

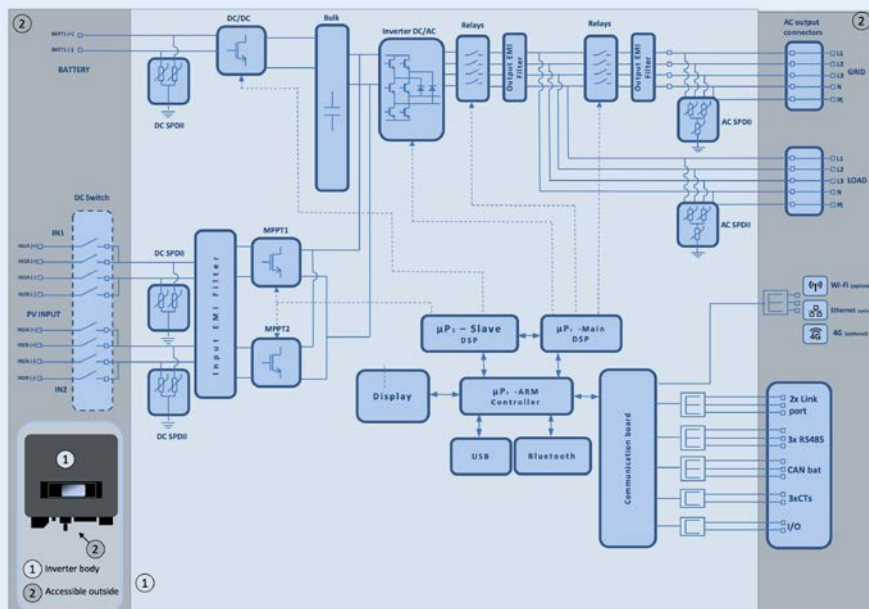
3PH HYD 5000 ZSS/3PH HYD 8000 ZSS

Three-phase hybrid inverter



- » Automatic management of the energy flows from the photovoltaic system, battery and grid
- » On-board Energy Meter
- » Parallel-ready
- » Possibility of operation in zero grid feed-in mode
- » Unit compatible with high voltage lithium battery (180-750V)
- » Stand-Alone support mode guarantees continuity of operation and “island” operation, both from the photovoltaic source and battery in the event of power failure.

BLOCK DIAGRAM



| TECHNICAL DATA | 3PH HYD5000 ZSS | 3PH HYD6000 ZSS | 3PH HYD8000 ZSS |
|--|-------------------|---|-------------------|
| DC input data (photovoltaic) | | | |
| Typical DC power* | 7500W | 9000W | 12000W |
| Maximum DC power for each MPPT | 6000W (480V-850V) | 6600W (530V-850V) | |
| No. of independent MPPTs / No. of strings per MPPT | | 2/1 | |
| Maximum input voltage | | 1000V | |
| Start-up voltage | | 200V | |
| Rated Input voltage | | 600V | |
| MPPT DC voltage range | | 180V-960V | |
| DC voltage range at full load | 250V-850V | 320V-850V | 360V-850V |
| Maximum input current for each MPPT | | 12.5A/12.5A | |
| Maximum absolute current for each MPPT | | 15A/15A | |
| Battery connection data | | | |
| Type of compatible battery | | Lithium-ion (supplied by Zucchetti) | |
| Allowable voltage range | | 180V-750V | |
| Number of independent battery channels | | 1 | |
| Maximum charge/discharge power | 5000W | 6000W | 8000W |
| Allowable temperature range** | | -10°C/+50°C | |
| Maximum charge current per battery channel | | 25A (40A of peak for 60s) | |
| Maximum discharge current per battery channel | | 25A (40A of peak for 60s) | |
| Charge curve | | Managed by the BMS | |
| Depth of Discharge (DoD) | | 0%-90% (programmable) | |
| AC output (grid side) | | | |
| Rated power | 5000W | 6000W | 8000W |
| Maximum Power | 5500VA | 6600VA | 8800VA |
| Maximum current | 8A | 10A | 13A |
| Connection type/Rated voltage | | Three-phase 3/N/PE, 220/380, 230/400 | |
| AC voltage range | | 184V~276V (according to the local standards) | |
| Rated frequency | | 50Hz/60Hz | |
| AC frequency range | | 45Hz~55Hz / 55Hz~65Hz (according to the local standards) | |
| Total harmonic distortion | | <3% | |
| Power factor | | 1 default (programmable +/- 0.8) | |
| Grid feed-in limit | | programmable from display | |
| EPS Output (Emergency Power Supply) | | | |
| Power supplied in EPS mode*** | 5000W | 6000W | 8000W |
| Apparent peak power in EPS mode*** | 10000VA per 60s | 12000VA per 60s | 16000VA per 60s |
| EPS output voltage and frequency | | Trifase 230V/400V 50Hz | |
| Current supplied in EPS mode (peak) | 8A (15A per 60s) | 10A (18A per 60s) | 13A (24A per 60s) |
| Total harmonic distortion | | 3% | |
| Switch time | | <20ms | |
| Efficiency | | | |
| Maximum efficiency | | 98.0% | |
| Weighted efficiency (EURO) | | 97.5% | |
| MPPT efficiency | | 99.9% | |
| Maximum battery charge/discharge efficiency | | 97.6% | |
| Consumption in stand-by | | <15W | |
| Protections | | | |
| Internal interface protection | | Yes | |
| Safety protections | | Anti-islanding, RCMU, Ground Fault Monitoring | |
| Reverse polarity protection DC | | Yes | |
| DC circuit breaker | | Integrated | |
| Overheating protection | | Yes | |
| Overvoltage category/Protection class | | Overvoltage Category III / Protection class I | |
| Integrated dischargers | | AC/DC MOV: Type 2 standard | |
| Output overcurrent protection | | Yes | |
| Battery soft start | | Yes | |
| Standard | | | |
| EMC | | EN61000-1, EN61000-3 | |
| Safety standard | | IEC62109-1, IEC62109-2, NB-T32004/IEC62040-1 | |
| Grid connection standard | | Connection certificates and standards available at www.zcsazzurro.com | |
| Communication | | | |
| Communication interfaces | | Wi-Fi/4G/Ethernet (optional), RS485 (proprietary protocol), USB, CAN 2.0 (for battery connection), Bluetooth | |
| Other inputs | | RS485 line for external meters up to 4 meters can be connected), 6 digital input (5V TTL), connection for direct sensors (CT) | |
| General data | | | |
| Allowable ambient temperature range | | -30°C...+60°C (limitation above 45°C) | |
| Topology | | Transformerless | |
| Environmental protection class | | IP65 | |
| Allowable relative humidity range | | 0~100% | |
| Maximum operating altitude | | 4000m | |
| Noise level | | <45 dB @ 1m | |
| Weight | | 33kg | |
| Cooling | | Natural convection | |
| Dimensions (H x L x D) | | 515mmx571.4mmx264.1mm | |
| Data monitoring | | LCD Display + APP | |
| Warranty | | 5 or 10 years (NB: the extended warranty can be obtained by registering on the EXTENDED WARRANTY section of the zcsazzurro.com website) | |

* The typical DC power does not represent a maximum applicable power limit. The online configurator available at www.zcsazzurro.com will provide any applicable configurations.

** Standard value for lithium batteries; maximum operating range between +10°C and +40°C

*** Power output in EPS mode depends on the number and type of batteries, and the status of the system (e.g. residual capacity, temperature)