

SINGLE-PHASE STRING INVERTER

3000TLM/3680TLM/4000TLM/4600TLM/5000TLM/6000TLM

AZZURRO
ZCS

ZCS Azzurro Single-phase is the ideal solution for small residential or commercial PV systems. The ZCS Azzurro series PV inverters are small, robust, install friendly and available in multiple sizes between 3 and 6 kW.

Thanks to the wide input voltage range are easy to configure and suitable for both new installation and retrofit.

Through the multifunction graphic display all data is immediately available and the WiFi connection allows remote monitoring at no cost.



AzzurroZCS Technology

- Harvesting optimizing
- Integration with ZCS wifi platform for stable, effective and smart connectivity



High-yield

- Max 97,6% efficiency
- Flat efficiency curves: optimum performances in every working condition
- Real time precise MPPT algorithm for max harvest
- Double MPPT



Flexible, cost effective and easy to install solution

- IP 65 protection degree for both indoor and outdoor use
- Plug and play connections allow fast installation and maintenance
- Interface selection-Wi-Fi / RS485 / Dry Relay for more flexible configuration and system monitoring
- 4 inches graphic display



Reliability, Robustness, Flexibility

- Die casted, Rust-free, anti-UV aluminum covers
- Natural convection cooling
- Flexible monitoring solution
- 10 year warranty



Intelligent grid management

- Reactive power adjustable
- Self power reducer in case of over frequency
- Remote active/reactive power limit control



Ideal for Retrofit

- Wide input voltage operation range from 80V a 580V
- Compact size
- Easy installation and configuration
- Double MPPT

ZUCCHETTI
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DATA SHEET



Azzurro ZCS - Single-Phase String Inverter - 3000TLM/3680TLM/4000TLM/4600TLM/5000TLM/6000TLM

Technical Data	3000TLM	3680TLM	4000TLM	4600TLM	5000TLM	6000TLM
Input (DC)						
Rated Input Power	3100W	3800W	4160W	4800W	5200W	6300W
Max.DC power for single MPPT	2000(200V-500V)	2400(200V-500V)	2600(200V-500V)	3000(200V-500V)		3150(250V-520V)
Number of independent MPPT	2					
Number of DC inputs	1 for each MPPT					
Absolute Maximum input voltage	600V					
Start-up input voltage	100V	120V				
Rated Input voltage	360V					
MPPT voltage range	80V-580V	100V-580V				
Full load DC voltage range	160V-520V				175V-520V	250V-520V
Max.input MPPT current	10A/10A	12A/12A	13A/13A	15A/15A		
Max.input current per string	12A	14A	16A	18A		
Output (AC)						
Power Rated AC(@230V,50Hz)	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA
Max AC power	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA
Nominal AC voltage	L/N/PE, 220,230,240V					
AC voltage range (L-N)	180V-270V (According to local standard)					
Grid frequency range	47~53 / 57~63 Hz (According to local standard)					
Active power adjustable range	0~100%					
Max output current	13A	16A	17.5A	20A	22A	26A
THD	<3%					
Power factor	1 (adjustable +/- 0.8)					
Performance						
Max efficiency	97.6%					
Euro efficiency	97.1%/97.3%					
Self-consumption at night	<1W					
Feed-in start power	20W					
MPPT efficiency	>99.5%					
Protection						
DC reverse polarity protection	Yes					
DC switch	Optional					
Protection class/overvoltage category	I/III					
Input / Output MOV (III)	Yes					
Safety protection	Anti islanding, RCMU, Ground fault monitoring					
Certification	CE,CEI 0-21,CGC,AS4777,AS3100,VDE4105,C10-C11,G83/G59 (more available on request)					
Communication						
Power Management Unit	According to certification and request					
Standard Communication Mode	wifi (optional) + RS485 + SD card					
Operational Data Storage	25 years					
General data						
Ambient temperature range	-25°C...+60°C					
Isolation Level	Transformerless					
Degree of protection	IP65					
Allowable relative humidity range	0...95% no condensing					
Max operating altitude	2000m					
Sound Power level	<25db					
Weight	18kg				19kg	
Cooling	Natural					
Dimension (H x L x P)	344*478*170mm					
Warranty	10 years					



AS4777 G83/2 G59/3

CE, CEI 0-21, CQC, IEC, VDE-AR-N4105/VDE-0126, EMC, C10/11, EN50438, RD1669