

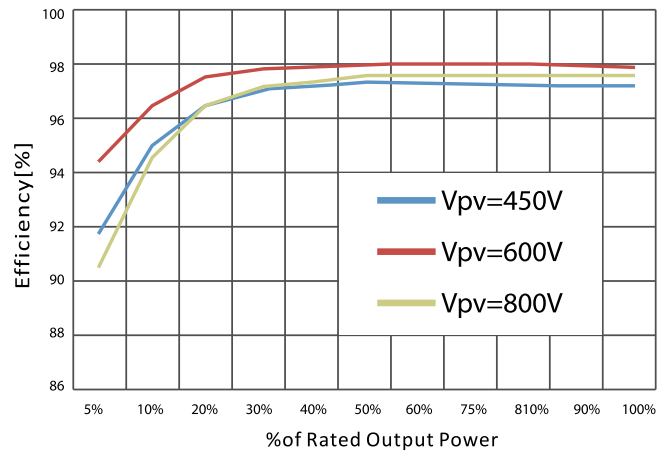
AZZURRO - THREE-PHASE STRING INVERTER COMPACT SERIES

3.3KTL-V1/4.4KTL-V1/5.5KTL-V1/6.6KTL-V1
8.8KTL-V1/11KTL-V1/12KTL-V1



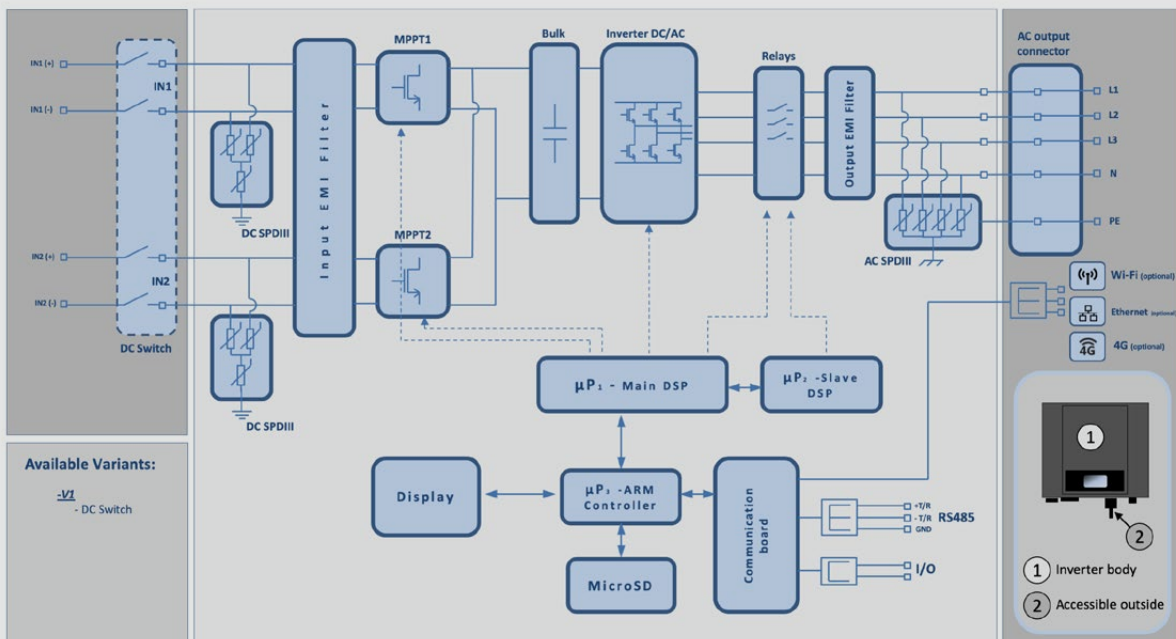
- Maximum performance 98.3%
- Dual input section with independent MPPTs
- Fast connection without the need to access internal parts
- 5 or 10 year ZCS warranty
- "Zero Grid Feed-in" functionality *
- Possibility to manage reactive power
- Wide operating input range from 160V to 960V also suitable for small string systems

EFFICIENCY CURVE



*Possible through current sensor (ZSM-ZEROINJ)

FLOW CHART



TECHNICAL DATA	3PH 3.3KTL-V1	3PH 4.4KTL-V1	3PH 5.5KTL-V1	3PH 6.6KTL-V1	3PH 8.8KTL-V1	3PH 11KTL-V1	3PH 12KTL-V1
DC input							
Typical DC power *	3960W	5280W	6600W	7920W	10560W	13200W	14400W
Maximum DC power on each MPPT	3550W (320V-850V)	4500W (410V-850V)	5700W (520V-850V)	6250W (570V-850V)	6200W (560V-850V)		6850W (620V-850V)
Independent MPPTs/Strings each MPPT	2/1						
Maximum DC voltage	1000V						
Start-up voltage	200V						
Nominal DC voltage	600V						
MPPT range in DC	160V-960V						
Full power range in DC	160V-850V	190V-850V	240V-850V	290V-850V	380V-850V	480V-850V	575V-850V
Maximum DC input current each MPPT	11A/11A						
Maximum absolute DC input current each MPPT	14A/14A						
AC output							
Nominal AC Power	3000W	4000W	5000W	6000W	8000W	10000W	12000W
Maximum AC Power	3300VA	4400VA	5500VA	6600VA	8800VA	11000VA	13200VA
Maximum AC current each phase	4.8A	6.4A	8.0A	9.6A	12.8A	15.9A	19.1A
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%			98.3%			
Euro efficiency	97.5%			98%			
Efficiency MPPT	>99.9%						
Night time consumption	<1W						
Protections							
Internal interface protection	Yes						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	< 29dB @ 1mt						
Weight	21Kg			22Kg			
Cooling system	Natural cooled						
Dimensions (H*L*P)	457mm*452mm*202mm						
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)