

## AZZURRO - THREE-PHASE STRING INVERTER

80kTL/100kTL/110kTL



- Maximum performance up 99%
- Ingress Protection IP66
- Updates and diagnostics through USB or remotely
- Forced convection with speed controlled cooling
- Class II overvoltage protection devices (AC and DC)
- 10 years ZCS warranty
- Wide operating input range from 180V to 1000V for a better configuration flexibility
- Up to 10 independent MPPT channels



The ZCS Azzurro three-phase inverters are the best solution for medium and big-size photovoltaic systems, installed in commercial and industrial buildings or utility scale.

Thanks to the advanced technology developed by ZCS, Azzurro three-phase inverters are efficient, versatile and highly functional. They are easy to configure, safe and robust and able to adapt to every type of need, for both new installations and retrofitting of existing ones.



*Commercial*



*Industrial*

TECHNICAL DATA	80KTL	100KTL	110KTL
DC input data			
Maximum DC power	96000W	120000W	130000W
Maximum DC power for each MPPT	13000W		
No. Independent MPPTs/No. Strings per MPPT	8/2	10/2	
Maximum DC input voltage	1100V		
Start-up voltage	200V		
Nominal DC input voltage	600V		
MPPT DC voltage range	180V-1000V		
DC voltage range at full load	500V-850V		
Maximum input current for each MPPT	26A		
Maximum absolute current fro each MPPT	40A		
Maximum current per string*	15A		
AC output data			
Rated AC power	80kW	100kW	110kW
Maximum AC power	88kVA	110kVA	121kVA
Maximum AC current per phase	128A	160A	175A
Connection type/Nominal grid voltage	Trifase 3PH/N/PE,230V, 230V/400Vac, 220V/380Vac		
Grid voltage range	310Vac~480Vac (according to the local grid standards)		
Rated grid frequency	50Hz/60Hz		
Grid frequency range	45Hz~55Hz / 55Hz~65Hz (according to the local grid standards)		
Total harmonic distortion	<3%		
Power factor	1 (programmable +/-0.8)		
Active power adjustable range	0~100%		
Efficiency			
Maximum efficiency	98.6%	98.7%	98.75%
Weighted efficiency (EURO)	98.2%	98.3%	98.4%
MPPT efficiency	>99.9%		
Consumption at night	<1W		
Protections			
Internal interface protection	No		
Safety protections	Anti islanding, RCMU, Ground Fault Monitoring		
Reverse polarity protection DC	Yes		
DC circuit breaker	Integrated		
Overheating protection	Yes		
Overvoltage category/Protective class	Overvoltage category III / Protective class I		
Integrated discharger	AC/DC: Tipo 2 standard		
Standard			
EMC	EN 61000-6-2/4, EN 61000-3-11/12		
Safety standard	IEC 62109-1/2, IEC62116, IEC61727, IEC61683, IEC60068(1,2,14,30)		
Grid connection standard	AS/NZS 4777, VDE V0124-100, V0126-1-1, VDE-AR-N 4105, BDEW, CEI 0-21, CEI 0-16, UNE 206 007-1, EN50438/EN50549, G59, EN50530, NB/T32004		
Comunicazione			
Communication interfaces	Wi-Fi, GPRS, Ethernet (optional), RS485 (proprietary protocol)		
General information			
Allowable ambient temperature range	-30°C...+60°C (power limitation above 45°C)		
Topology	Transformerless		
Environmental protection class	IP66		
Allowable relative humidity range	0%.....100%		
Maximum operating altitude	4000m		
Noise level	< 60dB @ 1mt		
Weight	85kg	90kg	
Cooling	Forced convention with fans		
Dimensions (H*L*D)	693.5mm*995.5mm*368mm		
Display	Led indicators, bluetooth + app		
Warranty	10 years		

\* Models with more than two strings per MPPT have internal protection diodes, higher string currents than those reported may cause diode interruption.



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