

## Power Electronics Group



### SLI Series – 1500 W 1U Compact Inverter

The SLI Series of “Slim Line” inverters provides the ideal solution for telecom, IT and industrial applications. Due to innovative technology solutions like the patent-pending “Compact Coil”, the SLI Series inverters pack 1500W of power into a light (5.6 Kg) and compact package that is 19” rack mountable and only one rack unit high. There are four models for different input (24Vdc and 48Vdc) and output (115Vac and 230Vac) voltage combinations. The integrated controller along with the optional internal Static Transfer Switch (STS) enable flexible and scalable systems that are truly “plug and play” with no external subsystems needed—just stack the inverters up to the power level required by the application. The inverter can be configured for generating a 3-phase voltage source.

The electrical performance of the SLI Series Inverter products is at the top of the market 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 inverter includes an on-board powerful DSP (Digital Signal Processor) that allows easy programmability of the main parameters on the LCD display and keypad on the front panel. The SLI Series inverters can be interfaced with RS-485.

#### **Key Features of the SLI Series Inverter include:**

- New, compact design: 1U height x 19” width x 14.94” depth, 19” rack mountable
- High efficiency: up to 93%
- True Sine Wave output
- Paralleable output with current share and synchronization of multiple inverters working in parallel
- LCD display on the front panel to monitor and set the main parameters
- RS-485 serial link
- Constant input current sink from battery for extended life
- Optional Internal Static Transfer Switch

### SLI Series Inverter Ordering Information

Model Number	Input Voltage	Output Voltage, Nominal	Output Voltage Range	Frequency Range
SLI-48-230	48 Vdc	230 Vac	200-240 Vac	47-63 Hz
SLI-48-115	48 Vdc	115 Vac	100-120 Vac	47-63 Hz
SLI-24-230	24 Vdc	230 Vac	200-240 Vac	47-63 Hz
SLI-24-115	24 Vdc	115 Vac	100-120 Vac	47-63 Hz

Option suffix: -STS (Internal Static Transfer Switch); -SC (AC terminal blocks)

### Specifications

#### Input Characteristics

##### Input Voltage Range:

**48 Vdc Models:** 40-72 Vdc

**24 Vdc Models:** 20-36 Vdc

##### Input Current:

**48 Vdc Models:** 48 A at 36 Vdc

**24 Vdc Models:** 100 A at 18 Vdc

##### Inrush Current: <10 A

##### Input Overcurrent Protection:

**48 Vdc Models:** Internal fuse, 70 A

**24 Vdc Models:** Internal fuse, 140 A

##### Input Overvoltage Protection:

**48 Vdc Models:** 74 V

**24 Vdc Models:** 37 V

##### Input Undervoltage Protection:

**48 Vdc Models:** 36 V

**24 Vdc Models:** 18 V

#### Output Characteristics

**Output Power:** 1500 W

##### Output Voltage Range:

**230 Vac Models:** 200 to 240 Vac

**115 Vac Models:** 110 to 120 Vac

**Frequency:** 50 or 60 Hz

##### Overload:

**230 Vac Models:** 1800 VA

**115 Vac Models:** 1650 VA

##### Surge:

**230 Vac Models:** 2300 VA for 200 ms

**115 Vac Models:** 1750 VA for 200 ms

**Efficiency:** Up to 93%

**Load Power Factor:** 0.33 ÷ 1, lagging or leading

**Load Crest Factor:** 4

## Specifications

### Output Specifications (continued)

#### Regulation:

**Load:** +3% -1% over full operating range

**Line:** ± 0.1% over full operating range

**Output Noise and Ripple:** 2% pk-pk maximum measured at 20Hz-20 MHz bandwidth

**Distortion:** <2% on resistive load

**Overvoltage Protection:** All outputs set at 115% ± 2% of Nominal.

**Undervoltage Protection:** All outputs set at 85% ± 2% of Nominal.

**Overcurrent Protection:** Yes

**230 Vac Models:** 1 A to 8 A selectable

**115 Vac Models:** 2 A to 15 A selectable

**Safety Overcurrent Protection:** By safety circuit breaker

**230 Vac Models:** 10 A

**115 Vac Models:** 15 A

**Short-Circuit Protection:** Yes, I<sub>pk</sub>

**230 Vac Models:** 30 A

**115 Vac Models:** 60 A

**Overtemperature Protection:** Visual and acoustic indication 5°C before shutdown: at T<sub>amb</sub> > 65°C and at T<sub>int</sub> > 100°C

