

**Scope**

This specification applies to built-in DC Stabilized power supply, OZP-200-12-**\*\*E\*\***-, OZP-200-15-**\*\*E\*\***-, OZP-200-24-**\*\*E\*\***-, OZP-200-36-**\*\*E\*\***-, and OZP-200-48-**\*\*E\*\***-.

This power supply provides DC output at AC input instantaneous power failure by connecting dedicated Capacitor package (DC output 380V.)

In addition, all items in this specification shall be provided at nominal temperature and humidity unless otherwise specified.

**Model Name Coding**

Example : **OZ** **P-** **200** - **24** - **J** **S** **E** **\_** - **C**  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

- ① Series Name....."OZ":OZ series
- ② Peak power ..."P": Corresponding to Peak power
- ③ Continuous output power....."200":200W
- ④ Output voltage....."12":12V,"15":15V,"24":24V,"36":36V,"48":48V
- ⑤ Input / output connector type....."J": Nylon connector, "T": Harmonica Terminal block
- ⑥ Current balance function....."0":W / O current balance function, "S": With current balance function
- ⑦ Low phantom load....."E": Low phantom load type
- ⑧ Modification....."(Blank)":Standard,"1 to 9"or "A to Z": Modification symbol
- ⑨ Chassis....."C": With Chassis, "K": With Chassis and Cover, "Blank": W / O Chassis and Cover.

**General Specification**

Items		Specification					Measurements conditions, etc.	
		OZP-200-						
		12	15	24	36	48		
AC Input	Rated voltage	AC100-240V					Worldwide range	
	Voltage Range	AC 85 to 264V					Load factor shall be 90-100 % at AC85 to 95V range.	
	Current	At AC100V	2.3A typ					At rated output (Natural air cooling)
			2.8A typ					At rated output (Forced air-cooling)
		At AC200V	1.2A typ					At rated output (Natural air cooling)
			1.4A typ					At rated output (Forced air-cooling)
	Rated frequency	50 / 60 Hz					Frequency range 47 to 63Hz	
	Inrush current	At AC100V	17A typ					Power thermistor system Continuous rated output power With cold start at 25C deg
		At AC200V	34A typ					
	Efficiency	At AC100V	87 % typ	88 % typ	87 % typ	87 % typ	88 % typ	At rated output (Natural air cooling)
		At AC200V	90 % typ	91 % typ	90 % typ	90 % typ	91 % typ	
	Power factor	At AC100V	99 % typ					At rated output (Natural air cooling)
At AC200V		95 % typ						
No-load power	At AC100V	1.3W typ	1.3W typ	1.4W typ	1.4W typ	1.7W typ	Power consumption at No-load	
	At AC200V	1.3W typ	1.3W typ	1.4W typ	1.4W typ	1.7W typ		
Phantom Load	At AC100V	60mW typ					Power consumption at RC signal OFF	
	At AC200V	200mW typ						

**Note**

Made by	ishiba shi	Checked by	Yamada	Authorized by	yamamoto o	Model Name OZP-200-12(15,24,36,48) - <b>**E**</b> -	Description 3165-13-4-520	1/11
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# Product Specification

Date: Feb 6<sup>th</sup>, 2012

Items		Specification					Measurements conditions, etc.
		OZP-200-					
		12	15	24	36	48	
Environment	Operating Temp	Natural Air cooling	-10 to 60°C(Open frame)			Refer to "Output derating specification".	
			-10 to 55°C(With chassis and cover)				
	Forced air cooling	-10 to 70°C(Open frame)			Refer to "Output derating specification".		
		-10 to 70°C(With chassis and cover)					
	Operating Humidity	20 to 90 %RH					
	Storage Temp. / Humidity	-20 to 75°C / 10 to 95 %RH			There shall no condensation		
	Vibration	To endure the vibration acceleration of 2G with vibration frequency of 10 to 55Hz for 10 sweep cycles in each X, Y, Z direction. (1G for power supply heat releasing fin side)			Follow JIS-C-60068-2-6 At no operation		
Surface Dropping	Left one bottom edge of the unit 50mm high with the opposite edge placed on the test bench, and let it fall. Repeat 3 times for each of four bottom edges, and no malfunction shall be observed.			Follow JIS-C-60068-2-31 At no operation			
Insulation	Dielectric strength	AC3kV / 1min between input and output /RC / AC_FAIL			Cut-off current 10mA		
		AC2kV / 1min between input and FG			Cut-off current 10mA		
		AC500V / 1 min between Output/RC/AC_FAIL/FG					
	Insulation resistance	50MΩ min. In between Input/Output/RC/AC_FAIL/FG			At DC500V		
Leakage current	Please refer to Page 8						
Others	Electrostatic discharge	IEC61000-4-2 test level 3 compliant (Contact discharge: ±6kV, 10 times)			To apply to FG, Chassis or Cover. There shall be no malfunction		
	Line noise immunity	±2000V(pulse width of 100/1000nS, cycle period of 30 to 100Hz, Normal/Common mode with Positive/Negative polarity for 10 minutes)			To be measured with INS-410. There shall be no output voltage fluctuation in DC component nor malfunction		
	Impulse voltage immunity	IEC-61000-4-5(Installation environment 3,4) compliant; apply five times each of Common mode ±4kV and Normal mode ±2kV			There shall be no malfunction, nor failure.		
	Conducted emission	VCCI, FCC, CISPR22, and EN55022 Class B compliant			At Rated Input and output, With chassis (natural air cooling)		
	Harmonic current regulations	IEC61000-3-2(Edition 2.1) class D, EN61000-3-2 (A14) class D compliant.			At Rated Input and output		
	Safety Standard	UL60950-1, CSA60950-1 (c-UL) CE marking, PSE(Ordinance item 2) compliant			Scheduled to be compliant		
	Cooling system	Natural air cooling					
	Dimensions and Weight	73 × 40 × 222(W × H × D) / 530g typ			Except Chassis and Cover		
		83.8 × 51 × 252(W × H × D) / 830g typ			With Chassis and Cover		
Warranty	Three years after delivery: if any defects belong to us, the defective unit shall be repaired or replaced at our cost.			The unit shall be operated at normal temperature and humidity. Except for lifetime of electrolytic capacitors due to operating environment.			

