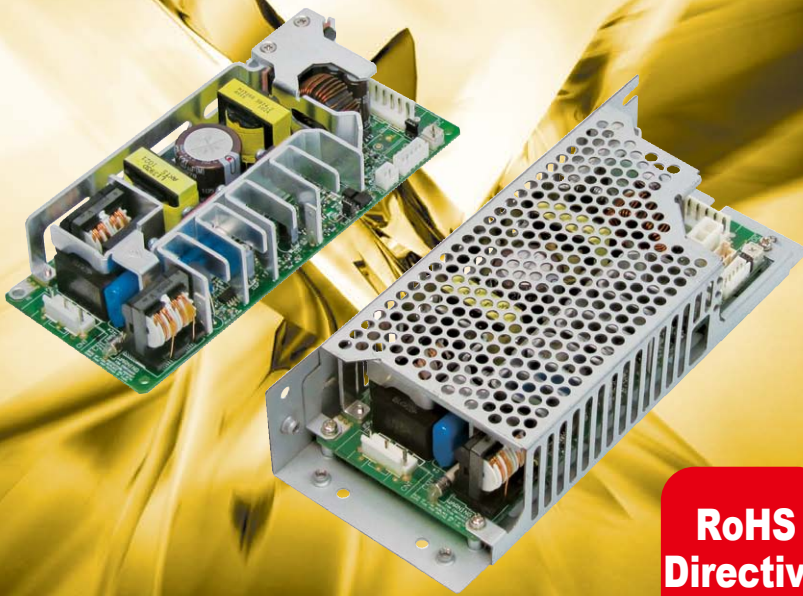


Single Output Power Supply OZP-120 series

Various outputs (+12V,+15V,+24V, +30V,+36V,and +48V) with 120W lined up



With battery package connected to OZP-120-12-*B*.* or OZP-120-24-*B*.*, backup at blackout is available.



■ Battery Package
BS14*-H24/2.5L
BS24A-H12/2.0L-R

**RoHS
Directive**

Single Output

Continuous Max. 120W	Peak 180W ~216W
--------------------------------	------------------------------

Structure and In/Out connector	Model	Output voltage	Output current *1	Output power *1	Stock
Open frame type/ Nylon connector	OZP-120-12/15-J00	+12V/+15V	10A(15A)/8A(12A)	120W(180W)	Standard Stock
	OZP-120-12-JB0	+12V	10A(15A)	120W(180W)	Standard Stock
	OZP-120-24-J00	+24V	5A(9A)	120W(216W)	Standard Stock
	OZP-120-24-JB0	+24V	5A(9A)	120W(216W)	Standard Stock
	OZP-120-30/36-J00	+30V/+36V	4A(7.2A)/3.4A(6A)	120W(216W)	Standard Stock
	OZP-120-48-J00	+48V	2.5A(4.5A)	120W(216W)	Standard Stock
Structure	Description				Stock
W/T Chassis	'C' is added after Open frame model name (Ex. OZ-120-12/15-J00-C)				10 days before delivery
W/T Chassis & Cover	'K' is added after Open frame model name (Ex. OZ-120-12/15-J00-K)				10 days before delivery
Input/Output connector *	Description				Stock
Block terminal type	'T' from 'J' of nylon connector model (Ex. OZ-120-12/15-T00)				10 days before delivery
European terminal type	'E' from 'J' of nylon connector model (Ex. OZ-120-12/15-E00)				10 days before delivery

■ Model name coding

① Series name	④ 12/15:12/15V output (selectable)	⑤ Input/Output connector	⑥ 0: Backup function NOT available	⑧ Blank: W/O Chassis and Cover
② Peak power available	24: +24V output	J: Nylon connector	B: Backup function equipped	C: W/T Chassis
③ Output power	30/36:30/36V output (selectable)	T: Block terminal	⑦ Modification No.	K: W/T Chassis and Cover
	48: +48V output	E: European terminal		

OZP-120-**-***-*
① ② ③ ④ ⑤⑥⑦ ⑧

Features

- Equipped with a variable resistor to adjust output voltage
- Higher power by more than 10% with the same volume than competitors.
- Peak power up to approx. 1.8 times as much as rated power

Greatly featured with blackout backup with special battery package connected to 12V/24V output type.

* Values in () above show peak current and power.

Safety standard	UL	CSA	EN	CE	CCC
Reliability grade	HFA	FA	HOA	OA	
Certified only for OZP-120-12/15,OZP-120-12 and OZP-120-24					

