



# 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)

