

# TECHNICAL DATA

## QUANTUM ENERGY STORAGE INVERTER

	INVERTER+LITHIUM ION BATTERIES		
MODEL	QSI-3K-SINGLE	QSI-3.7K-SINGLE	QSI-5K-SINGLE
<b>PV INPUT</b>			
Max. recommended DC Power [W]	3300	4000	5000
Max. DC Voltage [V]	550		
Nominal DC operating Voltage [V]	360		
MPPT voltage range [V]	125-530		
Max. input current [A]	12	12/12	12/12
Max. short circuit current [A]	15	15/15	15/15
No. of MPP trackers	1	2	2
Strings per MPP tracker	1		
<b>STAND BY AC INPUT/ AC OUTPUT</b>			
Input voltage	230/400 V; 50HZ/60HZ 3 Phase(3 Ph Compensation)		
Grid configuration	TN- C, TN- S, TT		
Rated operating current (single phase) A	63		
Rated operating current (3 phase) A	40		
<b>EPS OUTPUT WITH BATTERY</b>			
EPS rated power [VA]	2000	4000	
EPS rated voltage [V] Frequency [Hz]	230 VAC 50/60Hz		230 VAC 50/60Hz
EPS rated current [A]	8.7	17.3	
EPS peak power [VA]	1.5 x rated power , 10s		1.5 x rated power , 10s
Total harmonic distortion (THD)	<3%		<3%
Switch time (S)	<5		<5
<b>INVERTER OUTPUT</b>			
Nominal AC Power [W]	3000	3680	4600
Nominal AC voltage; range [V]	230VAC 50/60HZ; 180~270VAC; 1 Ph		
Nominal AC current [A]	13	16	20
Max. AC current [A]	14.4	16	22.1
Total harmonic distortion (THD)	<3%		
Power factor (rated power)	1		
Displacement power factor	0.90 leading... 0.90 lagging		
<b>EFFICIENCY</b>			
MPPT Efficiency	0.999		
Inverter Efficiency	0.976		
Charge/ Discharge Efficiency	0.94		
<b>BATTERY DATA</b>			
Normal voltage	48		
Storage capacity	Up to 14.4kWh (adjustable)		
Battery Type	Lithium		
DOD	80%		
Cycle life	4500		
<b>HMI INTERFACE</b>			
LCD	7" touch LCD		
Communication	Ethernet/Dry Contact(optional)/WIFI/meter(optional)		
<b>DIMENSIONS</b>			
L x W x H [mm]	1315*830*770		
Weight [Kg]	200 (without 6 batteries)		
<b>ENVIRONMENT LIMITS</b>			
Degree of protection	IP20 ( for indoor use)		
EMC	IE C61000-6-2, IEC62109-6-3 , IEC61000-3-2/-3-12, IEC61000-3-3/-3-11		
Safety	IEC62109-1, IEC62109-2, IEC62040-1		
Topology	Transformerless		
Warranty	5 years (standard); 10 years (extendable)		
<b>OTHERS</b>			
Operating temperature range [°C] (inverter)	-10~+50 (derating at 40)		
Operating temperature range [°C] (Battery)	-10~+50		
Storage stability range [°C]	-20~+60		
Altitude [m]	<2000		
Cooling concept	Forced airflow		
Noise emission (typical) [dB]	<40		