•Function

TTL	PFC	RoHS Directive
-----	-----	----------------

•Input

AC input	85V~264V (Worldwide range)
----------	----------------------------

•Dimension

W×H×D (mm)	W/O Chassis & Cover	73×35×180
	W/T Chassis & Cover	83.8×45×210

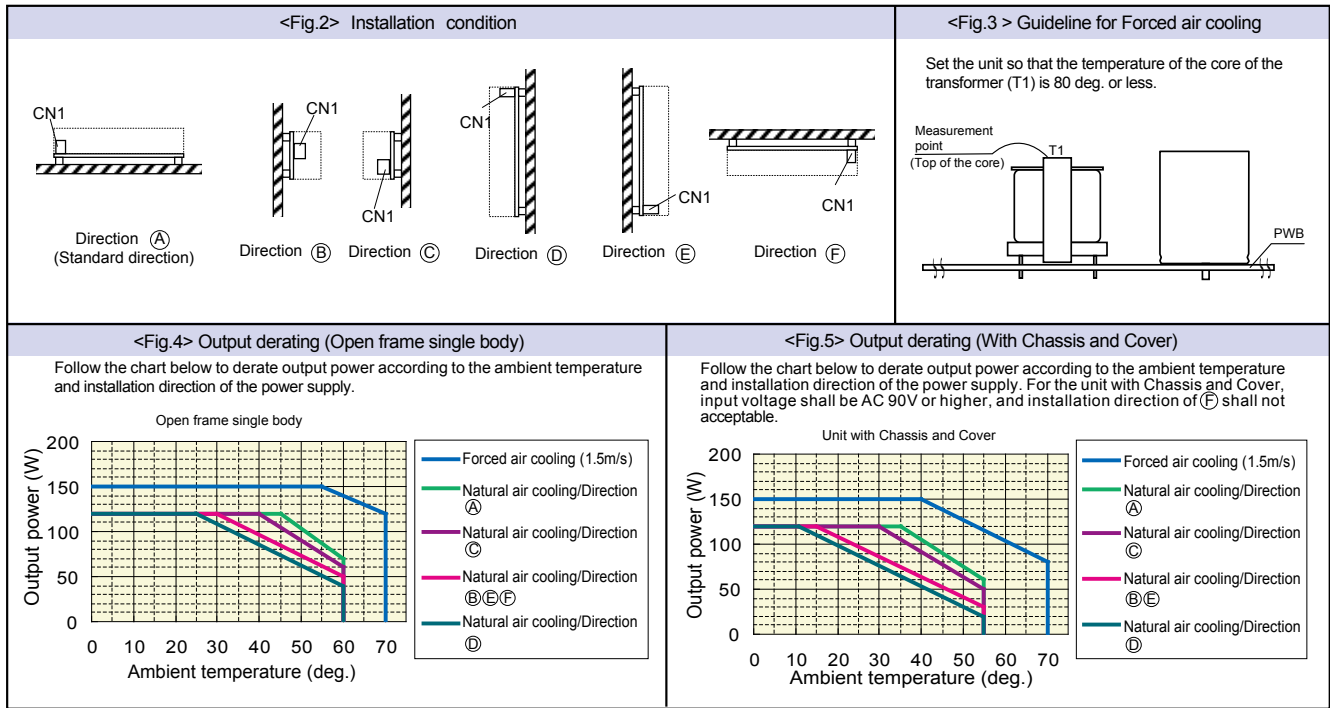
General Specification (Items are provided at normal temperature and humidity unless otherwise specified.)

