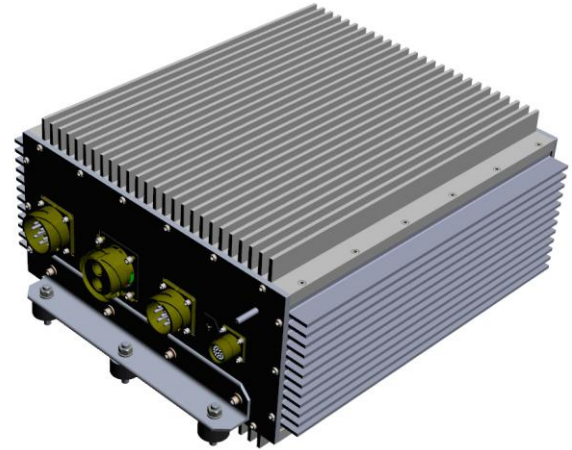


# INVERTER-WIND- 600Vdc-240Vac-6000W-S

Catalog Item Number 100-1801-PL-01

## FEATURES

- Max continuous output power rating: 6000W
- DC to DC converter employing switch mode technology
- Input voltage range from 80Vdc to 600Vdc
- Output voltage: 208Vac / 240Vac / 277Vac
- Industrial operating temperature range: -25C to +55C
- Vertical installation – wall mount
- RS485 or CAN bus communication interface



## ELECTRICAL

| Characteristics                 | Value     |           |           | Units | Comments  |
|---------------------------------|-----------|-----------|-----------|-------|---|
|                                 | Min       | Typical   | Max       |       |   |
| INPUT (DC)                      |           |           |           |       |   |
| Nominal Input Voltage           |           | 550       |           | Vdc   |   |
| Nominal Input Voltage Range     | 80        |           | 600       | Vdc   |   |
| Full Power Voltage Range        | 240       |           | 550       | Vdc   |   |
| Input Low Voltage Shutdown      |           | 90        |           | Vdc   | Programmable firmware feature upon request  |
| Input Low Voltage Hysteresis    | +/-2      | -         | +/-5      | Vdc   | Programmable firmware feature upon request  |
| Input Low Voltage Disconnect    |           | 80        |           | Vdc   | Hardware disconnect feature upon request  |
| Input Low Voltage Hysteresis    | +/-2      | -         | +/-5      | Vdc   | Programmable firmware feature upon request  |
| Minimum start-up voltage        |           | 60        |           | Vdc   | Control circuits will be operational above 60V  |
| Input Current                   | 12        | 12        | 28        | Adc   | Max current 28A @ 240Vdc input  |
|                                 |           |           |           |       |   |
| OUTPUT (AC)                     |           |           |           |       |   |
| Nominal Output Voltage          | 208       | 240       | 277       | Vac   |   |
| Output Voltage Range            | 183 - 229 | 211 - 264 | 244 - 305 | V     | (Vout nom - 12% < Vout < Vout nom +10%)   |
| Output Power @ Vin Nominal      | 6000      | 6000      | 6000      | W     |   |
| Nominal Output Current          | 29        | 25        | 22        | A     |   |
| Max Output Over-Load Current    | 32        | 27.5      | 24        | A     | overload for 10 sec   |
| Max Output Overload             |           |           | 110       | %     | overload for 10 sec   |
| Output Short-circuit Protection | 176       | 204       | 235       | V     | If in an overload condition more than 20sec. output voltage drops under limit – short circuit protection is triggered |
| Efficiency                      |           | >95       |           | %     | TBD   |
| Output Power Factor             |           | 0.99      |           | -     |   |

## ENVIRONMENTAL

| Characteristics       | Value |                |     | Units | Comments  |
|-----------------------|-------|----------------|-----|-------|---|
|                       | Min   | Typical        | Max |       |   |
| Operating Temperature | -25   | -              | +55 | C     | De-rating applies above 50C   |
| Storage Temperature   | -45   | -              | +70 | C     |   |
| Humidity              | 10    | 60             | 90  | %     | Non -condensing   |
| Module cooling        |       | Forced Cooling |     |       | or Natural Convection – vertical mount with an larger heat-sink – TBD |
| Module cooling        |       | External Fan   |     |       | External Fan – optional / system integration                          |

