LED Industrial Test Comm Broadcast

Single Output 10-30W Power Supplies

Features	Benefits
• 30% smaller than previous generation	• Simplifies equipment design
• Operating temp. -10 to +70°C	• Improved system power optimisation
• No load input power <0.5 W	• Suitable for 'Green' products
• 10 year E-cap lifetime	• Superior reliability

Specification

Model		ZWS10B	ZWS15B	ZWS30B
ITEMS				
AC Input Voltage range (3)	-	85 - 265VAC (47-63Hz)		
DC Input Voltage range	-	120 - 370VDC		
Input Current (3.3V output) (2)	A	0.18 / 0.11	0.24 / 0.15	0.50 / 0.30
Input Current (5 to 24V output) (2)	A	0.25 / 0.13	0.34 / 0.17	0.65 / 0.35
Inrush Current (2)	A	15 / 30A - Cold Start		
No load power consumption (4)	W	<0.5		
Maximum Ripple and Noise (4)	mV	Tamb ≥0° to ≤70°C : 3.3 & 5V:120mV, 12 to 24V: 150mV Tamb ≥-10° to <0°C : 3.3 & 5V:160mV, 12 to 24V: 180mV		
Temperature Coefficient	-	<0.02%/°C		
Overcurrent protection (1)	-	>105% of maximum output current		
Hold Up time (Typ) at 100VAC	ms	20ms		
Leakage Current (5)	-	0.15 / 0.3mA max.		
Operating Temperature (4)	-	all models are convection : -10 to +50°C=100% load ; +60°C=70% load ; 10W & 30W models : +70°C=20% load ; 15W models : +70°C=40% load		
E-cap lifetime	-	10 year e-cap lifetime (80%load, 24 hours, 50°C)		
Storage Temperature	°C	-30°C to +75°C		
Humidity (non condensing)	-	Operating: 30 - 90%RH, Storage: 10 - 90%RH		
Withstand Voltage	-	I/P to Grnd 2kVAC (10mA), I/P to O/P: 3kVAC (10mA), O/P to Grnd: 500VAC (20mA) for 1mn		
Isolation Resistance	Ω	>100MΩ at 25°C & 70%RH, Output to Grnd: 500VDC		
Vibration (non operating)	-	10 - 55Hz (1 minute sweep), 19.6m/s² constant X, Y, Z 1 hour		
Shock	-	<196.1 m/s		
Safety agency Certifications	-	UL60950-1, CSA60950-1, EN60950-1, EN50178 (OV II), CE Mark		
Conducted & Radiated EMI	-	EN55011 / EN55022-B, FCC-B, VCCI-B		
Immunity	-	IEC61000-4-2 (lv 4), -3 (lv 3), -4 (lv 4), -5 (lv 4), -6 (lv 3), -8 (lv 4), -11		
Weight (Typ)	g	45	55	105
Size (W x H x D)	mm	55 x 22 x 73.5	50 x 22 x 87.5	50 x 26 x 105

Notes:

(1) Avoid prolonged operation in overload

(2) 100 / 200VAC Input

(3) 85-90Vac = output current = 80%

(4) Refer to detailed specifications & Application Notes

(5) 100/230VAC input

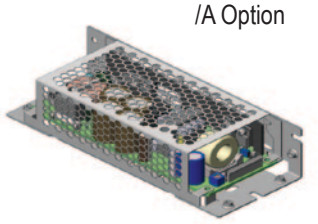
Model Selector

Model	Output Voltage (V)	Output Adjust Range (V)	Max Output Current (A)	Max Ouput Power (W)	Efficiency at 200VAC Input (%)	Load Reg. (mV)	Line Reg. (mV)	OVP (V)
ZWS10B-3	3.3V	2.97-3.63	2	6.6	70	40	20	4 - 5.25
ZWS10B-5	5V	4.5-5.5	2	10	78	40	20	5.75 - 7
ZWS10B-12	12V	10.8-13.2	0.9	10.8	83	96	48	13.8 - 16.2
ZWS10B-15	15V	13.5-16.5	0.7	10.5	84	120	60	17.3 - 20.3
ZWS10B-24	24V	21.6-26.4	0.5	12	85	150	96	27.6 - 32.4
ZWS15B-3	3.3V	2.97-3.63	3	9.9	71	40	20	4 - 5.25
ZWS15B-5	5V	4.5-5.5	3	15	78	40	20	5.75 - 7
ZWS15B-12	12V	10.8-13.2	1.3	15.6	83	96	48	13.8 - 16.2
ZWS15B-15	15V	13.5-16.5	1	15	84	120	60	17.3 - 20.3
ZWS15B-24	24V	21.6-26.4	0.7	16.8	85	150	96	27.6 - 32.4
ZWS30B-3	3.3V	2.97-3.63	6	19.8	77	40	20	4 - 5.25
ZWS30B-5	5V	4.5-5.5	6	30	82	40	20	5.75 - 7
ZWS30B-12	12V	10.8-13.2	2.5	30	86	96	48	13.8 - 16.2
ZWS30B-15	15V	13.5-16.5	2	30	86	120	60	17.3 - 20.3
ZWS30B-24	24V	21.6-26.4	1.3	31.2	88	150	96	27.6 - 32.4

