DENRYO
Expand Electrification for You

DC-AC Power Inverter DIASINE® GR300

Features

- Connected in parallel up to 6 units
- Power expansion up to 1.8kVA without fan
- Original synchronous control technology
- Simple parallel connection
- N+1 redundancy
- Wide input voltage range
- Protecting the input reverse polarity by internal circuit
- Fan-less quiet operation (natural convection)
- The wide range of operating temperature
- Switching output voltage/frequency easily by button
- Pure sine wave output
- Light weight and low-profile
- Built-in remote-control function
- Abundant protective circuit
- Buzzer ON/OFF, LED brightness switchable
- Input terminal cover for dust prevention
- High quality Japanese design

PATENTED RoHS CE

Specification

MODEL		GR300NA-112	GR300NA-124	GR300NA-148	GR300NU-212	GR300NU-224	GR300NU-248
Input	Battery Voltage	12V	24V	48V	12V	24V	48V
	Voltage Range*1	10.5-19.5Vdc	21-39Vdc	42-78Vdc	10.5-18.5Vdc	21-37Vdc	42-74Vdc
	Max Current (Rated power)	33A	16A	8A	33A	16A	8A
	No-load Current*2 (AC output enable)	0.6A	0.2A	0.1A	0.6A	0.3A	0.1A
	No-load Current*2 (AC output disable)	0.3A	0.1A	<0.1A	0.3A	0.1A	<0.1A
	Standby Mode Consumption*2	8mA	7mA	4mA	8mA	7mA	4mA
	Sleep Mode Consumption*2	1mA	3mA	2mA	1mA	3mA	2mA
	Efficiency at Rated Load	88%	89%	89%	89%	90%	90%
Output	Rated Power	300VA					
	Peak Power (3min.)	360VA					
	Surge Power (3sec.)	420VA					
	AC Voltage (Switchable)	100 default /110/115/120Vac			230 default /200/220/240Vac		
	Frequency (Switchable)	50±0.5Hz default, 50/60Hz					
	Waveform	Sine Wave, <3%THD					
	Voltage Tolerance	±3.0%					
	LED indicators	Operating status, Battery voltage level, Output power level, Protection function, Operation setting					
Function	Remote-control	Output remote ON/OFF control terminal					
	Option terminal	six-position four-conductor (6P4C) modular jack					
Protection	Input	Under voltage protection, Over voltage protection, Input reverse polarity					
	Output	Over load protection, Short circuit protection, Output voltage error					

	Others	Over temperature protection (Detect by internal temperature sensors)			
Environment	Operating Temperature*3	-20 to +30°C at rated load, +60°C at 60% load	-20 to +45°C at rated load, +60°C at 80% load	-20 to +30°C at rated load, +60°C at 60% load	-20 to +45°C at rated load, +60°C at 80% load
	Operating Humidity	20-90%RH non-condensing			
	Storage Temperature/ Humidity	-30 to +70°C, 10-95％RH			
	Vibration	10-500Hz, 3G 10min./ 1cycle, 60mins. XYZ axes			
Safety & EMC	Safety Standards	Certified EN62368-1			
	Withstand Voltage	Battery I/P-AC O/P: 3.0kVac AC O/P-Ground: 1.5kVac Battery I/P-Ground: 1.5kVac			
	Isolation Resistance	Battery I/P-AC O/P: >1000MΩ/500Vdc/25°C/70% RH ACO/P-Ground: >1000MΩ/500Vdc/25°C/70% RH Battery I/P-Ground: >1000MΩ/500Vdc/25°C/70% RH			
	EMC Immunity	EN55024			
	EMC Emission	EN55032			
Others	Dimensions (L×W×H)	20-90%RH non-condensing			
	Weight	0.9kg		1.0kg	
	Socket Type	 NEMA 5-15R		 Universal	

All parameters NOT specially mentioned are measured at 112/212: 12Vdc, 124/224: 24Vdc, 148/248: 48Vdc input, 300VA rated load, power factor=1.0, 25°C of ambient temperature and under the default setting.

