

630kW BESS PCS

TPCS-630



Product Overview

The 630kW PCS is a powerful AC/DC bidirectional conversion device designed for BESS.



Built-in isolation transformer, directly with three-phase 100% unbalanced load



Frequency support; Voltage support
Inertia support



Supporting multiple machine parallel connection, meeting the requirements of different power levels



Flexible configuration with different capacity requirements



-25°C to 55°C



Multiple control modes, free choice



harsh conditions such as high humidity and salt spray



Integrated EMS, intelligent management



Model	TPCS-630
DC parameters	
Maximum operating voltage	1000V
Minimum operating voltage	570V
Full-load voltage range	600V~850V
Maximum input current	1166A
Grid-connected AC parameter	
Rated output power	630kW
Maximum output power	630kW
AC rated voltage	400V
AC rated frequency	50Hz/60Hz
Maximum output current	909A
Maximum overload capacity	1000A
Maximum overload capacity	110% overload (long-term), 120% overload (lmin)
AC voltage range	$85\%U_n \sim 110\%U_n$
AC frequency range	45-55Hz/55-65Hz (settable)
Maximum Current Total Harmonic Distortion	<3%
DC component of current	<0.5% of rated output current
Power factor	-0.99 (advance)~ 0.99 (lag)
Reactive power controllable range	-100%-100%
Isolation method	none
AC system	3W+N+PE
Off-grid AC parameter	
AC rated voltage	400V
AC rated frequency	50Hz/60Hz
Maximum Voltage Total Harmonic Distortion	<3% (linear load)
DC component of voltage	$0.5\%U_n$ (linear balanced load)
Load capacity of unbalance load	100%
Voltage variation range	<3% U_n
Grid-connection and off switch mode	
Grid-connection and off switch capacity	Planned off-grid
Passive off-grid switching mode and switching time	<10 ms with switching cabinet
Efficiency	
Maximum efficiency	99.0%
Basic parameters	
Dimensions (W X H X D)	1216mm X 850mm X 2054mm
Weight	1200kg
Permissible operating temperature range	-25°C~55°C (over 45 °C, it will operate in derating)
Cooling method	Forced air cooling
Protection Grade	IP20
Relative humidity	≤95%RH, non-condensing
Highest Altitude	4000 m (over 2000 m, it will operate in derating)
Self power consumption in shutdown	<50W
HMI	Touch Screen
Communication Interface	RS485, Ethernet, CAN
Support protocols	Modbus TCP, Modbus RTU