

SLI 15 INVERTER SERIES, 1500 W



FEATURES

- New, compact design: 1U height x 19" width x 14.94" depth; 19" rack-mountable
- High efficiency: up to 93%
- True sine wave output
- Parallelable output with current share and synchronization of multiple inverters working in parallel
- Front panel LCD display to monitor and set the main parameters
- RS-485 serial link
- Constant input current sink from battery for extended life
- Optional hot-swappable configuration
- Optional internal Static Transfer Switch
- In the -STS version, ON line (primary source to the load) or OFF line mode (UPS like)
- Configurable for being used as Three Phase source, 3 units

Applications

- Telecom
- IT
- Industrial

Safety

- IEC60950:1999, 3rd edition
- EN60950:2000; UL60950, 3rd edition
- CSA Standard C22.2 No.60950-00, 3rd edition

DESCRIPTION

The **SLI 15 Inverter** Series provides an ideal solution for telecom, IT, and industrial applications. Due to innovative technology solutions like the patent-pending "Compact Coil", the SLI 15 inverters pack 1500 watts of power into a light (5.6 kg) and compact package that is mountable in 19" racks and is only one rack unit high. The SLI 15 Inverter Series offers four models for different input (24 and 48 VDC) and output (115 and 230 VAC) voltage combinations. An integrated controller, along with an optional internal Static Transfer Switch (STS) enable flexible and scalable systems which are truly "plug and play", and require no external subsystems. The inverters can be stacked up to the power level needed by each application and also have the capability to be configured for generating a 3-phase voltage source.

Electrical performance of the SLI 15 is exemplary of a top-of-the-market product with efficiency that peaks at 93% and a patent-pending control algorithm that compensates current harmonics on the DC side without using bulky and expensive filters. The SLI 15 includes a powerful on-board Digital Signal Processor (DSP) that allows easy programming of main parameters through use of its front-panel keypad and LCD display. In addition, the SLI 15 can be interfaced with an RS-485 serial communications link.

TECHNICAL DATA:

Model Selection

Model *	Input Voltage (VDC)	Output Voltage Nominal (VAC)	Output Voltage Range (VAC)	Frequency Range (Hz)
SLI-24-115	24	115	100 to 120	47 to 63
SLI-24-230	24	230	200 to 240	47 to 63
SLI-48-115	48	115	100 to 120	47 to 63
SLI-48-230	48	230	200 to 240	47 to 63

* The following suffixes should be added to the model number to order options. For an internal Static Transfer Switch, please add the suffix "-STS". For AC terminal blocks, please add the suffix "-SC". For Hot Plug version, please add the suffix "-HP". For Neutral tied to Ground, please add the suffix "-GN".

Input.

PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT
Input Voltage		20 40	24 48	36 72	VDC
Input Current	24 VDC Models @ 18 VDC: 48 VDC Models @ 36 VDC:			100 48	Amps
Inrush Current				< 10	Amps

Output

PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT
Output Power				1500	W
Output AC Voltage	Standard is VAC floating from Ground; -GN version is available with Neutral connected to Ground (Grid Input shall be supplied by means of an isolation transformer)	100 200	115 230	120 240	VAC
Frequency	50 Hz / 230 VAC, 60 Hz / 115 VAC	50		60	Hz
Efficiency				93	%
Load Power Factor	Lagging or leading	0.33		1	
Crest Factor	Ipk/Irms			4	
Regulation in single mode	Load: over full operating range. R-Load Line: over full operating range. R-Load	-3 -0.1		+1 +0.1	%
Regulation in parallel mode	Load: over full operating range. R-Load	230 115	-6 -8,5	0 0	%
Total Harmonic Distortion	On Resistive Load			<2	%

