

Single Output 200 to 250W Medical & ITE Power Supplies

Features

- ◆ High Efficiency, up to 94%
- ◆ Industry Standard 3" x 5" Footprint
- ◆ 200W Convection Cooled Rating
- ◆ Suitable for B and BF rated equipment
- ◆ 5V Standby Output



Key Market Segments & Applications



Specifications		CUS200M
Model		CUS200M
AC Input Voltage	VAC	85 - 265VAC (1)
Input Frequency	Hz	47 - 63Hz
Inrush Current (cold start)	A	35A at 115VAC, 70A at 230VAC
Power Factor	-	Meets EN61000-3-2 Class A (Typical PF 0.99/0.95) (2)
Input Current (115/230VAC)	A	200W output: 2.2 / 1.1A; 250W output: 3.0 / 1.5A
Off-load Power Draw	W	<0.5W at 230VAC (In standby mode using remote on/off)
Temperature Coefficient	%/°C	<0.02%/°C
Overcurrent Protection	-	12V: >17.2A, 18V: > 14.7A, 24V: > 11A, 48V: > 5.5A
Overvoltage Protection (3)	V	12V: 13.2 - 16.2V, 18V: 19.8 - 24.3V, 24V: 26.4 - 32.4V, 48V: 52.8 - 64.8V
Hold Up Time (115 / 230V input)	ms	16ms at 200W output, 12ms at 250W
Leakage Current	mA	<0.3mA at 265VAC, 60Hz
Remote Sense	-	No
Remote On/Off	-	Apply voltage to isolated terminals to shut unit down
Power Good	-	Isolated transistor, On = Good. Gives >5ms warning of AC power loss
Standby Voltage	-	5V 0.6A (convection), 1A (forced air)
Operating Temperature	°C	-20 to +70°C. (-40°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 or Forced Air Cooled (1.5m/s across terminals)
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	-	>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 (20G)
Immunity	-	IEC61000-4-2 (lv 2, 3), -3 (lv3), -4 (lv 3), -5 (lv3, 4), -6 (lv 3), -8 (lv 4), -11
Safety Agency Certifications	-	EN/IEC/UL/ES/CSA 60601-1, EN/IEC/UL/CSA60950-1, CE Mark
Conducted & Radiated EMI	-	EN55011-B, EN55022-B, FCC Class B at 200W output
Weight (Typ)	g	350
Size (LxWxH)	mm (in)	127 x 76.2 x 34mm (5 x 3 x 1.34")
Warranty	yrs	Three Years

Notes:

- (1) Derate linearly to 80% load from 115 to 85VAC input
- (2) 115 / 230VAC input
- (3) Cycle AC to reset
- (4) /A suffix (cover): -20 to +60°C. (-40°C start up) Derate linearly to 50% load from +35 to +60°C

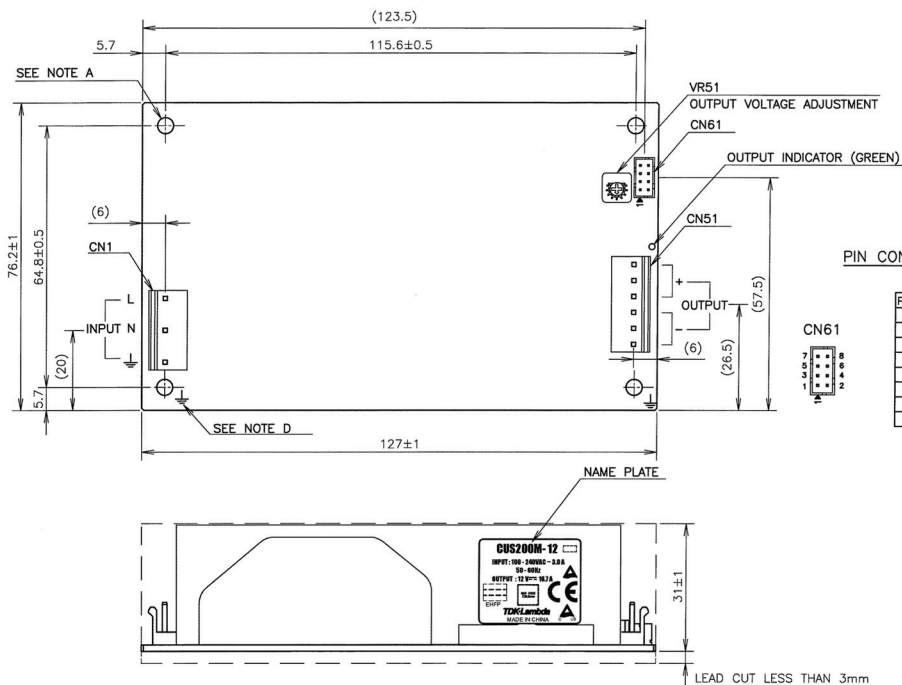
Model Selector

Model	Voltage	Adjust Range (V)	Max Current Conv (A)	Max Current Forced Air (A)	Max Power Forced Air (W)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)	Efficiency (typ) % ⁽⁴⁾
CUS200M-12	12V	11.7 - 12.6	16.7	16.7	200.4	120	60	180	92 / 93
CUS200M-18	18V	17.6 - 18.9	11.2	14.0	252.0	180	90	180	92 / 94
CUS200M-24	24V	23.5 - 25.2	8.4	10.5	252.0	240	120	240	92 / 94
CUS200M-48	48V	47 - 50.4	4.2	5.3	254.4	480	240	480	92 / 94

Notes:

(5) 115 / 230VAC input with convection cooling

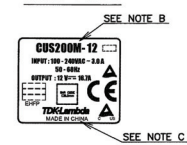
Outline Drawing



PIN CONFIGURATION AND FUNCTIONS OF CN61

PIN No.	FUNCTION
1	STBY+: STANDBY POWER + (5V+)
2	STBY-: STANDBY POWER - (5V-)
3	NO CONNECTION
4	NO CONNECTION
5	NO CONNECTION
6	DC_OK
7	R+: REMOTE ON/OFF TERMINAL +
8	R-: REMOTE ON/OFF TERMINAL -

NAME PLATE



NOTE:

A: 4- ϕ 3.5 HOLES ARE FOR CUSTOMER'S CHASSIS MOUNTING HOLES. ALL MUST BE SREWED IN ORDER TO CONFORM THE VIBRATION AND EMI SPEC.

B: MODEL NAME, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, AND MAXIMUM OUTPUT CURRENT ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.

C: COUNTRY OF MANUFACTURE WILL BE SHOWN HERE.

D: \downarrow IS FOR SAFETY GROUND CONNECTION.

CONNECTORS USED:

PART DESCRIPTION	PART NAME	HOUSING	QTY	CONTACT	QTY	CRIMPING TOOL	MANUFACT.
CN1 (INPUT TERMINAL)	B3P5-VH(LF)(SN)	VHR-5N	1	SVH-21T-P1.1	3	YC-160R, YC161R, YC164R	J.S.T
CN51 (OUTPUT TERMINAL)	B6P-VH(LF)(SN)	VHR-6N	1	SVH-41T-P1.1	6	YC-930R	J.S.T
CN61 (STANDBY TERMINAL)	B8B-PHDSS(LF)(SN)	PHDR-08VS	1	SPHD-001T-P0.5	8	YC-610R, YC611R	J.S.T

(HOUSINGS, PINS & TOOL ARE NOT INCLUDED WITH THE PRODUCT.)

Options

Suffix	Description
Blank	Open frame construction
/A	Fitted with a cover

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