Items		Specification						Measurements, etc.	
AC Input	Rated voltage	AC100-240V(AC85-264V)						Worldwide range * See <Fig.1> Low input voltage derating below.	
	Frequency	50/60Hz						Frequency range: 47-63Hz	
	Efficiency	AC100V	81% typ(12V),82% typ(15V,24V,30V),83% typ(36V,48V)					at Rated load	
		AC200V	84% typ(12V),85% typ(15V,24V,30V),86% typ(36V,48V)						
	Power factor	99% typ(AC100V),90% typ(AC200V)(Characteristics data on Fig.7)							
Inrush current	17A typ(AC100V),34A typ(AC200V)(Characteristics data on Fig.8)							at Rated load and Cold start (25 deg.)	
Input current	AC100V	1.5A typ(120W), 1.9A typ(150W with forced air cooling)					(Characteristics data on Fig.6)	at Rated input and Max. output (25 deg.)	
	AC200V	0.8A typ(120W), 1.0A typ(150W with forced air cooling)							
Output	Model	OZP-120-12/15*	OZP-120-12/15*	OZP-120-24	OZP-120-30/36*	OZP-120-30/36*	OZP-120-48	* Selectable output voltage *1	
			OZP-120-12						
	Rated voltage	+12V	+15V	+24V	+30V	+36V	+48V		
	Rated current/Power (Natural air cooling)	10A	8A	5A	4A	3.4A	2.5A		
		120W	120W	120W	120W	122.4W	120W		
	Rated current/Power (Forced air cooling)	12.5A	10A	6.3A	5A	4.2A	3.2A		
		150W	150W	151.2W	150W	151.2W	153.6W		
	Peak current/Power	15A	12A	9A	7.2A	6A	4.5A	* Follow Peak output power condition below.	
		180W*	180W*	216W*	216W*	216W*	216W*		
	Setup voltage at factory	12V±2% 15V±3% 24V±2% 30V±2% 36V±3% 48V±2%							at rated 120W output
	Voltage adjustable range	±10% -5%,+10% -5%,+20% ±10% -10%,+15% ±10%							
	Static input fluctuation	48mV max 48mV max 94mV max 120mV max 144mV max 192mV max							
	Static load fluctuation	100mV max 100mV max 150mV max 180mV max 220mV max 300mV max							
	Temperature fluctuation	0.02%/deg. max 0.02%/deg. max 0.02%/deg. max 0.02%/deg. max 0.02%/deg. max 0.02%/deg. max							
Max. ripple voltage (mVp-p)	0-65deg.	120mV max	120mV max	120mV max	120mV max	120mV max	150mV max	Connect wires to the output connector with a 10uF electrolytic capacitor and a 0.1 uF ceramic capacitor to measure with 100MHz oscilloscope. Lead length of the wires shall be 150mm or less. (Characteristics data on Fig.19)	
	-10-0deg.	160mV max	160mV max	160mV max	160mV max	160mV max	200mV max		
Max. spike voltage (mVp-p)	0-65deg.	150mV max	150mV max	150mV max	150mV max	150mV max	250mV max		
	-10-0deg.	180mV max	180mV max	180mV max	180mV max	180mV max	400mV max		
Protection	Overcurrent protection	OCP point (A)	101% min. of Peak rated current						Blocking oscillation at low voltage
		Method	Hold-down current limiting(Characteristics data on Fig.21)						
		Recovery	Automatic recovery						
Overvoltage protection	OVP point(V)	13.8-16.2V	17.3-20.3V	30-35V	34.5-42V	41.4-50.4V	55.2-63V		
	Method	Output shutdown							
	Recovery	Reclosing of AC input							
Environment	Operating temperature and Humidity	Open frame	-10 to 60deg. at natural air cooling, -10 to 70deg. at forced air cooling*/20-90%						* <Fig.3> on the next page shows the guideline of forced air cooling. Refer to <Fig.4-5> output derating. No condensation
		W/T Chassis and Cover	-10 to 55deg. at natural air cooling, -10 to 70deg. at forced air cooling*/20-90%						
	Storage Temp. and Humidity	Open frame	-20-75deg./10-95%						No condensation
		W/T Chassis and Cover	-20-75deg./10-95%						
Insulation	Vibration	Acceleration of 2G with vibration frequency of 10-55Hz for 10 sweep cycles in the X · Y · Z directions.						JIS-C-60068-2-6 at no operation	
	Mechanical strength(surface drooping)	Lift one bottom edge up to 50mm and let it fall. Repeat three times for each of four edges. No malfunction.						JIS-C-60068-2-31 at no operation	
	Dielectric strength	AC 3kV for one minute between Input and Output/RC/AC FAIL/BATT_LOW AC 2kV for one minute between Input and FG. AC 500V for one minute among DC output, RC, AC FAIL, BATT_LOW, and FG.						Cut-off current: 10mA Cut-off current: 10mA Cut-off current: 100mA	
Insulation resistance	50MΩ min. among AC input, DC output, RC, AC FAIL, BATT_LOW, and FG.						At DC 500V		
Leakage current	0.25mA max. at AC 100V, 0.5mA max. at AC 200V(Characteristics data on Fig.9)						YEW. TYPE3226 (1kΩ) or equivalent		
EMC	Line noise immunity	±1000V (Pulse width: 100/1000ns, Repeated cycle: 30 to 100Hz, Normal mode/Common mode with Positive/Negative polarity for 10 minute.)						To measure with INS-410. There shall be no DC-factor fluctuation of output and malfunction.	
	Electrostatic discharge	EN61000-4-2 Compliant							
	Radioactive radio frequency electromagnetic field	EN61000-4-3 Compliant							
	Fast Transient Burst	EN61000-4-4 Compliant							
	Lightning	EN61000-4-5 Compliant							
	Conductive radio frequency electromagnetic field	EN61000-4-6 Compliant							
	Power source frequency magnetic field Immunity	EN61000-4-8 Compliant							
	Voltage dips/Fluctuation	EN61000-4-11 Compliant							
	Conducted Emission	VCCI-B,FCC-B,EN55022-B, and CISPR22-B Compliant (Characteristics data on Fig.10,11)						at rated output 120W with single power supply *2	
Harmonic current regulation	IEC61000-3-2(Ed. 2.1) Class D, and EN61000-3-2(A14) Class D Compliant						at rated Input/Output		
Others	Safety standard	Certified UL60950-1, CSA60950-1(c-UL),EN60950-1, EN50178, and CE Marking(LVD,EMCD)/The Electrical Appliance and Material Safety Law (section 2) Compliant						*Certified only for OZP-120-12/15,OZP-120-12 and OZP-120-24	
	Cooling system	Natural air cooling/Forced air cooling							
	Output GND grounding	Capacitor grounding							
	Output hold-up time	20ms min.(Characteristics data on Fig.16)						at rated 120W output (90W output at 15V setting)	
	Reliability Grade	FA (Industrial equipment grade to use double-sided PWBs with through holes)						To follow our standard	
	MTBF	244,000 H						To follow EIAJRCR-9102	
	Weight	400g typical W/O Chassis and Cover, 650g typical W/T Chassis and Cover							
Warranty	Three years after delivery. However, if any faults belong to us, the defective unit shall be repaired or replaced at our cost.						Except causes generated by operation out of this specification		

<Fig.1> Low input voltage derating	Peak output power condition
<p>Follow the derating below to derate Rated current/Power and Peak current/Power.</p> <p>*Below is derating reference at startup with forced air cooling: AC85V: 80% AC90V: 86.7% AC100V: 100%</p>	<ul style="list-style-type: none"> Duty ratio of Peak current shall be within 35%. (However, for OZP-120-24, it shall be within 30%). Energized period of peak current shall be within 10 seconds. Energized period of peak current shall be within 5 seconds at natural air cooling and 50 deg. or higher of ambient temperature. The value derived from the equation below shall not exceed continuous rated current I_o specified in the output derating on the following page. $\sqrt{(I_p^2 \times D) + (I_m^2 \times (1-D))} \leq I_o$ <p>I_p = Peak current I_m = Min. current D = Duty cycle, t/T t = Pulse width of peak current T = Cycle length I_o = Continuous rated current specified in output derating.</p>

*1 When removing the short plug (CN9), output voltage for 12/15V type should be changed to 15V type, it is set at final inspection of 12V and 30/36V type should be changed to 36V type, it is set at final inspection of 30V. At the same time, if activating the over protection circuit value is at 12/15V type changes to 17.3~20.3V and 30/36V type shifts to 41.4~50.4V. Please turn off the output power in advance when you change the voltage.
*2 Recommended Input cable with ferrite core: [WH-C05VH-800-01]

