

500kW Modular PCS

TPCS-500



ProductOverview

The 500kW modular 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-500
Battery Interface Parameters	
Operating voltage range	650V~800V
Single channel input maximum current	154A
Maximum number of channels	5
Grid-connected AC parameter	
Output line system	3W+N+PE/3W+PE
Rated Power	500KW
Rated Voltage	400V
AC voltage range	85%U _N ~110%U _N
Rated current	721A
Rated Frequency	50Hz/60Hz
Frequency range	±5Hz
Maximum Current Total Harmonic Distortion	≤3%
Power factor	-0.99 (advance)~0.99 (lag)
Reactive power controllable range	-100%~100%
Maximum overload capacity	110%overload (long-term), 120%overload (1min)
Isolation method	No/isolation transformer (optional)
Off-grid AC parameter	
AC rated voltage	400V
AC rated frequency	50Hz/60Hz
Maximum Voltage Total Harmonic Distortion	≤3%(linear load)
Load capacity of unbalance load	100%
Voltage variation range	<3%U _N
Overload capability	110%过载overload (long-term), 120% overload (1min)
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
Maximum efficiency	98.7%
Basic parameters	
Dimensions (W X H X D)	1000mm×2012mm×1000mm
Weight	800kg
Permissible operating temperature range	-20°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	4000m (over 2000 m, it will operate in derating)
Self power consumption in shutdown	<100W
HMI	Touch Screen
Noise	<75db
Communication Interface	RS485, Ethernet, Can
Support protocols	Modbus TCP、Modbus RTU