**Note**

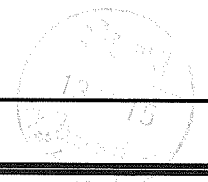
Made by	ishiba shi	Checked by	Yamada	Authorized by	yamamoto	Model Name	Description
						OZP-200-12(15,24,36,48) -**E*-*	3165-13-4-520
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Due to the technical improvement, the specifications and functions are subject to change without notice.

Output Specification									
Items		Specification					Measurement conditions, etc.		
		OZP-200-							
		12	15	24	36	48			
Output Rating	Rated Voltage		12V	15V	24V	36V	48V	At rated input Refer to "Output derating specification."  Refer to "Peak output specification." Natural cooling and forced cooling.	
	Continuous rating (natural air cooling)	Current	16.7A	13.4A	8.4A	5.6A	4.2A		
		Power	200.4W	201W	201.6W	201.6W	201.6W		
	Continuous rating (forced air cooling)	Current	20A	16A	10A	6.7A	5A		
		Power	240W	240W	240W	241.2W	240W		
	Peak rating (10 seconds or less)	Current	33.4A	26.7A	16.7A	11.2A	8.4A		
Power		400.8W	400.5W	400.8W	403.2W	403.2W			
Output Characteristics	Factory setting		12V ± 2 %	15V ± 2 %	24V ± 2 %	36V±2 %	48V±2 %	At rated output	
	Adjustable voltage range		12V +10 % / -25 %	15V +15 % / -20 %	24V +20 % / -20 %	36V +15 % -20 %	48V +15 % -15 %	At more than rated voltage setting, Use it within rated output power.	
	Static input regulation		48mV max.	60mV max.	94mV max.	144mV max.	192mV max.		
	Static load regulation		100mV max.	120mV max.	150mV max.	220mV max.	300mV max.		
	Temperature regulation		0.02 % / °Cmax.						
	Ripple voltage	0 to +70°C	120mV max.				150mV max.	Connect 150mm max. lead wire to output connectors, and then connect a 10uF electrolytic capacitor with a 0.1uF ceramic capacitor in parallel to the other ends of the wires to measure by an oscilloscope with 100MHz frequency band.	
		-10 to 0°C	160mV max.				200mV max.		
	Spike noise voltage	0 to +70°C	150mV max.				250mV max.		
-10 to 0°C		180mV max.				400mV max.			
Protection Circuit	Over current protection	OCP point	101% min. of peak rated current						
		Method	Hold-down current limiting → Blocking oscillation						
		Recovery	Automatic recovery						
	Over voltage protection	OVP point	13.8 to 16.2V	17.3 to 20.3V	30.0 to 35.0V	43.2 to 49.4V	56.2 to 63.0V	For 12V, and 15Vtype, Do not apply external voltage to output terminal.	
		Method	Output shutdown						
		Recovery	Reclosing of AC input						
Output power and Back-up time	Output power back-up functionality is available by connecting dedicated Capacitor package (DC output 380V, Sold separately) to CN3, connector on power supply board, using dedicated harness (Sold separately).  Please refer to right for more information of back-up time.		Capacitor Package (Sold separately)	Output power at back-up operation				(Note) Back-up time shown right is indication value, not guaranteed value.	
			BS13A-EC400 / 422F (5inch bay size) (Charging time: 1min typ)	50W	100W	150W	200W		
				2.8 sec	1.3 sec	0.8 sec	0.5 sec		

