

EZA11K-320240

V009-01-01C

SPECIFICATIONS

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Item		Model Name	EZA11K-320240	
			LVDC (Battery side)	HVDC (Grid side)
1	Rated Voltage	-	240VDC	320VDC
2	Voltage Range (*1,*2)	-	150VDC - 300VDC	240VDC - 400VDC
3	Rated Current	-	±45.8A	±34.4A
4	Constant Current Setting Range (*1,*2)	-	1.0A - 50A	1.0A - 40A
5	Maximum Output Power	-	±11,000W	±11,000W
6	Maximum Current	-	±50A	±40A
7	Efficiency (typ) (*3)	-	95%	95%
8	Required Pre-charge Voltage (*1)	-	More than output lower limit voltage	More than output lower limit voltage
9	Inrush Current (typ) (*4)	-	3.6A	3.6A
10	Maximum Line Regulation	-	1.2V	1.6V
11	Maximum Load Regulation	-	2.4V	3.2V
12	Maximum Temperature Regulation	-	1.5V	2.0V
13	Output Ripple and Noise	-	Less than 3Vp-p	Less than 4Vp-p
14	Sink Current (typ) (*5)	-	1.6A	1.2A
Protection				
1	Output Over Current Protection (typ) (*6,*7)	-	70A (Output shut down)	60A (Output shut down)
2	Over Power Protection (typ) (*6)	-	12,000W (Constant power)	12,000W (Constant power)
3	Input Current Limitation (typ) (*6)	-	52A (Constant current)	42A (Constant current)
4	Over Voltage Protection (*2)	-	Possible (Setting range : 144V - 306V)	Possible (Setting range : 230V - 410V)
5	Under Voltage Protection (*2)	-	Possible (Setting range : 144V - 306V)	Possible (Setting range : 230V - 410V)
Function				
1	Remote ON/OFF	-	Possible (Control via RS-485 or Extra signal)	
2	Remote Reset	-	Possible (Latch off via RS-485, RESET SW or External Signal)	
3	External Signal	-	RUN : Operate at short, Stop at open STOP : Stop at falling edge CHRГ : Change function by Operation mode (*9) ALMCLR : Alarm clear and Run at rising edge ALM : Open under Alarm condition (Open Drain) PG : Short under Operation (Open Drain) 5Vs : 5V Output (5V, 0.2A) 24Vi : 24V Input for RS-485 communication	
4	Parallel operation (*8)	-	Possible (Droop method)	
External Function (RS-485)				
1	Voltage Setting Accuracy	-	Less than ±6.0V	
2	Current Setting Accuracy	-	Less than ±1.0A	
3	Voltage Setting Resolution	-	Less than 0.6V	
4	Current Setting Resolution	-	Less than 100mA	
5	Voltage Reading Accuracy	-	Less than ±6.0V	
6	Current Reading Accuracy	-	Less than ±1.0A	
7	Voltage Reading Resolution	-	Less than 0.6V	
8	Current Reading Resolution	-	Less than 100mA	
9	RS-485 Baud Rate	-	19.2kbps / 33.6kbps / 57.6kbps (Set by DIP-SW)	
10	RS-485 Maximum Connection	-	14	

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Item		Model Name		EZA11K-320240	
				LVDC (Battery side)	HVDC (Grid side)
Environmental					
1	Operating Temperature	-	-10°C - +50°C		
2	Operating Humidity	-	30 - 85%RH (No Condensing)		
3	Storage Temperature	-	-20°C - +70°C		
4	Storage Humidity	-	20 - 85%RH (No Condensing)		
5	Vibration	-	No Operation, 10-55Hz (Sweep 1min) 19.6m/s ² Constant, X, Y, Z Each Direction 1hour		
6	Shock	-	196.1m/s ² maximum		
7	Cooling	-	Forced Air Cooling by built-in FAN (Air Intake)		
8	Installation Location	-	Indoor use		
9	Altitude	-	Less than 3,000m		
Isolation					
1	Withstand Voltage	-	Primary(320V) - Secondary(240V) : 2.2kVAC(50mA) 1min Primary(320V) - Signals : 3kVAC(50mA) 1min Secondary(240V) - Signals : 3kVAC(50mA) 1min Primary(320V) - Chassis : 2kVAC(50mA) 1min Secondary(240V) - Chassis : 2kVAC(50mA) 1min Signals - Chassis : 400VAC(100mA) 1min		
2	Insulation Resistance	-	Primary(320V) - Chassis More than 100MΩ at 1kVDC 25°C, 70%RH Secondary(240V) - Chassis More than 100MΩ at 1kVDC 25°C, 70%RH Signals - Chassis More than 100MΩ at 500VDC 25°C, 70%RH		
Safety					
1	Safety	-	Approved by UL62368-1, CSA62368-1, EN62368-1. Approved by UL60950-1, CSA60950-1, EN60950-1.		
Physical Characteristics					
1	Weight	-	Less than 20 kg		
2	Size (W x H x D)	mm	422.8 x 43.6 x 530 (Refer to outline drawing)		