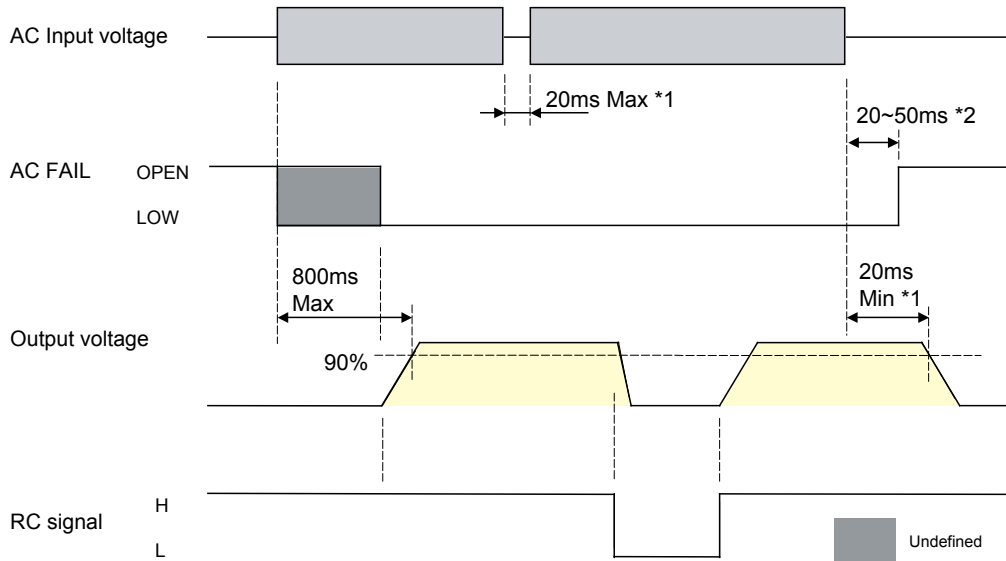
General Specification (Items are provided at normal temperature and humidity unless otherwise specified.)



Signal Input/Output Specification (Items are provided at normal temperature and humidity unless otherwise specified.)

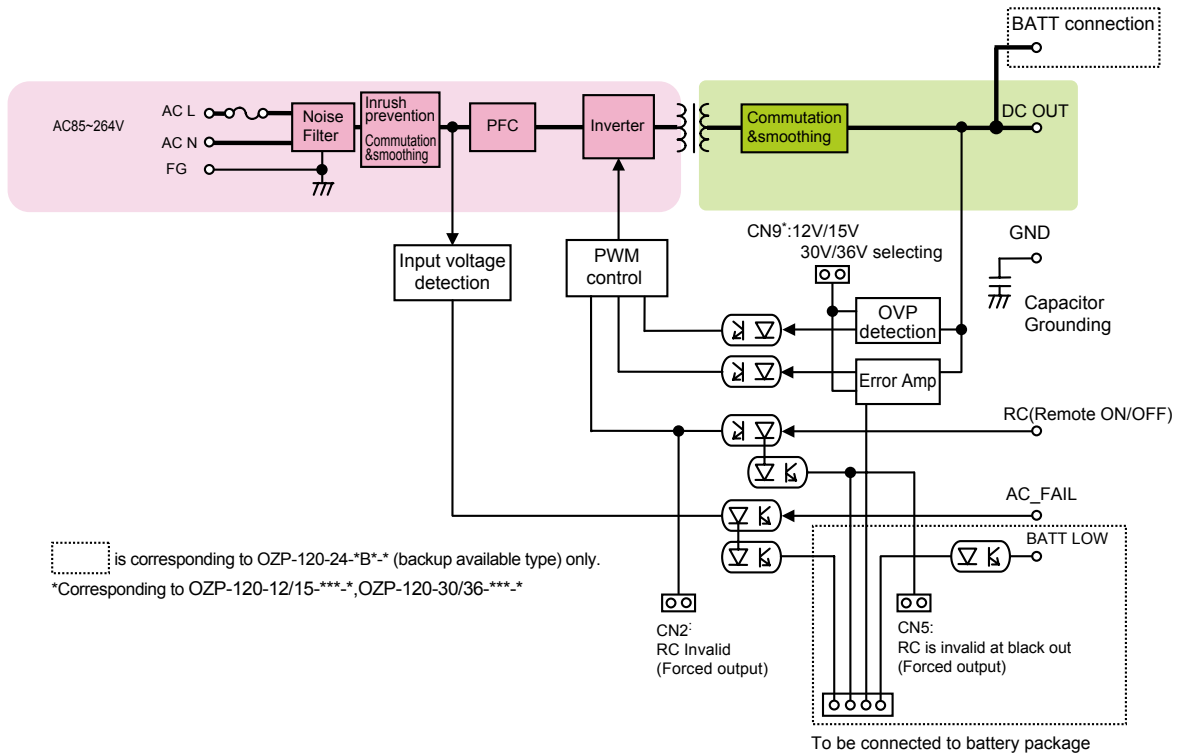
Items	Specification	Note															
Input signal	<p>Output ON/OFF control signal (RC signal) * Remove the shorting plug of CN2 in using RC signal.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Operation mode</th> <th>External power supply and limiting resistor</th> </tr> <tr> <td>between +RC and -RC</td> <td>Output</td> <td>External power supply: E Limiting resistor: R</td> </tr> <tr> <td>SW ON(4.5V or higher)</td> <td>ON</td> <td>4.5~12.5Vdc Not required</td> </tr> <tr> <td>SW OFF(0.8V or lower)</td> <td>OFF</td> <td>12.5~30Vdc 1.5kΩ</td> </tr> <tr> <td></td> <td></td> <td>30~48Vdc 3.0kΩ</td> </tr> </table> <p>Shorting plug; When the shorting plug (CN2) is connected, Output stats up with AC input regardless of RC signal. In controlling output startup or shutdown by RC signal, remove the shorting plug of CN2. Note: The shorting plug (CN2) and adjacent radiation fin are in the primary side. Make sure to turn off AC input before operation on the plug.</p>	Operation mode		External power supply and limiting resistor	between +RC and -RC	Output	External power supply: E Limiting resistor: R	SW ON(4.5V or higher)	ON	4.5~12.5Vdc Not required	SW OFF(0.8V or lower)	OFF	12.5~30Vdc 1.5kΩ			30~48Vdc 3.0kΩ	<p>In the case that the special battery package is connected to OZP-120-24-*B*-* (backup available type), and the shorting plug (CN5) is assembled, backup operation at AC blackout is continuously conducted regardless of RC signal. To stop the backup operation by RC signal, remove the shorting plug of CN5 before use.</p>
Operation mode		External power supply and limiting resistor															
between +RC and -RC	Output	External power supply: E Limiting resistor: R															
SW ON(4.5V or higher)	ON	4.5~12.5Vdc Not required															
SW OFF(0.8V or lower)	OFF	12.5~30Vdc 1.5kΩ															
		30~48Vdc 3.0kΩ															
Output signal	<p>Blackout detection signal (AC FAIL) To become 'OPEN' (open collector) when AC input falls or blackout is detected. (Detection voltage: AC 80V typical, Detection delay time: 20 to 50ms after AC input is turned off.)</p> <p>Battery low signal (BATT LOW) To be delivered via isolated photo-coupler when the low voltage of the special battery package connected to the power supply is detected. Also, when the battery package is not connected, this signal goes 'OPEN'. Detailed specification shall follow the specification of the battery package to be connected.</p>	<p>* This function is only for OZP-120-*B*-* (backup available type)</p>															
Signal circuit																	
Input signal circuit	<p style="text-align: center;">(RC signal)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">Except OZP-120-24-*B*-* (backup available type)</th> <th style="width: 50%;">OZP-120-24-*B*-* (backup available type)</th> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> </table>	Except OZP-120-24-*B*-* (backup available type)	OZP-120-24-*B*-* (backup available type)			Output signal circuit											
Except OZP-120-24-*B*-* (backup available type)	OZP-120-24-*B*-* (backup available type)																
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">(AC FAIL)</th> <th style="width: 50%;">(BATT LOW)</th> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> </table>	(AC FAIL)	(BATT LOW)													
(AC FAIL)	(BATT LOW)																

