DENRYO

Expand Electrification Life for You

Sine Wave Power Inverter

DIASINE®

Durability Improvement by Fanless Design
Highly reliable Japanese Design

Sine Wave | Voltage Settable (100 200 120 240 110 220 115 230) | Universal Outlet | LED Indicator | Protections

Wide Temp. Range | Fanless | Low Power Mode | Buzzer On/Off | LED Brightness

PATENTED

RoHS CE FC

Compact and Fanless Structure

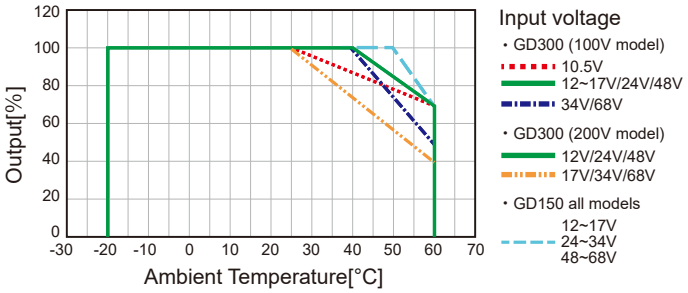
DENRYO research and development team reviewed the circuits and structures from scratch. Thanks to the highly effective design improved DC-AC conversion efficiency to suppress heat loss, DIASINE® has achieved compact and fanless structure.

Lightweight and Slim Design

DIASINE® has achieved the lightest weight of 1.0kg and the smallest volume of 1.5L in the same output class of inverters. The height is 44mm/ 1.7 inch (1U). Portable and small feature deliver flexible applications.

Wide Temperature Range

DIASINE® (GD300) outputs full rated power under -20 to +40°C, and 70% 40 to 60°C. GD150 outputs full rated power under -20 to +50°C, and 70% under 50 to 60°C.

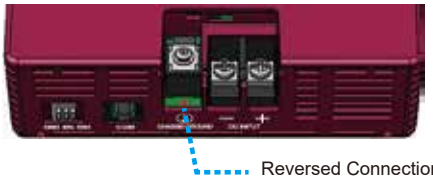


Low Power Mode and Sleep Mode

Thanks to the built-in "Low Power mode" and "sleep mode", the self-consumption current can be reduced up to 50%.

Reverse Polarity Protection Circuits

DIASINE® has the exclusively own built-in circuit of input reverse polarity protection. This circuit protects DIASINE® even if the battery is connected reverse polarity. Moreover, the reversed connection warning LED lights immediately to inform user reverse polarity connection.



Wide Input Voltage Range

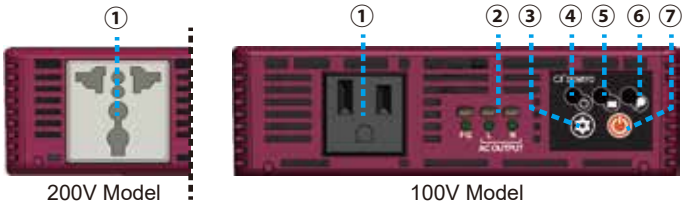
The input voltage range of DIASINE® is wider than other inverters. DIASINE® is capable to apply to battery with wide range voltage.

Designed in Japan

Both software and hardware are designed in Japan.

