



5 Watt Wide Input DC to DC Converters



FEATURES

5-6W Isolated Output
24-Pin DIP Package
2:1 Input Range
(Optional) Conductive EMI Meet EN55022 Class B

Regulated Outputs
Continuous Short Circuit Protection
High Efficiency Up To 82%

SPECIFICATIONS

All Specifications are Typical at Nominal Line, Full Load and 25°C Unless Otherwise Noted.

- ◊ Input Filter..... PI Type
- ◊ Voltage Accuracy..... $\pm 2\%$ max.
- ◊ Voltage Balance (Dual)..... $\pm 1\%$ max.
- ◊ Temperature Coefficient..... $\pm 0.05\%/^{\circ}\text{C}$
- ◊ Ripple & Noise (20MHz BW)..... (5V)..... 100mVp-p max.
(12/15V)..... 1%Vp-p max.
- ◊ Short Circuit Protection..... Continuous
- ◊ Line Regulation, Single/Dual(LL-HL)..... $\pm 0.5\%$
- ◊ Load Regulation, Single.....(10%FL-FL)..... $\pm 0.5\%$
Dual.....(25%FL-FL)..... $\pm 1\%$
- ◊ I/O Isolation.....(Standard Models)..... 500VDC min.
- ◊ Switching Frequency..... 100KHz min.
- ◊ Operating Temperature Range..... -25°C To +71°C
- ◊ Storage Temperature Range..... -40°C To +100°C
- ◊ Dimensions Case D..... 1.25 x 0.8 x 0.4 inches
(31.8 x 20.3 x 10.2mm)
- ◊ Case Material:
Standard Models..... Non-Conductive Black Plastic
Suffix "M/M1" Models..... Black Coated Copper with
Non-Conductive Base

MODEL LIST

| Model Number | Input Voltage | Output Voltage | Output Current | %EFF. | CASE |
|---------------------|---------------|--------------------|--------------------|-------|------|
| E05-X0(B/M/M1/P3/T) | See Note "X" | 3.3VDC | 1000mA | 70min | D |
| E05-X1(B/M/M1/P3/T) | See Note "X" | 5VDC | 1000mA | 76min | D |
| E05-X2(B/M/M1/P3/T) | See Note "X" | 12VDC | 470mA | 80min | D |
| E05-X3(B/M/M1/P3/T) | See Note "X" | 15VDC | 400mA | 80min | D |
| E05-X4(B/M/M1/P3/T) | See Note "X" | $\pm 5\text{VDC}$ | $\pm 500\text{mA}$ | 76min | D |
| E05-X5(B/M/M1/P3/T) | See Note "X" | $\pm 12\text{VDC}$ | $\pm 230\text{mA}$ | 80min | D |
| E05-X6(B/M/M1/P3/T) | See Note "X" | $\pm 15\text{VDC}$ | $\pm 190\text{mA}$ | 80min | D |

Note:

Input Voltage "X":

x=1, Input Voltage = 9~18VDC, Nominal=12VDC

x=2, Input Voltage = 18~36VDC, Nominal=24VDC

x=3, Input Voltage = 36~72VDC, Nominal=48VDC

x=4, Input Voltage = 9~36VDC, Nominal=24VDC

x=5, Input Voltage = 18~72VDC, Nominal=48VDC

Model Number Suffix:

1. "B": Optional for EN55022 class B, for Input Range 2:1 only.
2. "M": Optional for 500V I/O Isolation with metal case.
3. "M1": Optional for 1.5KV I/O Isolation with metal case.
4. "P3": Optional for 3KV I/O Isolation with plastic case.
5. "T": Optional Remote On/Off for class B version Isolation 3KV & Input Range 2:1 Model Only.
6. UL Approved Models optional for Input Range 2:1 & Class B Version with Isolation 1.5KV/3KV Models only.

| Pin Connections | | | | | | | | |
|--|--------|------|------|--------|------|------|--------|------|
| Standard Models 500VDC Suffix "M" For Metal Case | | | | | | | | |
| Pin# | Single | Dual | Pin# | Single | Dual | Pin# | Single | Dual |
| 1 | Vi+ | Vi+ | 11 | Vo+ | Vo+ | 16 | N.P. | N.P. |
| 2 | N.C. | Vo- | 12 | Vi- | Vi- | 22 | N.C. | Com. |
| 3 | N.C. | Com. | 13 | Vi- | Vi- | 23 | N.C. | Vo- |
| 9 | N.P. | N.P. | 14 | Vo+ | Vo+ | 24 | Vi+ | Vi+ |
| 10 | Vo- | Com. | 15 | Vo- | Com. | | | |

| Pin Connections | | | | | | | | |
|---------------------------------------|--------|------|------|--------|------|------|--------|------|
| 1.5KVDC SUFFIX "M1" 3KVDC SUFFIX "P3" | | | | | | | | |
| Pin# | Single | Dual | Pin# | Single | Dual | Pin# | Single | Dual |
| 1 | N.P. | N.P. | 11 | N.C. | Vo- | 16 | Vo- | Com. |
| 2 | Vi- | Vi- | 12 | N.P. | N.P. | 22 | Vi+ | Vi+ |
| 3 | Vi- | Vi- | 13 | N.P. | N.P. | 23 | Vi+ | Vi+ |
| 9 | N.C. | Com. | 14 | Vo+ | Vo+ | 24 | N.P. | N.P. |
| 10 | N.C. | N.C. | 15 | N.C. | N.C. | | | |

CASE D

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All Dimensions In Inches (mm)

