



SINGLE-PHASE HYBRID INVERTER



Complete certification,
Reliable performance



Multiple circuit protections for overvoltage,
overload and overtemperature



Compatible with lead-acid
and lithium-ion battery



Convenient installation
and easy maintenance



Low noise operation



Power switching time <20ms

Technical specification						
Technical specification	ZL-13L1-EU	ZL-136L1-EU	ZL-14L1-EU	ZL-146L1-EU	ZL-15L1-EU	ZL-16L1-EU
Input (PV)						
Max. power(kW)	4.6	4.6	6	6	7	7
Max. DC voltage (V)	550					
MPPT voltage range(V)	125~500					
Max.Input current of single MPPT(A)	14					
MPPT tracker/strings	1/2					
AC output						
Rated output power(kVA)	3	3.6	4	4.6	5	6
Ac output voltage(V)	13	16	17.4	20	21.7	26
Max. output current(A)	230/176~270					
Frequency (Hz)	50 /60					
PF	0.99lagging-0.99leading					
THDi	<2%					
AC output topology	L+N+PE					
Battery						
Battery voltage range(V)	40~58					
Max. charging voltage(V)	58					
Max. charge/discharge current(A)	95/62.2	95/75	95/83.3	95/95.8	95/104.2	95/110
Battery type	lithium /Lead-acid					
Communication interface	CAN/RS485					
EPS output						
Rated power(kVA)	3	3.68	4	4.6	5	6
Rated output voltage(V)	230					
Rated current(A)	13	16	17.4	20	21.7	26
Rated frequency(Hz)	50 /60					
Automatic switching time(ms)	<20					
THDu	<2%					
Overload capacity	110%, 30S/120%, 10S/150%, 0.02S					
General data						
Battery charge/discharge efficiency	95.00%					
DC Max. efficiency	97.6%					
Europe efficienc	97.00%					
MPPT efficiency	99.9%					
Ingress protection	IP65					
Noise emission(dB)	<40					
Operation temperature	- 25°C~60°C					
Cooling	Natural					
Relative Humidity	0 ~95%(non-condensing)					
Altitude	2,000m (>2,000 Derating)					
Dimensions W*D*H (mm)	550*200*515					
Weight(kg)	25					
Isolation transformer	No					
Self-consumption(W)	<3					
Display and communication						
Display	LCD					
Interface:RS485/Wifi/4G/	Yes/ Opt/ Opt/ Yes/ Yes					
Safety standard	IEC/EN62109-1/-2, IEC/EN62477-1					
EMC	IEC/EN 61000-6-1, IEC/EN 61000-6-3					
On-grid	EN5054-1, CEI-21, G98, G99, VDE4105					