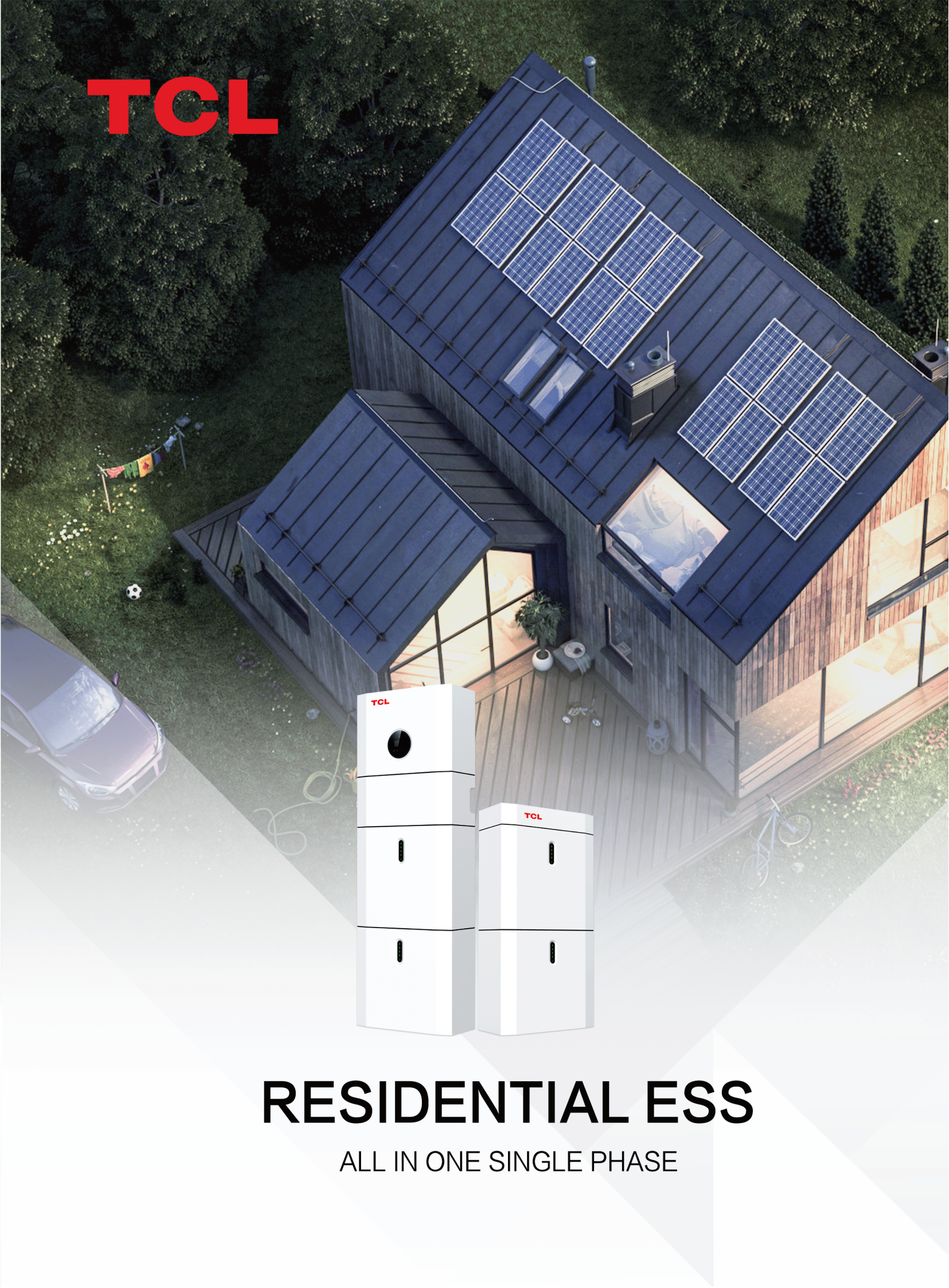


**TCL**



# 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	
<b>Physical</b>			
Battery type	LFP (LiFePO4)	<b>Operation</b>	
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
<b>Electrical</b>			
Energy Capacity	5.12kwh	Humidity	0-95% (No condensation)
Usable Capacity	4.6kwh	<b>BMS</b>	
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	<b>Certificate</b>	
		Safety(Cell)	Pack: IEC/EN 62619;UN38.3 Cell: IEC/EN 62619;UN38.3;UL1973

Hybrid Inverter Model		TCL-RSL-5K	
<b>PV String Input</b>			
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	
<b>AC Output (Grid)</b>			
Nominal AC Output Power		5000W	
Max. AC Apparent Power		7360VA ( from grid)	
Max. AC Output Power		5000W <sup>1</sup>	
Nominal AC Voltage		230Vac	
AC Grid Frequency Range		50 / 60Hz ± 5Hz	
Max. Output Current		22A <sup>2</sup>	
Max. Input Current		32A	
Power Factor (cosΦ)		0.8leading-0.8lagging	
THDi		<3%	
<b>Battery Input</b>			
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	
<b>AC Output (Backup)</b>			
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 )	
<b>Efficiency</b>			
Max. PV Efficiency		97.6%	
Euro. PV Efficiency		97.0%	
<b>Protection</b>			
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	
<b>General Specifications</b>			
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.

# TCL

TCL PHOTOVOLTAIC TECHNOLOGY



[WWW.TCL.COM/EU/EN](http://WWW.TCL.COM/EU/EN)