Note

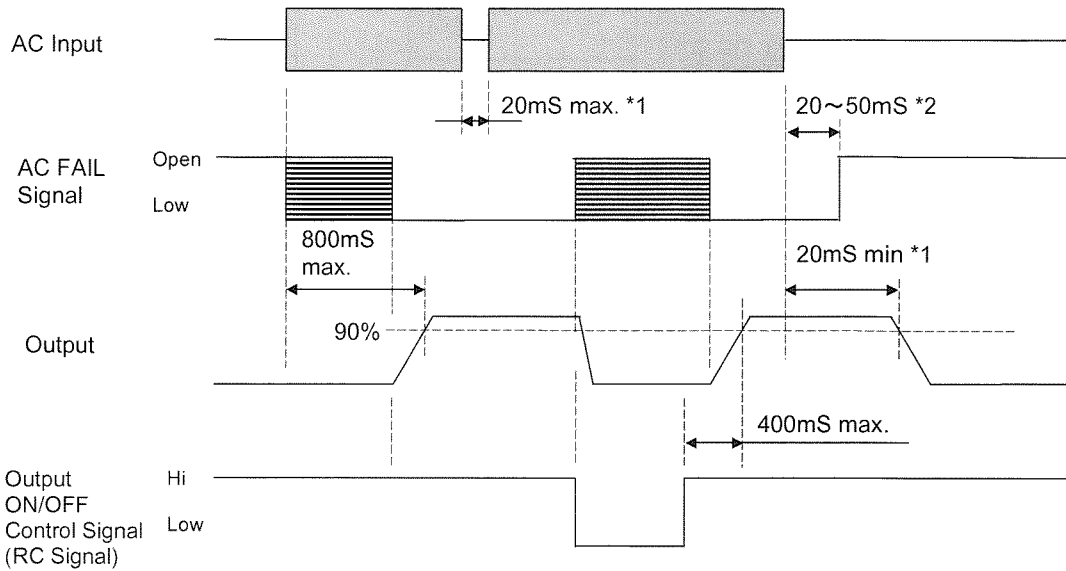


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Signal Input/Output specification																						
Items	Specification					Signal Input/Output circuit diagram / Other																
	OZP-200-																					
	12	15	24	36	48																	
Input signal	<b>Output ON/OFF control signal (RC signal)</b>  <b>Shorting Plug</b> With shorting plug (CN2) connected, Output starts up when AC input is applied regardless of RC signal. To control Start/Stop of output by RC signal, uncap shorting plug of CN2.	<b>Operating mode</b> <table border="1"> <tr> <td>Between +RC and -RC</td> <td>Output</td> </tr> <tr> <td>SW ON (4.5Vmin.)</td> <td>ON</td> </tr> <tr> <td>SW OFF (0.8Vmax.)</td> <td>OFF</td> </tr> </table> <b>External power supply and Load-limiting resistor</b> <table border="1"> <tr> <td>External power supply : E</td> <td>Load-limiting resistor: R</td> </tr> <tr> <td>4.5 to 12.5Vdc</td> <td>Not required</td> </tr> <tr> <td>12.5 to 30Vdc</td> <td>1.5kΩ</td> </tr> <tr> <td>30 to 48Vdc</td> <td>8.2kΩ</td> </tr> </table>				Between +RC and -RC	Output	SW ON (4.5Vmin.)	ON	SW OFF (0.8Vmax.)	OFF	External power supply : E	Load-limiting resistor: R	4.5 to 12.5Vdc	Not required	12.5 to 30Vdc	1.5kΩ	30 to 48Vdc	8.2kΩ	<b>Circuit diagram</b> 		<b>Note:</b> Shorting plug (CN2) and radiating fin next to it are primary circuit components. Make sure to operate the plug after the AC input is turned off.
	Between +RC and -RC	Output																				
	SW ON (4.5Vmin.)	ON																				
	SW OFF (0.8Vmax.)	OFF																				
External power supply : E	Load-limiting resistor: R																					
4.5 to 12.5Vdc	Not required																					
12.5 to 30Vdc	1.5kΩ																					
30 to 48Vdc	8.2kΩ																					
Remote Sensing signal (RS signal)	Input terminal for detection of output voltage. Line-drop at positive side of output cable shall be covered by connecting RS signal to positive side of devices.																					
Current balance signal (CB signal) *Only for "OZP-200-*.SE*.*"	Input terminal on current balance circuit. During parallel running, connect CB terminals of each power supply.					Total output current at connecting N units in parallel shall be within "rated output current x N x 0.9"A. (N ≤ 5)																
Voltage balance signal (VB signal) *Only for "OZP-200-*.SE*.*"	Input terminal on voltage balance circuit. During parallel running, connect VB signal terminal of each power supply.					Higher VR setting value of output voltage shall be preferential																
Output signal	Blackout detection signal (AC_FAIL)	To go "OPEN" when AC input goes down and power failure is detected. Detection voltage: AC 80V typical. Detection delay time: 20 to 50ms after blackout.				<b>Circuit diagram</b> 																
	LED drive output	Delivers "Hi" when main inverter circuit is operating and an external LED on PCB will light. A LED light turn off during main inverter circuit is shut down, such as circuit failure, AC fail, or OFF operation by "output ON/OFF control signal".				Open voltage: 10V max. Max current: 14mAmax. (680Ω :built in) (Note) LED light might flicker or darken at light load (below 10%), or at pulse load even the main inverter circuit is operating.																

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● **Sequence Timing diagram (W/O Capacitor package connected)**



Undetected

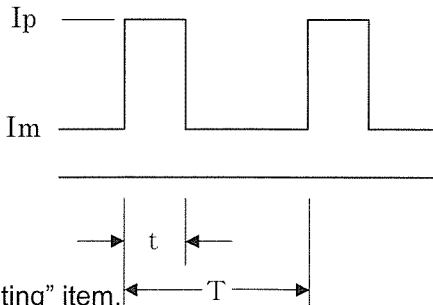
\*1: At rated input, rated 200W output, however, 170W for 15V output.  
 \*2: When output power is 10% or less, max 70mS with input voltage range AC 150V or more.

● **Peak output current specification**

Peak output current shall meet the specification below.

- Duty ratio of peak current shall be 45% or less.
- Energized period of peak current shall be 10 seconds or less.
- In the case that the ambient temperature is 50°C or higher with natural air cooling, the energized period of peak current shall be 5 seconds or less.
- The value resulting from the formula below shall not exceed the continuous rated current, I<sub>o</sub>, after derating specified in "Output derating" item.

$$\sqrt{((I_p^2 \times D) + (I_m^2 \times (1-D)))} \leq I_o$$



I<sub>p</sub> = Peak current value

I<sub>m</sub> = Min. current value

D = Duty ratio, t/T

t = Pulse width of peak current

T = Cycle

I<sub>o</sub> = Continuous rated current specified in "Output derating" item.