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Catalog Item Number 100-1801-PL-01

## MECHANICAL

| Characteristics  | Value |         |     | Units          | Comments                  |
|------------------|-------|---------|-----|----------------|---------------------------|
|                  | Min   | Typical | Max |                |                           |
| Length           |       | 28.0    |     | inch           | 712.00mm                  |
| Width            |       | 15.0    |     | inch           | 381.00mm                  |
| Height           |       | 10.5    |     | inch           | 267.00mm (6U)             |
| Weight           |       | TBD     |     | kg             |                           |
| Mounting         |       |         |     | Vertical mount |                           |
| Input Wires AWG  | 10    | -       | 12  | AWG            |                           |
| Output Wires AWG | 20    | -       | 12  | AWG            |                           |
| 3D Model         |       |         |     |                | File: 100-1801-ASY-01.pdf |

## PROTECTIONS

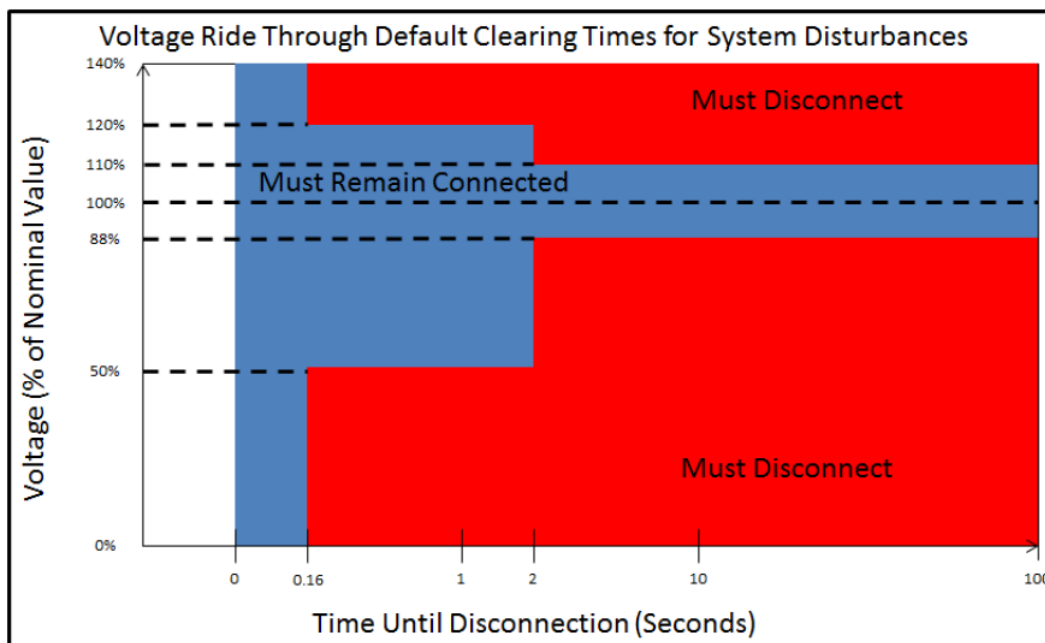
- Ground Fault Monitoring – with visual indication and Communication messaging
- DC reverse polarity protection (DC input)
- DC Input Over-voltage Protection ( $V_{in} > 110\% V_{in\ max}$ )
- AC Output Over-voltage Protection ( $V_{out} > V_{out\ nominal} + 15\%$ )

## OTHER TECHNICAL DETAILS

- Installation vertical or horizontal – mounting tabs and 4 bolts minimum M8 x 25mm
- Isolation – Input to Chassis – 1500Vdc
- Isolation – Output to Chassis – 1500Vdc
- Isolation – Input to Output – 2000Vdc

