

PVI-10.0-OUTD / PVI-12.5-OUTD

General Specifications - Outdoor models PVI-10.0-0 UTD / PVI-10.0-OUTD-S / PVI-10.0-OUTD-FS PVI-12.5-OUTD / PVI-12.5-OUTD-S / PVI-12.5-OUTD-FS

AURORA BENEFITS

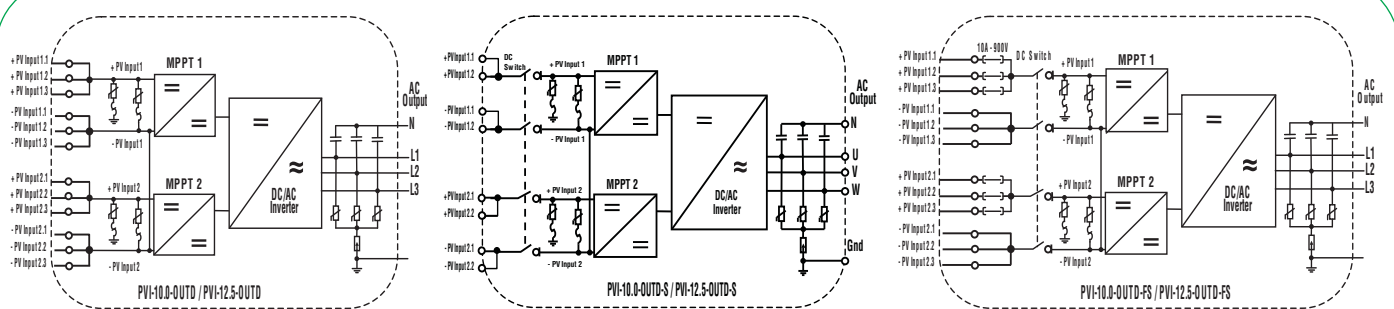
- Dual independent input sections to offer the max configuration flexibility of the installation with 3 strings for each MPPT
- Transformerless operation for highest efficiency: up to 97,7%; Euro: 97,13% (10KW) ; 97,25 (12.5KW)
- True 3ph bridge topology for DC/AC output converter
- Wide MPPT input voltage range: 200-850Vdc
- Flat efficiency curve: to ensure consistent and stable performance across the whole input voltage and output power range
- Efficiency peaks at the middle of the input voltage and output power range to ensure better performance under real operating conditions
- Very fast and accurate dual MPPT algorithm (response time: 1sec; accuracy: 99,8%)
- Very low sensitivity to grid disturbances to avoid undesired disconnection from the grid
- Wide operating temperature range -25°/+60°C. Maximum output power guaranteed for ambient temperatures up to 50°C, free convection cooling (no ventilation)
- PVI-XX.X-OUTD-FS variants include DC switch and fuses (see block diagram)
- LCD Display on the front to monitor the main parameters
- Anti-islanding Protection
- Integrated RS-485
- Standard DC connection with MultiContact MC4 connector
- Reverse polarity protection minimizes chance of damage due to mis-wiring



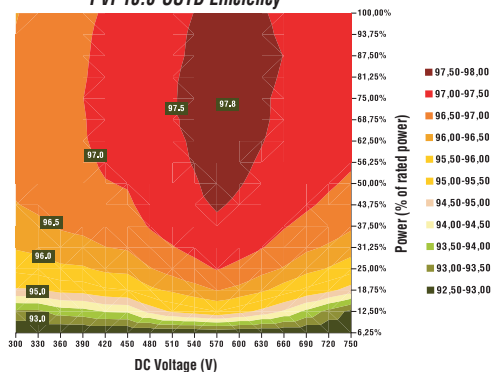
STANDARDS AND CODES

Aurora inverters comply with standards set for grid-tied operation, safety and electromagnetic compatibility including: VDE0126, CEI 11-20 IV ed, DK5940, IEC 61683, IEC 61727, EN50081, EN50082, EN61000, CE certification, El Real Decreto RD1663/2000 de España.

