



# TYRANN INVERTER CHARGER

10KW / 15KW

## OVERVIEW

Tyrann is an inverter charger similar to Kinerger Pro, yet it features two independent AC inputs for connecting the grid and a generator, or two generators. It can automatically select the active source or the user-preset prioritized AC source based on the system demand. When peak power is required for a limited period, Tyrann will discharge the battery immediately to compensate the insufficient part of the limited AC source, safeguarding an uninterruptible power supply for loads to the maximum extent.

Worth to mention, that Tyrann boasts ESS functionality, supporting energy feeding back into the grid. Its single-machine maximum power is up to 15kW, featuring a stronger surge capacity to carry inductive loads with high initial current. In addition, it works well with TBB latest SP600-120 solar charge controller which supports higher open circuit voltage. They are the perfect couple in composing a DC Coupled PV system with higher efficiency.

## KEY FEATURES

- Two AC inputs for grid and generator (or for two generators)
- Two AC outputs: one usual uninterruptible output, one programmable output for load management
- Support feeding energy back into the grid
- Support ESS functionality via E4 LCD Monitor
- Support AC Coupled PV system, DC Coupled PV system or the combination of both
- Compatible with SP600-120 to achieve a higher efficiency DC Coupled PV system
- Transformer based, easily withstand the initial surge current from various inductive loads
- Parallel and three phase operation up to 9 units (135KW)
- 0ms UPS class transfer time to protect mission-critical loads
- Support system wake-up when AC source or PV is regained, to effectively prevent the system from becoming deadlock due to low battery voltage/SoC, to realize unattended function
- Support two independent CAN Buses for flexible system communication, one for parallel connection, the other for monitoring communication
- Power Assist and Power Control to maximize the use of limited AC power and prevent overload on the AC source
- Minimize the impact of loads on batteries when the grid is available
- Built-in three programmable relays, supporting automatic generator start and stop (AGS)
- More flexible in system application
- Remote monitoring and control via NOVA APP or Web

<b>TYRANN INVERTER CHARGER</b>	<b>Tyrann 10.0S</b>	<b>Tyrann 15.0S</b>
Product topology	Transformer based	
Power Assist	Yes	
Feedback into Grid	Yes	
AC input range	175~265VAC / 45Hz~55Hz@50Hz(normal), 55Hz~65Hz@60Hz(normal)	
AC input Current (transfer switch) (A)	2x100	
<b>INVERTER</b>		
Nominal battery voltage / Input voltage (VDC)	48 / 42~68	
AC output voltage(VAC) / Frequency(Hz)	220/230/240VAC± 2%, 50/60Hz ± 0.1%	
Harmonic distortion	<2%	
Load Power factor	1.0	
Cont. output power at 25°C (VA)	10000	15000
Peak power (30min) (W)	10000	15000
Cont. output power at 25°C (W)	8000	13000
Cont. output power at 40°C (W)	6500	11000
Cont. output power at 65°C (W)	4500	7200
Peak power(W)	30000	45000
Surge	300%	
Maximum efficiency	96%	
Zero load power (W)	40	60
<b>CHARGER</b>		
Charge voltage 'absorption' (V) / 'float' (V)	57.6 / 55.2	
Battery types	AGM / GEL / OPzV / Lead-Carbon / Flooded / Traction / Lithium	
Max AC charge current (A)	140	200
Temperature compensation	Yes	
<b>GENERAL DATA</b>		
Main Output (AC Out1) Current (A)	100	100
Auxiliary Output (AC Out2) Current (A)	50	50
Transfer time	0ms (<15ms in Weak AC source Mode)	
Remote on-off	Yes	
Programmable relay	3x	
Protection	a) output short circuit; b) overload; c) battery voltage too high; d) battery voltage too low; e) temperature too high; f) input voltage out of range; g) input voltage ripple too high; h) Fan block	
ComSync communication port	For parallel and three phase operation	
ComMON communication port	For remote monitoring and system integration	
Operating temperature range	-40°C~+65°C	
Relative humidity in operation	95% without condensation	
Altitude (m)	3500m	
<b>MECHANICAL DATA</b>		
Battery connection	Bolts M8*2*2	
AC connection	Bolts M6	
Dimension (mm) (max)	670*498*292	
Net Weight (kg)	60	80
Cooling	Forced fan	
Protection Category	IP21	
<b>STANDARDS</b>		
Safety	EN-IEC 62477-1, EN-IEC 62109-1, EN-IEC 62109-2, EN-IEC 62040-1	
EMC	EN-IEC 61000-6-1, EN-IEC 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12	
Grid Regulation	NRS 097-2-1:2017*, AS/NZS 4777.2:2020*, VDE-AR-N 4105 *, NTS 2.1(A)*, RD 1699*	

\* Coming soon