

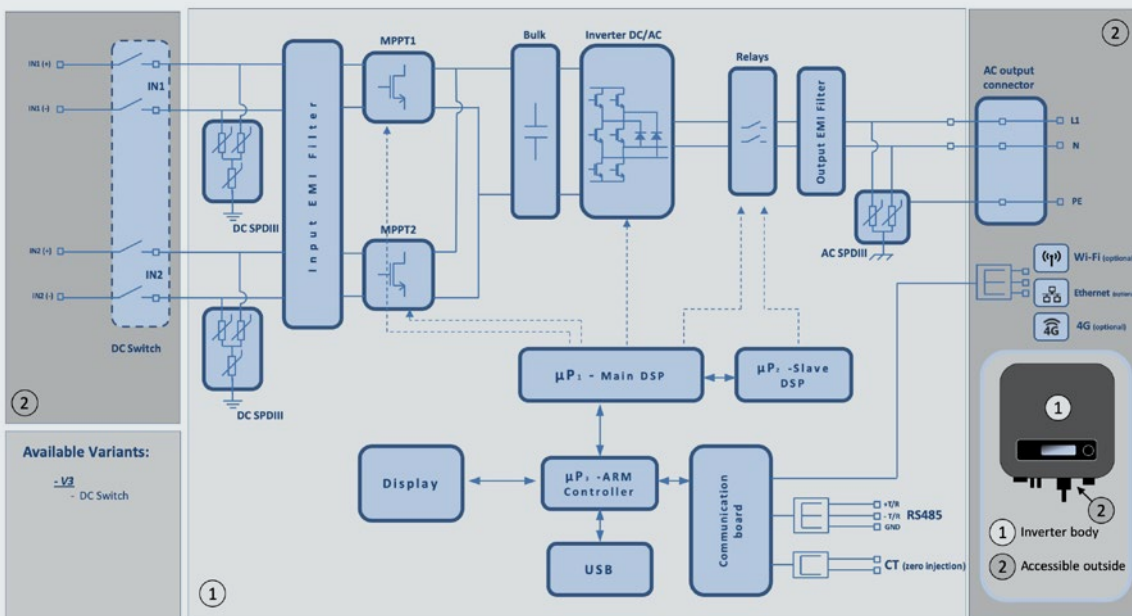
ZCS AZZURRO - SINGLE-PHASE STRING INVERTER

1PH 3000-TLM-V3/1PH 3680-TLM-V3/1PH 4000-TLM-V3/1PH 4600-TLM-V3/1PH 5000-TLM-V3/1PH 6000-TLM-V3



- » Maximum yield 98.4%
- » Dual MPPT channel
- » Fast and safe installation with all required parts included
- » Ultra compact
- » 5 or 10 year ZCS warranty
- » Wide input operating range from 50V to 570V

FLOW CHART



TECHNICAL DATA

1PH 3000-TLM-V3

1PH 3680-TLM-V3

1PH 4000-TLM-V3

1PH 4600-TLM-V3

1PH 5000-TLM-V3

1PH 6000-TLM-V3

DC Input data

Typical DC power*	3300 W	4048 W	4400 W	5060 W	5500 W	6600 W
Maximum power for channel	3000 W			3500 W		
No. of independent MPPTs / No. of strings per MPPT	2/1					
Maximum DC input voltage	600V					
Start-up voltage	60V					
Nominal DC input voltage	360V					
MPPT DC voltage range	50V-570V					
DC voltage range at full load	125V-520V	150V-520V	165V-520V	190V-520V	210V-520V	250V-520V
Maximum input current for each MPPT	12.5A/12.5A					
Maximum absolute current for each MPPT	15A/15A					

AC Output data

Rated AC power	3000 W	3680 W	4000 W	4600 W	5000 W	6000 W
Maximum AC power	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA
Maximum AC current	14.4A	16A	19.3A	22.2A	24.1A	28.9A
Connection type/Rated grid voltage	Single-phase L/N/PE / 220V, 230V, 240V					
Grid voltage range	180V~276V (according to the local grid standards)					
Rated grid frequency	50Hz/60Hz					
Grid frequency range	45Hz~55Hz / 54Hz~66Hz (according to the local grid standards)					
Total harmonic distortion	<3%					
Power factor	1 (Programmable +/-0.8)					
Active power adjustment range (settable)	0~100%					
Grid feed-in limit	Feed-in adjustable from zero to nominal power value**					

Efficiency

Maximum efficiency	98.2%	98.4%
Weighted efficiency (EURO)	97.3%	97.5%
MPPT efficiency	>99.9%	
Consumption at night	<1W	

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 3 Standard

Standard

EMC	EN 61000-6-2/3, EN 61000-3-2/3/11/12
Safety standard	IEC 62116, IEC 61727, IEC 61683, IEC 60068-1/2/14/30, IEC 62109-1/2
Grid connection standard	Connection certificates and standards available on www.zcsazzurro.com

Communication

Communication interfaces	Wi-Fi/4G/Ethernet (optional), RS485 (proprietary protocol), USB
Additional inputs or connections	Input for current sensor connection

General data

Allowable ambient temperature range	-30°C...+60°C (power limit above 45°C)
Topology	Transformerless
Environmental protection class	IP65
Allowable relative humidity range	0%.....95% non-condensing
Maximum operating altitude	4000m
Noise level	< 25dB @ 1mt
Weight	10 Kg
Cooling	Natural convection
Dimensions (H x L x D)	345mm x 341mm x 167mm
Display	LCD
Warranty	5 or 10 years

* 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.

** Possible by connecting a current sensor (ZST-ACC-TA) or using a specific meter