

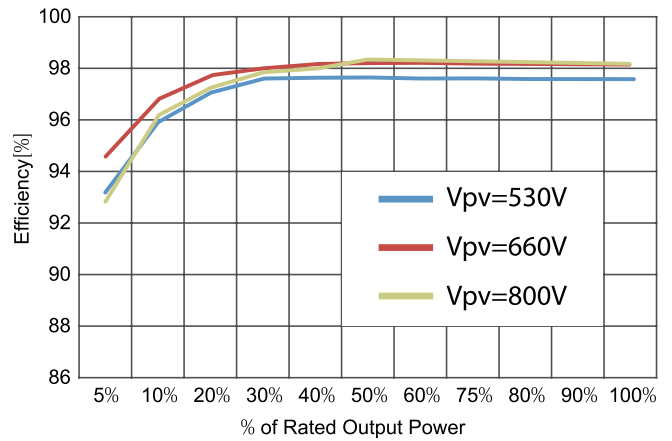
AZZURRO - THREE-PHASE STRING INVERTER

50000TL-V1/60000TL-V1/70000TL-V1



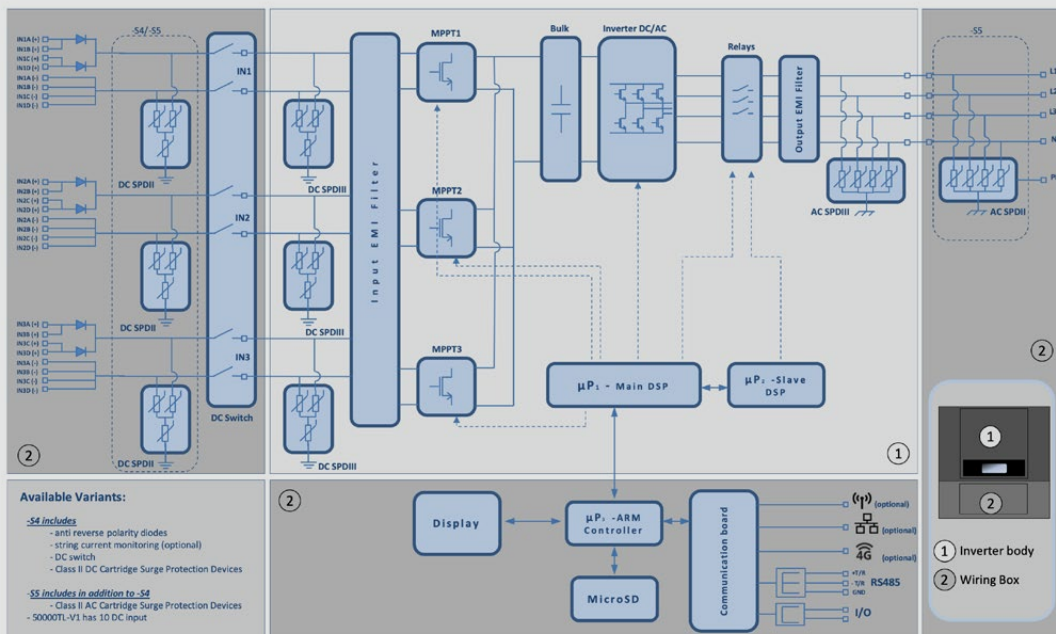
- Maximum performance 98.6 %
- Triple input section with independent MPPTs
- Integrated string combiner with different configuration options
- SD card for updates and diagnostics
- Optional Class II surge protection devices AC
- 5 or 10 year ZCS warranty
- "Zero Grid Feed-in" functionality *
- Possibility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

EFFICIENCY CURVE



* Possible through anti-reverse power controller (ZSM-ZEROINJ)

FLOW CHART



TECHNICAL DATA	3PH 50000TL-V1	3PH 60000TL-V1	3PH 70000TL-V1
DC input			
Typical DC power *	60000W	72000W	84000W
Maximum DC power on each MPPT	22000W/16000W/16000W (550V-800V)	22000W (550V-800V)	26000W (660V-800V)
Independent MPPTs/Strings each MPPT	3/(4/3/3)	3/(4/4/4)	
Maximum DC voltage	1000V		
Start-up voltage	350V		
Nominal DC voltage	600V		700V
MPPT range in DC	250V-950V		
Full power range in DC	530V-800V	660V-800V	660V-800V
Maximum DC input current each MPPT	40A/30A/30A	40A/40A/40A	
Maximum absolute DC input current each MPPT	48A/36A/36A	48A/48A/48A	
Maximum current each string***	12A		
AC output			
Nominal AC Power	50000W	60000W	70000W
Maximum AC Power	50000VA	60000VA	70000VA
Maximum AC current each phase	80A	90A	
Type of connection/Nominal AC 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)		Three phase 3PH/N/PE 277V(PH-N); 480V (PH-PH) Three phase 3PH/PE 480V (PH-PH)
AC voltage range	184V~276V (PH-N); 320V~480V (PH-PH) (according to local standards)		243V~304V (PH-N); 420~526V (PH-PH) (according to local standards)
Nominal AC frequency	50Hz/60Hz		
AC frequency range	45Hz~55Hz / 54Hz~66Hz (according to local standards)		
Total Harmonic Distortion (THD)	<3%		
Power factor	1 (set +/-0.8)		
Active power adjustability range	0~100%		
Active power grid injection	Possible to adjust from 0 to nominal AC power **		
Efficiency			
Maximum Efficiency	98.5%	98.6%	
Euro efficiency	98.3%	98.4%	
Efficiency MPPT	>99.9%		
Night time consumption	<1W		
Protections			
Internal interface protection	No		
Safety protections	Anti islanding, RCMU, Ground Fault Monitoring		
DC reverse polarity protection	Yes		
DC switch	Integrated		
Overheating protection	Yes		
Overvoltage category/Protection class	Overvoltage Category III / Protective class I		
Integrated dischargers	AC/DC MOV: Type 3 standard Optionals AC Type 2 (only for models -S5)		
Standards			
EMC	EN 61000-6-2/4/11/12,		
Safety standards	IEC 62116, IEC 61727, IEC 61683, IEC 60068-1/2/14/30, IEC 62109-1/2		
Grid standards	Grid standards and certificates available on www.zcsazzurro.com		
Communication			
Interfaces	Wi-Fi/4G/Ethernet (optionals), RS485 (proprietary protocol), SD card		
Additional I/O	I/O inputs for Antireverse power controller device		
SD card data storage	25 years		
Environmental data			
Temperature working range	-25°C...+60°C (power derating over 45°C)		
Topology	Transformerless		
Environmental protection degree	IP65		
Humidity range	0%....95% no condensing		
Maximum operative altitude	4000m		
Acoustic noise	< 60dB @ 1mt		
Weight	68Kg	70Kg	
Cooling system	FANS cooled		
Dimensions (H*L*P)	737mm*713mm*297 mm		
Display	LCD		
Warranty	10 years		

* Typical Dc power is not an absolute maximum rating. Online configurator available on www.zcsazzurro.com will guide the user on valid and possible configurations

** Possible using Antireverse Power Controller (ZSM-ZEROINJ)

*** Models with more than one string connectable each MPPT have internal protection diodes, currents higher than the limits could cause the failure of the diodes.