Sequence Timing Chart



*1: at raged input with 120W of rated output. For OZP-120-12/15, set the output voltage to 15V with 90W load.
 *2: In the case that output power is 10% or less, the period shall be 70ms max. with AC input of 150V or higher.

Block Diagram



is corresponding to OZP-120-24-*B* (backup available type) only.
 *Corresponding to OZP-120-12/15-***, OZP-120-30/36-***

Connection In Series And Parallel

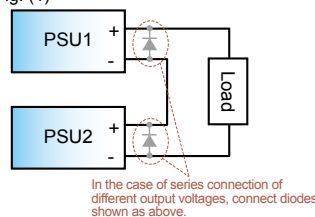
Series connection

Series connection shown on the right is available. Series connection between different output voltages is available, such as 12V and 24V.

Note: In the case that different voltages are connected in series like Fig. (1) on the right;

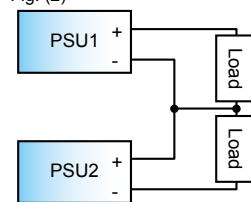
- The output current shall be the rated current or less of the smaller rated current among the PSU1 and PSU2 connected in series.
- Connect diodes for protection as shown in the Fig. (1). Current rating of the diode shall be 1.5 times or more of rated output current whose unit has larger rated output current among PSU1 and PSU2. Also, use Schottky diodes whose forward voltage is lower than the forward voltage of the diodes used in the PSU.

Fig. (1)



In the case of series connection of different output voltages, connect diodes shown as above.

Fig. (2)

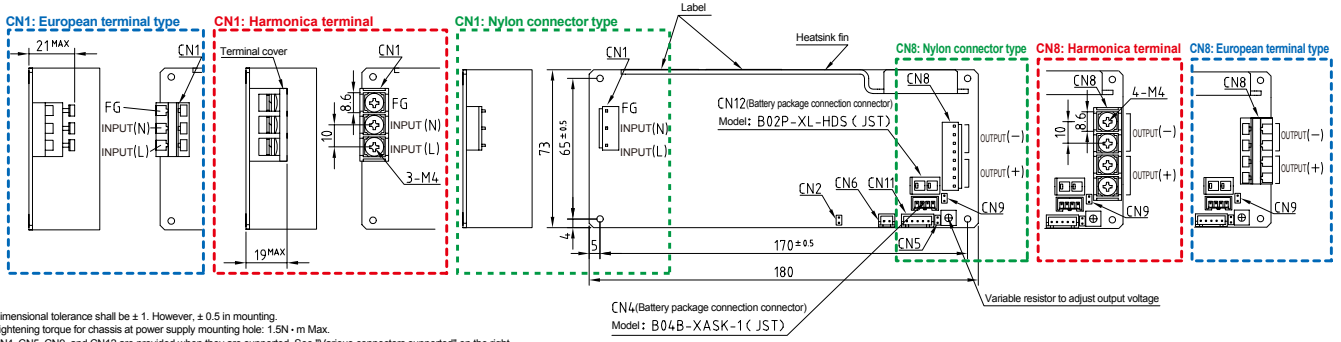


Parallel operation

Parallel operation is unacceptable.