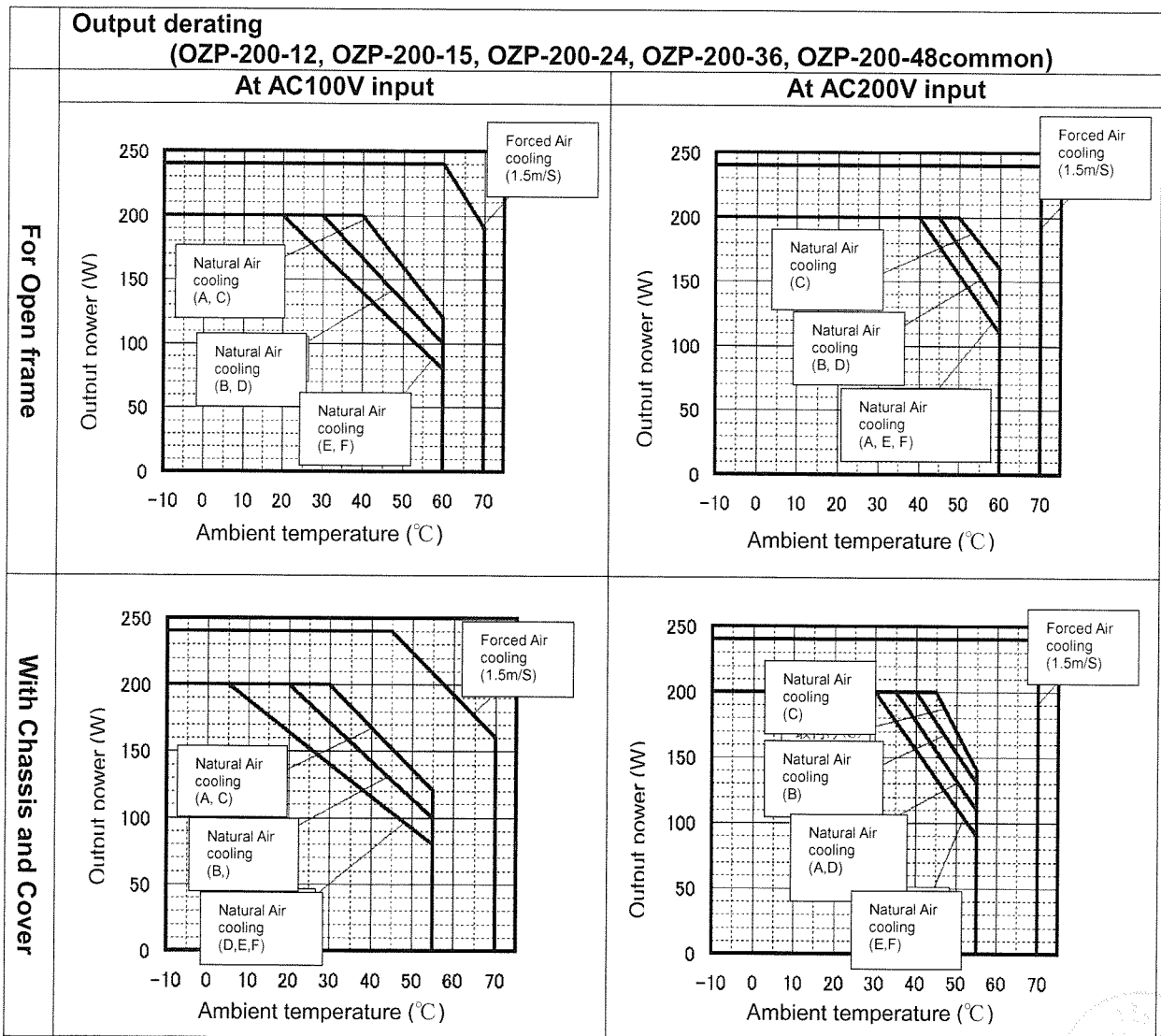
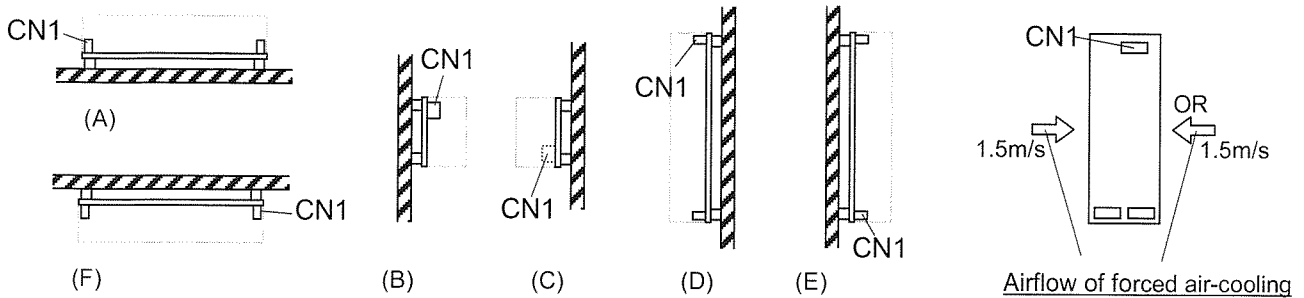
(Note)  
 In case of temp. of power thermistor for prevention of inrush current will NOT go up enough, such as the amount of average load power is small, (Resistance value is high), output power at peak power might drop for about 100ms. If this cause might cause any problem, please check output voltage waveform equipping and operating the power supply with actual device.

**Note**

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**Condition**

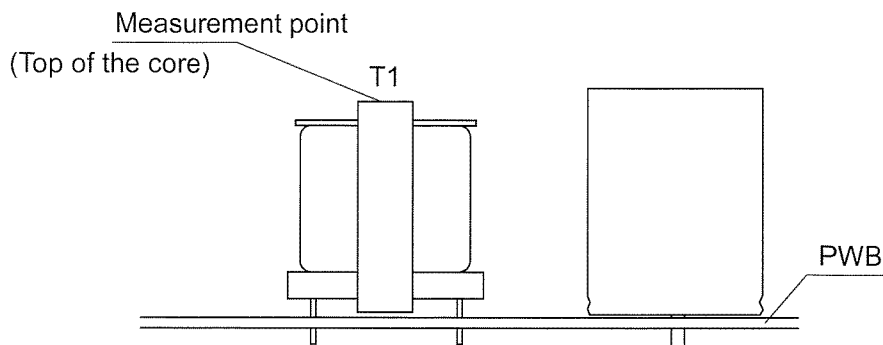
Follow the derating diagram below for output according to the ambient temperature and installation direction. In addition, for the unit with chassis and cover, input voltage shall be 90V or higher. Also, the condition of forced air-cooling is 1.5m / s, direction indicated in arrows below.



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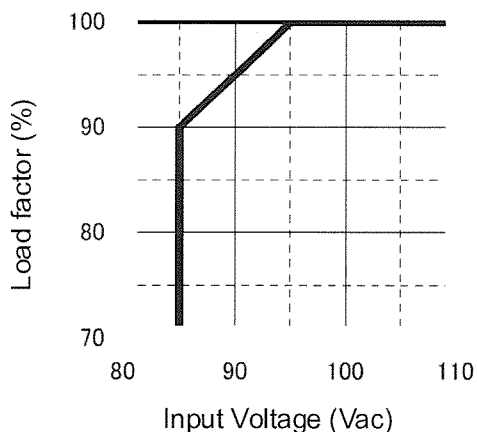
Guideline for forced air cooling

Set the core surface temperature of the transformer (T1) to 80°C or lower.



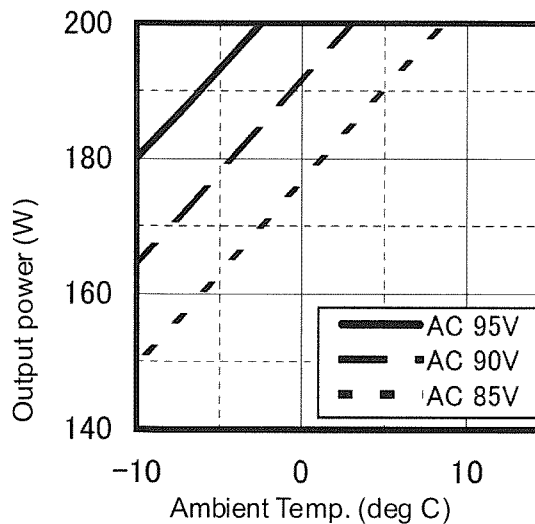
Output derating vs. Input voltage

When input voltage is AC95V or lower, follow the derating diagram below to reduce the continuous rated current and power.

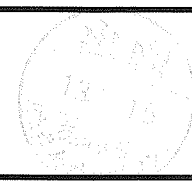


Output derating for startup at low temperature

When power supply is operated at lower temperature, follow the derating diagram below to reduce the output power for startup.



**Note**



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● Parallel running precautions

By connecting the outputs of "N" power supplies in parallel, output capacity "rated output x N units x 0.9" will be obtained. (N ≤ 5)

In this case, please note the points written below.

