NIC 2000 SERIES

Single Output Industrial 2000W DC Power Supplies

Features

- High reliability
- High power density
- Low ripple & noise
- High stability
- High efficiency
- High power factor (Active PFC)
- Parallel operation up to 4 units
- Fast over voltage protection
- Under voltage lock-out protection for sensitive loads
- Over current /short circuit protection
- Wide input voltage operation
- Over temperature protection
- Operating temperature: -35°C ~ 70°C
- Auxiliary Power Supply

Specifications

MODEL		NIC2000 - 12	NIC2000 - 24	NIC2000 - 28	NIC2000 - 48
Output Voltage(Nominal)	V	12	24	28	48
Output Voltage Adjust Range By Trimmer	V	9.6 ~ 14.4	19.2 ~ 28.8	22.4 ~ 33.6	38.4 ~ 57.6
Max Output Current	A	105	82	71	42
Max Output Power	W	1260	1968	1988	2016
Temperature Coefficient	PPM/°C	100			
Input Voltage/Freq.	---	171 ~ 265VAC continuous, 47 ~ 63Hz, Single phase (nominal: 230VAC)			
Input Current (at 230 VAC)	A	≤10			
Line Regulation	%	0.1% of full scale			
Load Regulation (with remote sense connection)	%	0.5% of full scale (With Remote Sense Connection)			
Ripple RMS, 5Hz ~ 1MHz	mV	25	40	40	50
Power Factor (Active PFC)	---	≥ 0.99 (at 230VAC & full load)			
Efficiency (at 230VAC & Full load)	%	88	90.4	91	92
Inrush Current (at 230VAC)	A	≤ 40			
Total Harmonic Distortion (THD)	%	< 5 (at 230VAC & Full load)			
Hold-up Time	ms	10 (at 230 VAC & Full Load)			
Over Current Protection	---	105% of Max. Output Current			
Over Voltage Protection	---	120% of Adjusted Output Voltage			
Remote Sense	---	Yes			
Parallel Operation	---	Up to 4 Units			
Output DC good	---	Yes			
Remote Adjust	---	1 ~ 6V Program Voltage Input to Adjust Output 40 ~ 120% Of Nominal			
Operating Temperature	°C	-35°C to +70°C (Derate linearly to 50% from +50°C to +70°C)			
Storage Temperature	°C	-40°C To +85°C			
Humidity(Non Condensing)	---	Operating:10 ~ 90%RH, Non Operating: 10 ~ 95%RH			
Cooling	---	Internal variable speed fan			
Weight	g	≤ 2000			
Size(W×H×D)	mm	127×41×295			

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TPFD
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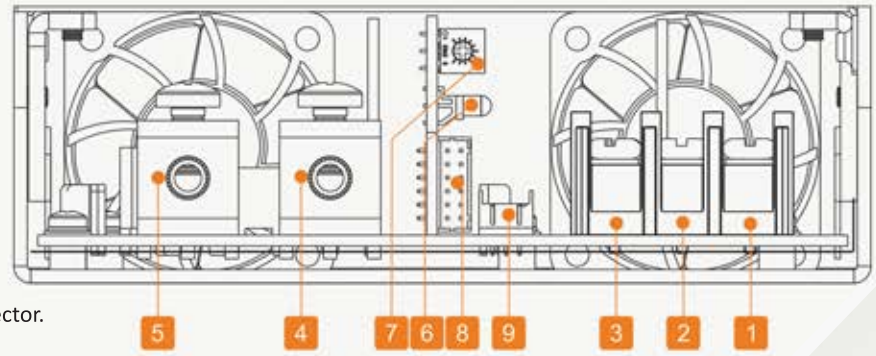
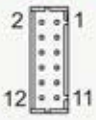
Panel Explanation

1) N: AC input terminal N: Neutral Line
2) L: AC input terminal (Fuse in line)
3) Frame ground
4) +DC Output terminal
5) -DC Output terminal
6) Output indicator LED (green: DC OK, red: Power fail)
7) VOL: Output Voltage adjust trimmer
8) CON1: Remote sensing, ON/OFF control signal, Current balance signal, Output voltage external control signal and Power fail signal output connector.
9) CON2: RS485 for parallel control.



