

TDK-Lambda CUS30M & CUS60M Series

Single Output 30 to 60W Medical & ITE Power Supplies

Features

- ◆ High Efficiency, up to 90%
- ◆ Industry Standard 2" x 3" Footprint
- ◆ Convection Cooled
- ◆ Class I and II Operation
- ◆ Suitable for B and BF rated equipment



Key Market Segments & Applications



Specifications		
Model		CUS30M CUS60M
AC Input Voltage	VAC	85 - 265VAC(1)
Input Frequency	Hz	47 - 63Hz
Inrush Current (cold start)	A	30A at 115VAC, 60A at 230VAC
Power Factor	-	Meets EN61000-3-2
Input Current (115/230VAC)	A	0.6 / 0.4 5V: 0.7 / 0.5, 12-48V: 1.2 / 0.8
Off-load Power Draw	W	<0.3W at 265VAC <0.5W at 265VAC
Temperature Coefficient	%/°C	<0.02%/°C
Output Voltage Adjustment	-	Fixed as standard. Use /ADJ suffix for potentiometer ±10% adjustment
Overcurrent Protection	-	>105% of rated current. Class 2 Limited Power Source (2)
Overvoltage Protection (3)	V	> 115% of nominal output > 120% of nominal output
Hold Up Time (Typical) (115/230VAC)	ms	20 / 100
Leakage Current	mA	<0.25mA at 265VAC, 60Hz <0.2mA at 265VAC, 60Hz
Touch Current (Maximum)	µA	100µA at 265VAC, 60Hz 60µA at 265VAC, 60Hz
Remote Sense	-	No
Operating Temperature	°C	-20 to +70°C. (-30°C start up) Derate linearly to 50% load from +50 to +70°C (4)
Storage Temperature	°C	-40 to +85°C
Humidity (non condensing)	%RH	10 - 95%RH (Operating & Storage)
Cooling	-	Convection Cooled
Withstand Voltage		Input to Ground 2kVAC (1xMOPP), Input to Output 4kVAC (2xMOPPs), Output to Ground 1.5kVAC (1xMOPP) suitable for B & BF rated equipment
Isolation Resistance	MΩ	>100MΩ at 25°C & 70%RH, Output to Ground 500VDC
Vibration (non operating)	-	10 - 55Hz: 19.6m/s ² constant sweep 1 min X, Y, Z for 1 hour
Shock	-	< 196.1 m/s ² , MIL-STD-810F
Immunity	-	IEC61000-4-2 (lv 4), -3 (lv3), -4 (lv 3), -5 (lv3, 4), -6 (lv 3), -8 (lv 4), -11, Criteria A. IEC60601-1-2 Ed4 SEMIF47 (200-240VAC), IEC61000-4-11 (Class 3)
Line Voltage Dips	-	Criteria A: Vin >120VAC or <70% load, Criteria B: Vin <120VAC and >70% load
Safety Agency Certifications	-	EN/IEC/UL/ES/CSA60601-1, EN/IEC/UL/CSA60950-1, IEC60335-1, CE Mark
Altitude	m	5,000m, derate operating ambient by 5°C/1000m above 3,000m
Conducted & Radiated EMI	-	EN55011-B, EN55032-B, FCC Class B
Weight (Typ)	g	62 120
Size (LxWxH)	mm(in)	76.2 x 50.8 x 24.2mm (3 x 2 x 0.95") 76.2 x 50.8 x 26.7mm (3 x 2 x 1.05")
Warranty	yrs	Three Years

Notes:

- (1) CUS30M: Derate linearly to 80% load from 115VAC to 85VAC. CUS60M: Derate linearly to 80% load from 100VAC to 85VAC
- (2) All models except CUS60M-5
- (3) Cycle AC to reset
- (4) CUS30M-18, -48 and CUS60M-5, -12: Derate linearly to 50% load from +45 to +70°C

