

Medical 6W 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



| Specifications | | | |
|---|-------|---|----------|
| Model | | PXC-M06 | PXC-M06W |
| Max Output Power | W | | 6W |
| 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 88°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 | 24V input: 50V, 48V input: 100V | |
| Isolation Voltage | V | 5,000VAC | |
| Isolation Resistance | Ω | 10 ⁹ Ω minimum | |
| Isolation Capacitance (max) | pF | 17pF maximum | |
| Typical Switching Frequency (Fixed) | kHz | 250kHz (±25kHz) | |
| MTBF (MIL-HDBK-217F) | Hours | 4,718,000 | |
| 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:

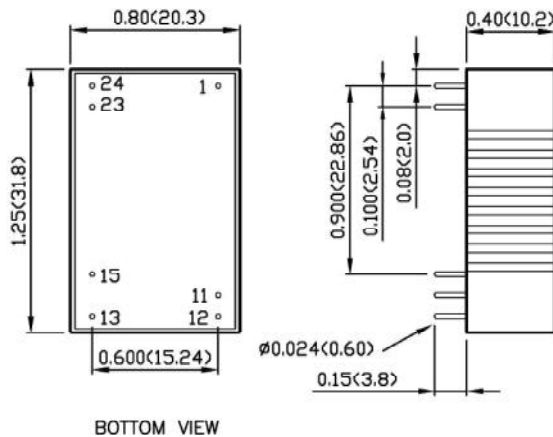
See installation manual for full specifications and test measurements.

(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-M06-24WS3P3-A | 3.3 | 1.8 | 5.9 | 9 - 36 | 6 | 83.0 | 30 | 2100 |
| PXC-M06-48WS3P3-A | 3.3 | 1.8 | 5.9 | 18 - 75 | 4 | 82.5 | 30 | 2100 |
| PXC-M06-24WS05-A | 5 | 1.2 | 6.0 | 9 - 36 | 6 | 86.0 | 30 | 1500 |
| PXC-M06-48WS05-A | 5 | 1.2 | 6.0 | 18 - 75 | 4 | 86.5 | 30 | 1500 |
| PXC-M06-24WS12-A | 12 | 0.5 | 6.0 | 9 - 36 | 6 | 89.0 | 40 | 260 |
| PXC-M06-48WS12-A | 12 | 0.5 | 6.0 | 18 - 75 | 4 | 88.0 | 40 | 260 |
| PXC-M06-24WS15-A | 15 | 0.4 | 6.0 | 9 - 36 | 6 | 89.0 | 40 | 210 |
| PXC-M06-48WS15-A | 15 | 0.4 | 6.0 | 18 - 75 | 4 | 88.5 | 40 | 210 |
| PXC-M06-24WS24-A | 24 | 0.25 | 6.0 | 9 - 36 | 6 | 88.5 | 50 | 75 |
| PXC-M06-48WS24-A | 24 | 0.25 | 6.0 | 18 - 75 | 4 | 88.0 | 50 | 75 |
| Dual Outputs | | | | | | | | |
| PXC-M06-24WD05-A | ±5 | ±0.6 | 6.0 | 9 - 36 | 6 | 85.0 | 30 | ±860 |
| PXC-M06-48WD05-A | ±5 | ±0.6 | 6.0 | 18 - 75 | 4 | 85.0 | 30 | ±860 |
| PXC-M06-24WD12-A | ±12 | ±0.25 | 6.0 | 9 - 36 | 6 | 88.5 | 40 | ±150 |
| PXC-M06-48WD12-A | ±12 | ±0.25 | 6.0 | 18 - 75 | 4 | 88.0 | 40 | ±150 |
| PXC-M06-24WD15-A | ±15 | ±0.2 | 6.0 | 9 - 36 | 6 | 88.5 | 40 | ±110 |
| PXC-M06-48WD15-A | ±15 | ±0.2 | 6.0 | 18 - 75 | 4 | 87.0 | 40 | ±110 |

Outline Drawing, Pinout Style A



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>



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)