

- Industry Standard 2" x 1.6" Footprint
- Six Sided Shielding
- Agency Approved
- 12V, 24V and 48V Inputs

## PXE Series

Single and Dual 20W to 30W  
DC-DC Converters

### Key Market Segments & Applications

Telecom  
Datacom  
Point of Load

### PXE 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

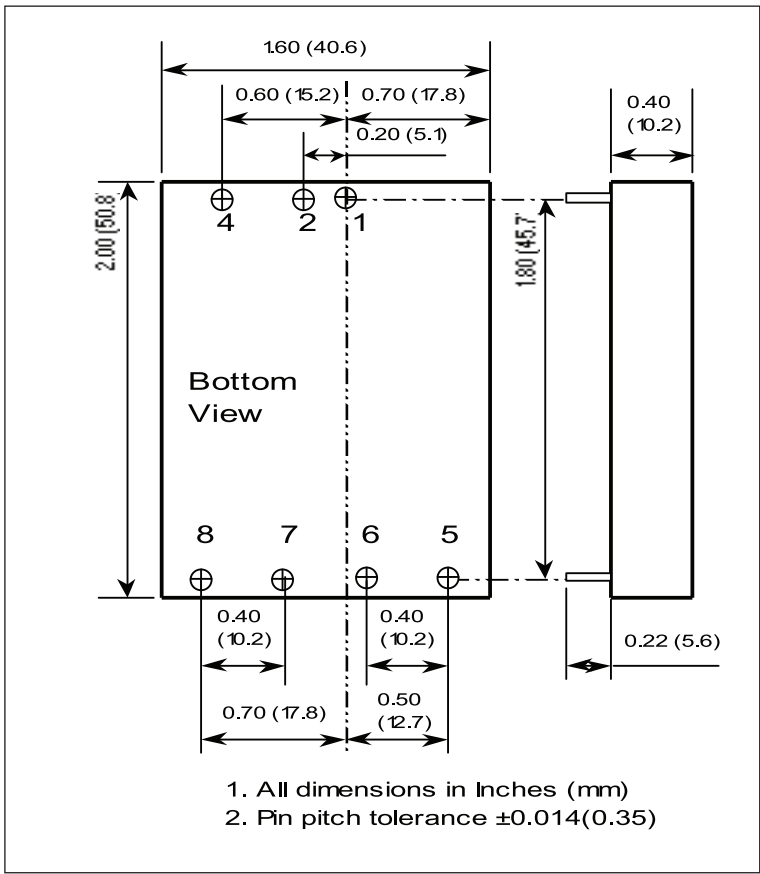
ITEMS	PXE20	PXE30
Max Output Power	20W	30W
Voltage Accuracy	±2%	±1%
Voltage Adjustment	±10%	
Minimum Load, each output (1)	10%	None
Line Regulation	±0.2% for single, ±0.5% for dual	
Load Regulation (25% to 100%)	Single ±0.5%, Dual ±3%	Single ±0.5%, Dual ±1%
Cross Regulation (25% to 100%)	Dual ±5%	
Ripple and Noise (P-P)	Single: 75mV; Dual: 100mV	
Start up time	20ms typ.	25ms typ.
Remote on/off (3) (4)	Positive Logic: ON: Open or 3.5-12V, OFF Short or <1.2V	
Temperature Coefficient	<±0.02%/°C	
Operating Temperature	-40°C to +85°C	
Maximum Case Temperature	+100°C	
Storage Temperature	-55°C to +105°C	
Thermal Shock	MIL-STD-810D	
Relative Humidity (non condensing)	5 to 95%	
Transient Response (25% step load change)	500µs recovery	300µs 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)	12V input: 36V, 24V input: 50V, 48V input: 100V	
Reflected input ripple (peak to peak) (2)	25mA	30mA
Isolation Voltage	1600VDC minimum (Input-Output, Input-Case)	
Isolation Resistance	10 <sup>9</sup> Ω minimum	
Isolation Capacitance (max)	300pF	1000pF
Typical Switching Frequency (Fixed)	300kHz	
MTBF (BELLCORE TR-NWT-000332)	1,976,000 hours	1,535,000 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 40.6 x 10.2	
Weight (g)	48	
Warranty (yrs)	3	

**Notes:** (1) To meet regulation & noise specifications. Operation at zero load will not damage the device.  
(3) Max sink current 20mA (PXE20), 2.5mA (PXE30); The on/off pin is referenced to the negative input

(2) 12µH source impedance in series with + input  
(4) Negative Logic : **OFF** Open or 3.5V -12V **ON** Short or <1.2V