Please read instruction manual Carefully, before using the unit.

=Notes=

- *1. Please refer to Derating Curve.
- *2. It can be set via RS-485.
- *3. Ta=25°C, rated voltage and rated current.
- *4. Not applicable for the inrush current to Noise filter for less than 0.2ms.
- *5. Current sink appear when applied voltage is greater than output target voltage.
- *6. Parameter is fixed.
- *7. Shut down method, manual reset.(Latch off via RS-485, RESET SW or External Signal)
- *8. Droop ratio can be set via RS-485.
- *9. Heteronomy CV mode : Generate at short, Regenerate at open.
Grid Autonomy CV mode : Heteronomy Generate at Short, Autonomy at open.
Battery Autonomy mode : No function.

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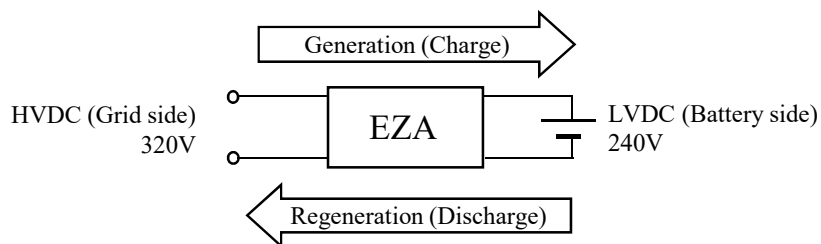
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Item		Model Name	EZA11K-320240	
			Operation Mode (*10)	
Heteronomy CV mode				
1	Operation mode	-	Output voltage control at Generation and Regeneration.	
2	Power Conversion Direction State Method	-	External Signal CHRG or control via (RS-485)	
3	LVDC CC at Regeneration	-	Possible (Control LVDC current constant).	
4	LVDC, HVDC 0V Ramp up	(*12)	-	Possible
5	Battery Over Charge Protection	(*13)	-	Possible
6	Battery Over Discharge Protection	(*13)	-	Possible
Grid Autonomy CV mode				
1	Power Conversion mode	-	Control HVDC voltage constant.	
2	Dead Zone set	(*13)	-	Possible
3	LVDC, HVDC 0V Ramp up	(*12)	-	Possible
4	Battery CC mode	(*13)	-	Possible (Control battery side current with constant current mode)
5	Forced Charge mode	(*11)	-	Possible (Change to Heteronomy CV mode)
6	Battery Over Charge Protection	(*13)	-	Possible
7	Battery Over Discharge Protection	(*13)	-	Possible
Battery Autonomy CV mode				
1	Power Conversion mode	-	Control LVDC voltage constant.	
2	LVDC, HVDC 0V Ramp up	(*12)	-	Possible

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=Note=

- *10. Control mode can be set via RS-485 or DIP-SW setting.
- *11. It can be changed by External Signal.
- *12. It can start up under pre-charge voltage (LVDC : less than 150V, HVDC : less than 240V).
- *13. It can be set via RS-485.