Protection

PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT
Input Overcurrent Protection	24 VDC Models; Internal Fuse. 48 VDC Models; Internal Fuse.	140 70			Amps
Input Overvoltage Protection	24 VDC Models: 48 VDC Models:	37.5 74			VDC
Input Undervoltage Protection	24 VDC Models: 48 VDC Models:	18 36			VDC
Output Overload	115 VAC Models: 230 VAC Models:	1610 1840			W
Surge	115 VAC Models for 200 ms: 230 VAC Models for 200 ms:	1750 2300			VA
Overvoltage Protection	All outputs are set at 115%, ±2 % of nominal.				
Undervoltage Protection	All outputs are set at 85%, ±2 % of nominal.				
Overcurrent Protection	115 VAC Models: (selectable) 230 VAC Models: (selectable)	1 1		14 8	A
Safety Overcurrent Protection	By safety circuit breaker:				
	115 VAC Models: 15 A 230 VAC Models: 10 A				
Short-Circuit Protection	Peak Current type protection:				
	115 VAC Models: 60 A 230 VAC Models: 30 A				
Overtemperature Protection	Visual and acoustic indication 5 °C before shutdown at Tamb > 65 °C and at Tint > 100 °C.				
Protection Restore Modes	The restore mode of each protection can be individually selected to "latch" or "auto-restart".				

Interface & Control Signals

PARAMETER	DESCRIPTION / CONDITION	
LCD Panel	2-line LCD panel with keypad for menu navigation.	
LED Indicators (Front panel)	GREEN LED indicates:	Inverter is ON
	RED LED indicates a generic fault such as:	Overtemperature (OT) Fan fail Input / Output OV, UV, OC
General Alarm Signal	Activated by an open photo-relay if in fault mode, available at rear signal connector	
Serial link	RS485 port, 500 VDC isolated, available at rear signal connector	

Safety, Regulatory and EMC Specifications

PARAMETER	DESCRIPTION / CONDITION	CRITERION
Agency Approvals	cCSAus; Kema; CB Report Approval; CE Mark for LVD; RoHS compliant	
Insulation	Primary-to-Secondary: Primary-to-Ground: Secondary-to-Ground: Signal-to-Ground:	3000 Vrms 1000 Vrms 1500 Vrms 0 Vrms

Environmental Specifications

PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT
Altitude	Operating: Non-Operating:			13K 40K	ASL ft
Operating Temperature	@ full load; Power Derating: 75W/°C: +55 °C to +65 °C	-25		+55	°C
Storage Temperature		-40		+85	°C
Humidity	90% relative humidity @ 40 °C, non-condensing				
Output Voltage Temperature Coefficient	0.02 % per °C within rated load				
Calculated MTBF	@ 40 °C excluding fan	250,000			Hours

Connections

PARAMETER	DESCRIPTION / CONDITION
DC Input	Back left, one 6 mm diameter hole at each input bar; hot plug version has PCB bars with pre charging system; subrack for -HP version hosts one inverter, separate purchasing part; plastic DC input cover is available, separate purchasing part
AC Output	Back right, IEC320 plug is the standard; screw terminal blocks are with the option -SC; -STS version has IEC320 socket marked "Grid Input"
Signals*	Back centre, female Sub-D 15 poles connector, Molex 89263-6062 or equivalent; General failure alarm, serial port, synchronism for paralleling or three phase, remote on/off.