**Protection Restore Modes:** the restore mode of each protection can be individually selected to “latch” or “autorestart”

### Signals and Controls

**LCD Panel:** 2 line LCD panel with keypad for menu navigation

**LED Indicator:** 4, Front panel green LED indicates power supply ON. Front panel red LED indicates generic fault; OT; fan fail; input OV, UV, OC; output OV, UV, OC

**General Alarm Signal:** By a photo-relay (open if in fault mode)

### Safety & Environmental

#### Operating Temperature Range:

**Full Load:** -25 to 55°C

**Power Derating:** 75W/°C: +55 to 65°C

**Storage:** -40 °C to +85 °C

**Operating Humidity:** Maximum 90% non-condensing

**Altitude: Operating:** 13,000 feet

**Non-operating:** 40,000 feet

#### Output Voltage Temperature Coefficient:

0.02% per °C within rated load

**Safety Agency Compliance:** cCSAus, Kema, CB report, CE mark

#### Isolation:

**PRI-SEC:** 3000 Vrms

**PRI-GND:** 1000 Vrms

**SEC-GND:** 1500 Vrms

**Signal-GND:** 0 Vrms

### Mechanical Specifications

**Size:** 19" W x 1.71" H x 14.94" L

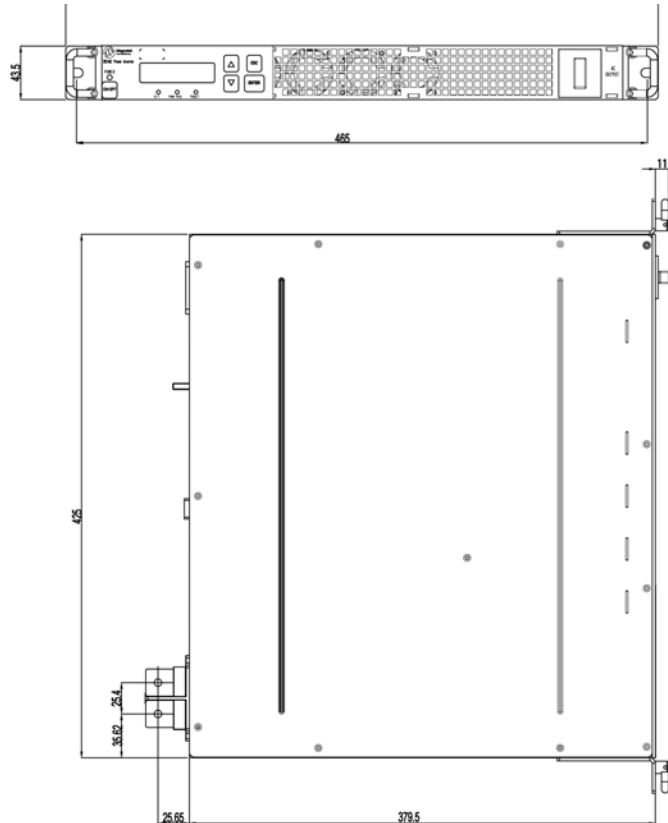
(482.6mm x 43.5mm x 379.5mm)

**Weight:** 12.34 lb (5.6 Kg)

**MTBF:** 250,000 hours calculated at 40°C

*Specifications are subject to change without prior notice.*

## Outline Drawing and Dimensions



Available in the UK from

Jenelec Ltd.

Fuller Road, Harleston, Norfolk IP20 9EA

Web: [www.jenelec.co.uk](http://www.jenelec.co.uk)

Tel: 01379 853666 Fax: 01379 854414 Email: [Sales@jenelec.co.uk](mailto:Sales@jenelec.co.uk)