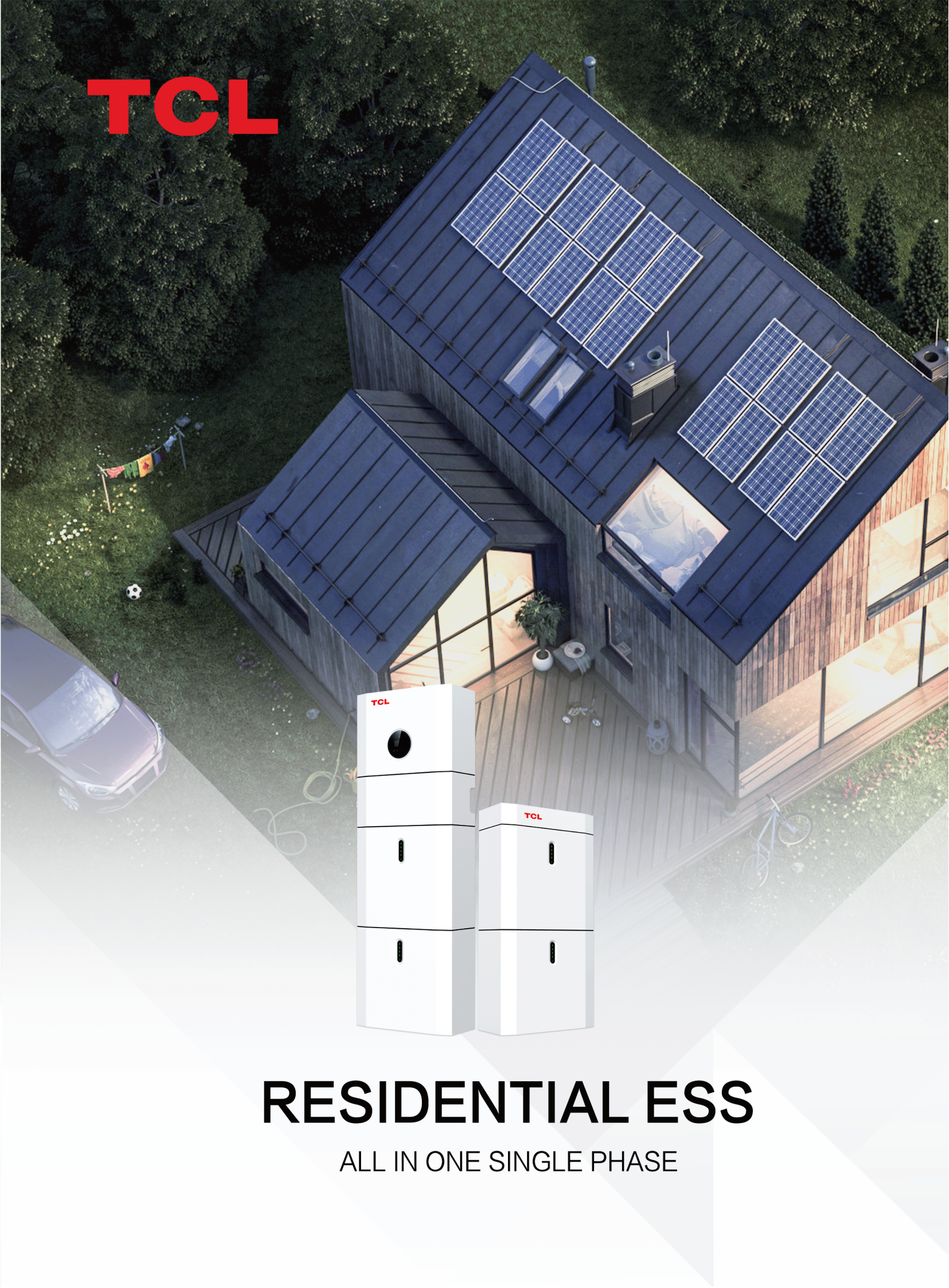


TCL



RESIDENTIAL ESS

ALL IN ONE SINGLE PHASE



SAFE AND RELIABLE

- CATL LFP cells, long cycle life with proven performance
- Module, pack and system, 3-level safety protection
- IP65 certification



SIMPLE AND FLEXIBLE

- Modular battery design, combining up to 20.48kwh of storage (5.12kwh per battery)
- AC and DC coupling, working for new installation or retrofit
- Compact, easy to install



