

- Universal Input (85 - 265VAC)
- Power Factor Corrected
- Convection Cooled
- 5 year warranty
- Compact Design

Key Market Segments & Applications

Factory Automation
Test & Measurement
Light Industrial Equipment

ZWS-BAF Series

50W to 150W Single Output Power Supplies,
Low Cost, Worldwide Use

ZWS-BAF Features and Benefits

Features	Benefits
• Convection Cooled	• Better Field Reliability
• 5 Year Warranty	• Lower Cost of Ownership
• Power Factor Corrected	• Supports Global Use

Specifications

ITEMS / MODELS			ZWS50BAF	ZWS75BAF	ZWS100BAF	ZWS150BAF
AC Input Voltage range		-	85-265VAC (47-63Hz)			
DC Input Voltage range		-	120 - 370VDC			
Input Current (Typical)	(2)	A	0.45 / 0.25	1.0 / 0.5	1.3 / 0.65	1.9 / 0.95
Inrush Current	(2)	A	14 / 28 25°C ambient, cold start			
Power Factor (Active)		-	Meets EN61000-3-2 (Typically 0.98/0.93)			
Maximum Ripple and Noise		mV	3.3 & 5V: 120mV, 12 to 24V: 150mV, 48V: 200mV			
Temperature Coefficient		-	<0.02%/°C			
Overcurrent Protection	(1)	-	>105% of maximum output current			
Hold Up Time (Typ) at 100VAC		ms	20ms			
Leakage Current		-	0.5mA max, 0.4mA typ at 230VAC			
Remote On / Off		-	Optional			
Operating Temperature (Convection)		-	-10 to +70°C, derate linearly to 50% load from 50 to 70°C			
Operating Temperature (Forced Air)		-	-10 to +70°C, derate linearly to 75% load from 60 to 70°C			
Storage Temperature		°C	-30 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 1 min.			
Isolation Resistance		-	>100MΩ at 25°C & 70%RH, Output to Ground 500VDC			
Vibration (non operating)		-	10 - 55Hz (1 minute sweep), 19.6m/s^2 constant X, Y, Z 1 hour			
Shock		-	< 196.1 m/s^2			
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 2,3), -3 (lv3), -4 (lv 3), 50/75W: -5 (lv4); 100/150W: -5 (lv 3,4), -6 (lv 3), -8 (lv 4), -11			
Weight (Typ)		g	165	230	290	390
Size (W x H x D)		mm	50 x 26 x 132	50 x 33 x 150	62 x 33 x 155	75 x 37 x 160
Warranty		yrs	5			

Notes:

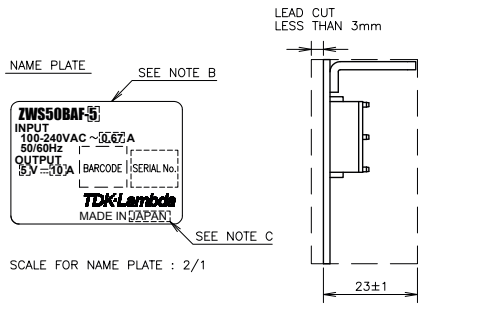
(1) Avoid prolonged operation in overload (2) 100 / 200VAC Input