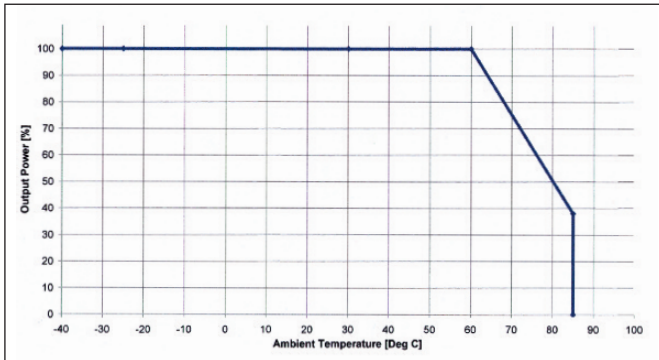
Model Selector					
Output Volt (V)	Output Curr (A)	Output Power (W)	Input Volt (VDC)	Model	Efficiency (%)
<b>Single Outputs</b>					
1.5	8.0	30	10 - 40	PXE30-24WS1P5	80
1.5	8.0	30	18 - 75	PXE30-48WS1P5	80
1.8	8.0	30	10 - 40	PXE30-24WS1P8	83
1.8	8.0	30	18 - 75	PXE30-48WS1P8	83
2.5	8.0	30	10 - 40	PXE30-24WS2P5	85
2.5	8.0	30	18 - 75	PXE30-48WS2P5	86
3.3	6.0	18	9 - 18	PXE30-12S3P3	85
3.3	6.0	18	18 - 36	PXE30-24S3P3	88
3.3	6.0	18	36 - 75	PXE30-48S3P3	87
3.3	6.0	30	10 - 40	PXE30-24WS3P3	87
3.3	6.0	30	18 - 75	PXE30-48WS3P3	87
3.3	6.0	30	10 - 40	PXE30-24WS3P3	87
5	4.0	20	9 - 36	PXE20-24WS05	79
5	4.0	20	18 - 75	PXE20-48WS05	80
5	6.0	30	9 - 18	PXE30-12S05	87
5	6.0	30	18 - 36	PXE30-24S05	88
5	6.0	30	36 - 75	PXE30-48S05	89
5	6.0	30	10 - 40	PXE30-24WS05	87
5	6.0	30	18 - 75	PXE30-48WS05	88
12	1.67	20	9 - 36	PXE20-24WS12	81
12	1.67	20	18 - 75	PXE20-48WS12	81
12	2.5	30	9 - 18	PXE30-12S12	88
12	2.5	30	18 - 36	PXE30-24S12	89
12	2.5	30	36 - 75	PXE30-48S12	90
12	2.5	30	10 - 40	PXE30-24WS12	87
12	2.5	30	18 - 75	PXE30-48WS12	87
15	1.33	20	9 - 36	PXE20-24WS15	81
15	1.33	20	18 - 75	PXE20-48WS15	81
15	2.0	30	9 - 18	PXE30-12S15	88
15	2.0	30	18 - 36	PXE30-24S15	89
15	2.0	30	36 - 75	PXE30-48S15	90
15	2.0	30	10 - 40	PXE30-24WS15	88
15	2.0	30	18 - 75	PXE30-48WS15	88
<b>Dual Outputs</b>					
±5	±2.0	20	9 - 36	PXE20-24WD05	79
±5	±2.0	20	18 - 75	PXE20-48WD05	79
±12	±0.833	20	9 - 36	PXE20-24WD12	81
±12	±0.833	20	18 - 75	PXE20-48WD12	83
±12	±1.25	30	9 - 18	PXE30-12D12	87
±12	±1.25	30	18 - 36	PXE30-24D12	88
±12	±1.25	30	36 - 75	PXE30-48D12	88
±12	±1.25	30	10 - 40	PXE30-24WD12	84
±12	±1.25	30	18 - 75	PXE30-48WD12	85
±15	±0.666	20	9 - 36	PXE20-24WD15	82
±15	±0.666	20	18 - 75	PXE20-48WD15	84
±15	±1.0	30	9 - 18	PXE30-12D15	87
±15	±1.0	30	18 - 36	PXE30-24D15	88
±15	±1.0	30	36 - 75	PXE30-48D15	88
±15	±1.0	30	10 - 40	PXE30-24WD15	85
±15	±1.0	30	18 - 75	PXE30-48WD15	86

## Outline Drawing PXE Series

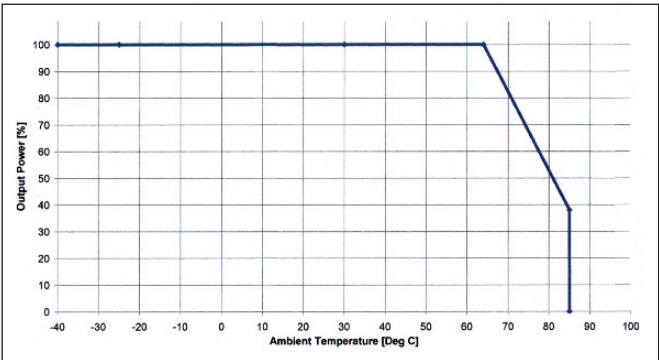


PIN #	Function	
	Single Output	Dual Output
1	+ Input	+ Input
2	- Input	- Input
4	Remote on/off	Remote on/off
5	No Pin	+ Output
6	+ Output	Common
7	- Output	- Output
8	Trim	Trim

## Derating Curve PXE20 Series



## Derating Curve PXE30 Series



Options	Single Output	Dual Output
Suffix	Function	Function
No Suffix	Positive Logic & Output Trim	Positive Logic & Output Trim
N	Negative Logic & Output Trim <sup>(4)</sup> (PXE30 wide range only)	Negative Logic & Output Trim <sup>(4)</sup> (PXE30 wide range only)

Add suffix for N option, Example PXE30-48S12-N



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