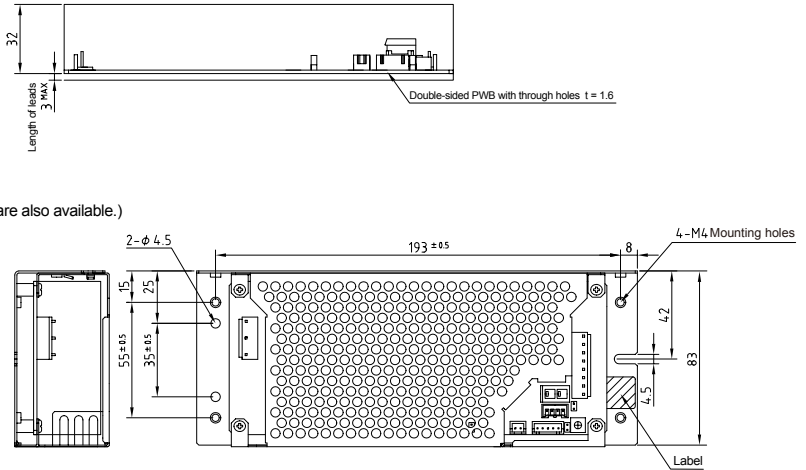
Outline Drawing

PCB type (open frame) model



Model with Chassis and Cover

(For Input/Output connectors, Harmonica terminal and European terminal are also available.)



Connector pin allocation

Nylon connector type	Harmonica terminal type	European terminal type																								
<p>CN1 (INPUT)</p> <table border="1"> <tr><th>PIN No.</th><th>FUNCTION</th><th>CONNECTOR TYPE</th></tr> <tr><td>1</td><td>AC(L)</td><td rowspan="5">B3PS-VH (JST)</td></tr> <tr><td>2</td><td>AC(N)</td></tr> <tr><td>3</td><td>AC(N)</td></tr> <tr><td>4</td><td>AC(N)</td></tr> <tr><td>5</td><td>FG</td></tr> </table> <p>※ CN1 Applicable housing: VHR-5N (JST) Applicable terminal: SVH-21T-P11 (JST)</p>	PIN No.	FUNCTION	CONNECTOR TYPE	1	AC(L)	B3PS-VH (JST)	2	AC(N)	3	AC(N)	4	AC(N)	5	FG	<p>CN1(INPUT) See the drawing above.</p>	<p>CN1 (INPUT)</p> <table border="1"> <tr><th>PIN No.</th><th>FUNCTION</th><th>CONNECTOR TYPE</th></tr> <tr><td>1</td><td>AC(L)</td><td rowspan="3">256-503 (WAGO)</td></tr> <tr><td>2</td><td>AC(N)</td></tr> <tr><td>3</td><td>FG</td></tr> </table> <p>※ CN1 Applicable wire: • • AWG#12~#20</p>	PIN No.	FUNCTION	CONNECTOR TYPE	1	AC(L)	256-503 (WAGO)	2	AC(N)	3	FG
PIN No.	FUNCTION	CONNECTOR TYPE																								
1	AC(L)	B3PS-VH (JST)																								
2	AC(N)																									
3	AC(N)																									
4	AC(N)																									
5	FG																									
PIN No.	FUNCTION	CONNECTOR TYPE																								
1	AC(L)	256-503 (WAGO)																								
2	AC(N)																									
3	FG																									
<p>CN8 (OUTPUT)</p> <table border="1"> <tr><th>PIN No.</th><th>FUNCTION</th><th>CONNECTOR TYPE</th></tr> <tr><td>1</td><td>DC</td><td rowspan="2">BBP-VH (JST)</td></tr> <tr><td>2</td><td>DC</td></tr> </table> <p>※ CN8 Applicable housing: VHR-8N (JST) Applicable terminal: SVH-21T-P11 (JST)</p>	PIN No.	FUNCTION	CONNECTOR TYPE	1	DC	BBP-VH (JST)	2	DC	<p>CN8(OUTPUT) See the drawing above.</p>	<p>CN8 (OUTPUT)</p> <table border="1"> <tr><th>PIN No.</th><th>FUNCTION</th><th>CONNECTOR TYPE</th></tr> <tr><td>1</td><td>DC</td><td rowspan="2">256-504 (WAGO)</td></tr> <tr><td>2</td><td>DC</td></tr> </table> <p>※ CN8 Applicable wire: • • AWG#12~#20</p>	PIN No.	FUNCTION	CONNECTOR TYPE	1	DC	256-504 (WAGO)	2	DC								
PIN No.	FUNCTION	CONNECTOR TYPE																								
1	DC	BBP-VH (JST)																								
2	DC																									
PIN No.	FUNCTION	CONNECTOR TYPE																								
1	DC	256-504 (WAGO)																								
2	DC																									
<p>CN6 (RC SIGNAL)</p> <table border="1"> <tr><th>PIN No.</th><th>FUNCTION</th><th>CONNECTOR TYPE</th></tr> <tr><td>1</td><td>RC</td><td rowspan="2">B2B-XH (JST)</td></tr> <tr><td>2</td><td>RC</td></tr> </table> <p>※ CN6 Applicable housing: XHP-3T (JST) Applicable terminal: SXH-001T-P06 (JST)</p>	PIN No.	FUNCTION	CONNECTOR TYPE	1	RC	B2B-XH (JST)	2	RC		<p>CN11 (SIGNAL)</p> <table border="1"> <tr><th>PIN No.</th><th>FUNCTION</th><th>CONNECTOR TYPE</th></tr> <tr><td>1</td><td>BATT LOW</td><td rowspan="5">B5B-XH (JST)</td></tr> <tr><td>2</td><td>BATT LOW</td></tr> <tr><td>3</td><td>DC</td></tr> <tr><td>4</td><td>AC FAIL</td></tr> <tr><td>5</td><td>AC FAIL</td></tr> </table> <p>※ CN11 Applicable housing: XHP-5 (JST) Applicable terminal: SXH-001T-P06 (JST)</p>	PIN No.	FUNCTION	CONNECTOR TYPE	1	BATT LOW	B5B-XH (JST)	2	BATT LOW	3	DC	4	AC FAIL	5	AC FAIL		
PIN No.	FUNCTION	CONNECTOR TYPE																								
1	RC	B2B-XH (JST)																								
2	RC																									
PIN No.	FUNCTION	CONNECTOR TYPE																								
1	BATT LOW	B5B-XH (JST)																								
2	BATT LOW																									
3	DC																									
4	AC FAIL																									
5	AC FAIL																									

