

AZZURRO - THREE-PHASE STRING INVERTERS

50000TL/60000TL/70000TL



The **Three-phase ZCS Azzurro** inverters are the optimum solution for medium and large size PV systems for roof or ground installations.

The advanced ZCS technology makes the Azzurro series efficient, versatile and high-performing.

Wide input voltage range, triple MPPT channel, DC and AC switch, on board DC and AC surge protection devices make them easy to configure, suitable for all requirements, safe and robust.



AZZURRO ZCS TECHNOLOGY

- Performance optimisation
- WiFi integration on the ZCS platform for stable, effective and intelligent connectivity



MAXIMUM ENERGY EFFICIENCY

- Maximum performance 98.9%
- Stable efficiency in all working conditions
- Rapid and accurate MPPT algorithm
 - Triple input section with independent MPPT



A FLEXIBLE, ECONOMIC AND EASY INSTALLATION SOLUTION

- IP65 Protection rating
- Integrated string combiner with different configuration options
- Power Management Unit
 - 4" LCD display
- Updates and diagnostics through SD Card



RELIABILITY, STURDINESS AND FLEXIBILITY

- External enclosure in rust-proof, corrosion-proof and UV-ray proof aluminium
- Flexible and user-friendly management of operating parameters
- Optional class II power surge protection devices (AC and DC)
- Topology without transformer
 - 10 year ZCS warranty



INTELLIGENT GRID MANAGEMENT

- Dynamic management of delivery to the grid
- "Zero Delivery" grid function*
- Reactive output management feature
- Remote control over deliverable active/reactive output limit



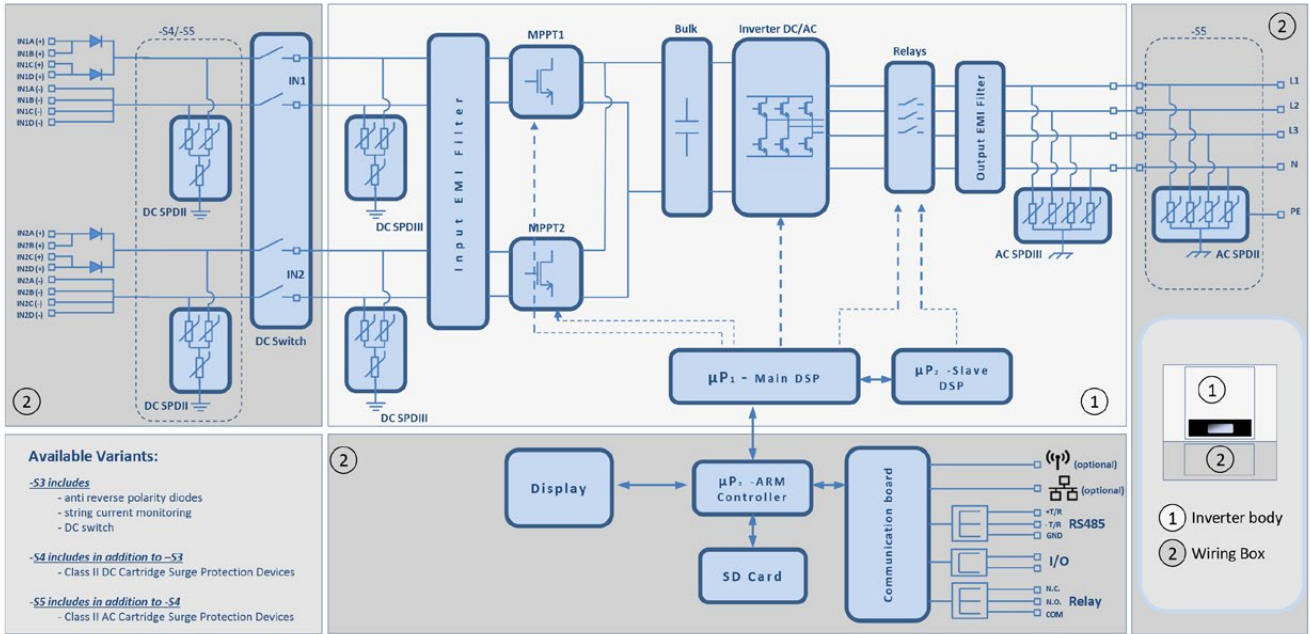
IDEAL FOR RETROFIT OPTIONS

- Wide operating input range from 250V to 960V also suitable for small size string systems
 - Compact size
- Simple and user-friendly installation and configuration
 - Triple MPPT channel



*Possible through current sensor (ZST-ACC-TA) and anti-reverse power controller (ZSM-OINJ)

FLOW CHART



TECHNICAL SPECIFICATIONS	50000TL	60000TL	70000TL
Input (DC)			
Typical photovoltaic plant power	60000W	70000W	80000W
Number of independent MPPTs		3	
Number of DC Inputs	2x3 + 1x4	3x4	3x4
Maximum Input Voltage		1000V	
Activation voltage		350V	
Rated Input Voltage	600V	600V	700V
MPPT DC Voltage range		250V-960V	
DC voltage range at full load	500V-800V	530V-800V	660V-800V
Max. Input current per MPPT	100A(40A/30A/30A)	120A(40A/40A/40A)	120A(40A/40A/40A)
Max. Input Current per String		12A	
Output (AC)			
Nominal AC power (@ 230V, 50Hz)	50000W	60000W	70000W
Maximum AC Power	50000VA	60000VA	70000VA
AC Rated Voltage	3/N/PE, 3/PE, 230/400V		3/N/PE, 277/480V o 3/PE, 277/480V
Rated AC Voltage Range	"180V-270V (According to the local network standard)"		"245V-305V (According to the local network standard)"
Mains frequency	47~53 / 57~63 Hz (According to the local network standard)		
Active Power Adjustment Range	0~100%		
Maximum AC Current	80A	90A	90A
Total current harmonic distortion	<3%		
Power factor	1 (adjustable +/- 0.8)		
Efficiency			
Maximum Efficiency	98.5%	98.6%	98.6%
Weighted efficiency (EURO)	98.3%	98.4%	98.4%
Night Consumption	<1W		
Power Supply Threshold	45W		
MPPT efficiency	>99.5%		
Protection			
Reverse Polarity Protection	Yes		
DC Switch/AC Switch	Integrated/Optional		
Protection rating /Surge Category	I/III		
Input/Output MOV (III)	Optional		
Safety Protection	Anti islanding, RCMU, Ground fault monitoring		
Certificates	CE,CEI 0-21,CEI 0-16,CQC,ZVRT,AS4777,AS3100,VDE4105,C10-C11,G59 (other certificates on request)		
Communication			
Power Management Unit	According to network requirements and certifications		
Standard Communication Mode	RS485, Wifi (optional), SD card, GPRS (optional), Ethernet		
Data storage	25 years		
General Information			
Ambient temperature	-25°C...+60°C		
Insulation level	Transformerless		
Protection rating	IP65		
Relative humidity	0...95% Without Condensation		
Maximum operating altitude	3000m		
Noise level	<60db@1m		
Weight	68kg	70kg	
Cooling system	Forced convection	Forced convection	Forced convection
Dimensions (H x W x D)	737*713*297mm		
Warranty	10 years		



AS4777 G83/2 G59/3

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