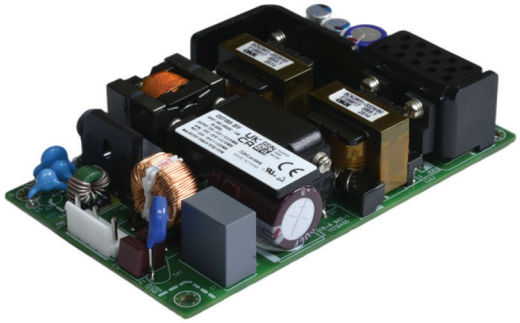
https://product.tdk.com/en/power/cut
www.emea.lambda.tdk.com/cut

100W Dual or Triple Output Low Profile Power Supplies



Industrial Test Broadcast

The triple output CUT100 power supplies have two independent, isolated converters, one for the main 5V output, and one for the auxiliary outputs. This topology provides several benefits with no minimum loading, enhanced load and line regulation and the ability to connect the auxiliary outputs in series to generate either a 24V or 30V output. The series is certified to the IEC62368-1 safety standards.

Features	Benefits
• 3" x 5" Footprint With a Low 1.06" (27mm) Height	• Space Saving in End Equipment
• Output 1 Isolated From Outputs 2 & 3	• Flexible Utilization
• No Minimum Loading	• Reduced Load Regulation
• Three Year Warranty	• Low Cost of Ownership

Model Selector

Model		Voltage (V)	Adjustable Range (V)	Max Current (A)	Typical Output Current (A)	Max Power (W)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)
CUT100-522	V1	5V	5 - 5.25V	12.0	10.0	60	100	30	60
	V2	+12V	Fixed	4.0	3.5	48	600	70	150
	V3	-12V	Fixed	1.0	0.5	12	600	70	150
CUT100-5FF	V1	5V	5 - 5.25V	12.0	10	60	100	30	60
	V2	+15V	Fixed	3.2	2.8	48	750	80	150
	V3	-15V	Fixed	1.0	0.5	15	750	80	150

Specifications

Model		CUT100
Input		
Input Voltage Range [1]	V	85 - 265Vac or 120 - 370Vdc*
Input Frequency	Hz	47 - 63
Input Current(100/200Vac)	A	1.4 / 0.7
Inrush Current (Cold Start)	A	30 at 100Vac input, 60 at 200Vac
Power Factor (100 / 200Vac)	-	0.99 / 0.93
Leakage Current	mA	0.11mA (Typ) at 115VAC / 0.22mA (Typ) @60Hz at 230VAC.
Hold Up Time(typ) at 220Vac Input	ms	20
Efficiency (200Vac)	%	85
Conducted & Radiated EMI	-	EN55011/EN55032-B, FCC Class B
Immunity	-	IEC61000-4-2, -3, -4, -5, -6, -8, -11
Safety Certifications and Markings	-	Approved by IEC/UL/CSA/EN62368-1, Designed to meet IEC/EN/ES/CSA60601-1, CE Mark and UKCA Mark

