

# TC4400KF/TC4400KF-B1

## 1500V Central Inverter

**TBEA**



### 🌐 Grid Friendly

- Specific harmonic control technology, effectively reducing THDi
- Impedance adaptive technology, supporting weak grid network SCR~1.2
- Night SVG (optional), better grid supporting
- Fast active & reactive power response, supporting power dispatch

### ⚡ Efficient Power Generation

- Maximum efficiency 99%, European efficiency 98.7%
- Optimized MPPT algorithm, ensuring maximum power generation efficiency
- 18 / 21 / 24 inputs optional, match 182 / 210 bifacial modules perfectly
- Anti-PID+repair function protects the health of PV modules

### 🛡️ Safety and Reliability

- IP55 / IP65 & C4 (C5 optional), robust environment adaptability
- Dual air duct heat dissipation
- Intelligent fan speed control and fault detection for system reliability

### 🔧 Convenient Maintenance

- Modular design, flexible configuration of PV array, easy for O&M
- Integrated zone monitoring function to realize online fault analysis and diagnosis

## Technical Specification

Model	TC4400KF	TC4400KF-B1
<b>Efficiency</b>		
Max. efficiency	99%	
European efficiency	98.7%	
<b>Input (DC)</b>		
Max. input voltage	1500V	
Min. input voltage / start-up voltage	900V / 905V	938V / 950V
MPPT voltage range at nominal power	900V ~ 1300V	938V ~ 1300V
Number of MPP trackers	3	
Number of inputs	18 (21/24 optional)	
Max. input current	3 × 1913A	3 × 1915A
<b>Output (AC)</b>		
Nominal output power	4400kW @40°C	4400kW @50°C
Max. output apparent power	5060kVA @20°C	5280kVA @20°C
Max. output active power (cosΦ=1)	5060kW	5280kW
Nominal output voltage	630V / 3W+PE	660V / 3W+PE
Nominal output frequency	50Hz / 60Hz	
Nominal output current	3 × 1344A	3 × 1283A
Max. output current	3 × 1546A	3 × 1540A
Adjustable power factor range	0.8 (leading) ~ 0.8 (lagging)	
Max. total harmonic distortion	<3% (at nominal power)	
DC current injection	<0.5%In	
<b>Protection</b>		
DC input protection	Disconnecting switch + Fuse	
AC output protection	Circuit breaker	
DC / AC surge protection	Type II (Type I + II optional)	
DC short circuit protection	Support	
Output overcurrent protection	Support	
Grid monitoring	Support	
Ground fault monitoring	Support	
Anti-islanding protection	Support	
Insulation monitoring	Support	
Overheat protection	Support	
<b>Other Functions</b>		
Anti-PID function	Optional	
SVG function	Optional	
<b>General Data</b>		
Dimensions (W × H × D)	2714 × 2387 × 1955mm	
Weight	3600kg	
Degree of protection	IP55 / IP65	
Operating temperature Range	-35°C~ 60°C (>40°C derating)	-35°C~ 60°C (>50°C derating)
Cooling method	Smart forced air cooling	
Max. operating altitude	5000m ( >4000m derating )	
Relative humidity range	0% ~ 100%	
Display	WLAN+WebHMI / APP	
Communication	RS485 / Ethernet	
Night standby loss	<200W	
Topology	Transformerless	
<b>Standard Compliance</b>		
Compliance	CE, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 62910, IEC 60068, IEC 61683, CEA2019	

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