

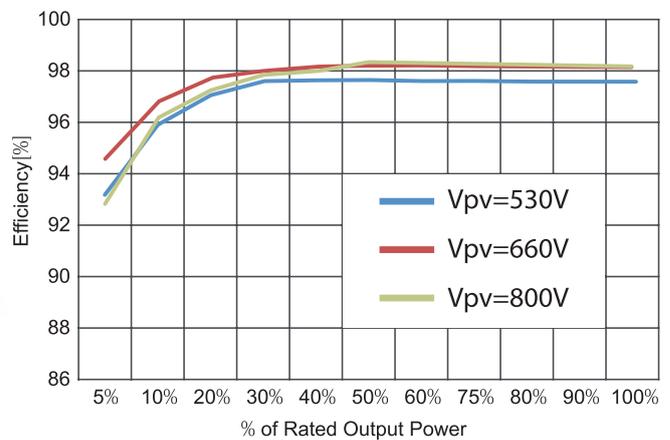
AZZURRO - THREE-PHASE STRING INVERTER

50000TL/60000TL/70000TL



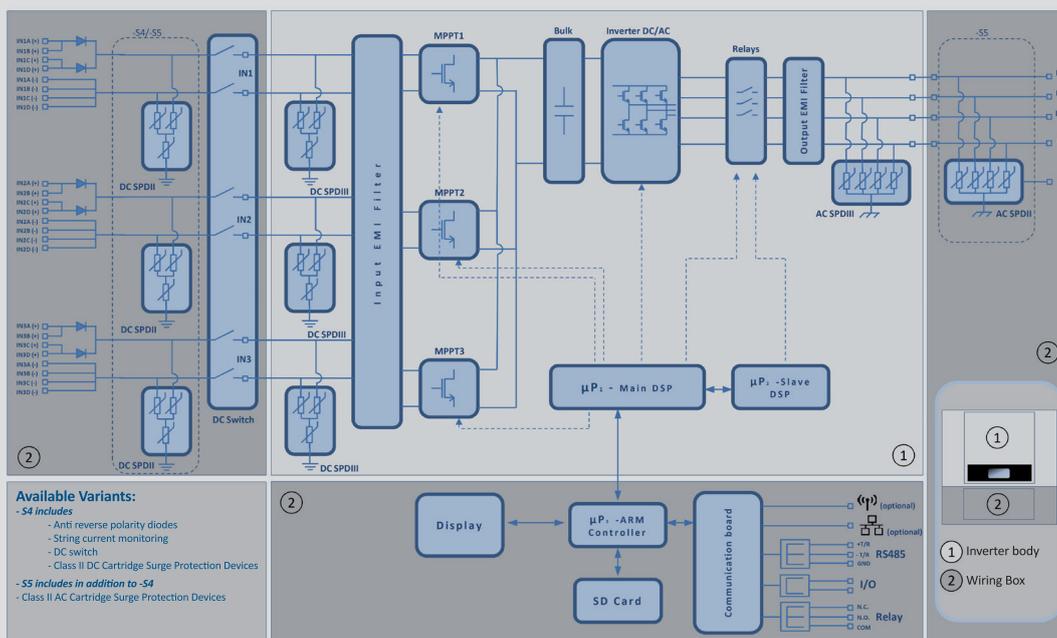
- Maximum performance 98.6 %
- Triple input section with independent MPPTs
- Integrated string combiner with different configuration options
- SD card for updates and diagnostics
- Optional Class II surge protection devices (AC and DC)
- 5 or 10 year ZCS warranty
- "Zero Grid Feed-in" functionality *
- Possibility to manage reactive power
- Wide operating input range from 250V to 960V also suitable for small string systems
- Triple MPPT channel

EFFICIENCY CURVE



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

FLOW CHART



TECHNICAL SPECIFICATIONS	50000TL	60000TL	70000TL
DC Input data			
Maximum DC Power	55000W	66000W	77000W
Maximum DC power for each MPPT	22000W (500V-800V)	22000W (530V-800V)	26000W (660V-800V)
No. of independent MPPTs / No. of strings per MPPT	3/(4/3/3)	3/(4/4/4)	
Maximum DC input voltage	1000V		
Start-up voltage	350V		
Nominal DC input voltage	600V	700V	
MPPT DC voltage range	250V-960V		
DC voltage range at full load	500V-800V	530V-800V	660V-800V
Maximum input current for each MPPT	40A/30A/30A	40A/40A/40A	
Maximum absolute current for each MPPT	48A/36A/36A	48A/48A/48A	
Maximum current per string**	15A		
AC Output data			
Rated AC power	50000W	60000W	70000W
Maximum AC power	50000VA	60000VA	70000VA
Maximum AC current per phase	80A	90A	
Connection type/Nominal grid voltage	Three-phase 3PH/N/PE, 220V, 230V, 240V/380V, 400V, 415V or Three-phase 3PH/PE, 220V, 230V, 240V/380V, 400V, 415V		Three-phase 3PH/N/PE, 277V/480V Three-phase 3PH/PE, 277V/480V
Grid voltage range	180V~270V (according to the local grid standards)		243V~304V (according to the local grid standards)
Rated grid frequency	50Hz/60Hz		
Grid frequency range	45Hz~53Hz / 57Hz~63Hz (according to the local grid standards)		
Total harmonic distortion	<3%		
Power factor	1 (Programmable +/-0.8)		
Active power adjustable range	0~100%		
Grid feed limit	Feed adjustable from zero to nominal power value*		
Efficiency			
Maximum efficiency	98.5%	98.6%	
Weighted efficiency (EURO)	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 dischargers	AC/DC MOV: Type 3 standard, optional AC/DC dischargers type 2 (only S5 models)		
Standard			
EMC	EN 61000-6-1/2/3/4,		
Safety standard	IEC 62116, IEC 61727, IEC 61683, IEC 60068-1/2/14/30, IEC 62109-1/2		
Grid connection standard	CE, CGC, ZVRT, AS 4777, AS 3100, VDE-AR-N 4105, EN50438, G83/2, G59/3, C10/11, CEI 0-21, CEI 0-16		
Communication			
Communication interfaces	Wi-Fi (Optional), RS485 (proprietary protocol), SD card		
Additional inputs or connections	I/O inputs for connection to anti-reverse power controller		
Data storage on SD	25 years		
General information			
Allowable ambient temperature range	-25°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	2000m		
Noise level	< 60dB @ 1mt		
Weight	68Kg	70Kg	
Cooling	Forced fan convection		
Dimensions (H x L x D)	737mm x 713mm x 297 mm		
Display	LCD		
Warranty	5 or 10 years		

* Possible by connecting anti-reverse power controller (ZSM-ZEROINJ)

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









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