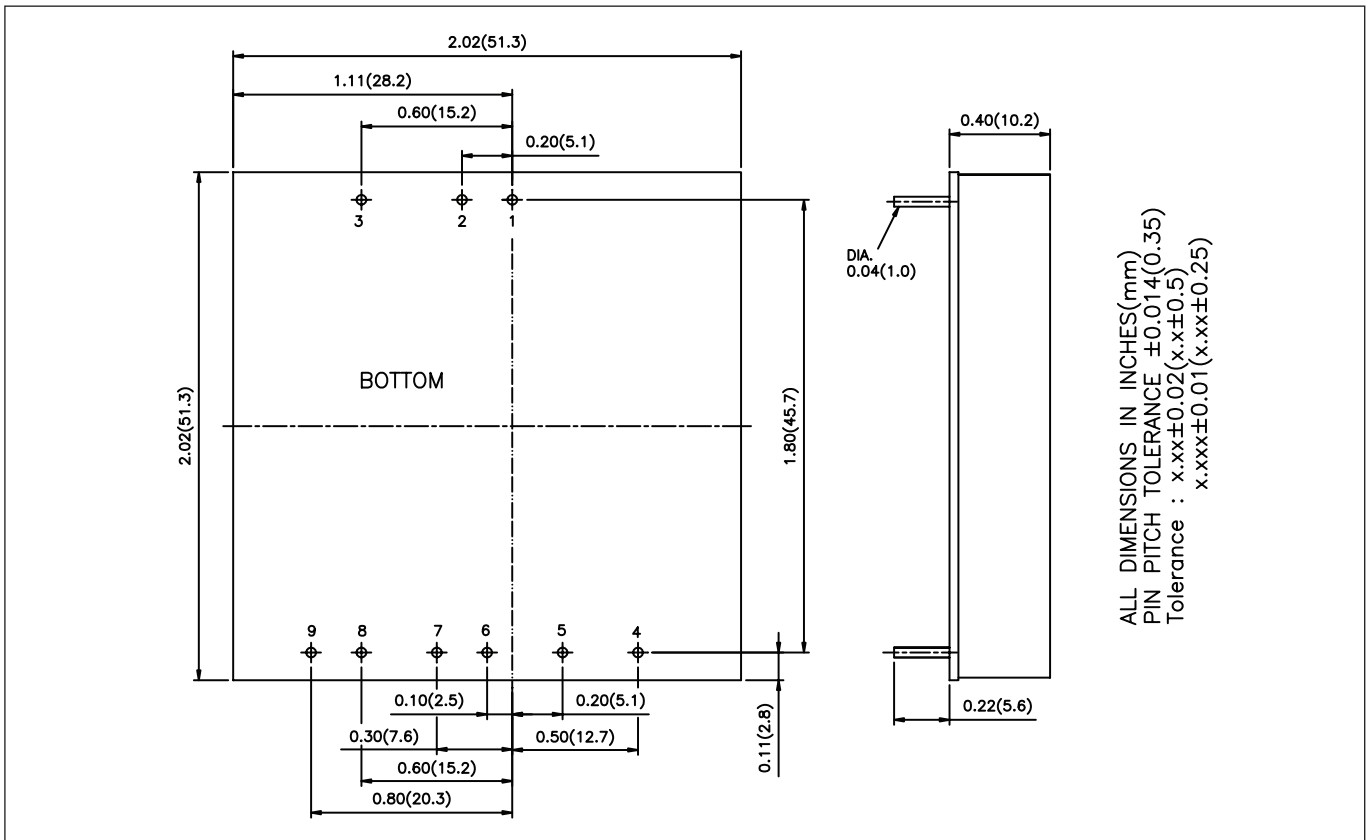
ITEMS	PXF
Maximum Output Power	40W or 60W
Voltage Accuracy (Full Load, Nom. Vin)	Single, Dual and Triple Main $\pm 1\%$, Triple Auxiliaries $\pm 5\%$
Voltage Adjustment (1)	$\pm 10\%$ (Single and Dual Output Only)
Minimum Load, each output (2)	Single Output = 0%, Dual and Triple = 10% of full load rating
Line Regulation	Single / Dual $\pm 0.5\%$, Triple (main) $\pm 1\%$, Triple (auxiliary) $\pm 5\%$
Load Regulation (10% to 100%) (3)	Single $\pm 0.5\%$, Dual $\pm 1\%$, Triple (main) $\pm 2\%$, Triple (auxiliary) $\pm 5\%$
Cross Regulation (25% to 100%) (4)	Triple (main) $\pm 1\%$, Dual/Triple (auxiliary) $\pm 5\%$
Start up time	PXF40: 25ms typ., PXF40xxW, PXF60: 20ms max.
Remote on/off (referenced to negative input)	Positive Logic: ON: Open or 3.0-12V, OFF Short or <1.2V
Temperature Coefficient	$< \pm 0.02\%/^{\circ}\text{C}$
Operating Temperature	See derating curves
Maximum Case Temperature	PXF40: $+100^{\circ}\text{C}$, PXF40-xxW $+105^{\circ}\text{C}$, PXF60 $+110^{\circ}\text{C}$
Storage Temperature	PXF40: -55°C to $+105^{\circ}\text{C}$, PXF40xxW, PXF60 $+125^{\circ}\text{C}$
Thermal Shock	MIL-STD-810F
Relative Humidity (non condensing)	5 to 95%
Transient Response (25% step load change)	250 μs recovery
Overvoltage Protection (Zener clamp)	Typical 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)	12V input: 36V, 24V input: 50V, 48V input: 100V
Reflected input ripple (peak to peak) (5)	PXF40: 40mA, PXF40xxW, PXF60: 20mA
Isolation Voltage	Input - Output, Input to Case: 1600VDC minimum
Isolation Resistance	10 ⁹ Ω minimum
Isolation Capacitance (max)	PXF40, PXF60: 1000pF, PXF40xxW: 2500pF
Switching Frequency (Fixed)	300kHz (typ.)
MTBF (BELLCORE TR-NWT-000332)	PXF40: 1,398,000; PXF40xxW: 1,105,000, PXF60: 1.093,000 hours
Vibration	10 - 55Hz, 10G, 30 minutes each X, Y, Z axis
Conducted and Radiated Emissions	EN55022 Level A, see installation manual
Immunity	EN61000-4-2, -3, -4, -5, -6
Safety Agency Approval	IEC/UL/CSA/EN 62368-1, 60950-1, CE Mark
Size mm (L x W x H)	50.8 x 50.8 x 10.1
Weight (g)	60
Warranty (yrs)	3