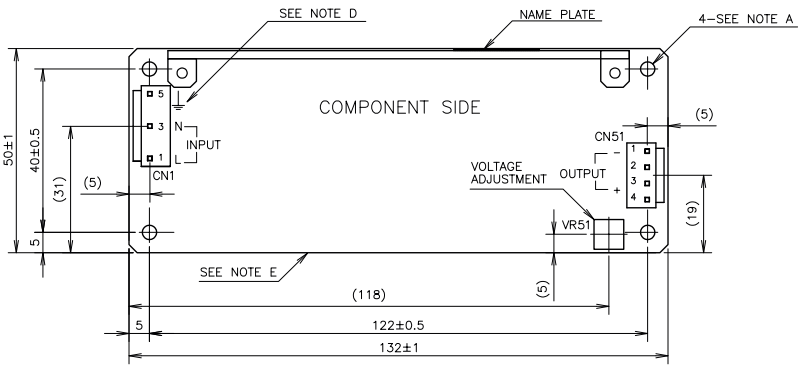
Model Selector

Model	Output Voltage	Output Adjust Range (V)	Max Current (A)	Max Output Power(W)	Efficiency (typ) %	Load Reg (mV)	Line Reg (mV)	OVP (V)
ZWS50BAF-3	3.3V	2.97-3.63	10	33	79	40	20	3.8-4.95
ZWS50BAF-5	5V	4.5-5.5	10	50	84	40	20	5.75-7
ZWS50BAF-12	12V	10.8-13.2	4.3	51.6	85	96	48	13.8-16.2
ZWS50BAF-15	15V	13.5-16.5	3.5	52.5	86	120	60	17.3-20.3
ZWS50BAF-24	24V	21.6-26.4	2.1	50.4	87	150	96	27.6-32.4
ZWS50BAF-48	48V	43.2-52.8	1.1	52.8	87	240	192	55.2-64.8
ZWS75BAF-3	3.3V	2.97-3.63	15	49.5	79	40	20	3.8-4.95
ZWS75BAF-5	5V	4.5-5.5	15	75	84	40	20	5.75-7
ZWS75BAF-12	12V	10.8-13.2	6.3	75	85	96	48	13.8-16.2
ZWS75BAF-15	15V	13.5-16.5	5	75	86	120	60	17.3-20.3
ZWS75BAF-24	24V	21.6-26.4	3.2	76.8	87	150	96	27.6-32.4
ZWS75BAF-48	48V	43.2-52.8	1.6	76.8	88	240	192	55.2-64.8
ZWS100BAF-3	3.3V	2.97-3.63	20	66	84	40	20	3.79-4.95
ZWS100BAF-5	5V	4.5-5.5	20	100	86	40	20	5.75-7
ZWS100BAF-12	12V	10.8-13.2	8.5	102	88	96	48	13.8-16.2
ZWS100BAF-15	15V	13.5-16.5	6.7	100.5	88	120	60	17.3-20.3
ZWS100BAF-24	24V	21.6-26.4	4.3	103.2	89	150	96	27.6-32.4
ZWS100BAF-48	48V	39.5-52.8	2.1	100.8	90	240	192	55.2-64.8
ZWS150BAF-3	3.3V	2.97-3.63	30	99	84	40	20	3.79-4.95
ZWS150BAF-5	5V	4.5-5.5	30	150	87	40	20	5.75-7
ZWS150BAF-12	12V	10.8-13.2	12.5	150	88	96	48	13.8-16.2
ZWS150BAF-15	15V	13.5-16.5	10	150	89	120	60	17.3-20.3
ZWS150BAF-24	24V	21.6-26.4	6.3	151.2	90	150	96	27.6-32.4
ZWS150BAF-48	48V	39.5-52.8	3.2	153.6	91	240	192	55.2-64.8

Note: ZWS50 & 75 available Q1 2011

Outline Drawing ZWS50BAF





CONNECTORS USED:

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
PIN HEADER (INPUT SIDE CN1)	B3P5–VH	J.S.T.	1
PIN HEADER (OUTPUT SIDE CN51)	B4P–VH	J.S.T.	1

*OUTPUT CURRENT OF EACH CONNECTOR PIN MUST BE LESS THAN 5A.

MATCHING HOUSINGS, PINS & TOOL (NOT INCLUDED WITH THE PRODUCT):

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
SOCKET HOUSING (CN1)	VHR–5N	J.S.T.	1
SOCKET HOUSING (CN51)	VHR–4N	J.S.T.	1
TERMINAL PINS	SVH–21T–P1.1 BVH–21T–P1.1	J.S.T.	7
HAND CRIMPING TOOL	YC–160R	J.S.T.	–

Notes:

A: 4 - 3.5mm Ø holes are for customers chassis mounting holes. All must be screwed in order to conform the vibration specification.

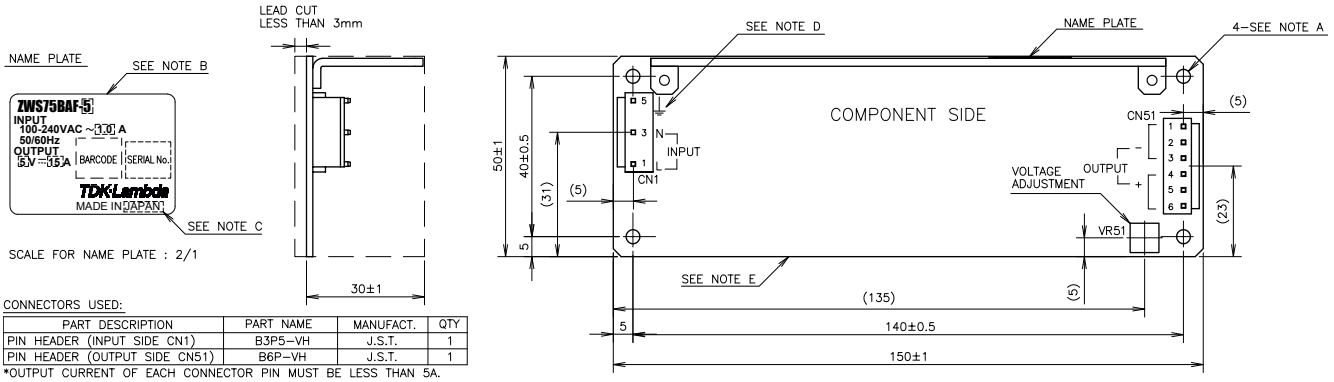
B: Model name, input voltage range nominal output voltage and maximum output current are shown here in accordance with the specifications.

