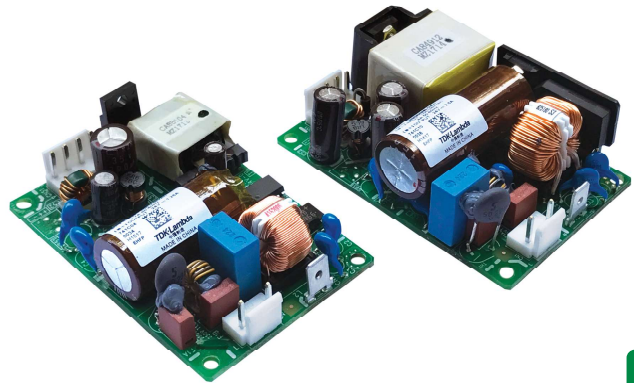


TDK-Lambda CUS30M & CUS60M Series

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
- ◆ Enclosure and Terminal Options



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")
Connectors (JST)*	-	Input (CN1): B2P3-VH(LF)(SN) (Mates with VHR-3N housing). Output (CN-51): B4P-VH(LF)(SN) (Mates with VHR-4N)
Warranty	yrs	Three Years

Notes:

* See installation manual for terminal pin and hand tool information

(1) CUS30M: Derate linearly to 80% load from 115VAC to 85VAC. CUS60M-12, 18 & 48: Derate linearly to 80% load from 100VAC to 85VAC.

CUS60M-15 derate linearly to 60% load from 100VAC

(2) All models except CUS60M-5

(3) Cycle AC to reset

(4) CUS30M-48 and CUS60M-12: Derate linearly to 50% load from +45 to +70°C. CUS60M-15: 50% load from +40 to +70°C

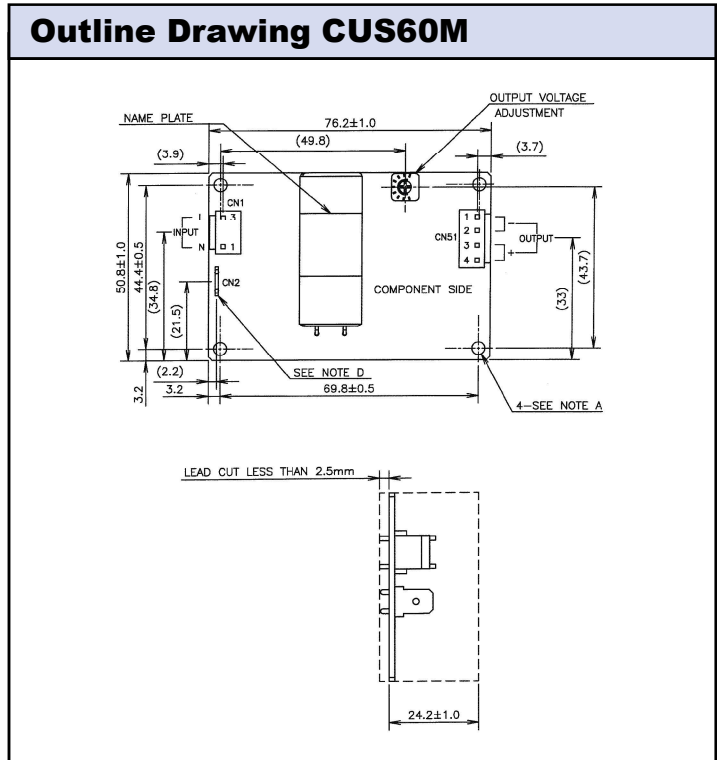
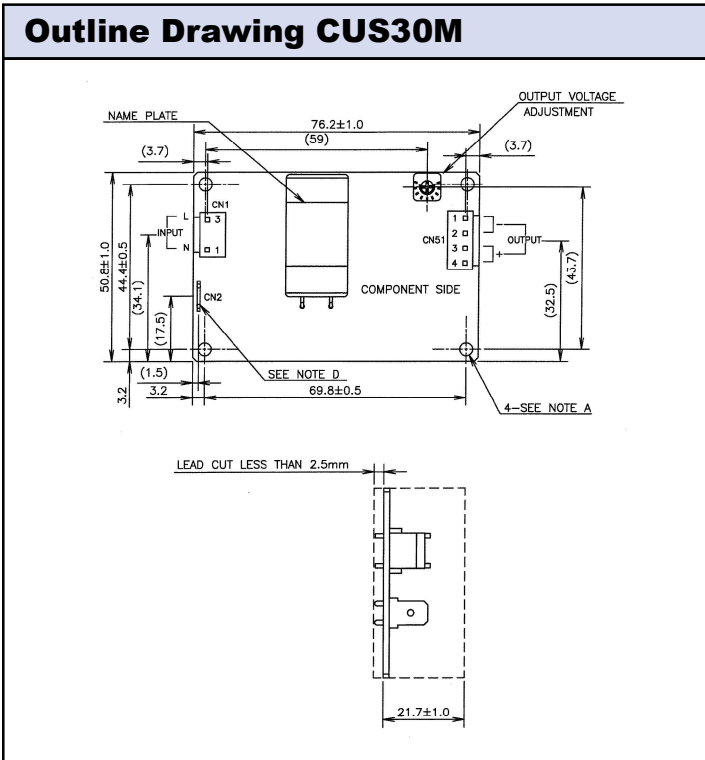
TDK-Lambda CUS30M & CUS60M Series

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 / 79.5
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
CUS30M-15	15V	2.0	30	120	60	150	87 / 88	87 / 87
CUS60M-15	15V	4.0	60	120	60	150	87.5 / 87	87 / 86.5
CUS30M-18	18V	1.70	30.6	144	72	150	87 / 88	87 / 87
CUS60M-18	18V	3.25	60.3	144	72	150	88 / 88	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-36	36V	0.84	30.2	288	144	200	88 / 90	88 / 89
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 / 91	90 / 89

Notes:

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

(6) 115/230VAC. Average efficiency measured at 25, 50, 75 and 100% load



Options

Suffix	Description
Blank	Open frame, JST connectors
/A	Cover, JST connectors. See website for derating
/CO	Open frame, JST connectors, pcb coating
/M	Open frame, Molex 5195-03 & -04 mating connectors*
/P	Open frame, Pcb mount

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