OUTAGE BACK UP

- Emergency energy use in the event of a grid failure



INTELLIGENT MANAGEMENT

- Visualize energy flow
- Monitor and optimize energy use
- Easy to setup and connect



Battery Model		TCL-RL-B5K	
Physical			
Battery type	LFP (LiFePO4)	Operation	
Weight	54kg	Max. Charge/Discharge Current	50A/80A
Dimension (W x H x D)	540 x 490 x 240mm	Rated DC power	4096W
IP Protection	IP65	Max. Charge/Discharge Power	2825W/4096W
Warranty	5 Years Product Warranty, 10 Years Performance Warranty	Operating Temperature Range	-10°C to +50°C charging -10°C to +50°C discharging
Electrical			
Energy Capacity	5.12kwh	Humidity	0-95% (No condensation)
Usable Capacity	4.6kwh	BMS	
Depth of Discharge (DoD)	90%	Modules Connection	Max. 4
Nominal Voltage	51.2V	Capacity	100-400Ah
DC Circuit Breaker	125A	Power Consumption	<2W
Operating Voltage Range	44.8-56.5V	Communication	CAN & RS485
Internal Resistance	<20mΩ	Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Cycle Life	10000 cycles	Certificate	
		Safety(Cell)	Pack: IEC/EN 62619;UN38.3 Cell: IEC/EN 62619;UN38.3;UL1973

Hybrid Inverter Model		TCL-RSL-5K	
PV String Input			
Max. DC Voltage		580V	
Nominal Voltage		400V	
MPPT Voltage Range		80V-560V	
Start Voltage		130V	
Number of MPPT Tracker		2	
Strings Per MPPT Tracker		1	
Max. Input Current Per MPPT		15A	
Max. Short-circuit Current Per MPPT		18A	
AC Output (Grid)			
Nominal AC Output Power		5000W	
Max. AC Apparent Power		7360VA (from grid)	
Max. AC Output Power		5000W ¹	
Nominal AC Voltage		230Vac	
AC Grid Frequency Range		50 / 60Hz ± 5Hz	
Max. Output Current		22A ²	
Max. Input Current		32A	
Power Factor (cosΦ)		0.8leading-0.8lagging	
THDi		<3%	
Battery Input			
Battery Type		LFP (LiFePO4)	
Nominal Battery Voltage		48V	
Charging Voltage Range		40-60V	
Max. Charging Current		100A	
Max. Discharging Current		100A	
Battery Capacity		100-400Ah	
Charging Strategy for Li-ion Battery		Depend on the BMS	
AC Output (Backup)			
Max. Output Apparent Power		5000VA	
Peak Output Apparent Power		6900VA 10sec	
Max. Output Current		20A	
Nominal Output Voltage		230V	
Nominal Output Frequency		50/60Hz	
Output THDv (@Linear Load)		<3% (Linear Load)	
Efficiency			
Max. PV Efficiency		97.6%	
Euro. PV Efficiency		97.0%	
Protection			
DC Switch		Bipolar DC Switch (125A/Pole)	
Anti-islanding Protection		Yes	
Output Over Current		Yes	
DC Reverse Polarity Protection		Yes	
String Fault Detection		Yes	
AC/DC Surge Protection		DC Type II;AC Type III	
Insulation Detection		Yes	
AC Short Circuit Protection		Yes	
General Specifications			
Dimensions W x H x D		540*590*240mm	
Weight		32kg	
Operating Temperature Range		-25°C~+60°C	
Noise (dB)		<25	
Cooling Type		Natural Convection	
Max. Operation Altitude		2000m	
Operation Humidity		0-95% (No Condensation)	
IP Class		IP65	
Topology		Battery Isolation	
Communication		RS485/CAN2.0/WIFI/4G	
Display		LCD/APP	
Certification & Standard		IEC/EN 62109-1&2;IEC/EN61000-6-1;IEC/EN61000-6-2;EN61000-6-3; IEC/EN61000-6-4;IEC/EN61000-3-11; EN61000-3-12;IEC60529;IEC 60068;IEC61683;IEC62116;IEC61727;EN50549-1; AS 4777.2;NRS 097;VDE-AR-N-4105;CEI0-21;G98;G99;C10/C11	

*1. Nominal AC output power is 4999W for Australia and 4600W for Germany and South Africa.

*2. Maximum output current is 21.7A for Australia and 20A for Germany and South Africa.

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TCL PHOTOVOLTAIC TECHNOLOGY



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