

PART NUMBER: PK10 series**DESCRIPTION:** dc-dc converter**features**

- industry standard pin out
- wide 2:1 input range
- fully isolated
- low ripple & noise
- over-current protection
- HI-POT tested
- constant switching frequency
- high efficiency
- compact size 1.85"x1.65"x0.35"
- 3 year warranty



| model ¹ number | output power (max) | input voltage | output voltage (out 1/out 2) | output current (min) | output current (max) | ripple & noise ² mV P-P | efficiency (typ.) |
|------------------------------|--------------------------|------------------|------------------------------------|----------------------------|----------------------------|---------------------------------------|----------------------|
| PK10-D5-S3.3 | 5.3W | 4.5-7.2VDC | 3.3VDC | 0A | 1.6A | 50 | 76% |
| PK10-D5-S5 | 8.0W | 4.5-7.2VDC | 5VDC | 0A | 1.6A | 50 | 77% |
| PK10-D5-S12 | 8.4W | 4.5-7.2VDC | 12VDC | 0A | 0.7A | 120 | 81% |
| PK10-D5-S15 | 9.0W | 4.5-7.2VDC | 15VDC | 0A | 0.6A | 150 | 81% |
| PK10-D5-D12 | 8.4W | 4.5-7.2VDC | ±12VDC | 0A | 0.35A | 120/120 | 80% |
| PK10-D5-D15 | 9.0W | 4.5-7.2VDC | ±15VDC | 0A | 0.3A | 150/150 | 78% |
| PK10-D5-D512 | 9.3W | 4.5-7.2VDC | 5/12VDC | 0A | 0.9A/0.4A | 75/120 | 78% |
| PK10-D5-D515 | 9.3W | 4.5-7.2VDC | 5/15VDC | 0A | 0.9A/0.32A | 75/150 | 78% |
| PK10-D12-S3.3 | 6.6W | 8-16.5VDC | 3.3VDC | 0A | 2.0A | 50 | 80% |
| PK10-D12-S5 | 10.0W | 8-16.5VDC | 5VDC | 0A | 2.0A | 50 | 82% |
| PK10-D12-S12 | 10.8W | 8-16.5VDC | 12VDC | 0A | 0.7A | 120 | 82% |
| PK10-D12-S15 | 10.5W | 8-16.5VDC | 15VDC | 0A | 0.6A | 150 | 82% |
| PK10-D12-D12 | 10.8W | 8-16.5VDC | ±12VDC | 0A | 0.3A | 120/120 | 83% |
| PK10-D12-D15 | 10.5W | 8-16.5VDC | ±15VDC | 0A | 0.35A | 150/150 | 85% |
| PK10-D12-D512 | 9.3W | 8-16.5VDC | 5/12VDC | 0A | 0.9A/0.4A | 75/120 | 72% |
| PK10-D12-D515 | 9.3W | 8-16.5VDC | 5/15VDC | 0A | 0.9A/0.32A | 75/150 | 72% |
| PK10-D24-S3.3 | 6.6W | 18-32VDC | 3.3VDC | 0A | 2.0A | 50 | 80% |
| PK10-D24-S5 | 10.0W | 18-32VDC | 5VDC | 0A | 2.0A | 50 | 82% |
| PK10-D24-S12 | 10.8W | 18-32VDC | 12VDC | 0A | 0.7A | 120 | 84% |
| PK10-D24-S15 | 10.5W | 18-32VDC | 15VDC | 0A | 0.6A | 150 | 85% |
| PK10-D24-D12 | 10.8W | 18-32VDC | ±12VDC | 0A | 0.3A | 120/120 | 82% |
| PK10-D24-D15 | 10.5W | 18-32VDC | ±15VDC | 0A | 0.35A | 150/150 | 83% |
| PK10-D24-D512 | 9.3W | 18-32VDC | 5/12VDC | 0A | 0.9A/0.4A | 75/120 | 74% |
| PK10-D24-D515 | 9.3W | 18-32VDC | 5/15VDC | 0A | 0.9A/0.32A | 75/150 | 73% |
| PK10-D48-S3.3 | 6.6W | 32-63VDC | 3.3VDC | 0A | 2.0A | 50 | 80% |
| PK10-D48-S5 | 10.0W | 32-63VDC | 5VDC | 0A | 2.0A | 50 | 83% |
| PK10-D48-S12 | 10.8W | 32-63VDC | 12VDC | 0A | 0.7A | 120 | 83% |
| PK10-D48-S15 | 10.5W | 32-63VDC | 15VDC | 0A | 0.6A | 150 | 82% |
| PK10-D48-D12 | 10.8W | 32-63VDC | ±12VDC | 0A | 0.35A | 120/120 | 82% |
| PK10-D48-D15 | 10.5W | 32-63VDC | ±15VDC | 0A | 0.3A | 150/150 | 83% |
| PK10-D48-D512 | 9.3W | 32-63VDC | 5/12VDC | 0A | 0.9A/0.4A | 75/120 | 75% |
| PK10-D48-D515 | 9.3W | 32-63VDC | 5/15VDC | 0A | 0.9A/0.32A | 75/150 | 75% |