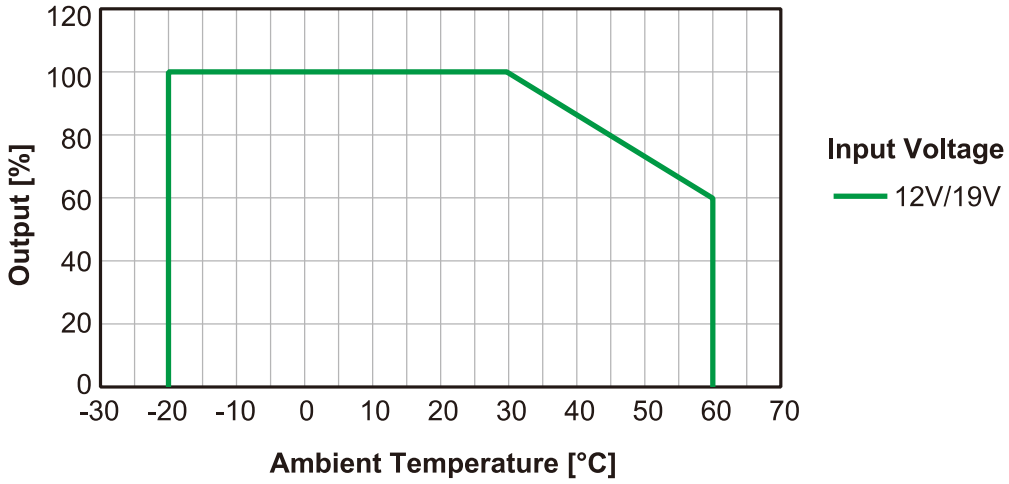
*1 Tolerance of voltage: 112/212: ±0.5V, 124/224: ±1V and 148/248: ±2V.

*2 Average.

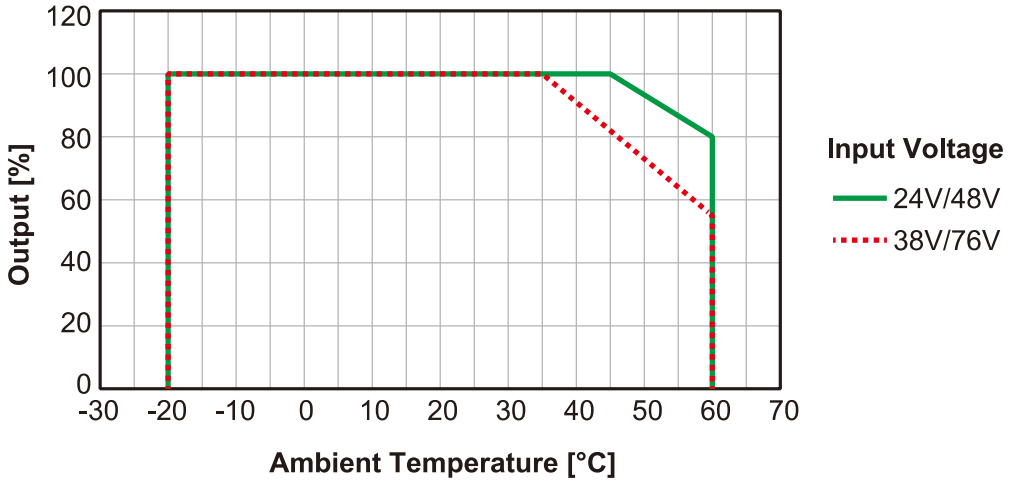
*3 Refer to Derating Curve.

