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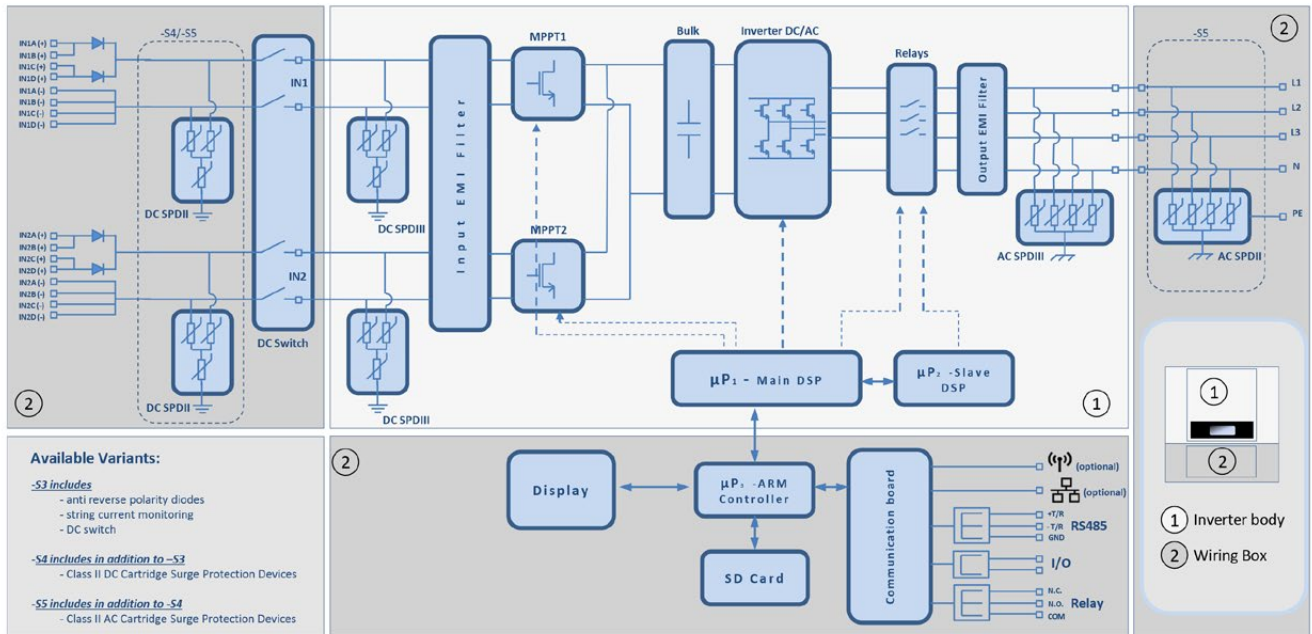
IDEAL FOR RETROFIT OPTIONS
- Wide operating input range from 250V to 960V also suitable for small size string systems
- Compact size
- Simple and user-friendly installation and configuration
- Triple MPPT channel

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

FLOW CHART

Available Variants:

-S3 includes
- anti reverse polarity diodes
- string current monitoring
- DC switch

-S4 includes in addition to –S3
- Class II DC Cartridge Surge Protection Devices

-S5 includes in addition to -S4
- Class II AC Cartridge Surge Protection Devices

① Inverter body
② Wiring Box

DATI TECNICI	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,CGC,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