(Connection)

- Please connect the applicable cable (Model type: WH-02PH02PH-200) between the connectors "CN13" or "CN14" on the PCB of both power supplies connected in parallel. By connecting between these connectors, output current balance for each power supplies are controlled to be equal.
- Load wires from each power supplies should be wired to make both impedance equal as much as possible.

(Usage)

- When adjusting the output voltage, set either one of the output voltage adjustable volume to the minimum (to the leftmost), and adjust the output voltage using output voltage adjustable volume of the other power supply.

(Temp. increase)

- There might be heat increasing caused by installation interval, direction, and any shielding materials around power supply units when you connect in parallel. To avoid temp. increase, please check temp. increasing with equipping actual device and operate. In case of temp. of transformer (T1) exceeds 80°C(indication value), please change the installation interval, direction, or cut down the output power to avoid heat increasing.

(LED indication)

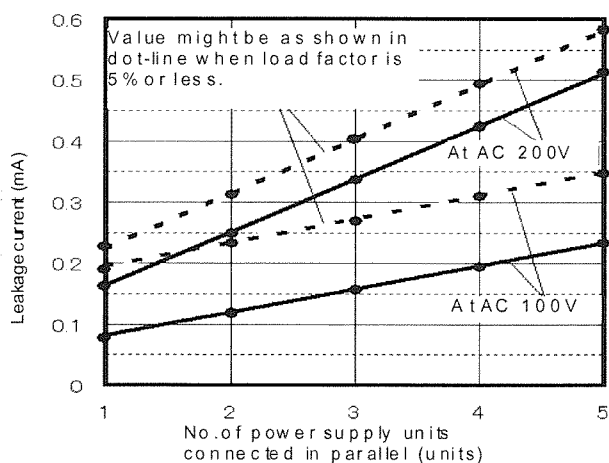
- LED on the PCB light green when main inverter circuit is operating, and blacks out at circuit failure, AC input failure, or at main inverter circuit is stopped, by turning off "Output ON/OFF control signal" stops circuit. Also, there may be LED light darken or flickering at output power is with almost no load (about 5W or less), or at pulse load even main inverter circuit is operating.

(Leakage Current)

- Please refer to the below for leakage current value at parallel connecting.

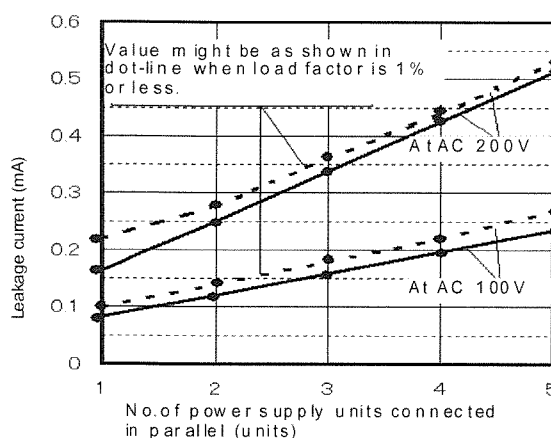
(Leakage current for 12V, 15V type)

No. of power supply units connected in parallel and leakage current (typ)



(Leakage current for 24V, 36V, 48V type)

No. of power supply units connected in parallel and leakage current (typ)



Others

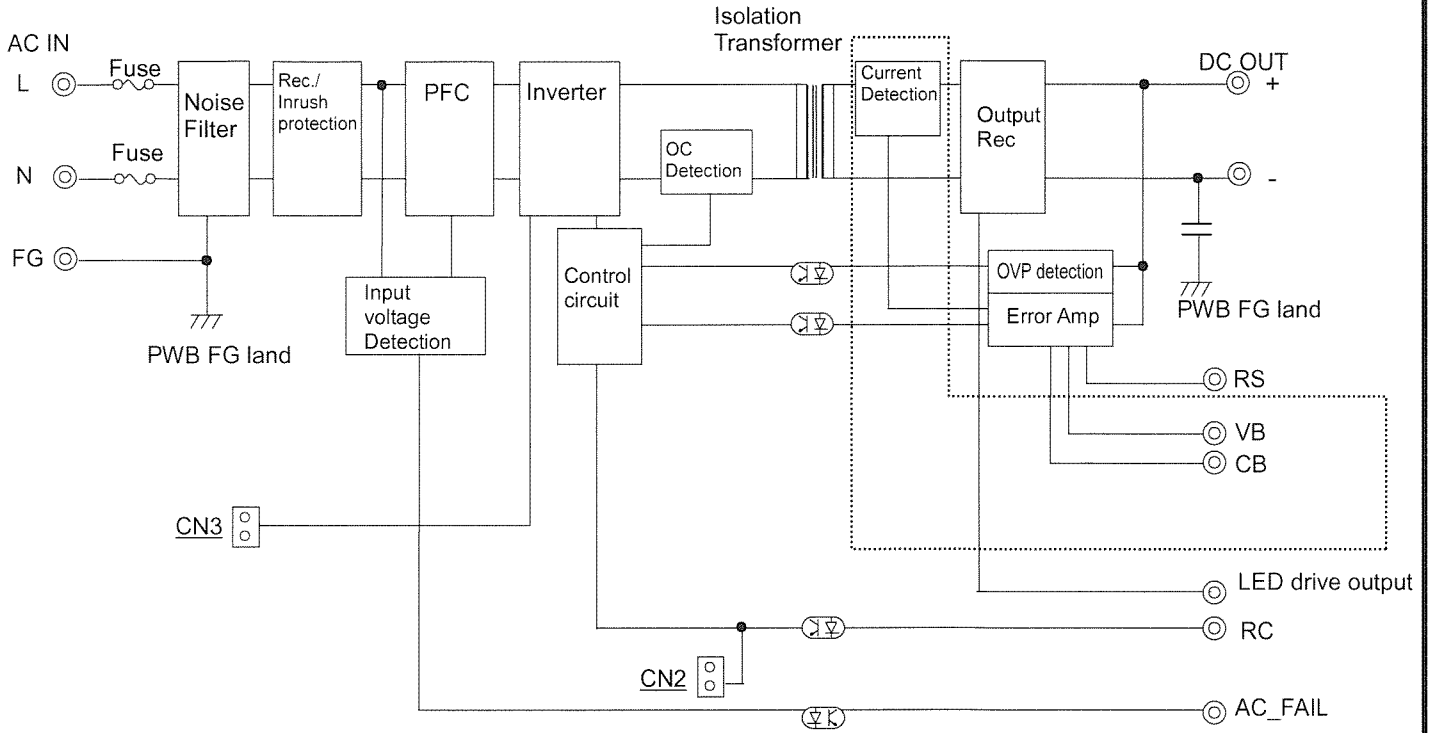
- Because it does not include O Ring diode in the output terminal, output power does not remain when one of the power supplies is damaged due to short mode etc. In addition, output power does not remain normally when power supply in operation is connected to the one in shutdown condition in parallel.

