

POWER 0.75 kVA INPUT 48 Vdc OUTPUT 230 Vac

## **DESCRIPTION**

NOVA is a compact and scalable modular inverter providing a pure sine wave AC supply. In conjunction with a DC Power system, it provides an excellent AC backup solution. It uses the latest inverter technology, providing superior energy efficiency in a compact size.

The "Twin Sine Innovation" (TSI) technology eliminates all single points of failure with full scalability; up to 32 modules in parallel and high efficiency of up to 93 % reducing operating costs.

## **APPLICATIONS**

All business critical applications and all types of AC loads. The design is modular and scalable with hot- swappable inverter modules which ensures low Mean Time to Repair (MTTR), reduction in service costs and meets the changing needs for future expansion.

## MAIN FEATURES

- >>> Dual input sources (AC & DC)
  with wide AC input range 150 Vac to 265 Vac
- >>> Compact design
- >>> High efficiency
- >>> Transfer time reduced to 0
- >> up to 3 kVA in 1 U



|   | 48 / 230   |
|---|--|
| GENERAL   |  |
| EMC (immunity)  | EN 61000-4-2 / EN 61000-4-3 / EN 61000-4-4 / EN 61000-4-5 / EN 61000-4-6 / EN 61000-4-8                      |
| EMC (emission) (class)  | EN 55022 (A)   |
| Safety  | EN62040-1  |
| Cooling / Isolation   | Forced / Doubled   |
| MTBF  | 200 000 hrs (MIL-217IF)  |
| Efficiency (Typical): Enhanced power conversion / on line                   | 93% / 89%  |
| Dielectric strength DC/AC   | 4300 Vdc   |
| True Redundant Systems – compliant  | 3 disconnection levels on AC out and DC in power ports   |
|   | 4 disconnection levels on AC in port  Compliant  |
| RoHS<br>Vibration   | GR63 office vibration 0 to 100 hz-0.1 g / transport vibration 5-100 Hz 0.5 g 100 to 500 hz-1.5 g / Drop test |
|   | Designed for installation in an IP20 or IP21 environment.  |
| Operating conditions  | When installed in a dusty or corrosive environment, appropriate measures (air filtering,) must be taken.     |
| Altitude above sea without de-rating  | < 1500 m / derating > 1500 m - 0.8 % per 100 m   |
| Ambient / storage temperature / relative humidity                           | -20 to 50 ° C / -40 to 70 ° C / 95 %, non-condensing   |
| Material (casing)   | Coated steel-ALU ZINC  |
| AC OUTPUT POWER   |  |
| Nominal Output power (VA) / (W)   | 750 VA / 525 W   |
| Short time overload capacity  | 135 % (15 seconds) 105 % permanent within T° range   |
| Admissible load power factor  | Full power rating from 0 inductive to 0 capacitive   |
| Internal temperature management and switch off                              |  |
| DC INPUT SPECIFICATIONS   |  |
| Nominal voltage (DC)  | 48 V   |
| Voltage range (DC)  | 40 - 60 V  |
| Nominal current (at 48 Vdc and 525 W output)                                | 12.5 A   |
| Maximum input current (for 15 second) / voltage ripple                      | 22 A / < 2 mV  |
| Input voltage boundaries  |  |
| AC INPUT SPECIFICATIONS   |  |
| Nominal voltage (AC)  | 220/230/240 V 1P or 3P (Min 3 shelves for 3P)  |
| Voltage range (AC)  | 150 - 265 V  |
| Brownout  | 150 to 185 V   |
|   | 438 W @ 150 Vac  |
| Power factor  | > 99%  |
| Frequency range (selectable) / synchronization range                        | 50 – 60 Hz / range 47 – 53 Hz / 57 – 63 Hz   |
| AC OUTPUT SPECIFICATIONS  | 000/000/040 V  |
| Nominal voltage (AC*)   | 220/230/240 V  |
| Frequency / frequency accuracy  | 50 - 60 Hz / 0.03 %  |
| Total harmonic distortion (resistive load)                                  | < 3 %<br>0.4 ms  |
| Load impact recovery time   | 20 s to 40 s depending on the number of modules installed  |
| Turn on delay   |  |
| Nominal current   | 3.25 A   |
| Crest factor at nominal power  With short circuit management and protection | 2.5 : 1  |
|   | 9 x I <sub>2</sub> for 20 msec - Available while Mains is available at AC input port                         |
| Short circuit clear up capacity   | With magnitude control and management  |
| Short circuit current after clear up capacity                               | 1.89 I <sub>n</sub>  |
| IN TRANSFER PERFORMANCE   |  |
| Max. voltage interruption / total transient voltage duration (max)          | 0s/0s  |
| SIGNALING & SUPERVISION   |  |
| Display   | Synoptic LED   |
| Alarms output / supervision   | Dry contacts on shelf / Use optional devices   |
| Remote on / off   | On rear terminal of the shelf via T2S  |

TSI NOVA 230 — Datasheet v1.2 Specifications can change without notice. New data will be updated on our Web site; www.cst-power.com. The present equipment is protected by several international patents, trademarks and copyright

\*Operation within lower voltage networks leads to de-rating of power performances.