Refer to application notes on website for external circuitry and PCB layout

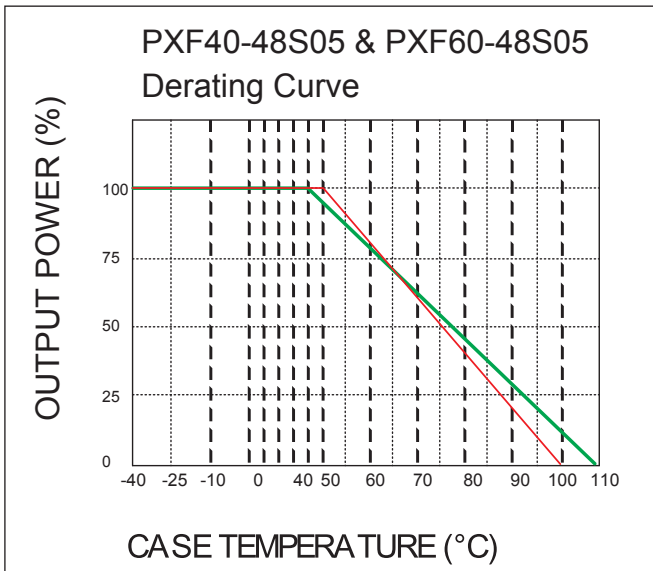
- (1) Maximum output deviation is 10% inclusive of remote sense and trim. If remote sense is not being used, the +Sense and - Sense should be connected to their corresponding outputs; + output, - output.
- (2) Dual and Triple output models require a minimum load of 10% on the output to maintain specified regulation. No load operation will not damage the device.
- (3) Load regulation for triple output: Main output:10-100%, with 10-100% balanced load on auxiliaries. Auxiliary outputs: 10% to 100% balanced on all outputs.
- (4) Cross regulation for dual output: asymmetrical load 25% / 100% full load. Cross regulation for triple output: Main output 100% load, auxiliary 100%, other auxiliary 25% to 100%. Auxiliary outputs: main output 100% load, auxiliary 100%, other auxiliary 25% to 100% or main output 25%, auxiliary 25%, other auxiliary 25% to 100%.
- (5) Simulated Source impedance of 12 μ H placed in series with + input.