CON1 Connector pin configuration and function

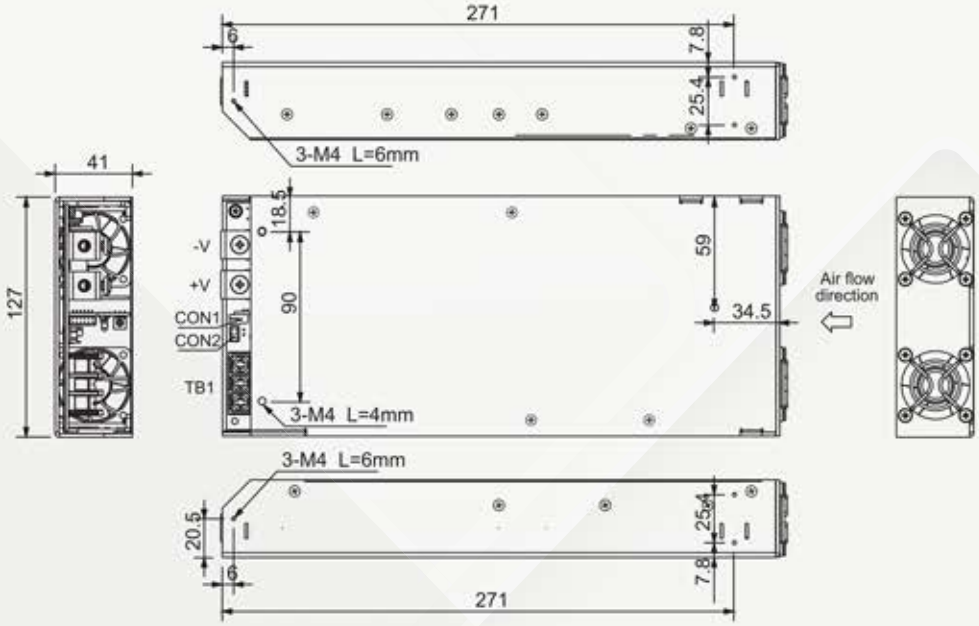


Pin No.	Function	Description
1	+S	Positive remote sense.
2	-S	Negative remote sense.
3	VPGM	Input for remote analog voltage programming referenced to GND.
4	GND	Return for PV. Connected internally to the negative terminal (-V).
5	PS-OK	Output for indication of the power supply status, referenced to *GND-AUX*. High (4.5 ~ 5.5V): Power good Low (0 ~ 0.5V): Power Failed The maximum sourcing Current is 10mA
6	T-ALARM	Output for indication of internal temperature status, referenced to *GND-AUX*. High (4.5 ~ 5.5V): internal temperature exceeds the limit of temperature alarm. Low (0 ~ 0.5V): internal temperature is under the limit of temperature alarm. The maximum sourcing Current is 10mA
7	SO	Input for remote Shut-Off control of the power supply output, referenced to *GND-AUX*. High (2.5~5.5V): Power Shut OFF Low (0 ~ 0.5V) or OPEN: Power ON
8,9,10	GND-AUX	Return for PS-OK, T-ALARM, SO, +5V-AUX and +12V-AUX. The signal return is isolated from the output terminals (+V & -V).
11	+5V-AUX	Auxiliary isolated output voltage, referenced to *GND-AUX*. 4.5~5.5V, Max 0.3A
12	+12V-AUX	Auxiliary isolated output voltage, referenced to *GND-AUX*. 10.6~13.2V, Max 0.8A

CON2 Connector pin configuration and function

Pin No.	Function	Description
1,2	DA	RS485-A for parallel control.
3,4	DB	RS485-B for parallel control.
5,6	GND	Connected internally to the negative terminal (-V).

Outline Drawing



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