C: Country of manufacture will be shown here.

D: ⏚ is for safety ground connection.

E: To keep the distance more than 4mm between PCB edge and customer's chassis.

Outline Drawing ZWS75BAF



CONNECTORS USED:

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
PIN HEADER (INPUT SIDE CN1)	B3P5–VH	J.S.T.	1
PIN HEADER (OUTPUT SIDE CN51)	B6P–VH	J.S.T.	1

*OUTPUT CURRENT OF EACH CONNECTOR PIN MUST BE LESS THAN 5A.

MATCHING HOUSINGS, PINS & TOOL (NOT INCLUDED WITH THE PRODUCT):

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
SOCKET HOUSING (CN1)	VHR–5N	J.S.T.	1
SOCKET HOUSING (CN51)	VHR–6N	J.S.T.	1
TERMINAL PINS	SVH–21T–P1.1	J.S.T.	9
	BVH–21T–P1.1		
HAND CRIMPING TOOL	YC–160R	J.S.T.	–

Notes:

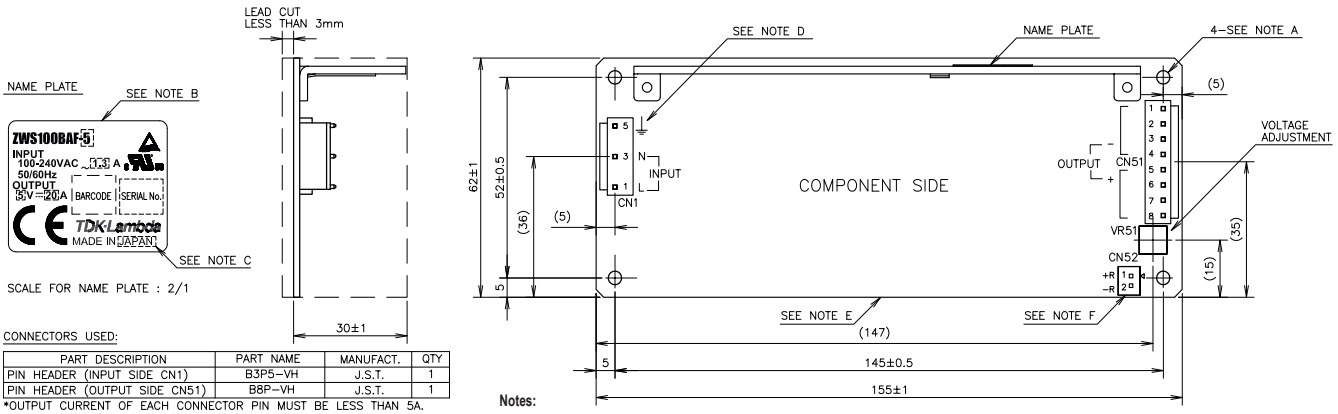
A: 4 - 3.5mm Ø holes are for customers chassis mounting holes. All must be screwed in order to conform the vibration specification.

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:** ⏚ is for safety ground connection.

E: To keep the distance more than 4mm between PCB edge and customer's chassis.

Outline Drawing ZWS100BAF



CONNECTORS USED:

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
PIN HEADER (INPUT SIDE CN1)	B3P5–VH	J.S.T.	1
PIN HEADER (OUTPUT SIDE CN51)	B8P–VH	J.S.T.	1

*OUTPUT CURRENT OF EACH CONNECTOR PIN MUST BE LESS THAN 5A.

MATCHING HOUSINGS, PINS & TOOL (NOT INCLUDED WITH THE PRODUCT):

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
SOCKET HOUSING (CN1)	VHR–5N	J.S.T.	1
SOCKET HOUSING (CN51)	VHR–8N	J.S.T.	1
TERMINAL PINS	SVH–21T–P1.1	J.S.T.	11
	BVH–21T–P1.1		
HAND CRIMPING TOOL	YC–160R	J.S.T.	–

Notes:

A: 4 - 3.5mm Ø holes are for customers chassis mounting holes. All must be screwed in order to conform the vibration specification.