NOTE: 1. All models (excluding the 5 V dc input, D5) are also available in an extended temperature range of -40°C~85°C. For these models, append "M" to the model number, e.g. PK10-D12-S3.3M.

2. Ripple & noise measured with a 20MHz bandwidth, off a 10uF electrolytic and a 0.1uF ceramic cap in parallel at the output.

**PART NUMBER:** PK10 series**DESCRIPTION:** dc-dc converter**INPUT**

| parameter | conditions/description | min | nom | max | units |
|---------------------|------------------------|-----|-----|------|-------|
| input voltage range | | 4.5 | 5 | 7.2 | VDC |
| | | 8 | 12 | 16.5 | VDC |
| | | 18 | 24 | 32 | VDC |
| | | 32 | 48 | 63 | VDC |
| switching frequency | constant | | 300 | | KHz |

OUTPUT

| parameter | conditions/description | min | nom | max | units |
|--------------------|------------------------------------|-------|-----|-----------|-------|
| set point accuracy | | -2% | | +2% | |
| line regulation | all models | -0.5% | | +0.5% | |
| load regulation | single output models | -1.0% | | +1.0% | |
| | dual output models (10% min. load) | -2.5% | | +2.5% | |
| minimum load | | 0.0 | | | Amps |
| ripple and noise | 20 MHz bandwidth | | | 1.0% Vout | mVpp |

PROTECTION

| parameter | conditions/description | min | nom | max | units |
|--------------|---------------------------------------|------|-----|------|-------|
| over-current | continuous auto recovery ³ | 105% | | 135% | |
| over-voltage | internally zener clamped ³ | 110% | | 140% | |

NOTE: 3 continuous operation in a protected state may compromise long-term reliability.

GENERAL

| parameter | conditions/description | min | nom | max | units |
|-----------------------|--|------|--------|------|----------|
| efficiency | typical at full load | 70% | | 85% | |
| dielectric withstand | input/case, input/output, output/case | 500 | | | VAC |
| insulation resistance | at 500 VDC | 100M | | | Ohms |
| agency standards | approved to UL1950, EN60950, CISPR22, CE | | | | |
| case material | | | STS | | |
| material flammability | | | 94 V-0 | | |
| weight | | | 34 | | grams |
| | | | (1.24) | | (ounces) |
| MTBF | MIL-HDBK-217F | | 480k | | hours |
| operating temperature | regular models | -20 | | +71 | °C |
| | extended temperature models | -40 | | +85 | °C |
| storage temperature | | -40 | | +105 | °C |
| humidity | operating (non-condensing) | 20% | | 90% | RH |
| washability | not intended for aqueous wash | | | | |