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**Circuit block diagram**

(   is applied to OZP-200-\*-\*SE\*-\* model only)



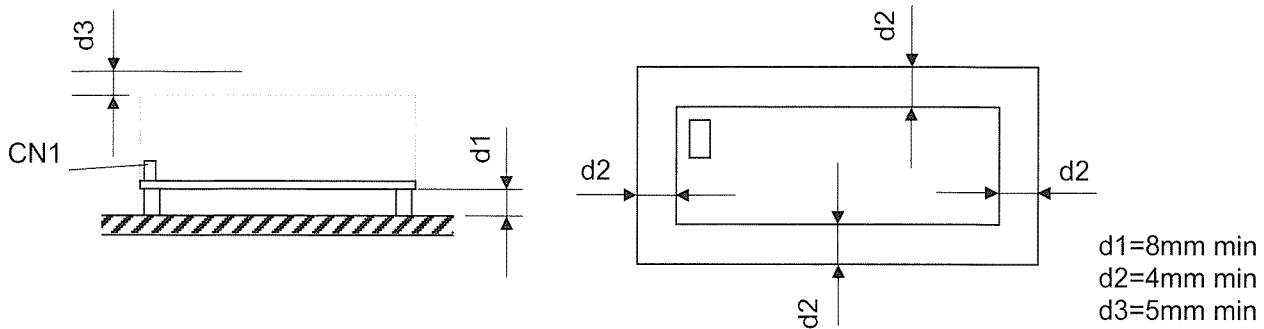
**Note**



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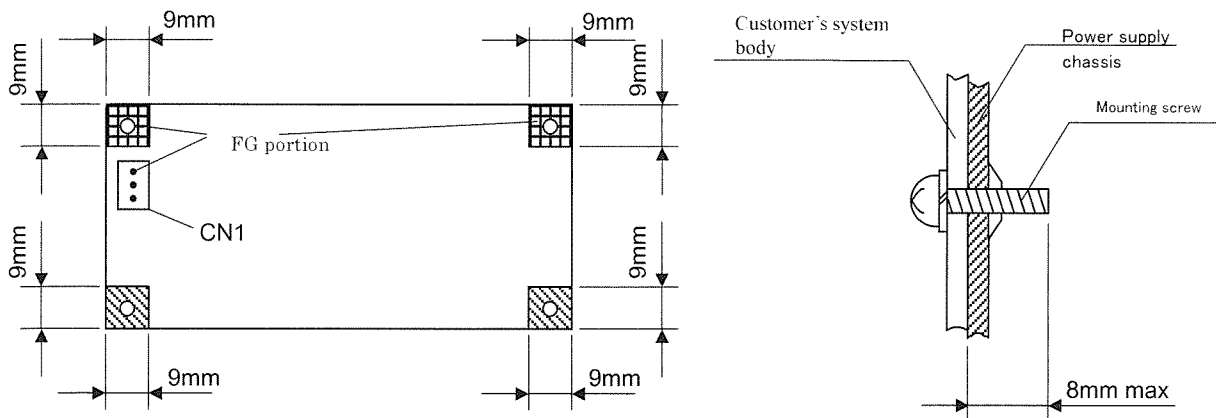
**● Power supply installation**

- To meet the safety standard for Insulation and dielectric withstand, install the power supply to keep the dimensions, d1, d2, and d3, shown in the drawings below.
- Install the power supply so that natural air convection and air ventilation is expected to keep the temperature rise around the power supply low.

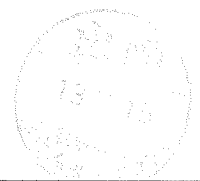


**● Mounting screws and grounding of power supply**

- Fix all four screws firmly at power supply mounting holes.
- Use 3mm diameter screws for mounting power supply.
- In mounting, do not use any metal parts that exceed the hatched area shown below.
- In mounting the unit with Chassis and Cover, do not use any screws that exceed the area shown below.
- Make sure to connect FG terminal of CN1 or FG portion of PWB to customer's safety grounding. Also, make sure to connect FG terminal of CN1 to the safety ground of the customer's system in the case of safety standard application.
- Be recommended to connect the FG portion of solder face of PWB to customer's metal system body with metal parts such as metal spacers to reduce noise.



**Note**



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## Precautions before use

1. Grounding - ⚠ Warning  
This unit is designed and produced to meet Class 1 equipment. Make sure to connect the grounding terminal of the unit to grounding in a proper way for safety.
2. Electric shock - ⚠ Warning  
This unit is designed and produced as built-in equipment and has high-voltage part inside. Make sure to securely install in the equipment in a proper way to prevent electric shock. Also, shorting plug (CN2) for RC signal setting and radiating fin next to it are primary circuit components. When the plug is handled, make sure to turn off AC input before the handling of the plug.
3. PWB handling - ⚠ Caution  
In handling, use the edge of the PWB so as not to touch the component sides. Lift the PWB from the equipment with filter pieces in installation. Besides, handle the PWB with care to prevent twisting or bending of the PC board as it has SMT components on it.
4. Output short circuit - ⚠ Caution  
Prevent shorting outputs. When output is shorted, capacitors inside the power supply rapidly discharge leading to fire and/or spark resulting in serious accident. It also shortens the lifetime of the power supply.
5. Applying external voltage to output termin ⚠ Caution  
Applying external voltage to power supply's output terminal, parallel connection of output power without connecting voltage and current balance signal (CN13), parallel connection of power supplies with different output (3.3V output and 5V etc.) may lead to the failure of power supply.
6. Inrush current control circuit - ⚠ Caution  
To prevent inrush current into rectifying capacitors when AC input is turned on, a power thermistor is used. When AC input is turned on before the temperature of the thermistor goes low after turning off, huge inrush current may occur. Make sure to keep 60-second period at least before reclosing of AC input.
7. Output energy - ⚠ Caution  
The output energy of this unit is 240VA or more, and regarded as dangerous. Any operators must not touch the unit. Besides, apply necessary measures to prevent service personnel or service tools to touch accidentally the equipment with this unit installed. Make sure that the output voltage of this unit goes down to the safe level before servicing after the input voltage is turned off.