Derating Curve

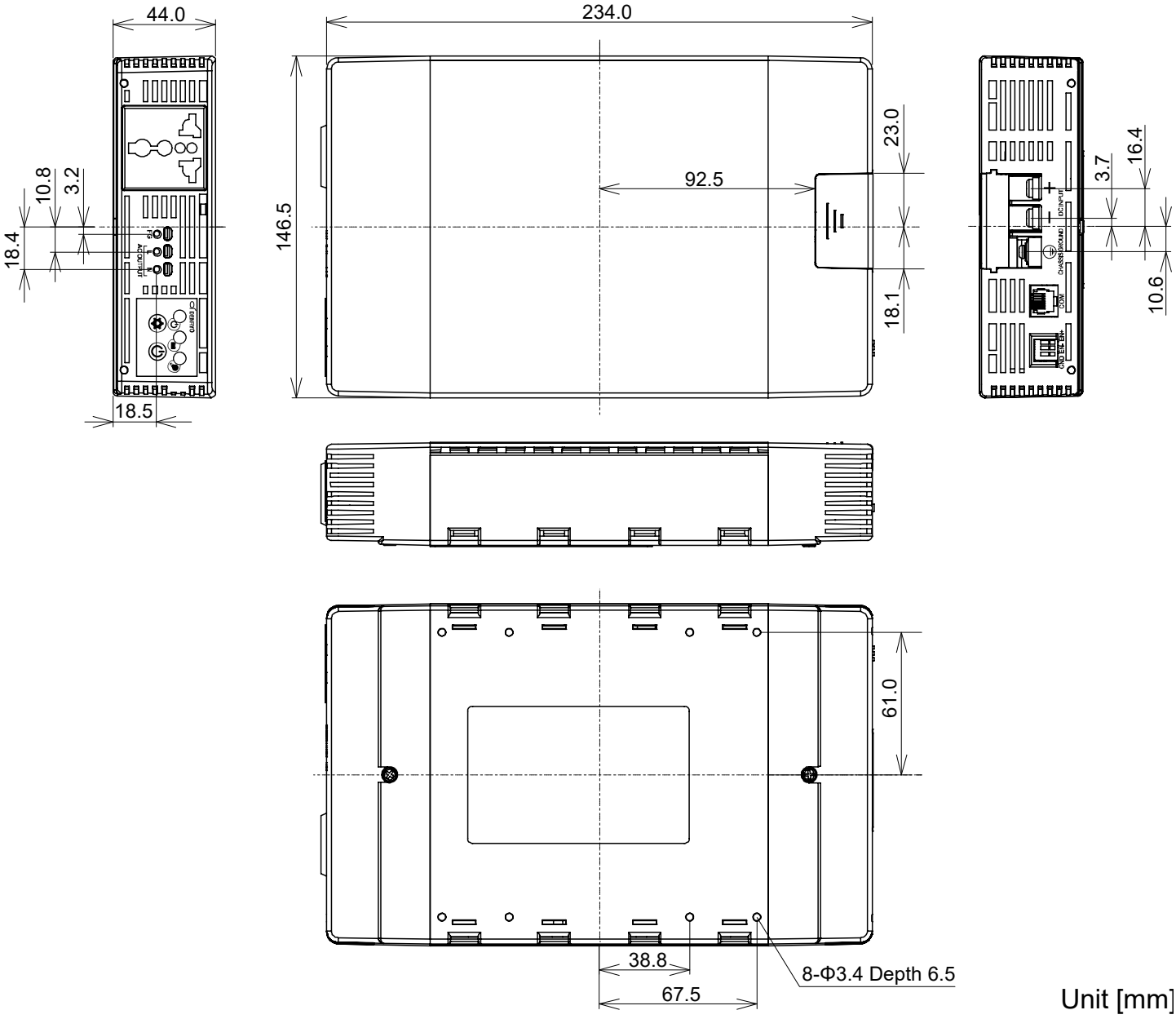
- **GR300NA-112, GR300NU-212**



- **GR300NA-124/148, GR300NU-224/248**



Dimensions



Unit [mm]