Model Selector						
Output Volt(V)	Output Curr(A)	Input Volt(VDC)	Model	Ripple/Noise (mV)	Efficiency (%)	Max Load Cap(μ F)
Single Outputs						
3.3	8	9 - 18	PXF40-12S3P3	50	84	21000
3.3	10	9 - 36	PXF40-24WS3P3	50	86	25750
3.3	8	18 - 36	PXF40-24S3P3	50	87	21000
3.3	10	18 - 75	PXF40-48WS3P3	50	86	25750
3.3	14	18 - 36	PXF60-24S3P3	75	89	36000
3.3	8	36 - 75	PXF40-48S3P3	50	88	21000
3.3	14	36 - 75	PXF60-48S3P3	75	89	36000
5	8	9 - 18	PXF40-12S05	50	86	13600
5	8	9 - 36	PXF40-24WS05	50	87	13600
5	8	18 - 36	PXF40-24S05	50	89	13600
5	8	18 - 75	PXF40-48WS05	50	88	13600
5	8	36 - 75	PXF40-48S05	50	90	13600
5	12	18 - 36	PXF60-24S05	75	90	20400
5	12	36 - 75	PXF60-48S05	75	90	20400
12	3.333	9 - 18	PXF40-12S12	75	86	2360
12	3.333	9 - 36	PXF40-24WS12	75	87	2360
12	3.333	18 - 36	PXF40-24S12	75	88	2360
12	3.333	18 - 75	PXF40-48WS12	75	87	2360
12	3.333	36 - 75	PXF40-48S12	75	89	2360
12	5	18 - 36	PXF60-24S12	100	90	3550
12	5	36 - 75	PXF60-48S12	100	90	3550
15	2.666	9 - 18	PXF40-12S15	75	87	1510
15	2.666	9 - 36	PXF40-24WS15	75	87	1510
15	2.666	18 - 36	PXF40-24S15	75	89	1510
15	2.666	18 - 75	PXF40-48WS15	75	87	1510
15	2.666	36 - 75	PXF40-48S15	75	89	1510
15	4	18 - 36	PXF60-24S15	100	90	2300
15	4	36 - 75	PXF60-48S15	100	90	2300
Dual Outputs						
\pm 12	\pm 1.667	9 - 36	PXF40-24WD12	120	86	\pm 1200
\pm 12	\pm 1.8	9 - 18	PXF40-12D12	120	85	\pm 1200
\pm 12	\pm 1.8	18 - 36	PXF40-24D12	120	87	\pm 1200
\pm 12	\pm 1.667	18 - 75	PXF40-48WD12	120	86	\pm 1200
\pm 12	\pm 1.8	36 - 75	PXF40-48D12	120	87	\pm 1200
\pm 15	\pm 1.333	9 - 36	PXF40-24WD15	150	86	\pm 750
\pm 15	\pm 1.4	9 - 18	PXF40-12D15	150	85	\pm 750
\pm 15	\pm 1.4	18 - 36	PXF40-24D15	150	87	\pm 750
\pm 15	\pm 1.333	18 - 75	PXF40-48WD15	150	86	\pm 750
\pm 15	\pm 1.4	36 - 75	PXF40-48D15	150	87	\pm 750
Triple Outputs						
3.3V, \pm 12V	6.0, \pm 0.4	9 - 18	PXF40-12T3312	50 / 75	83	13000, \pm 330
3.3V, \pm 12V	6.0, \pm 0.4	18 - 36	PXF40-24T3312	50 / 75	85	13000, \pm 330
3.3V, \pm 12V	6.0, \pm 0.4	36 - 75	PXF40-48T3312	50 / 75	86	13000, \pm 330
5V, \pm 12V	6.0, \pm 0.4	9 - 18	PXF40-12T0512	50 / 75	85	6800, \pm 330
5V, \pm 12V	6.0, \pm 0.4	18 - 36	PXF40-24T0512	50 / 75	87	6800, \pm 330
5V, \pm 12V	6.0, \pm 0.4	36 - 75	PXF40-48T0512	50 / 75	88	6800, \pm 330
5V, \pm 15V	6.0, \pm 0.3	9 - 18	PXF40-12T0515	50/75	86	6800, \pm 110
5V, \pm 15V	6.0, \pm 0.3	18 - 36	PXF40-24T0515	50/75	87	6800, \pm 110
5V, \pm 15V	6.0, \pm 0.3	36 - 75	PXF40-48T0515	50/75	88	6800, \pm 110

