



TT-LCT SERIES

Low-Voltage Residential Battery Systems

Four scalable 51.2 V battery models for residential solar storage, selected backup applications and distributor or private-label programs.

	Model range TT-LCT-5 / TT-LCT-10 / TT-LCT-16 / TT-LCT-20 Nominal energy 5.12-20.992 kWh Communication CAN / RS485 Scalability Up to 15 batteries in parallel
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Product format and included accessories depend on the selected model and confirmed quotation. Inverter compatibility and destination-market documents must be checked for the exact order configuration.

Performance Specifications

Specifications are based on the current approved technical data for the TT-LCT series. Final order configuration and contractual documents shall prevail.

Specification	TT-LCT-5	TT-LCT-10	TT-LCT-16	TT-LCT-20
Nominal voltage	51.2 V	51.2 V	51.2 V	51.2 V
Cell configuration	3.2 V 100 Ah / 16S1P	3.2 V 206 Ah / 16S1P	3.2 V 314 Ah / 16S1P	3.2 V 205 Ah / 16S2P
Capacity	100 Ah	206 Ah	314 Ah	410 Ah
Nominal energy	5.12 kWh	10.55 kWh	16.08 kWh	20.992 kWh
Available energy at 90% DOD	4.61 kWh	9.49 kWh	14.47 kWh	18.89 kWh
Max. charge / discharge current	100 A	100 A	150 A	200 A
Voltage range	44.8-57.6 V	44.8-57.6 V	44.8-57.6 V	44.8-57.6 V
Scalability	Up to 15 parallel	Up to 15 parallel	Up to 15 parallel	Up to 15 parallel
Communication	CAN / RS485	CAN / RS485	CAN / RS485	CAN / RS485
Cycle life at 25°C, 80% DOD	>=6,000	>=6,000	>=8,000	>=6,000
Standard warranty	5 years	5 years	5 years	5 years
Extended warranty	Written confirmation	Written confirmation	Written confirmation	Written confirmation
Design life at 25°C	>=15 years	>=15 years	>=15 years	>=15 years

Cycle-life reference uses 25°C, 80% DOD and the stated test conditions. Battery cell life is a standard reference value, not a guarantee of service life. Standard warranty is 5 years; any extension and applicable terms require written confirmation.

Physical and Environmental Specifications

Specification	TT-LCT-5	TT-LCT-10	TT-LCT-16	TT-LCT-20
Weight	55 kg	98 kg	128 kg	180 kg
Dimensions (W × D × H)	400 × 204 × 700 mm	460 × 288 × 640 mm	460 × 288 × 800 mm	650 × 265 × 955 mm
Installation	Wall / ground	Wall / ground	Wall / ground	Ground only
IP rating	IP54	IP54	IP54	IP21
Protection	BMS	BMS	BMS	BMS and breaker
Operating temperature	Charge 0-50°C / Discharge -10-50°C	Charge 0-50°C / Discharge -10-50°C	Charge 0-50°C / Discharge -10-50°C	Charge 0-50°C / Discharge -10-50°C
Altitude	<=2,000 m	<=2,000 m	<=2,000 m	<=2,000 m
Humidity	<=90%, non-condensing	<=90%, non-condensing	<=90%, non-condensing	<=90%, non-condensing

Documentation and Compliance

Available document packages may include UN38.3, MSDS and model-dependent safety or EMC evidence. Certification applicability must be verified against the exact model, configuration, manufacturing source and destination market before any compliance claim is made.

Document Control

DOCUMENT NO.	TT-LCT-DS-EN
REVISION	Rev. 1.1
ISSUE DATE	2026-07-21
APPLICABLE MODELS	TT-LCT-5 / TT-LCT-10 / TT-LCT-16 / TT-LCT-20

Buyer Information Required

For a focused quotation, provide the destination country, intended inverter brand and model, preferred battery capacity, installation format, expected quantity, required certifications, OEM/ODM requirements and purchase schedule.

Available upon model confirmation: cell chemistry; recommended charge and discharge current; continuous power and peak-current duration; terminals and communication connectors; supported protocols; inverter compatibility; self-discharge; storage temperature; transport SOC; heating option; display; included accessories; same-model parallel rules; and model-specific certification evidence.

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