Immunity

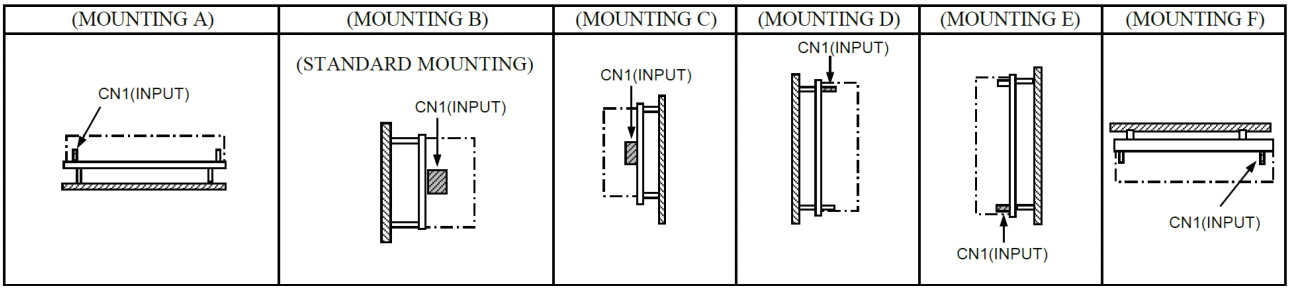
Test	Standard	Test Level	Criteria	Notes
ESD	EN61000-4-2	Air ±15kV and contact ±8kV	A	See IEC61000 immunity test report on website
Radiated Susceptibility	EN61000-4-3	80M -1GHz: 10V/m	A	
Electrical Fast Transient Burst	EN61000-4-4	±4kV	A	
Surge	EN61000-4-5	Normal ±2kV Common ±4kV	A	
Conducted Susceptibility	EN61000-4-6	10Vrms	A	
Magnetic Fields	EN61000-4-8	30A/m	A	
Voltage Dips	EN61000-4-11	30% 500ms 60% 200ms 100% 20ms 100% 5000ms	A A(230Vin) / B(100Vin) A B	

Specifications

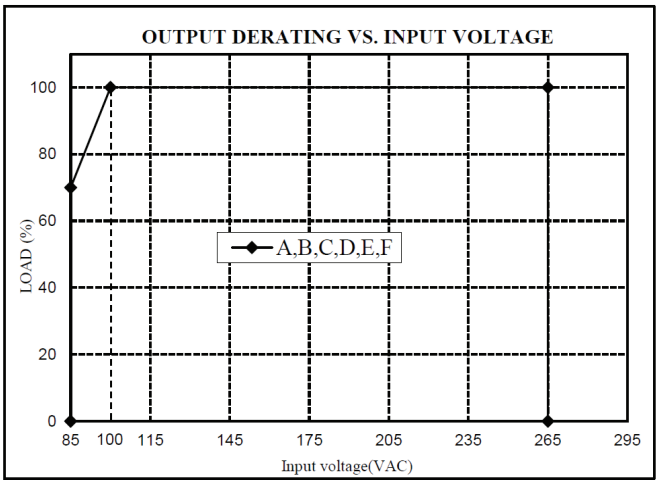
Model		CUT100	
Output			
Switching Frequency	kHz	100	
Load Regulation	-	See model selector table	
Ripple & Noise	-	See model selector table	
Temperature Coefficient	%/°C	V1: <0.02, V2 & 3 <0.03 (-20 to +70°C)	
Minimum Load	-	No minimum load required	
Overcurrent Protection	%	>105. Hiccup with auto recovery	
Overvoltage Protection (3)	-	V1: 5.7-7.0, V2: 13.8 - 16.8	V1: 5.7-7.0, V2: 17.2 - 21.0
Remote Sense	-	-	
Remote On/Off	-	-	
Parallel Operation	-	Not possible	
Series Operation	-	Not possible	
Environmental			
Operating Temperature	°C	-20 to +70 (See derating drawing for open frame model) (4)	
Operating Humidity	%RH	5 - 95 (Non Condensing)	
Storage Temperature	°C	-30 to +85	
Humidity (non condensing)	%RH	5 - 95	
Cooling	-	Convection cooling	
Altitude	m	3000	
Withstand Voltage (For 1 minute)	Vac	I/P-O/P: 3kVAC(10mA), I/P-FG: 2.0kVAC(10mA), O/P-FG: 500VAC(20mA),CH1-CH2/CH3: 500VAC(20mA) for 1 min.	
Vibration (Non-operating)	-	10-55Hz (Sweep for 1min.) 19.6m/s^2 Constant X,Y,Z 1 hour each	
Shock (Non-operating, in package)	-	Less than 196.1m/s^2, 11ms	
Other			
Weight (Typ)	g	260	
Size (LxWxH)	mm	127 x 76 x 28	
Size (LxWxH)	Inches	5 x 3 x 1.1	
Connectors	-	JST	
MTBF - JEITA RCR-9102B (5)	Hours	115,059	
Warranty	yrs	3	

