

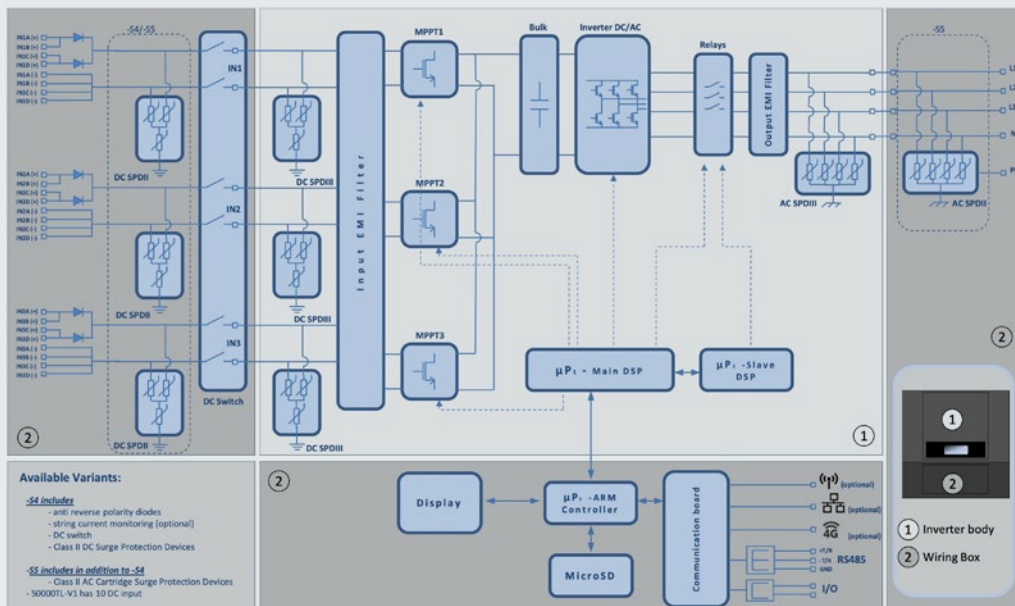
ZCS AZZURRO - THREE-PHASE STRING INVERTER

50000TL-V1/60000TL-V1



- » Maximum yield 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
- » 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-sized string systems

FLOW CHART



TECHNICAL DATA	3PH 50000TL-V1	3PH 60000TL-V1
DC Input data		
Typical DC power	55000 W	66000 W
Maximum DC power for each MPPT	22000W (500V-800V)	22000W (530V-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	
MPPT DC voltage range	250V-960V	
DC voltage range at full load	500V-800V	530V-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	50000 W	60000 W
Maximum AC power	50000VA	60000VA
Maximum AC current per phase	80A	90A
Connection type/Rated grid voltage	Three-phase 3PH/N/PE 220V/230V/240V (PH-N); 380V/400V/415V (PH-PH) or Three-phase 3PH/PE 380V/400V/415V (PH-PH)	
Grid voltage range	184V~276V (PH-N); 320V~480V (PH-PH) (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 adjustment range (settable)	0~100%	
Grid feed-in 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/Protection class	Overvoltage Category III / Protection class I	
Integrated dischargers	Type 3 AC/DC MOV Standard. Type 2 DC Dischargers Standard. Type AC Dischargers optional (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 W x D)	737mm x 713mm x 297mm	
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