Direction of Generation and Regeneration

Derating Curve

LVDC Output Voltage vs Output Current Derating

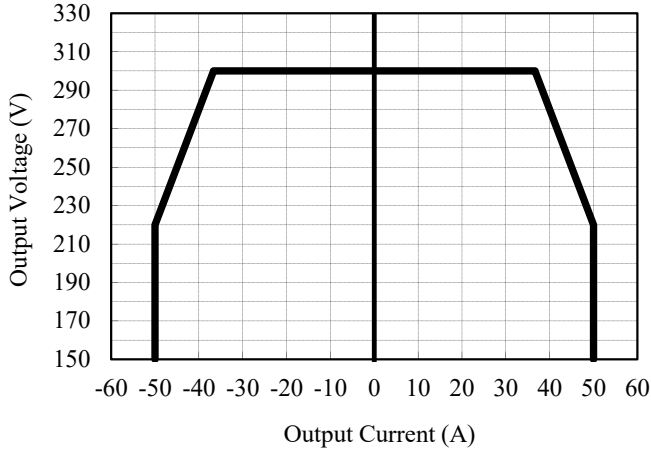


Fig. 1

HVDC Output Voltage vs Output Current Derating

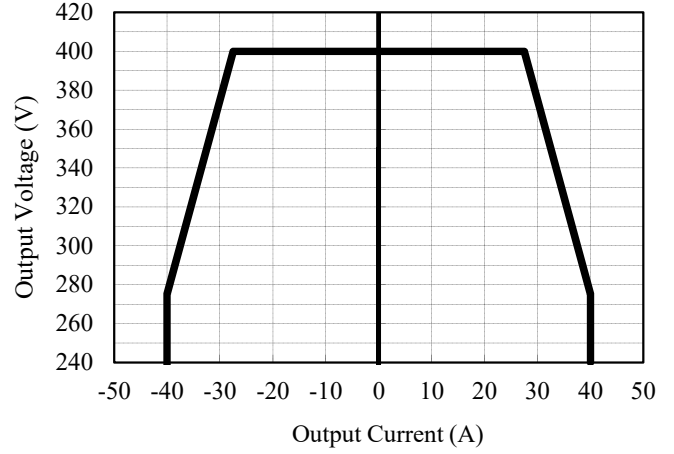


Fig. 2

HVDC Voltage vs LVDC Voltage Derating

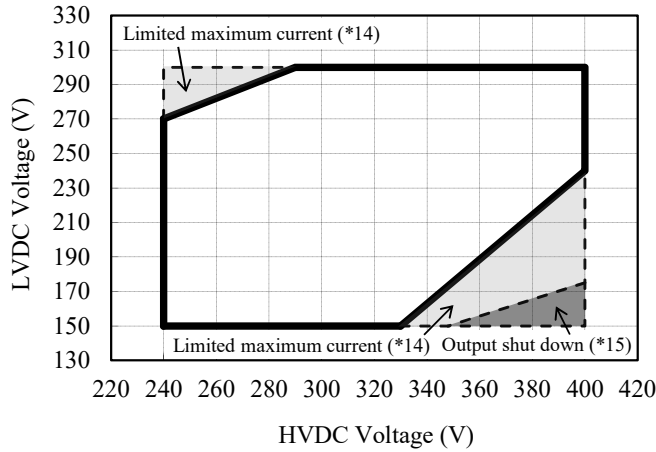


Fig. 3

Output Derating

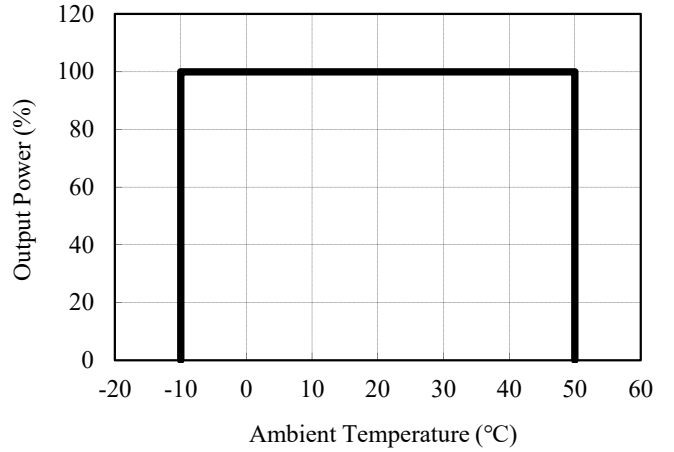


Fig. 4

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=Note=

*14. Limit maximum current by half (LVDC: 25.0A, HVDC: 20.0A).

*15. Output shut down.