

KDD40 SERIES

DC-DC CONVERTER

33 ~ 48W

KDD40 - 12 S 01



WATTAGE

12 : 9~18V IN
24 : 18~36V IN
48 : 36~72V IN

01: 5V or
±5V or
+5V/±12V OUT
02: 12V or
±12V or
+5V/±15V OUT
03: 15V or
±15V or
+5V/+12V/-5V OUT
04: 24V OUT
05: 3.3V OUT

MODEL LIST

| MODEL NO. | INPUT VOLTAGE | OUTPUT WATTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | EFF. (MIN.) | CASE |
|-----------------------------|---------------|----------------|----------------|----------------|-------------|------|
| Single Output Models | | | | | | |
| KDD40 - 12S01 | 9~18 VDC | 40 WATTS | + 5 VDC | 8000 mA | 75% | C |
| KDD40 - 12S02 | 9~18 VDC | 42 WATTS | + 12 VDC | 3500 mA | 78% | C |
| KDD40 - 12S03 | 9~18 VDC | 45 WATTS | + 15 VDC | 3000 mA | 79% | C |
| KDD40 - 12S04 | 9~18 VDC | 48 WATTS | + 24 VDC | 2000 mA | 80% | C |
| KDD40 - 12S05 | 9~18 VDC | 33 WATTS | +3.3 VDC | 10000 mA | 73% | C |
| KDD40 - 24S01 | 18~36 VDC | 40 WATTS | + 5 VDC | 8000 mA | 79% | C |
| KDD40 - 24S02 | 18~36 VDC | 42 WATTS | + 12 VDC | 3500 mA | 81% | C |
| KDD40 - 24S03 | 18~36 VDC | 45 WATTS | + 15 VDC | 3000 mA | 81% | C |
| KDD40 - 24S04 | 18~36 VDC | 48 WATTS | + 24 VDC | 2000 mA | 81% | C |
| KDD40 - 24S05 | 18~36 VDC | 33 WATTS | +3.3 VDC | 10000 mA | 77% | C |
| KDD40 - 48S01 | 36~72 VDC | 40 WATTS | + 5 VDC | 8000 mA | 79% | C |
| KDD40 - 48S02 | 36~72 VDC | 42 WATTS | + 12 VDC | 3500 mA | 81% | C |
| KDD40 - 48S03 | 36~72 VDC | 45 WATTS | + 15 VDC | 3000 mA | 82% | C |
| KDD40 - 48S04 | 36~72 VDC | 48 WATTS | + 24 VDC | 2000 mA | 84% | C |
| KDD40 - 48S05 | 36~72 VDC | 33 WATTS | +3.3 VDC | 10000 mA | 77% | C |



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| MODEL NO. | INPUT VOLTAGE | OUTPUT WATTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | EFF. (MIN.) | CASE |
|-----------------------------|---------------|----------------|----------------|-----------------|-------------|------|
| Dual Output Models | | | | | | |
| KDD40 - 12D01 | 9~18 VDC | 37.5 WATTS | ± 5 VDC | +7000/-500 mA | 75% | C |
| KDD40 - 12D02 | 9~18 VDC | 42 WATTS | ± 12 VDC | +3000/-500 mA | 78% | C |
| KDD40 - 12D03 | 9~18 VDC | 37.5 WATTS | ± 15 VDC | +2000/-500 mA | 79% | C |
| KDD40 - 24D01 | 18~36 VDC | 42.5 WATTS | ± 5 VDC | +8000/-500 mA | 77% | C |
| KDD40 - 24D02 | 18~36 VDC | 42 WATTS | ± 12 VDC | +3000/-500 mA | 78% | C |
| KDD40 - 24D03 | 18~36 VDC | 37.5 WATTS | ± 15 VDC | +2000/-500 mA | 80% | C |
| KDD40 - 48D01 | 36~72 VDC | 42.5 WATTS | ± 5 VDC | +8000/-500 mA | 79% | C |
| KDD40 - 48D02 | 36~72 VDC | 42 WATTS | ± 12 VDC | +3000/-500 mA | 81% | C |
| KDD40 - 48D03 | 36~72 VDC | 37.5 WATTS | ± 15 VDC | +2000/-500 mA | 82% | C |
| Triple Output Models | | | | | | |
| KDD40 - 12T01 | 9~18 VDC | 42 WATTS | +5V/±12V | +6000/±500 mA | 76% | C |
| KDD40 - 12T02 | 9~18 VDC | 45 WATTS | +5V/±15V | +6000/±500 mA | 77% | C |
| KDD40 - 24T01 | 18~36 VDC | 42 WATTS | +5V/±12V | +6000/±500 mA | 77% | C |
| KDD40 - 24T02 | 18~36 VDC | 45 WATTS | +5V/±15V | +6000/±500 mA | 78% | C |
| KDD40 - 24T03 | 18~36 VDC | 38.5 WATTS | +5V/+12V/-5V | +6A/+0.5A/-0.5A | 78% | C |
| KDD40 - 48T01 | 36~72 VDC | 42 WATTS | +5V/±12V | +6000/±500 mA | 78% | C |
| KDD40 - 48T02 | 36~72 VDC | 45 WATTS | +5V/±15V | +6000/±500 mA | 79% | C |
| KDD40 - 48T03 | 36~72 VDC | 38.5 WATTS | +5V/+12V/-5V | +3000/-500 mA | 79% | C |