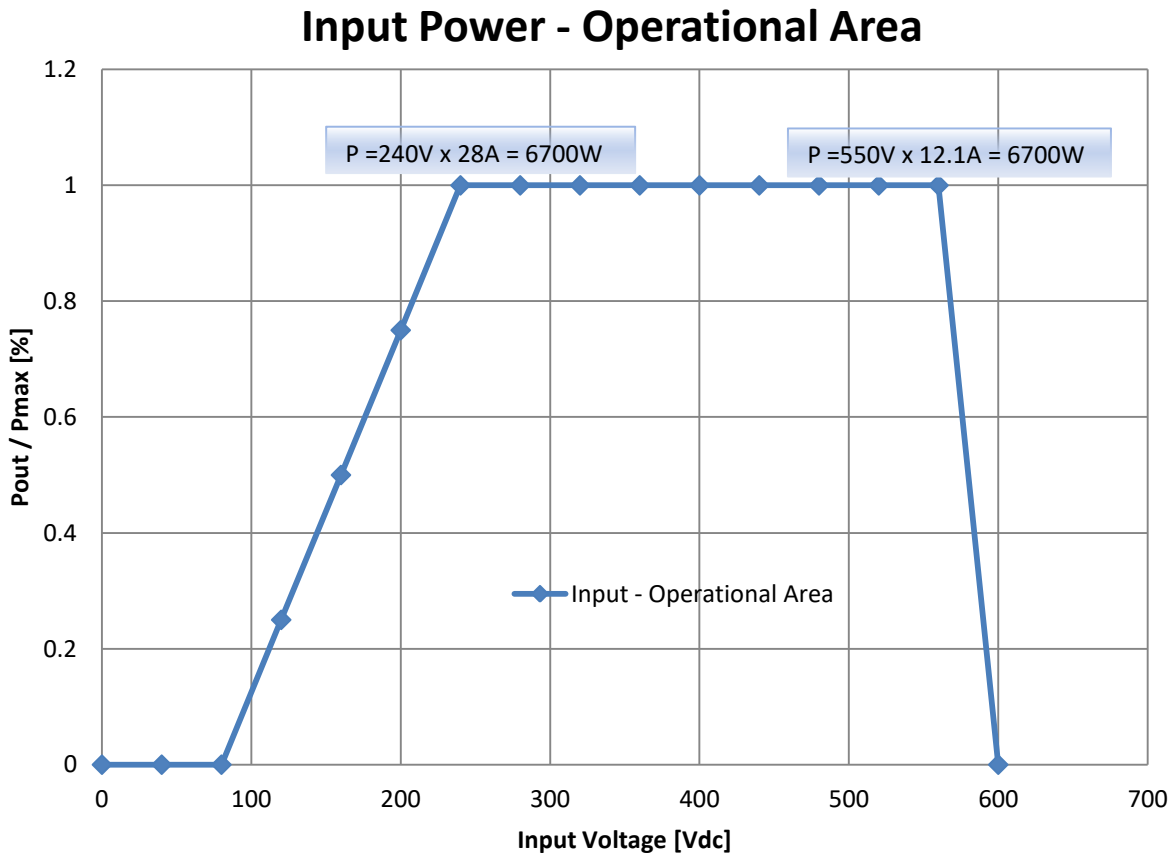
## CERTIFICATION and COMPLIANCE

- Power Converter compliance with - UL1012; UL 1741
- EMC compliance - Radiated Emissions - FCC Part 15B
- EMC compliance - Electrostatic Discharge - IEC 61000-4-2
- EMC compliance - Surge Immunity - IEC 61000-4-5
- EMC compliance – Radiated Immunity - IEC 61000-4-6
- Enclosure Protection – IP64 / NEMA 3 type enclosure – boards are conformal coated
- Flammability rating – UL94V0
- Grid Tie Power Converter compliance as per IEEE 1547 methods for grid tie related parameters



# INVERTER-WIND- 600Vdc-240Vac-6000W-S

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Input Power [%] versus Input Voltage [Vdc]