Notes
(1) See website for detailed specifications, test methods and installation manual.
* Safety certified for AC input only.
(2) Derate linearly to 70% load from 100Vac to 85Vac input.
(3) Cycle AC to reset.
(4) See derating curves in installation manual for all mounting orientations and models.
(5) Part count method, Ground Fixed.

CUT100 Open-Frame Derating

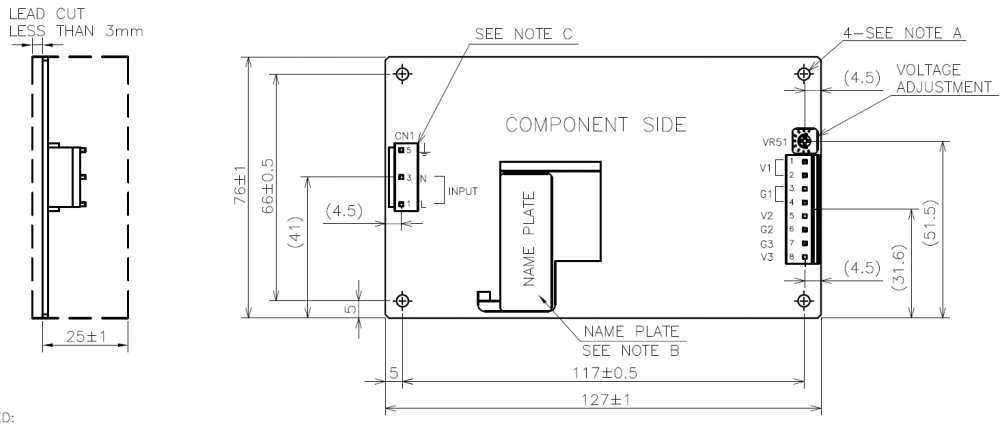


Output Derating vs. Input Voltage



Input Voltage	Loading Condition (%)
	All Mounting (A,B,C,D,E,F)
85VAC	70
100VAC-265VAC	100

Outline Drawing CUT100



CONNECTORS USED:

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
PIN HEADER (INPUT SIDE CN1)	B3P5-VH	JST	1
PIN HEADER(OUTPUT SIDE CN51)	B8P-VH	JST	1

*OUTPUT CURRENT OF EACH CONNECTOR PIN MUST BE LESS THAN 7A.

MATCHING HOUSINGS AND PINS(NOT INCLUDED WITH THE PRODUCT):

SOCKET HOUSING (CN1)	VHR-5N	JST	1
SOCKET HOUSING (CN51)	VHR-8N	JST	1
TERMINAL PINS	SVH-21T-P1.1	JST	11

HAND CRIMPING TOOL : YC-160R CN1,CN51 MANUFACTURER : JST

NOTES

A: THE 4-ø3.5 HOLE ARE CUSTOMER CHASSIS MOUNTING HOLES. ALL MUST BE SCREWED IN ORDER TO CONFORM THE VIBRATION SPEC.

B: MODEL NAME, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, NOMINAL OUTPUT CURRENT, PEAK OUTPUT CURRENT AND SAFETY MARKING(FOR ONLY APPROVED PRODUCTS)ARE SHOWN ON THE NAME PLATE IN ACCORDANCE WITH THE SPECIFICATIONS. COUNTRY OF MANUFACTURE WILL BE SHOWN ON THE NAME PLATE.

C: ⏚ IS FOR SAFETY GROUND CONNECTION.

D: TO KEEP THE DISTANCE MORE THAN 4mm BETWEEN PC-BOARD EDGE AND CUSTOMER'S CHASSIS.



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