Outline Drawing PXF40 Series



Derating Curve



Pinout

PIN#	Single O/P	Function Dual O/P	Triple O/P
1	+ Input	+ Input	+ Input
2	- Input	- Input	- Input
3	Remote on/off	Remote on/off	Remote on/off
4	N/C	No Pin	+ Aux
5	- Sense (Note 1)	+ VO	Common
6	+ Sense (Note 1)	Common	-Aux
7	+ Output	Common	+ Output
8	- Output	- VO	- Output (Com)
9	Trim	Trim	N/C

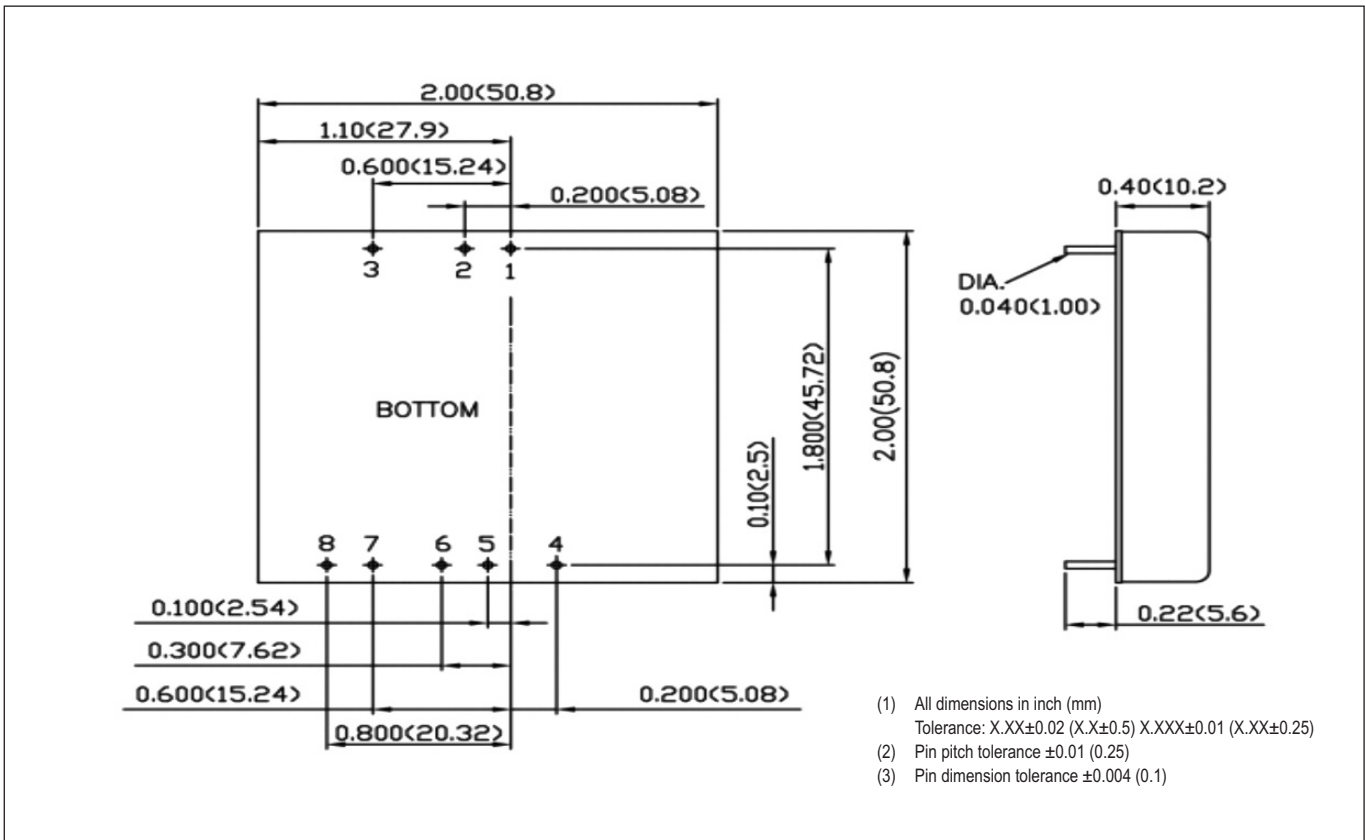
Heat Sink (5.58mm high)

