TDK·Lambda PXC-M03 Series

3W Medical DC-DC Converters

Features

- Industry Standard DIP-24 Package
- 9-36V or 18-75VDC Input
- 5kVAC Isolation (2xMOPPs)
- 2.5uA Leakage Current
- Low Off-Load Power Draw



Key Market Segments & Applications

Medical Industrial Test COMM Broadcast

Isolated RoHS

Specifications

Model		PXC-M03	PXC-M03W
Max Output Power	W	3W	
Voltage Accuracy	%	±1%	
Voltage Adjustment (T)	%	±10% (-10% +20% on 15V & 24V single output models) (see options table)	
Minimum Load	-	None	
Line Regulation	%	Single Output: ±0.2%, Dual Output: ±0.5%	
Load Regulation	%	Single Output: ±0.2%, Dual Output: ±1%	
Cross Regulation	%	±5% (25-100% load)	
Ripple and Noise	-	See table	
Start up time	ms	30ms	
Remote on/off	-	See options table	
Temperature Coefficient	%/°C	<±0.02%/°C	
Operating Temperature (1)	°C	-40 to +105°C, derating necessary above 94°C	
Storage Temperature	°C	-55 to 125/°C	
Thermal Shock	-	MIL-STD-810F	
Relative Humidity (non condensing)	%RH	5 to 95%RH	
Transient Response (25% step load change)	µs	< 250µs recovery	
Overvoltage Protection	V	Single Output: 3.3V: 3.7-5V, 5V: 5.6-7V, 12V: 13.5-16V, 15V: 18.3-22V, 24V: 29.1-34.5V Dual Output: 5V: 5.6-7V, 12V: 13.5-18.2V, 15V: 17-22V	
Overcurrent and Short Circuit Protection	%	Typically at 150%, hiccup with self recovery	
Input Surge Voltage (Maximum for 100ms)	V	5V input: 16V, 24V input: 50V, 48V input: 100V	
Isolation Voltage	V	5,000VAC	
Isolation Resistance	Ω	10^9Ω minimum	
Isolation Capacitance (max)	pF	17pF maximum	
Typical Switching Frequency (Fixed)	kHz	150kHz (±15kHz)	
MTBF (MIL-HDBK-217F)	Hours	6,444,000	
Vibration	-	MIL-STD-810F	
Conducted and Radiated Emissions	-	See Installation Diagrams	
Immunity	-	EN61000-4-2, -3, -4, -5, -6 Pref Criteria A	
Safety Agency Certifications	-	IEC/EN60601-1, ES60601-1, CE Mark	
Size (L x W x H)	mm(")	31.8 x 20.3 x 10.2mm (1.25 x 0.8 x 0.4")	
Weight	g	14g	
Warranty	Yrs	Five Years	

Notes:

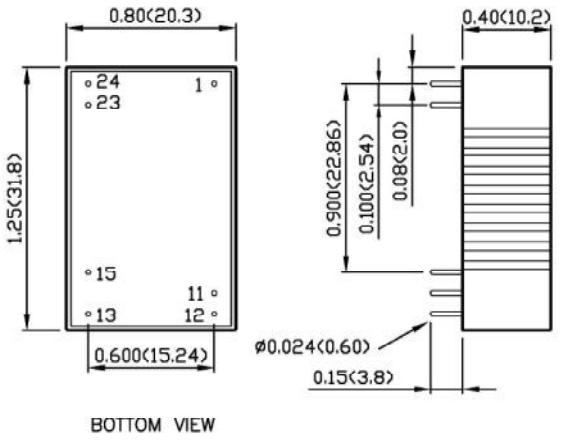
See installation manual for full specifications and test measurements.

(1) Convection cooling. See installation manual for forced air ratings.

Model Selector

Model	Output Voltage (V)	Output Current (A)	Output Power (W)	Input Voltage (V)	Input Current No Load (mA)	Efficiency (%)	Ripple & Noise (Pk-Pk mV)	Max Load Capacitance (uF)
Single Outputs								
PXC-M03-24WS3P3-A	3.3	1	3.3	9 - 36	6	82.0	30	1050
PXC-M03-48WS3P3-A	3.3	1	3.3	18 - 75	4	81.0	30	1050
PXC-M03-24WS05-A	5	0.6	3.0	9 - 36	6	84.5	30	750
PXC-M03-48WS05-A	5	0.6	3.0	18 - 75	4	84.0	30	750
PXC-M03-24WS12-A	12	0.25	3.0	9 - 36	6	87.0	40	130
PXC-M03-48WS12-A	12	0.25	3.0	18 - 75	4	87.0	40	130
PXC-M03-24WS15-A	15	0.2	3.0	9 - 36	6	87.0	40	100
PXC-M03-48WS15-A	15	0.2	3.0	18 - 75	4	86.5	40	100
PXC-M03-24WS24-A	24	0.125	3.0	9 - 36	6	87.0	50	39
PXC-M03-48WS24-A	24	0.125	3.0	18 - 75	4	86.5	50	39
Dual Outputs								
PXC-M03-24WD05-A	±5	±0.3	3.0	9 - 36	6	83.0	30	±430
PXC-M03-48WD05-A	±5	±0.3	3.0	18 - 75	4	83.0	30	±430
PXC-M03-24WD12-A	±12	±0.125	3.0	9 - 36	6	87.0	40	±75
PXC-M03-48WD12-A	±12	±0.125	3.0	18 - 75	4	86.0	40	±75
PXC-M03-24WD15-A	±15	±0.1	3.0	9 - 36	6	86.0	40	±56
PXC-M03-48WD15-A	±15	±0.1	3.0	18 - 75	4	86.0	40	±56

Outline Drawing, Pinout Style A



Pinout (Style A)

PIN #	Single Output	Dual Output
1	+ Input	+ Input
11	No pin	Common
12	- Output	No pin
13	+ Output	- Output
15	No pin	+ Output
23	- Input	- Input
24	- Input	- Input

(See website for Pinout Style B)

Options

-A	Pinout style A (Standard Version)
No suffix	Pinout style B (No remote on/off & no trim pin)
-P	Pinout style B (Positive remote on/off & no trim pin)
-T	Pinout style B (Trim pin & no remote on/off)
-PT	Pinout style B (Positive remote on/off & trim pin)

Other DC-DC Products

PX	10 - 60W, 12V, 24V, 48V input DC-DC
CC-E	1.5 - 25W, 5V, 12V, 24V & 48V input DC-DC
i6A	14A, 9-40V input POL
iA, iB, iC, iJ	3 - 60A, 5V & 12V input POL

For Additional Information, please visit
https://product.tdk.com/info/en/products/power/index.html