

# Power

## S5 Inverters

1500W Inverter



S5 Inverter

- Ultra, compact 1RU module, 19" rack mountable
- High efficiency: up to 93%
- True sinewave output
- Paralleable output with current share and synchronization of multiple inverters working in parallel (N+1)
- LCD display on the front panel to monitor and set the main parameters
- Split phase output (120/240VAC) and three phase output options available

Alpha expands its inverter family to include the S5, designed for telecom, IT and industrial applications. The S5 inverter packs 1500W of power into a light and compact package that is 19" rack mountable and one rack unit high. There are four models for different input (24 and 48VDC) and output (115 and 230VAC) voltage combinations. Features include an integrated controller along with the optional internal Static Transfer Switch, enabling flexible and scalable systems for true plug and play with no external subsystems needed. The inverter can also be configured for generating a three phase voltage source.

## S5 Inverters

### Nominal Specifications

#### Input Characteristics

|                                 |   |
|---------------------------------|---|
| Input Voltage Range:            | 40 to 72VDC (48VDC); 20 to 36VDC (24VDC)                  |
| Input Current:                  | 48Z at 36VDC (48VDC); 100A at 18VDC (24VDC)               |
| Inrush Current:                 | ETSI EN 300 132-2 V2.1.2 clause 4.7                       |
| Input Over Current Protection:  | Internal fuse, 70A (48VDC)<br>Internal fuse, 140A (24VDC) |
| Input Over Voltage Protection:  | 74V (48VDC); 37V (24VDC)                                  |
| Input Under Voltage Protection: | 36V (48VDC); 18V (24VDC)                                  |

#### Output Characteristics

|                               |  |
|-------------------------------|--|
| Output Power:                 | 1500W  |
| Output Voltage Range:         | 230VAC models: 200 to 240VAC<br>115VAC models: 110 to 120VAC   |
| Frequency:                    | 50 or 60Hz   |
| Overload:                     | 230VAC models: 1800VA<br>115VAC models: 1650VA<br>230VAC models: 2300VA for 200ms<br>115VAC models: 1650VA for 200ms |
| Surge:                        | 230VAC models: 1800VA<br>115VAC models: 1650VA for 200ms   |
| Efficiency:                   | up to 93%  |
| Load Power Factor:            | 0.33 lagging or leading  |
| Load Crest Factor:            | 4  |
| Regulation Load:              | -3 to 1% over full operating range   |
| Regulation Line:              | ±0.1% over full operating range  |
| Output Noise and Ripple:      | 2% pk to pk (20Hz/20MHz)   |
| Distortion:                   | <2% on resistive load  |
| Over Voltage Protection:      | All outputs set at 115% ±2% of nominal   |
| Under Voltage Protection:     | All outputs set at 85% ±2% of nominal  |
| Over Current Protection: Yes: | 230VAC models: 1 to 8A selectable<br>115VAC models: 2 to 15A selectable  |

#### Safety Over Current Protection

|  |  |
|--|--|
| By safety circuit breaker:                       | 230VAC models: 10A<br>115VAC models: 15A   |
| Short-Circuit Protection: Yes, I <sub>pk</sub> : | 230VAC models: 30A<br>115VAC models: 60A   |
| Over Temperature Protection:                     | (visual and acoustic indication 5°C before shutdown):<br>at T <sub>amb</sub> >65°C and T <sub>int</sub> >100°C |
| Protection Restore Modes:                        | The restore mode of each protection can be individually selected to "latch" or "auto restart"                  |

#### Signal and Controls

|                       |   |
|-----------------------|---|
| LCD Panel:            | 2 line LCD panel with keypad for menu navigation  |
| LED Indicator:        | 4; Green (power ON), Red (generic fault, OT, fan fail)<br>Input OV, UV, OC Output OV, V, OC<br>by a photo-relay (open if in fault mode) |
| General Alarm Signal: | RS-485 or CANBUS communications interface   |

#### Safety and Environmental

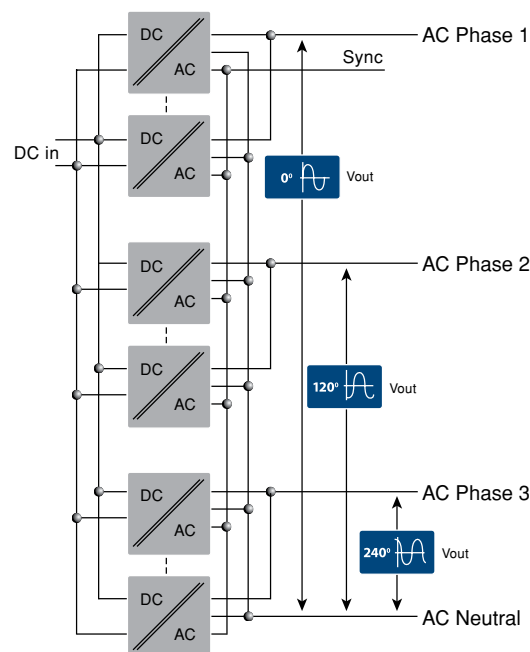
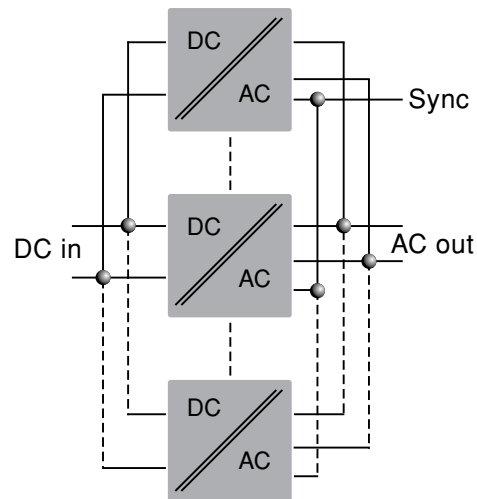
|                              |                                  |
|------------------------------|----------------------------------|
| Operating Temperature Range: | Full load: -25 to 55°C           |
| Operating Humidity:          | 0 to 90% non-condensing          |
| Storage:                     | -40 to 85°C                      |
| Altitude                     |                                  |
| Operating:                   | 13000ft (3963m)                  |
| Non Operating:               | 40000ft (12192m)                 |
| Output Voltage               |                                  |
| Power derating:              | 75W/°C: 55 to 65°C               |
| Temperature Coefficient:     | 0.02% per C within rated load    |
| Safety Agency Compliance:    | cCSAus, Kema, CB report, CE mark |
| Isolations                   |                                  |
| PRI-SEC: 3000Vrms            | PRI-GND: 1000Vrms                |
| SEC-GND: 1500Vrms            | Signal-GND: 0Vrms                |

#### Mechanical Specifications

|                  |                         |
|------------------|-------------------------|
| Dimensions (in): | 19W x 1.71H x 14.94D    |
| (mm):            | 482.6W x 43.5H x 379.5D |
| Weight (lb/kg):  | 12.34/5.6               |
| MTBF:            | >250000hrs at 40°C      |

#### Warranty

2 years from date of shipment, standard product only



For more information visit [www.alpha.com](http://www.alpha.com)