FEATURES

- * 2:1 INPUT RANGE
- * ISOLATION INPUT AND OUTPUT 1.5KV DC
- * HIGH PERFORMANCE UP TO 84%
- * SHORT CIRCUIT PROTECTION
- * 2 YEARS WARRANTY



SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

GENERAL SPECIFICATION

- * Switching frequency: >80KHz
- * Isolation voltage: 1,500VDC
- * Isolation resistance: >1G Ω (min.)
- * Operating ambient temperature: -25 to +71°C
- * Storage temperature: -40 to +85°C
- * Max. Case temperature: 85°C
- * M.T.B.F.: 389,000Hrs at @ GF40, according to MIL-HDBK-217F
- * Cooling: Free air convection
- * Transient recovery time: 500 μ S, 25% load step change
- * Temperature coefficient: $\pm 0.02\%$ / °C
- * Dimension: 70 x 100 x 23mm

INPUT SPECIFICATIONS

- * Input voltage range / frequency: 9 ~ 18VDC for 12V
18 ~ 36VDC for 24V
36 ~ 72VDC for 48V
- * Input filter: Pi type

OUTPUT SPECIFICATIONS

- * Output voltage accuracy: $\pm 1\%$ at V_{o_nom} for single output models
 $\pm 2\%$ at V_{o_nom} for dual output models
 $\pm 2\%$ at V_{o_nom} for triple output models ($\pm 3\%$ for -5V_{out})
- * Minimum load: No load for single output models
 $\pm 20\%$ at V_{o_nom} for dual & triple output models
- * Line regulation: $\pm 1\%$ at V_{o_nom}
- * Load regulation: $\pm 2\%$ at V_{o_nom} for single output models
 $\pm 2\%$ for +V_{out} / $\pm 5\%$ for -V_{out} for dual output models
 $\pm 2\%$ for +5V/ $\pm 5\%$ for $\pm 12V$ & $\pm 15V$ & +12V/ $\pm 15V$ for triple
- * Ripple & noise: 20MHZ BM, $V_{out} \times \pm 1\%$ mV p-p
150mV p-p for -5V_{out} for triple
- * Efficiency: Up to 84%, see model list
- * Derating: See table 1
- * Case material: Metal

CONTROL AND PROTECTION

- * Output short circuit: Continuous

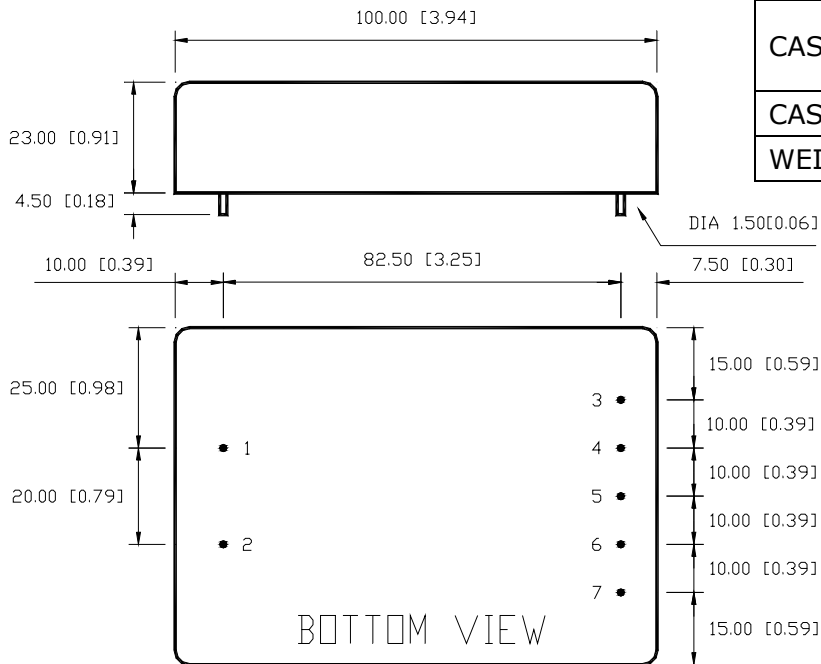


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MECHANISM & PIN CONFIGURATION

mm [inch]



PHYSICAL CHARACTERISTICS

| | |
|---------------|---|
| CASE SIZE | 70 x 100 x 23mm 2.76 x 3.94 x 0.91inches |
| CASE MATERIAL | Metal |
| WEIGHT | 270 g |

PIN ASSIGNMENT

| PIN NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------|-----|-----|---------|-----|-----|-----|------|
| SINGLE | Vi+ | Vi- | Vo+ | Vo+ | Vo- | Vo- | N.C. |
| DUAL | Vi+ | Vi- | Vo+ | Vo+ | com | com | Vo- |
| TRIPLE | Vi+ | Vi- | +5V OUT | com | Vo+ | com | Vo- |

Derating:

[TABLE 1]