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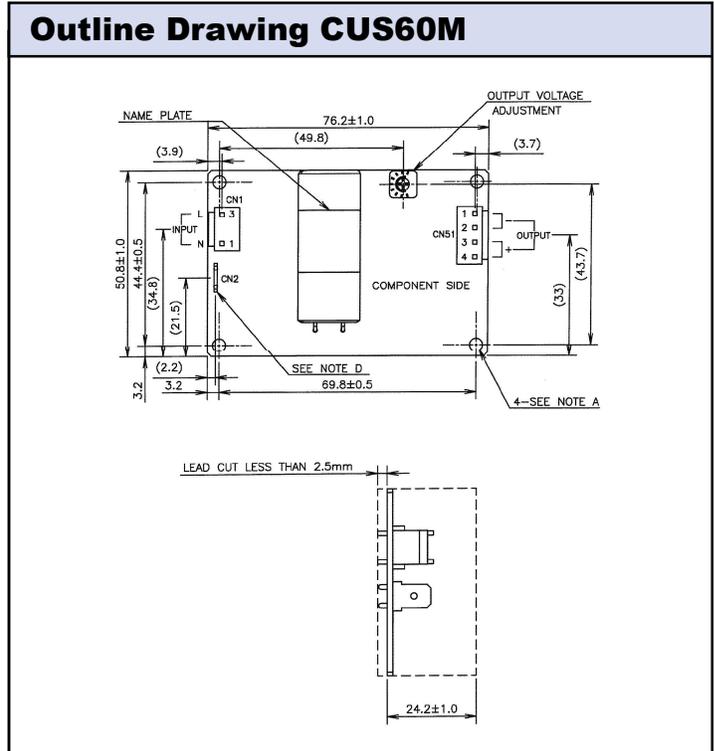
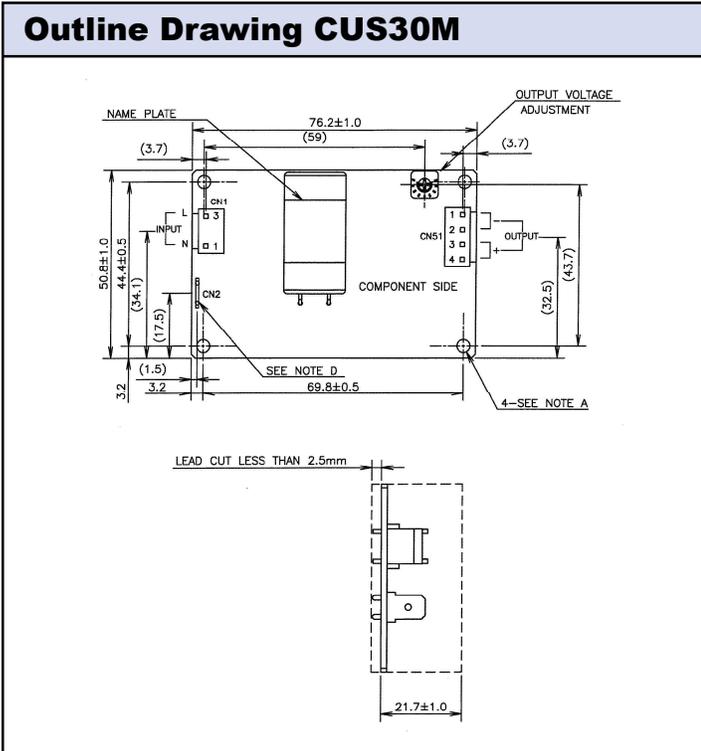
Model Selector								
Model	Voltage	Max Current (A)	Max Power (W)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV) ⁽⁵⁾	Efficiency (typ) % ⁽⁶⁾	Average Active Efficiency (typ) % ⁽⁶⁾
CUS60M-5 *	5V	6.0	30.0	100	20	120	81 / 81	81 / 80
CUS30M-12	12V	2.5	30.0	120	48	120	87 / 88	87 / 87
CUS60M-12	12V	5.0	60.0	120	48	120	87 / 88	87 / 86
CUS60M-15 *	15V	4.0	60	120	60	150	88 / 89	87 / 87
CUS60M-18 *	18V	3.25	60.3	144	72	150	88 / 89	87 / 87
CUS30M-24	24V	1.25	30.0	192	96	150	88 / 90	87 / 87
CUS60M-24	24V	2.5	60.0	192	96	150	89 / 90	88 / 87
CUS30M-48	48V	0.63	30.24	384	192	200	88 / 90	88 / 89
CUS60M-48*	48V	1.25	60.0	384	192	200	89 / 90	89 / 88

Notes:

(5) Ripple level increases at light loading to meet new efficiency standards

(6) 115/230VAC

* Available Q2 2018.



For Additional Information, please visit us.tdk-lambda.com/lp/products/cus-m-series