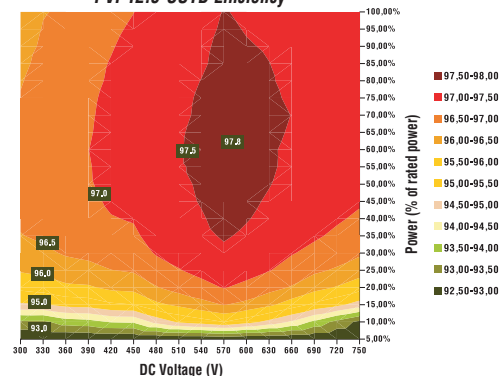
Block Diagram and typical efficiency



PVI-10.0-OUTD Efficiency



PVI-12.5-OUTD Efficiency



| CHARACTERISTICS | PVI-10.0-OUTD-BX | PVI-12.5-OUTD-BX |
|--|---|-----------------------------------|
| INPUT PARAMETERS | | |
| Nominal DC Power [kW] | 10,3 | 12,8 |
| Max. Recommended DC Power [kW] | 11,4 | 14,3 |
| Operating Input Voltage Range [V] | 0,7xVstart - 850 (580 nominal) | |
| Full Power MPPT input voltage range (symmetrical load) [V] | 300-750 | 360-750 |
| Full asymmetrical load input voltage range [V] | 360-750 (@ 6,5kW) / 216-750 (@ 3,9kW) | 445-750 (@ 8kW) / 278-750 (@ 5kW) |
| Absolute Max. Input Voltage [V] | 900 | |
| Activation voltage "Vstart" [V] | 360 nominal (adjustable within the range 250Vdc-500Vdc, independently/each input) | |
| No of independent MPPT trackers | 2 | |
| Max. Input Power, each MPPT [kW] | 6,5 | 8 |
| No. of DC Inputs | 4/6 (2/3 each MPPT, optionally fused) | |
| Max. DC Current, each MPPT [A] | 18 (22 shortcircuit) | |
| DC Connection | 8/12 x MultiContact Ø 4mm (4/6 male - positive input + 4/6 female - negative input) | |
| | Mating cable connector included | |
| | Conductor cross section: 4-6mmq/AWG12-10 - Cable Ø w/insulator: 3-6mm | |
| INPUT PROTECTION | | |
| Reverse polarity protection | Yes | |
| Fuse rating, each input (-FS suffix versions only) | 10Adc / 900Vdc | |
| DC side varistors | 4 (2 each MPPT), thermally protected | |
| PV array Insulation Control | according to VDE0126-1-1 | |
| DC Switch (-S/-FS suffix versions only) | Integrated (Rating: 1000Vdc / 25Adc) | |
| OUTPUT PARAMETERS | | |
| Nominal AC Power [up to 50°C, kW] | 10 | 12,5 |
| Max. AC Power [kW] | 10 | 13,75 |
| AC Grid Connection | 3 phase 400Vac 50Hz with or without neutral (3 or 4 wires network) + PE | |
| Nominal AC Voltage [V] | 3x400Vac | |
| Maximum AC Voltage Range [V] | 326.6 - 438.2 Vac (may be limited in acc. to country-specific requirements) | |
| Nominal AC Frequency [Hz] | 50 | |
| Max. AC Line Current [A] | 16,6A per phase (19A short circuit) | 20A per phase (22A short circuit) |
| AC Connection | Screw terminal block | |
| | Conductor Cross Section: Solid: 0,5-16mmq / Stranded: 0,5-10mmq / AWG20-6 | |
| | Cable Gland: M40 - Cable Ø: 19-28mm | |
| Line Power Factor | 1 | |
| AC Current Distortion [THD%] | <2% at rated power with sine wave voltage | |
| OUTPUT PROTECTION | | |
| AC side varistors | 3, star connected to common point, plus gas arrester to ground | |
| Ground fault protection (AC + DC leakage current) | according to VDE0126-1-1 | |
| CONVERSION EFFICIENCY | | |
| Max. Efficiency | 97,70% | |
| Euro Efficiency | 97,13% | 97,25% |
| ENVIRONMENTAL PARAMETERS | | |
| Cooling | Natural cooling | |
| Ambient Temp. Range [°C] | -20 / +60 (output power derating above 50°C) | |
| Operating Altitude [m] | 2000 | |
| Acoustical Noise [dBA] | <50 @1mt | |
| Environmental IP Rating | IP65 | |
| Relative Humidity | 0-100% condensing | |
| MECHANICAL | | |
| Dimensions [H x W x D] | 650 x 650 x 200 | |
| Weight [kg] | 38 | |
| OTHER | | |
| Stand-By Consumption [W] | 10 | |
| Feed In Power Threshold [W] | 30W | |
| Night Time consumption [W] | <2 | |
| Isolation | No isolation, Transformer-less | |
| Display | YES (Alphanumeric 2 lines) | |
| Communication | RS485 (Screw terminal block - Conductor cross section: 0,08-1,5mmq/AWG28-16) | |
| AVAILABLE PRODUCT VARIANTS | | |
| Standard - no options | PVI-10.0-OUTD | PVI-12.5-OUTD |
| With DC switch | PVI-10.0-OUTD-S | PVI-12.5-OUTD-S |
| With DC switch and protection fuse/each input | PVI-10.0-OUTD-FS | PVI-12.5-OUTD-FS |

MODEL SUMMARY

| MODEL NUMBER | POWER |
|----------------------|---------|
| PVI-10.0-OUTD/-S/-FS | 10.000W |
| PVI-12.5-OUTD/-S/-FS | 12.500W |



Votre installateur photovoltaïque

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