

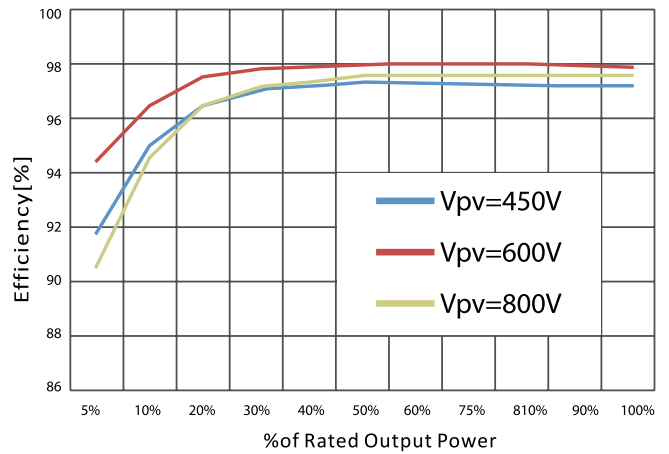
AZZURRO - THREE-PHASE STRING INVERTER COMPACT SERIES

20000TL-V2/25000TL-V2
30000TL-V2/33000TL-V2



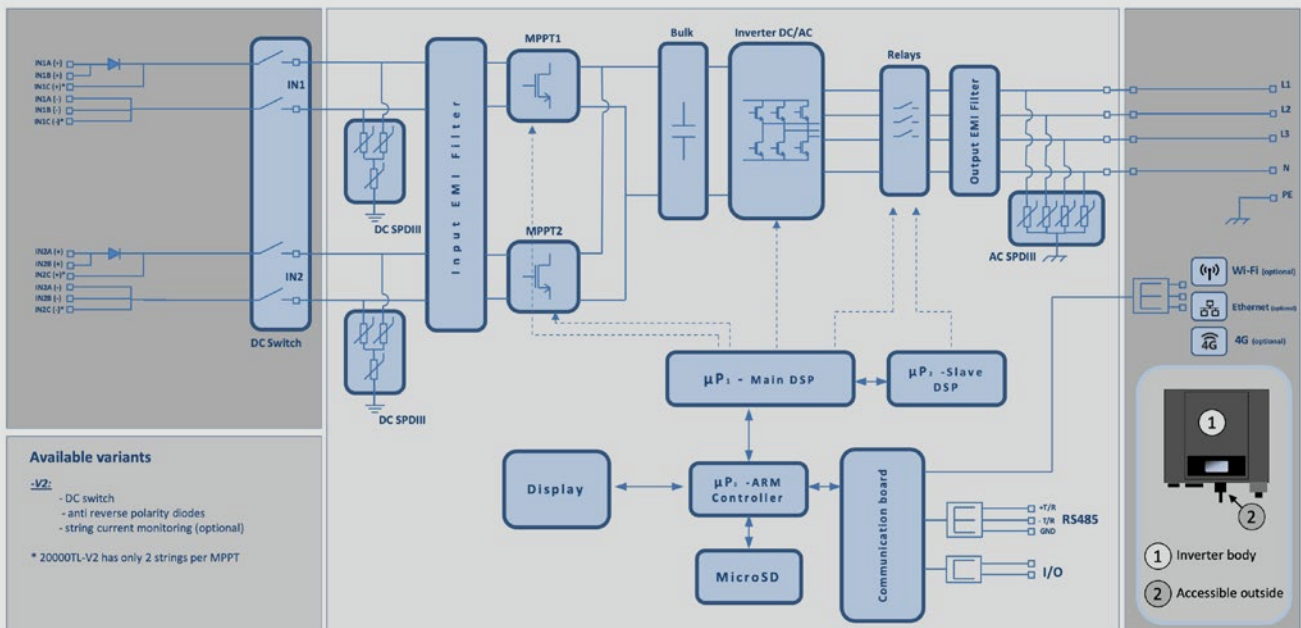
- Maximum performance 98.6%
- Dual input section with independent MPPTs
- Fast connection without the need to access internal parts
- Updates and diagnostics through SD card
- 5 or 10 year ZCS warranty
- "Zero Grid Feed-in" functionality *
- Wide operating input range from 230V to 950V also suitable for small string systems

EFFICIENCY CURVE



*Possible through current sensor (ZSM-ZEROINJ)

FLOW CHART



TECHNICAL DATA	3PH 20000TL-V2	3PH 25000TL-V2	3PH 30000TL-V2	3PH 33000TL-V2
DC input				
Typical DC power *	24000W	30000W	36000W	39600W
Maximum DC power on each MPPT	13000W	16000W	18000W	20000W
Independent MPPTs/Strings each MPPT	2/2	2/3		
Maximum DC voltage	1100V			
Start-up voltage	250V			
Nominal DC voltage	620V			
MPPT range in DC	230V-950V			
Full power range in DC	480V-850V	460V-850V	520V-850V	580V-850V
Maximum DC input current each MPPT	24A/24A	28A/28A	30A/30A	
Maximum absolute DC input current each MPPT	30A/30A	35A/35A	37.5A/37.5A	
Maximum current each string***	-	12A		
AC output				
Nominal AC Power	20000W	25000W	30000W	33000W
Maximum AC Power	22000VA	27500VA	33000VA	36300VA
Maximum AC current each phase	32A	40A	48A	53A
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)			
AC voltage range	184V~276V (PH-N); 310V~480V (PH-PH) (according to local standards)			
Nominal AC frequency	50Hz/60Hz			
AC frequency reange	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	98.2%	98.4%		98.6%
Euro efficiency	98%	98.2%		
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			
Standards				
EMC	EN 61000-6-1/2/3/4,			
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	2000m			
Acoustic noise	< 30dB @ 1mt	< 45dB @ 1mt		
Weight	37Kg			
Cooling system	Natural cooled	FANs cooled	Convezione forzata da ventole	Convezione forzata da ventole
Dimensions (H*L*P)	666mm*512mm*254mm			
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.