

Tenka Power Center 3000 MAX - Three Phase Inverter



Tenka Power Center 3000 MAX - Three Phase Inverter - Main benefits



3-phase backup power

UPS level emergency backup power to supply the entire household



Tenka Power Cloud App

For easy commissioning and 24/7 system monitoring



150% oversizing

150% PV array oversizing for higher yields



Arc fault circuit interruptor

AFCI protection reduces fire risk resulting from DC arcs.



Maximum design flexibility

up to 3 MPPTs for versatility in PV system design and layout.



Discreet and silent

Natural air-cooling ensures discreet and silent operation

Tenka Power Center 3000 MAX

5 kW

6 kW

8 kW

Input (DC)			
Max. PV array power	7500 Wp STC	9000 Wp STC	12000 Wp STC
Max. input voltage	1100 V		
MPP voltage range / rated input voltage	150 V to 950 V / 630 V		200V - 950 V / 630 V
Min. input voltage / start voltage	60 V / 180V		
No. of independent MPPT inputs / strings per MPPT input	2 / 1		3 / 1
Max. input current / max. power per MPPT tracker	20 A		16 A
Max. short circuit current per MPPT tracker	30A		24A
Battery input			
Battery voltage range	120 V to 600 V		
Max. charging / discharging power	5000 W	6000 W	8000 VA
Max. charging current / Max. discharging current	36A		
Rated charging current / Rated discharging current	30A		
Battery type	LiFePO4		
AC input			
Rated grid voltage	3/N/PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V		
Rated grid frequency	50 Hz / 60 Hz		
Max. input power from grid	10000 W	12000 W	16000 W
Max. input current from grid	14.5 A	17.4 A	23.2 A
AC output			
AC voltage range / Nominal AC voltage	3/N/PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V		
Rated AC grid frequency	50 Hz / 60 Hz		
AC grid frequency range	45 ~ 55 Hz / 55 ~ 65 Hz		
Rated apparent power	5000 VA	6000 VA	8000 VA
Max. apparent power	5000 VA	6000 VA	8000 VA
Rated grid output current (@400 V)	7.3 A	8.7 A	11.6 A
Max. grid output current (@400 V)	8.0 A	9.6 A	12.8 A
Harmonics THDi (@Nominal power)	< 3 % (of nominal power)		
EPS Output			
Nominal output voltage	3/N/PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V		
Nominal output frequency	50 Hz / 60 Hz		
Rated apparent power	5000 VA	6000 VA	8000 VA
Peak output apparent power	2 times of rated power, 10s		
Rated current (@400V)	7.3 A	8.7 A	11.6 A
Max. switch time	< 10 ms		
Output THDv (@Linear load)	2 %		
Efficiency			
MPPT efficiency	99.9 %		
Euro efficiency / Max. efficiency	97.2 % / 98.0 %	97.5 % / 98.2 %	97.2 % / 98.0 %
Safety protection			
DC surge protection (Type II, according to EN/IEC 61643-11)	●		
Insulation resistance detection	●		
PV string input reverse polarity protection	●		
Battery input reverse polarity protection	●		
Ground fault monitoring	●		
Residual current monitoring unit	●		
AC short circuit protection	●		
Anti-islanding protection	●		

● Standard features ○ Optional features

* The latest optimised platform design supports MPP voltage range at 150V-950V, pending subsequent certificate updates.
All information is subject to change | Version: Jan 2024

Tenka Power Center 3000 MAX

5 kW

6 kW

8 kW

General data	
Power factor at rated power / adjustable displacement	1 / 0.8 leading to 0.8 lagging
Dimensions (W / H / D)	545 mm / 465 mm / 205 mm
Weight	24.5 kg 26 kg
Operating temperature range	-25 °C ... +60 °C
Cooling concept	Natural convection
Degree of protection (as per IEC 60529)	Ip66
Max. relative humidity	100 %
Max. operating altitude	4000 m
Features	
User interface	LED & App
BMS interface	CAN
Smart meter interface	Rs485
Internet communication interfaces	Wifi / LAN Wifi / LAN / 4G
Digital output (dry contact) / No. of outputs	● / 2
Digital input (dry contact) / No. of inputs	● / 4
Integrated power control / export power control	● / ●

● Standard features ○ Optional features

Tenka Power Center 3000 MAX

10 KW

12 KW

Input (DC)			
Max. PV array power	15000 Wp	18000 Wp	
Max. input voltage	1100 V		
MPP voltage range / rated input voltage	200 V to 950 V / 630 V		
Min. input voltage / start voltage	60 V / 180V		
No. of independent MPPT inputs / strings per MPPT input	3 / 1		
Max. input current / max. power per MPPT tracker	16 A		
Max. short circuit current per MPPT tracker	24A		
Battery input			
Battery voltage range	120 V to 600 V		
Max. charging / discharging power	10000 W	12000 W	
Max. charging current / Max. discharging current	36A		
Rated charging current / Rated discharging current	30A		
Battery type	LiFePO4		
AC input			
Rated grid voltage	3/N/PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V		
Rated grid frequency	50 Hz / 60 Hz		
Max. input power from grid	20000 W	24000 W	
Max. input current from grid	29.0 A	34.8 A	
AC output			
AC voltage range / Nominal AC voltage	270V to 480V / 3/N/PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V		
Rated AC grid frequency	50 Hz / 60 Hz		
AC grid frequency range	45 ~ 55 Hz / 55 ~ 65 Hz		
Rated apparent power	10000 VA	12000 VA	
Max. apparent power	10000 VA	12000 VA	
Rated grid output current (@400 V)	14.5 A	17.4 A	
Max. grid output current (@400 V)	16.0 A	19.2 A	
Harmonics THDi (@Nominal power)	< 3 % (of nominal power)		
EPS Output			
Nominal output voltage	3/N/PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V		
Nominal output frequency	50 Hz / 60 Hz		
Rated apparent power	10000 VA	12000 VA	
Peak output apparent power	2 times of rated power, 10s		
Rated current (@400V)	14.5 A	17.4 A	
Max. switch time	< 10 ms		
Output THDv (@Linear load)	2 %		
Efficiency			
MPPT efficiency	99.9 %		
Euro efficiency / Max. efficiency	97.2 % / 98.0 %	97.5 % / 98.2 %	
Safety protection			
DC surge protection (Type II, according to EN/IEC 61643-11)	●		
Insulation resistance detection	●		
PV string input reverse polarity protection	●		
Battery input reverse polarity protection	●		
Ground fault monitoring	●		
Residual current monitoring unit	●		
AC short circuit protection	●		
Anti-islanding protection	●		

● Standard features ○ Optional features

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