7G0026A (includes thermal adhesive pad)

PXF40 Series

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

Outline Drawing PXF40 & PXF60 wide range



Pinout		
PIN#	Single O/P	Dual O/P ⁽⁷⁾
1	+ Input	+ Input
2	- Input	- Input
3	Remote on/off	Remote on/off
4	- Sense	+ Output
5	+ Sense	Common
6	+ Output	Common
7	- Output	- Output
8	Trim	Trim

PXF40 wide range and PXF60

Options	Single Output	Dual Output ⁽⁷⁾
Suffix	Function	Function
No Suffix	Positive Logic & Output Trim	Positive Logic & Output Trim
N	Negative Logic & Output Trim	Negative Logic & Output Trim

Add suffix for required options, Example PXF40-48WS12-N

(7) Dual output available on PXF40 wide range only



TDK-Lambda France SAS

3 Avenue du Canada
 Parc Technopolis
 Bâtiment Sigma
 91940 les Ulis
 France
 Tel: +33 1 60 12 71 65
 Fax: +33 1 60 12 71 66
france@fr.tdk-lambda.com
www.emea.lambda.tdk.com/fr



Italy Sales Office

Via Giacomo Matteotti 62
 20092 Cinisello Balsamo (MI)
 Italy
 Tel: +39 02 61 29 38 63
 Fax: +39 02 61 29 09 00
info.italia@it.tdk-lambda.com
www.emea.lambda.tdk.com/it



Netherlands

info@nl.tdk-lambda.com
www.emea.lambda.tdk.com/nl



TDK-Lambda Germany GmbH

Karl-Bold-Strasse 40
 77855 Achern
 Germany
 Tel: +49 7841 666 0
 Fax: +49 7841 5000
info.germany@de.tdk-lambda.com
www.emea.lambda.tdk.com/de



Austria Sales Office

Aredstrasse 22
 2544 Leobersdorf
 Austria
 Tel: +43 2256 655 84
 Fax: +43 2256 645 12
info@at.tdk-lambda.com
www.emea.lambda.tdk.com/at



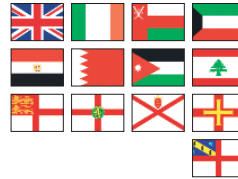
Switzerland Sales Office

Eichtalstrasse 55
 8634 Hombrechtikon
 Switzerland
 Tel: +41 44 850 53 53
 Fax: +41 44 850 53 50
info@ch.tdk-lambda.com
www.emea.lambda.tdk.com/ch



Nordic Sales Office

Haderslevvej 36B
 DK-6000 Kolding
 Denmark
 Tel: +45 8853 8086
info@dk.tdk-lambda.com
www.emea.lambda.tdk.com/dk



TDK-Lambda UK Ltd.

Kingsley Avenue
 Ilfracombe
 Devon EX34 8ES
 United Kingdom
 Tel: +44 (0) 12 71 85 66 66
 Fax: +44 (0) 12 71 86 48 94
info@uk.tdk-lambda.com
www.emea.lambda.tdk.com/uk



TDK-Lambda Ltd.

1 Alexander Yanai
 Segula
 Petah-Tikva
 Israel
 Tel: +9 723 902 4333
 Fax: +9 723 902 4777
info@tdk-lambda.co.il
www.emea.lambda.tdk.com/il



C.I.S.

Commercial Support:
 Tel: +7 (495) 665 2627
Technical Support:
 Tel: +7 (812) 658 0463
info@tdk-lambda.ru
www.emea.lambda.tdk.com/ru

Local Distribution