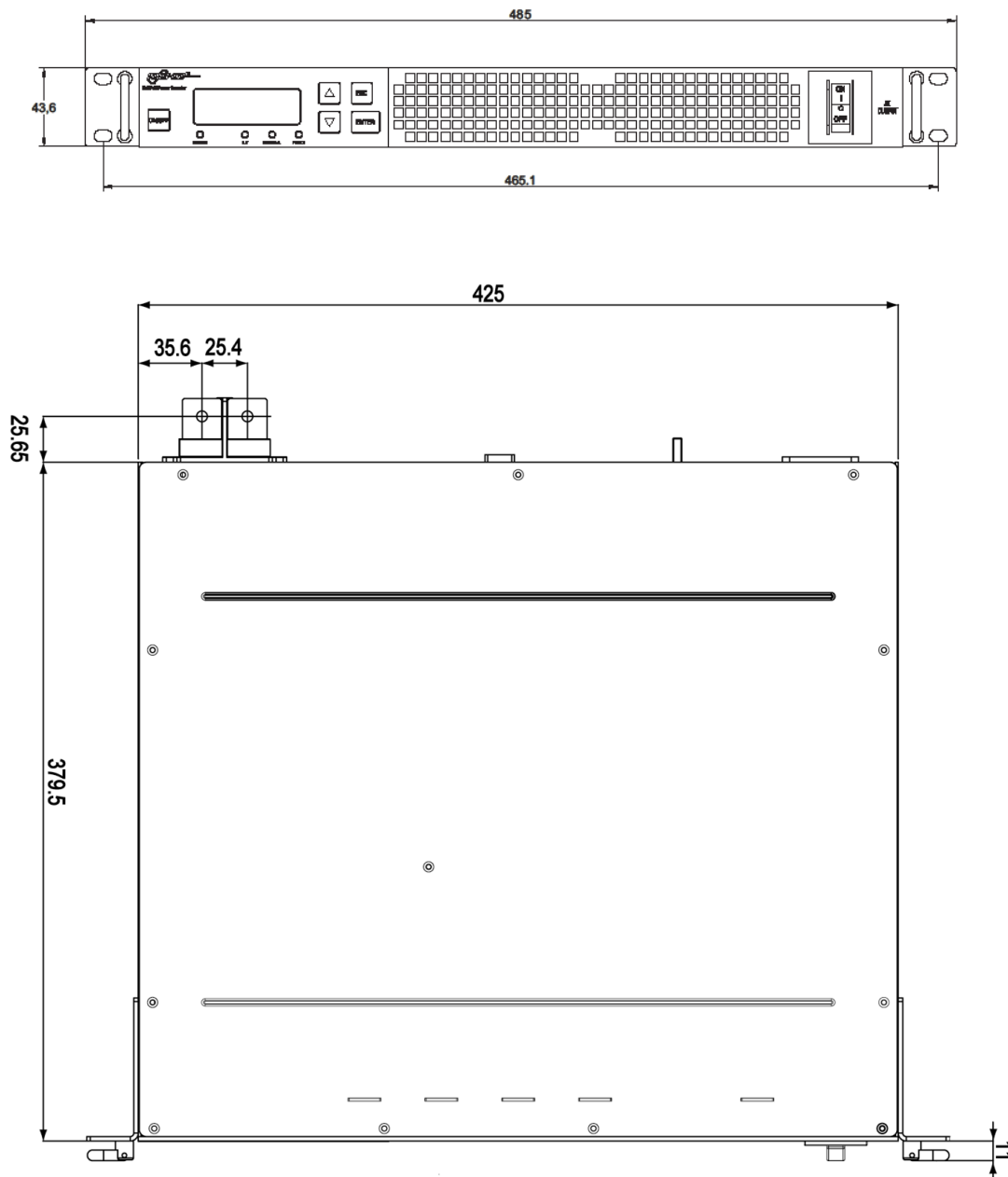
* NOTE: It is possible to connect up to 6 inverters in parallel. In order to do this it is necessary to purchase a paralleling kit (one per each inverter).

IMPORTANT: -STS and -GN options are compatible just supplying Grid Input by means of an isolation transformer, same indication if Neutral is tied to Ground at customer side.

Mechanical Specifications

PARAMETER		
Dimensions (W x H x D)	482.6 x 43.5 x 379.5 mm	19 x 43.5 x 14.94 in
Weight	5.6 kg	12.34 lb

Mechanical Outline Drawing



NUCLEAR AND MEDICAL APPLICATIONS - Power-One products are not designed, intended for use in, or authorized for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems without the express written consent of the respective divisional president of Power-One, Inc.

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