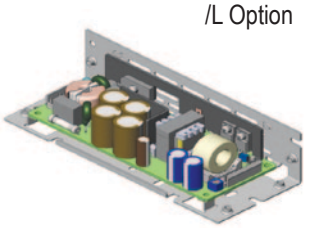
Option Description

	Suffix
L-Plate and Cover	/A
L-Plate	/L
Conformally coated PCB	/CO2
Remote on/off	/R
Fixed Output Voltage (by resistor)	/FV

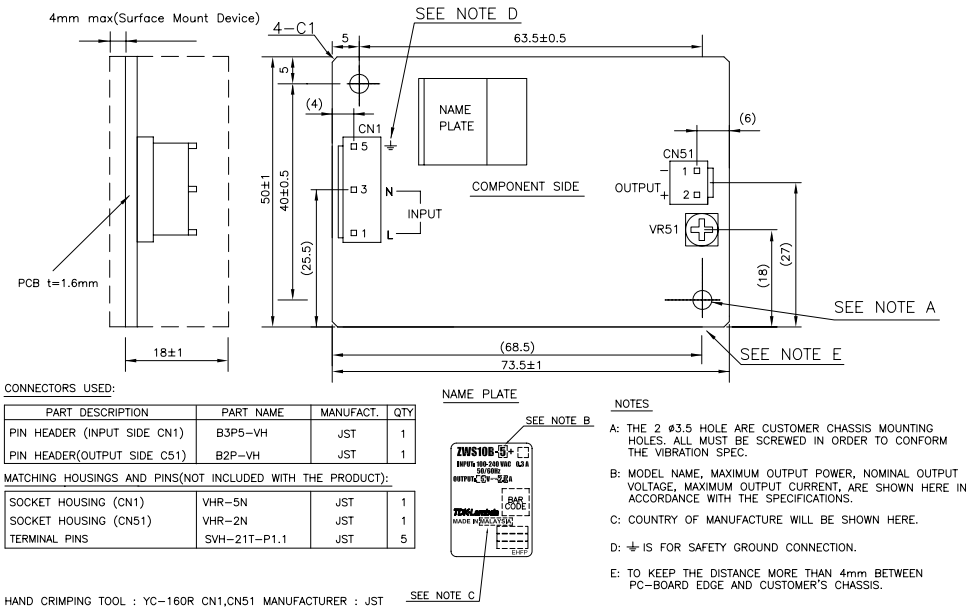
/A Option



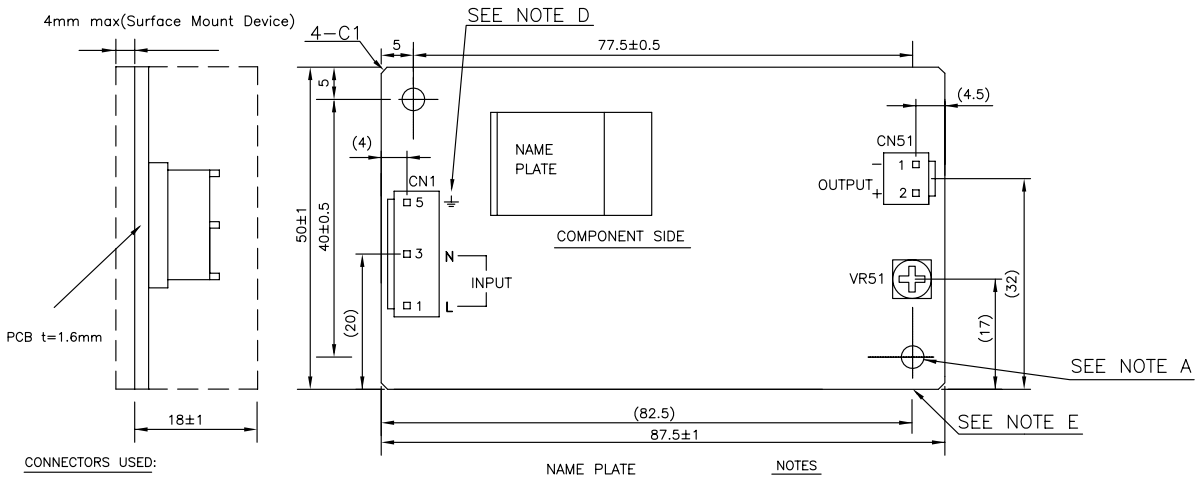
/L Option



Outline Drawing ZWS10B



Outline Drawing ZWS15B



CONNECTORS USED:

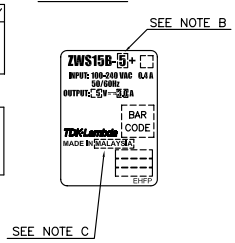
PART DESCRIPTION	PART NAME	MANUFACT.	QTY
PIN HEADER (INPUT SIDE CN1)	B3P5−VH	JST	1
PIN HEADER(OUTPUT SIDE C51)	B2P−VH	JST	1

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

SOCKET HOUSING (CN1)	VHR−5N	JST	1
SOCKET HOUSING (CN51)	VHR−2N	JST	1
TERMINAL PINS	SVH−21T−P1.1	JST	5

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

NAME PLATE



NOTES

A: THE 2 ø3.5 HOLE ARE CUSTOMER CHASSIS MOUNTING HOLES. ALL MUST BE SCREWED IN ORDER TO CONFORM THE VIBRATION SPEC.

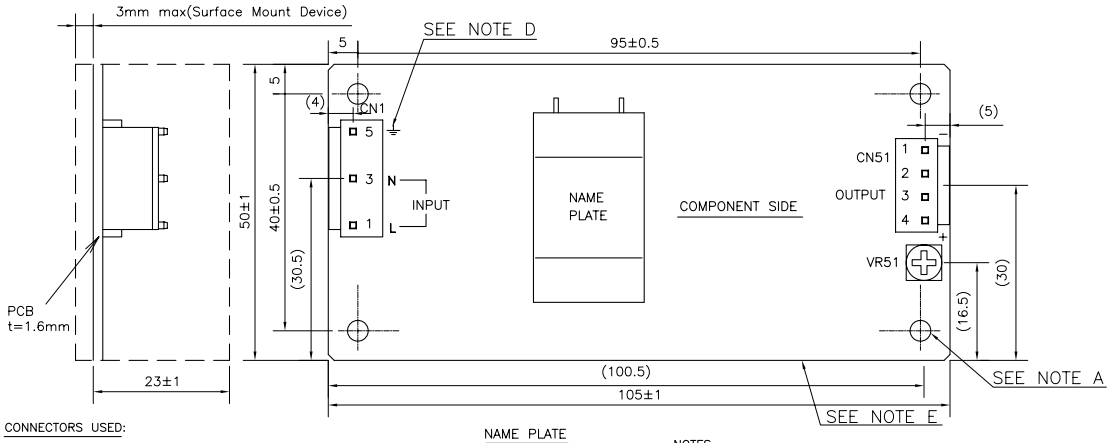
B: MODEL NAME, MAXIMUM OUTPUT POWER, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT, ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.

C: COUNTRY OF MANUFACTURE WILL BE SHOWN HERE.

D: ⏚ IS FOR SAFETY GROUND CONNECTION.

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

Outline Drawing ZWS30B



CONNECTORS USED:

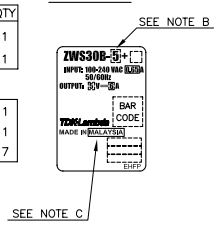
PART DESCRIPTION	PART NAME	MANUFACT.	QTY
PIN HEADER (INPUT SIDE CN1)	B3P5−VH	JST	1
PIN HEADER(OUTPUT SIDE C51)	B4P−VH	JST	1

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

SOCKET HOUSING (CN1)	VHR−5N	JST	1
SOCKET HOUSING (CN51)	VHR−4N	JST	1
TERMINAL PINS	SVH−21T−P1.1	JST	7

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

NAME PLATE



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, MAXIMUM OUTPUT POWER, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT, ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.

C: COUNTRY OF MANUFACTURE WILL BE SHOWN HERE.

D: ⏚ IS FOR SAFETY GROUND CONNECTION.

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

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