Various connectors supported

Connector name	Function	Model name			
		OZP-120-12/15	OZP-120-30/36	OZP-120-24	OZP-120-24
CN2	RC invalid (Forced output)	Available	Available	Available	Available
CN4	Signal to control battery package	-	-	-	Available
CN5	Backup operation mode setting	-	-	-	Available
CN6	RC(Remote ON/OFF)	Available	Available	Available	Available
CN9	Output voltage selection	Available	Available	-	-
CN11	Signal connector	Available	Available	Available	Available
CN12	Battery package Input/Output	-	-	-	Available
Variable resistor to adjust output voltage		Available	Available	Available	Available

Options(Sold separately)

Battery package				
Photo	Model	Battery	Dimension	Backup time
	BS14A-H24/2.5L	Ni-MH	1U/3Usize (W×D×H=128×211×41mm)	
	BS24*-H12/2.0L-R	Ni-MH	3.5 inch bay size (W×D×H=101.5×180.5×25.4mm)	

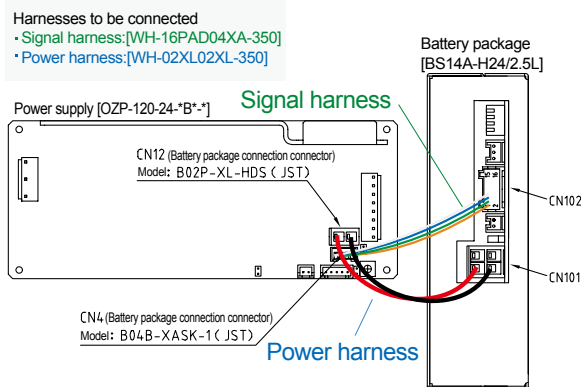
* Backup time is just a guideline for first use, and not guaranteed.
* Backup time extension is enabled by parallel connection.
* BS14A-H24/2.5L is acceptable only to OZP-120-24-*B*-* (backup available type). BS24*-H12/2.0L-R is acceptable only to OZP-120-12-*B*-* (backup available type).

Cable			
Photos	Model	Category	Description
	WH-C05VH-800	Input harness	Connection to nylon connector is acceptable.
	WH-C05VH-800-01	Input harness (with ferrite core)	Connection to nylon connector is acceptable.
	WH-C08VH-500	Output harness	Connection to nylon connector is acceptable.
	WH-02XH02XH-500	Signal harness for RC signal	To connect for use of output ON/OFF control signal (RC signal)
	WH-05XH05XH-500	Signal harness for BATT_LOW & AC_FAIL signal	To connect for use of BATT_LOW and AC_FAIL signal
	WH-16PAD04XA-350	Battery connection harness (signal harness)	Harness for the signal between power supply and battery package (BS14A-H24/2.5L)*
	WH-16PAD04XA-350-01	Battery connection harness (signal harness)	Harness for the signal between power supply and battery package (BS14A-H24/2.5L)* For the connection of two battery packages (BS14A-H24/2.5L)
	WH-02XL02XL-350	Battery connection harness (Power harness)	Power harness to connect power supply to battery package (BS14A-H24/2.5L)*
	WH-02XL04XL-350-01	Battery connection harness (Power harness)	Power harness between power supply and battery package (BS14A-H24/2.5L)* For the connection of two battery packages (BS14A-H24/2.5L)
	WH-02XA04XA-300	Battery connection harness (signal harness)	Harness for the signal between power supply and battery package (BS24*-H12/2.0L-R)**
	WH-02XL04VH-250	Battery connection harness (Power harness)	Power harness to connect power supply to battery package (BS24*-H12/2.0L-R)**

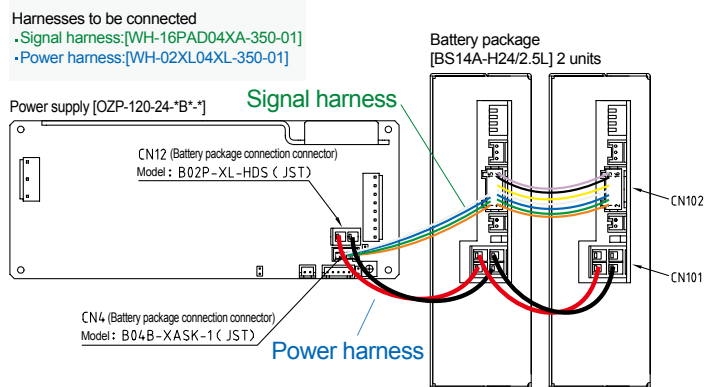
* Harness for backup operation at blackout with battery package (BS14A-H24/2.5L) (Refer to "Battery connection harness and connection images below).
** Harness for backup operation at blackout with battery package (BS24*-H12/2.0L-R).