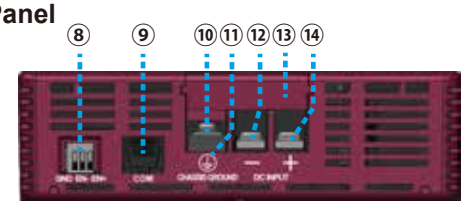
Interface

■ Front Panel



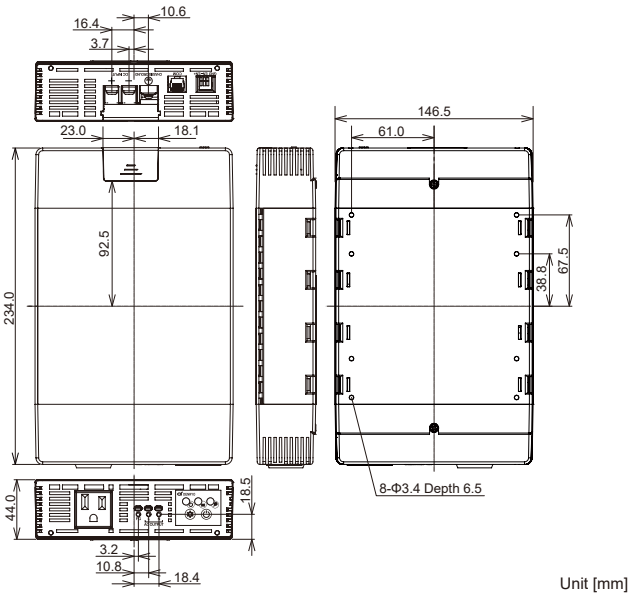
200V Model　　100V Model

■ Rear Panel



①	AC Outlet	②	AC Output Terminal	③	Setting Button	④	Power LED
⑤	Battery LED	⑥	Load LED	⑦	Power Button	⑧	Remote Connector
⑨	Optional Terminal	⑩	Grounding Terminal	⑪	Reversed Connection Warning LED	⑫	Battery Input (-)
⑬	Terminal Cover	⑭	Battery Input (+)				

Dimension



Unit [mm]

Specification

MODEL	GD150NA-112 / GD150NU-212	GD150NA-124 / GD150NU-224	GD150NA-148 / GD150NU-248	GD300NA-112 / GD300NU-212	GD300NA-124 / GD300NU-224	GD300NA-148 / GD300NU-248
Input Battery Voltage	12V	24V	48V	12V	24V	48V
Input Voltage Range*1	10.5~17Vdc	21~34Vdc	42~68Vdc	10.5~17Vdc	21~34Vdc	42~68Vdc
No-load Current*2	0.4A	0.2A	0.1A	0.5A	0.3A	0.1A
(Low power mode)	0.4A	0.2A	0.1A	0.7A	0.4A	0.2A
No-load Current*2	0.6A	0.3A	0.2A	0.7A	0.4A	0.2A
(Normal mode)	0.5A	0.3A	0.2A	0.8A	0.5A	0.3A
Standby Mode Consumption*2	7mA	7mA	4mA	8mA	7mA	5mA
	7mA	7mA	4mA	7mA	7mA	4mA
Sleep Mode Consumption*2	1mA	3mA	3mA	2mA	4mA	3mA
	1mA	3mA	3mA	2mA	4mA	3mA
Efficiency at Rated Load	89%	89%	90%	90%	90%	90%
	90%	91%	92%	90%	90%	90%
Output Rated Power	150VA			300VA		
Output Peak Power (3min.)	180VA			360VA		
Output Surge Power (3sec.)	210VA			420VA		
Output AC Voltage (switchable)	100Vac (default)/110/115/120Vac					
	230Vac (default)/200/220/240Vac					
Frequency (switchable)	50±0.1Hz (default)/60Hz					
Waveform	Sine wave, <3%THD					
LED Indicators	Operating status, Battery voltage/Output power level, Protection function, Operation setting					
Remote-control	Output remote ON/OFF control terminal					
Protection Circuits*3	UVP, OVP, input reverse polarity, OLP, SCP, output voltage error, OTP					
Safety Standards	EN62368-1					
EMC	EN55024, EN55032, FCC class A*4					
Withstand Voltage	Battery I/P-AC O/P: 3.0kVac, AC O/P-Ground: 1.5kVac, Battery I/P-Ground: 1.5kVac					
Isolation Resistance	>100MΩ/500Vdc/25°C/70% RH					
Vibration	10~500Hz, 3G 10min./ 1cycle, 60mins. XYZ axes					
Operating Temp./Humidity	-20~+50°C at rated load, +60°C at 70% load/20~90%RH			-20~+40°C at rated load, +60°C at 70% load/20~90%RH		
Storage Temp./Humidity	-30~+70°C/10~95%RH					
Accessories	Cable with plug*5	---	---	---	---	---
Dimension(W×H×D)	146.5×44.0×234.0mm					
Weight	0.9kg			1.0kg		

All parameters NOT specially mentioned are measured at 12Vdc/24Vdc/48Vdc input voltage, rated load, power factor=1.0, 25°C of ambient temperature and under the default setting.
*1 Tolerance of voltage: 12±0.5V, 24: ±1V and 48: ±2V. *2 Average. *3 UVP: Under Voltage Protection. OVP: Over Voltage Protection. OLP: Over Load Protection. SCP: Short Circuit Protection. OTP: Over Temperature Protection. *4 FCC class A is only for 100V models. *5 Length of cable: 1500±30mm

◆Specifications and appearance are subject to change without prior notice.

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