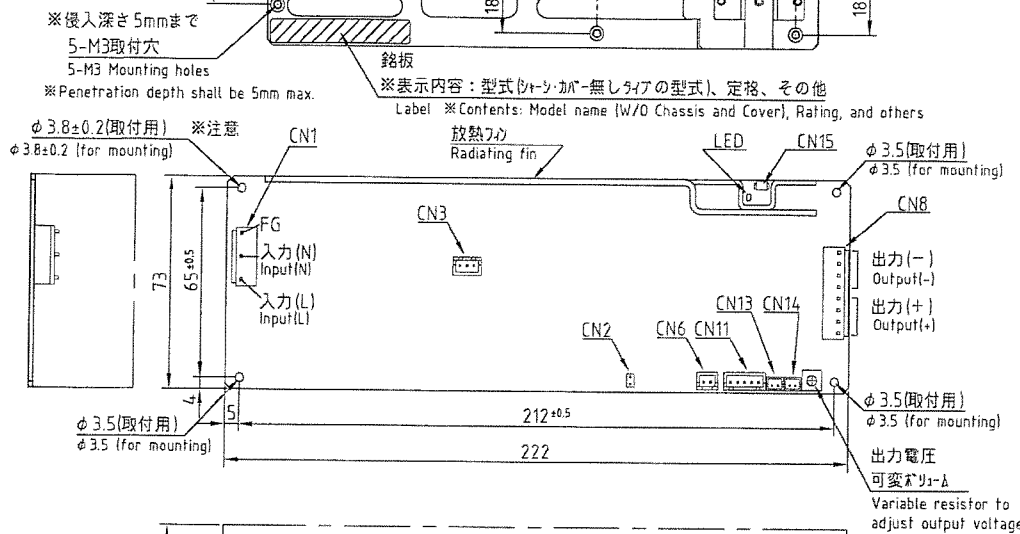


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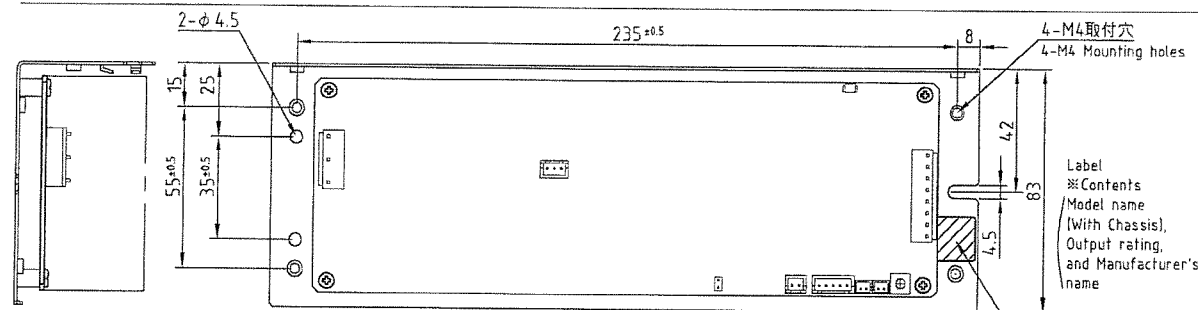
(注意)  
電源の取り付け部にてM4等を使用する場合は、外径がφ6.0以上ものをご使用下さい。

銘板 ※表示内容: メーカー名、製造番号、その他  
Label ※Contents: Manufacturer's name, Production number, and others

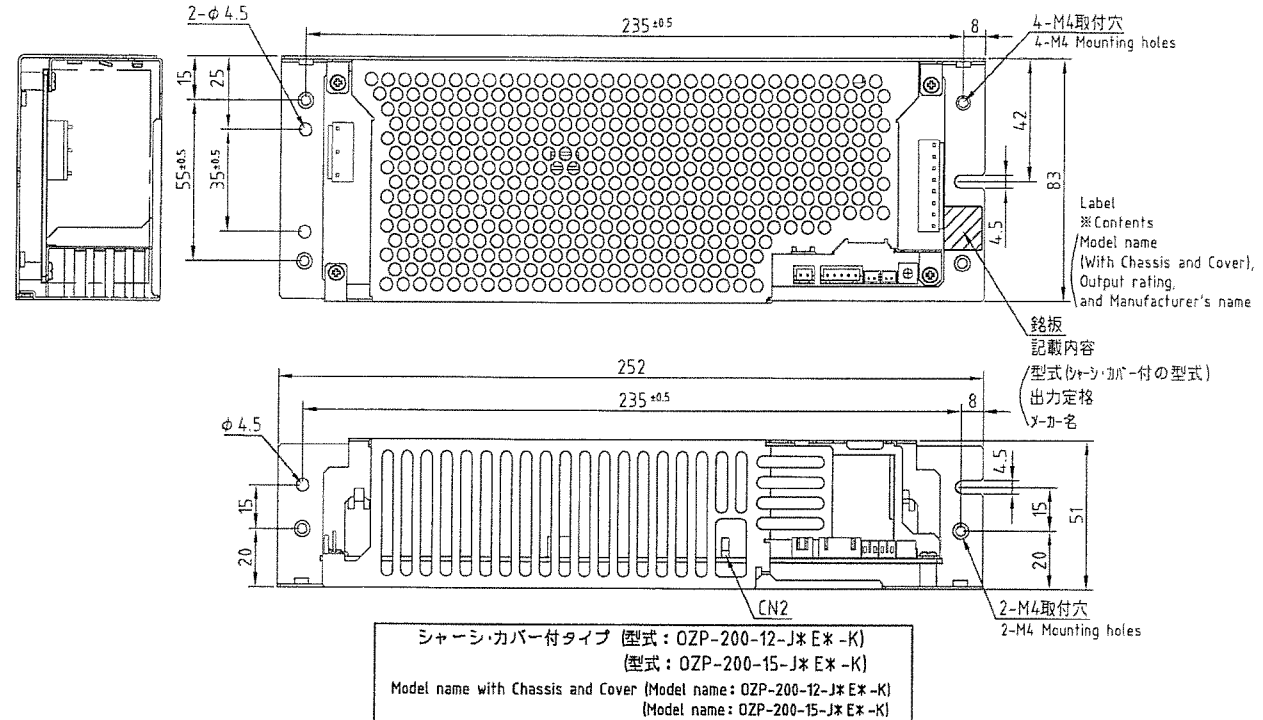
銘板 ※表示内容: 型式(シャシ付/無しタイプの型式)、定格、その他  
Label ※Contents: Model name (W/O Chassis and Cover), Rating, and others