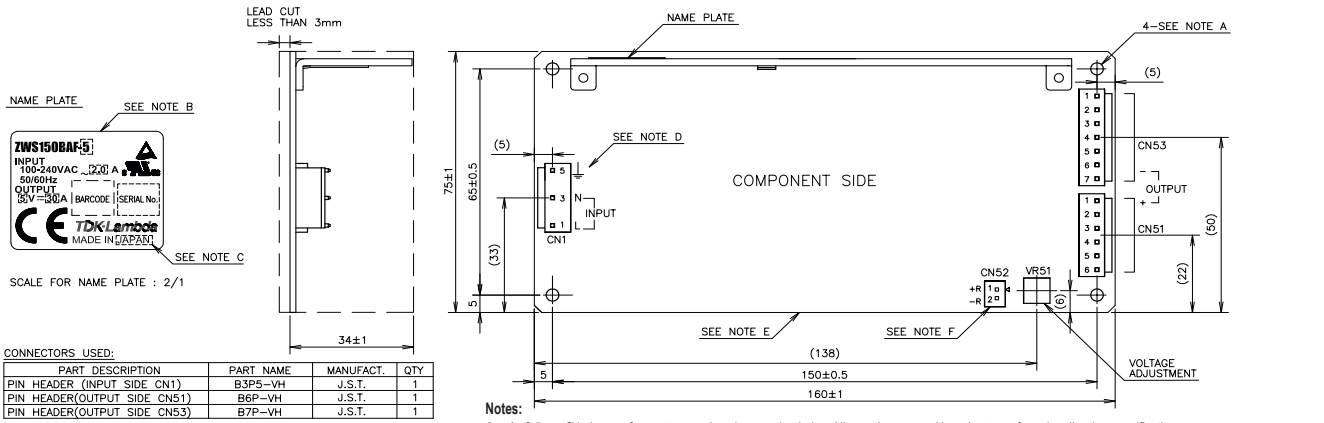
B: Model name, input voltage range nominal output voltage and maximum output current are shown here in accordance with the specifications.

C: Country of manufacture will be shown here. **D:** ⏚ is for safety ground connection.

E: To keep the distance more than 4mm between PCB edge and customer's chassis.

F: **Remote On/Off Control Connector (CN52):** B2B-XH-AM (J.S.T.) **Option Matching Housing:** XHP-2 (J.S.T.). **Matching Terminal:** BXH-001T-P0.6 (J.S.T.) or SXH-001T-P0.6 (J.S.T.) **Hand Crimping Tool:** YC-110R (J.S.T.) or YRS-110 (J.S.T.)
Matching Housing & Terminal --- not included with the product.

Outline Drawing ZWS150BAF



CONNECTORS USED:

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
PIN HEADER (INPUT SIDE CN1)	B3P5–VH	J.S.T.	1
PIN HEADER(OUTPUT SIDE CN51)	B6P–VH	J.S.T.	1
PIN HEADER(OUTPUT SIDE CN53)	B7P–VH	J.S.T.	1

*OUTPUT CURRENT OF EACH CONNECTOR PIN MUST BE LESS THAN 5A.

MATCHING HOUSINGS, PINS & TOOL (NOT INCLUDED WITH THE PRODUCT):

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
SOCKET HOUSING (CN1)	VHR–5N	J.S.T.	1
SOCKET HOUSING (CN51)	VHR–6N	J.S.T.	1
SOCKET HOUSING (CN53)	VHR–7N	J.S.T.	1
TERMINAL PINS	SVH–21T–P1.1	J.S.T.	16
	BVH–21T–P1.1		
HAND CRIMPING TOOL	YC–160R	J.S.T.	–

Notes:

A: 4 - 3.5mm Ø holes are for customers chassis mounting holes. All must be screwed in order to conform the vibration specification.

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:** ⏚ is for safety ground connection.

E: To keep the distance more than 4mm between PCB edge and customer's chassis.

F: **Remote On/Off Control Connector (CN52):** B2B-XH-AM (J.S.T.) **Option Matching Housing:** XHP-2 (J.S.T.). **Matching Terminal:** BXH-001T-P0.6 (J.S.T.) or SXH-001T-P0.6 (J.S.T.) **Hand Crimping Tool:** YC-110R (J.S.T.) or YRS-110 (J.S.T.)
Matching Housing & Terminal --- not included with the product.