

TBEA

TH4/5/6/8K-SLA01

Single Phase Hybrid Inverter
Operation With Low-voltage Battery



High Power Generation

- 60V start-up voltage
- Wide range of MPPT voltage

Safe and Reliable

- <10ms UPS-level switching
- Easy setting of smart working modes

Intelligent O&M

- Remote diagnosis & update
- 24-hour intelligent energy management

Technical Datasheet

Model	TH4K-SLA01	TH5K-SLA01	TH6K-SLA01	TH8K-SLA01
Max input power	6kW	7.5kW	12kW	16kW
Max input voltage			550V	
Rated voltage			300V	
Start-up voltage			60V	
MPPT voltage range			90-450V	
Max input current	10A/5A			15A/10A
Max input circuit current	20A/10A			40A/20A
MPPT number	2			2
Max input string number	2			4
Input Battery				
Battery type	Lithium-Iron-Polymer			
Battery voltage range	40-60V			
Number of battery input channels	1			
Max charge/discharge current	10A			
Communication	CAN/RS485			
Charging Strategy for Li-Ion Battery	Self-adaptation to BMS			
Output AC (Grid side)				
Rated output power	4kW	5kW	6kW	8kW
Max. apparent output power	4.5kVA	5.5kVA	6.5kVA	8.5kVA
Max. rated current	15A	21.7A	26.3A	34.5A
Max. output current	16A	23.0A	28.7A	38.5A
Grid voltage range	160-300V			
Rated grid voltage	190V/220V/230V			
Rated grid frequency	50/60Hz			
Power factor	±0.99 (0.9 leading) - 0.9 lagging			
THDv	<3%			
Input AC (Grid side)				
Rated input power	4kW	5kW	6kW	8kW
Max. input power	4.5kW	5.5kW	6.5kW	8.5kW
Max. apparent input power	4.5kVA	5.5kVA	6.5kVA	8.5kVA
Max. input current	15A	21.7A	26.3A	34.5A
Rated input voltage	190V/220V/230V			
Rated input frequency	50/60Hz			
Output AC (Back-up)				
Rated output power	4kW	5kW	6kW	8kW
Max. output current	15A	21.7A	26.7A	35.5A
Max. load power	2 times of rated power, 30s			
Back-up switch time	4ms			
Rated output voltage	220V/230V			
Rated frequency	50/60Hz			
THDv	<3%			
Efficiency				
Max. Efficiency	97.5%			
EU Efficiency	96.5%			
MPPT Efficiency	99.5%			
Protection				
Integrated DC switch	Yes			
DC reverse-polarity protection	Yes			
Anti-islanding protection	Yes			
Short circuit protection	Yes			
Output over-current protection	Yes			
DC Surge protection	Type II			
AC Surge protection	Type II			
Insulation impedance detection	Yes			
Ground Fault Monitoring	Yes			
Residual-charge current detection	Yes			
Temperature protection	Yes			
AC Over-voltage Protection	Yes			
DC Over-current Protection	Yes			
24-hour fault monitoring	Yes			
Integrated AFCI, EIC, arc-fault protection	Optional			
Anti-backflow	Yes			
Reset	Yes			
General Data				
Dimensions (W*H*D)	100*400*120mm			
Weight	25kg			
Self-consumption (grid) (standby charge)	<0.5%			
Operating temperature range	-40 to +40°C			
Cooling method	Smart fan-cool or Cooling			
Max. operation altitude	3000m			
Relative humidity	0-100%			
Ingress protection	IP66			
Topology Structure	Transformerless			
Grid connection standard	IEC 61739-1, IEC 61739-2, IEC 61739-3			
Safety/EMC standard	IEC 61000-4-1, IEC 61000-4-2, IEC 61000-4-30, IEC 61000-4-31, IEC 61000-4-41, IEC 61000-4-42, IEC 61000-4-43, IEC 61000-4-44, IEC 61000-4-45, IEC 61000-4-46, IEC 61000-4-47, IEC 61000-4-48, IEC 61000-4-49, IEC 61000-4-50, IEC 61000-4-51, IEC 61000-4-52, IEC 61000-4-53, IEC 61000-4-54, IEC 61000-4-55, IEC 61000-4-56, IEC 61000-4-57, IEC 61000-4-58, IEC 61000-4-59, IEC 61000-4-60, IEC 61000-4-61, IEC 61000-4-62, IEC 61000-4-63, IEC 61000-4-64, IEC 61000-4-65, IEC 61000-4-66, IEC 61000-4-67, IEC 61000-4-68, IEC 61000-4-69, IEC 61000-4-70, IEC 61000-4-71, IEC 61000-4-72, IEC 61000-4-73, IEC 61000-4-74, IEC 61000-4-75, IEC 61000-4-76, IEC 61000-4-77, IEC 61000-4-78, IEC 61000-4-79, IEC 61000-4-80, IEC 61000-4-81, IEC 61000-4-82, IEC 61000-4-83, IEC 61000-4-84, IEC 61000-4-85, IEC 61000-4-86, IEC 61000-4-87, IEC 61000-4-88, IEC 61000-4-89, IEC 61000-4-90, IEC 61000-4-91, IEC 61000-4-92, IEC 61000-4-93, IEC 61000-4-94, IEC 61000-4-95, IEC 61000-4-96, IEC 61000-4-97, IEC 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