Battery connection harness and connection images

For the connection of one battery package (BS14A-H24/2.5L)



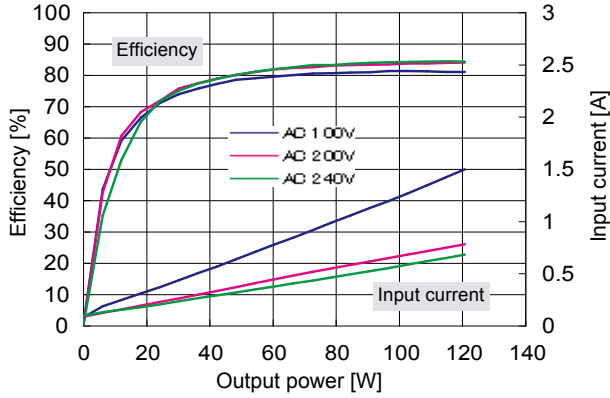
For the connection of two battery packages (BS14A-H24/2.5L)



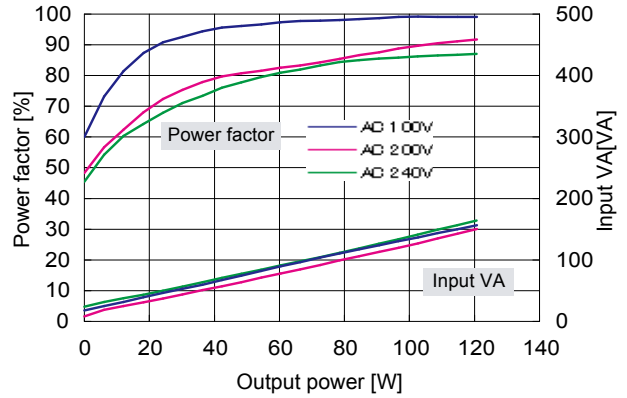
Characteristics Data (Typical features of the product series) **OZP-120-12/15 [12V]** (Examples of actual measurement)

* If you request property data of other products, please visit our website and download for getting them.

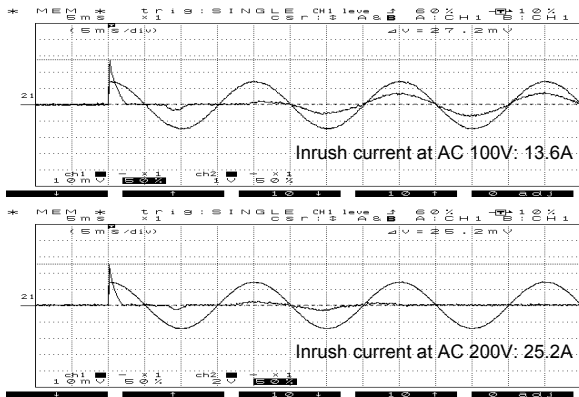
● Fig.6 Efficiency/Input Current Vs. Output Power



● Fig.7 Power Factor/Input VA Vs. Output Power



● Fig.8 Inrush Current



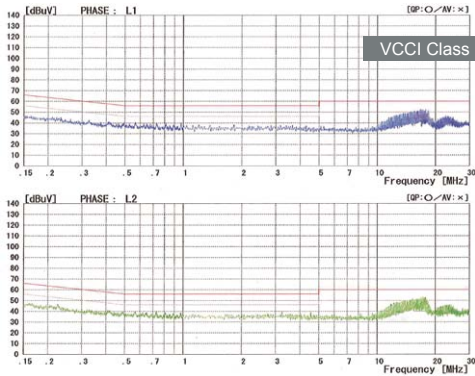
● Fig.9 Leakage Current

Input : AC100,200,240V
Load : Rated load and Min. load

	Rated load	Min. load
AC 100V	0.09mA	0.09mA
AC 200V	0.19mA	0.19mA
AC 240V	0.23mA	0.22mA

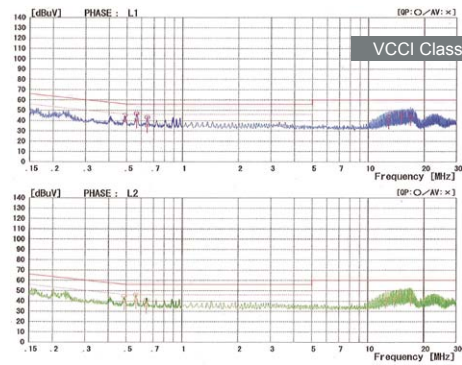
● Fig.10 Conducted Emission At 100V

Input : AC100V
Load : Rated
Mode : Peak



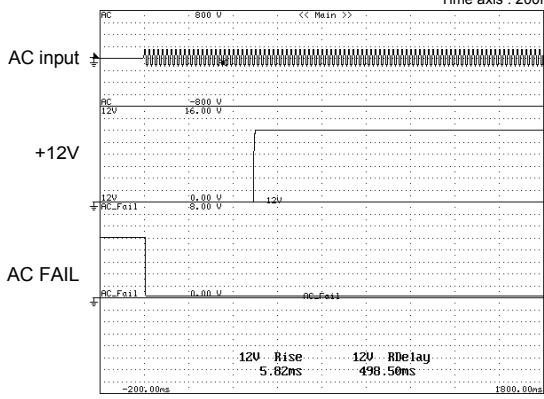
● Fig.11 Conducted Emission At 240V

Input : AC240V
Load : Rated
Mode : Peak



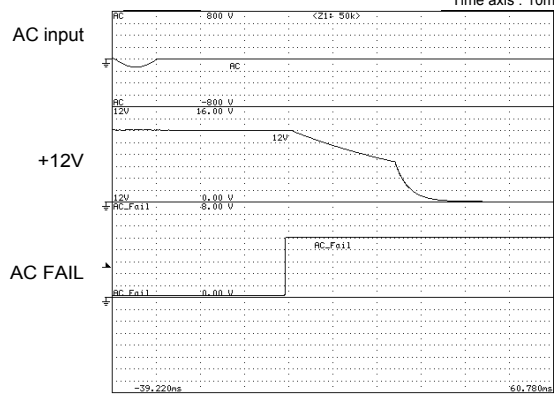
● Fig.12 Rising Characteristics At AC 100V

Input : AC100V
Load : Rated
Time axis : 200ms/DIV



● Fig.13 Falling Characteristics At AC 100V

Input : AC100V
Load : Rated
Time axis : 10ms/DIV



Characteristics Data(Typical features of the product series) OZP-120-12/15 [12V] (Examples of actual measurement)

* If you request property data of other products, please visit our website and download for getting them.