シャシ・カバー無タイプ (型式: OZP-200-12-J\*E\*)  
W/O Chassis and Cover model (Model name: OZP-200-12-J\*E\*)  
(型式: OZP-200-15-J\*E\*)  
(Model name: OZP-200-15-J\*E\*)  
両面λ-A-A基板 t=1.6  
Double sided through-hole PCB t=1.6



シャシ付タイプ (型式: OZP-200-12-J\*E\*-C)  
Model name with Chassis (Model name: OZP-200-12-J\*E\*-C)  
(型式: OZP-200-15-J\*E\*-C)  
(Model name: OZP-200-15-J\*E\*-C)  
銘板  
記載内容  
(型式(シャシ付の型式))  
出力定格  
メーカー名



シャシ・カバー付タイプ (型式: OZP-200-12-J\*E\*-K)  
(型式: OZP-200-15-J\*E\*-K)  
Model name with Chassis and Cover (Model name: OZP-200-12-J\*E\*-K)  
(Model name: OZP-200-15-J\*E\*-K)

※コネクタピンアサイン ※Connector pinout assignment

CN1 (Input)			CN8 (Output)			CN6 (ON/OFF Control)			CN11 (Output signal)		
PIN No.	FUNCTION	CONNECTOR TYPE	PIN No.	FUNCTION	CONNECTOR TYPE	PIN No.	FUNCTION	CONNECTOR TYPE	PIN No.	FUNCTION	CONNECTOR TYPE
1	AC(L)	B3P5-VH (JST)	1~4	-DC	BBP-VH (JST)	1	+RC	B2B-XH-A (JST)	1	RS	B5B-XH-A (JST)
2	AC(N)		5~8	+DC		2	-RC		2	CB	
3	AC(N)		※CN8 適合ハウジング: VHR-8N (JST) 適合ターミナル: リ-A: SVH-21T-P1.1 (JST) リ-A: BVH-21T-P1.1 (JST)	1	+RC	※CN6 適合ハウジング: XHP-2 (JST) 適合ターミナル: リ-A: SXH-001T-P0.6 (JST) リ-A: BXH-001T-P0.6 (JST)	3	OVP			
4	AC(N)		※CN8 Applicable housing: VHR-8N (JST) Applicable terminals: Reel: SVH-21T-P1.1 (JST) Bulk: BVH-21T-P1.1 (JST)	2	-RC	※CN6 Applicable housing: XHP-2 (JST) Applicable terminals: Reel: SXH-001T-P0.6 (JST) Bulk: BXH-001T-P0.6 (JST)	4	+AC_FAIL			
5	FG		※CN1 適合ハウジング: VHR-5N (JST) 適合ターミナル: リ-A: SVH-21T-P1.1 (JST) リ-A: BVH-21T-P1.1 (JST)	5	-AC_FAIL	※CN11 適合ハウジング: XHP-5 (JST) 適合ターミナル: リ-A: SXH-001T-P0.6 (JST) リ-A: BXH-001T-P0.6 (JST)	5	-AC_FAIL			
※CN1 Applicable housing: VHR-5N (JST) Applicable terminals: Reel: SVH-21T-P1.1 (JST) Bulk: BVH-21T-P1.1 (JST)			※CN8 適合ハウジング: VHR-8N (JST) 適合ターミナル: リ-A: SVH-21T-P1.1 (JST) リ-A: BVH-21T-P1.1 (JST)			※CN6 適合ハウジング: XHP-2 (JST) 適合ターミナル: リ-A: SXH-001T-P0.6 (JST) リ-A: BXH-001T-P0.6 (JST)			※CN11 適合ハウジング: XHP-5 (JST) 適合ターミナル: リ-A: SXH-001T-P0.6 (JST) リ-A: BXH-001T-P0.6 (JST)		

CN13, CN14 (Current/Voltage Balance Signal)			CN15 (LED Drive Output)			CN3 (Capacitor package Input/Output)		
PIN No.	FUNCTION	CONNECTOR TYPE	PIN No.	FUNCTION	CONNECTOR TYPE	PIN No.	FUNCTION	CONNECTOR TYPE
1	VB	B2B-PH-K-S (JST)	1	-LED	S3261-0271 (MOLEX)	1	3B0V(Pri)	B3B-XH-A (JST)
2	CB		2	-LED		2	OV(Pri)	
※CN13, CN14 適合ハウジング: PHR-2 (JST) 適合ターミナル: リ-A: SPH-002T-P0.55 (JST)			※CN15 適合ハウジング: S1021-0200 (MOLEX) 適合ターミナル: リ-A: 50079-8000 (MOLEX) リ-A: 50079-8100 (MOLEX)			※CN3 適合ハウジング: XHP-3 (JST) 適合ターミナル: リ-A: SXH-001T-P0.6 (JST) リ-A: BXH-001T-P0.6 (JST)		
※CN13, CN14 Applicable housing: PHR-2 (JST) Applicable terminals: Reel: SPH-002T-P0.55 (JST)			※CN15 Applicable housing: S1021-0200 (MOLEX) Applicable terminals: Reel: 50079-8000 (MOLEX) Bulk: 50079-8100 (MOLEX)			※CN3 Applicable housing: XHP-3 (JST) Applicable terminals: Reel: SXH-001T-P0.6 (JST) Bulk: BXH-001T-P0.6 (JST)		



- 寸法公差: ±1 (但し取付寸法は±0.5)
- Dimensional tolerance: ±1 (±0.5 for mounting dimension)
- シャシの取付穴(M4)締め付けトルク: 1.5N・m MAX
- Tightening torque for chassis mounting hole (M4): 1.5N・m MAX

DRAWN BY	CHECKED BY	CHECKED BY	APPROVED BY	SCALE	MATERIALS	TITLE	DRAWING NO.
石橋	原	山	山	UNITS			
ISSUED	2012. 6. 4			3RD ANGLE PROJECTION		3165-13-3-050	