

TC4400KT-EL MV Inverter Transformer Turnkey Station



Product Introduction

The product integrate central inverters (4400kW), transformer, RMU, and other auxiliaries to a 20-foot container, convert and transform LV DC power generated by photovoltaic modules to MV AC power and inject to the grid system, thus provide an integrated solution to solar station.

Advantages

Efficient and Economical

- Match 182/210 photovoltaic module, DC 18/21/24 inputs, support 1.8 DC/AC ratio
- Max. efficiency >99%, European efficiency >98.7%
- High capacity, reduce the quantity of MV equipment, save investment of the whole station

Integrated and Convenient

- All parts are prefabricated and tested, and easy transportation and installation
- Modular inverter design, easy for O&M replacement and maintenance

Stable and Reliable

- IP55 (IP65 optional) protection, C4 (C5 optional) anti-corrosion, adaptable to harsh environments
- Scientific thermal design, and effective cooling to improve performance

Supportive to Grid

- Comply with standard IEC61727, IEC62109-1/2, IEC62116, IEC62271-200/202, IEC60076, IEC61439
- Low/high voltage ride through (L/HVRT)
- Active & reactive power and power factor control

Technical Specification

TBEA

| Model | TC4400KT-EL | |
|--------------------------------|--|--------------------------------------|
| | Inverter DC input | |
| Max. input voltage | 1500V | |
| Min. input voltage | 900V | 938V |
| MPP voltage range | 900V ~ 1500V | 938V ~ 1500V |
| Number of MPP input | 3 | |
| Number of DC input | 18 / 21 / 24 | |
| Max. input current | 3×1913A | 3×1915A |
| | Inverter AC output | |
| Nominal output power | 4400kW @40°C | 4400kW @50°C |
| Max. output apparent power | 5000kVA @20°C | 5280kVA @20°C |
| Nominal output voltage | 630V | 660V |
| Nominal output frequency | 50Hz / 60Hz | |
| Max. total harmonic distortion | < 3%ln | |
| DC current injection | < 0.5%ln | |
| Power factor at rated power | > 0.99 | |
| Power factor range | 0.8 (leading) ~ 0.8 (lagging) | |
| Inverter protection | IP55 / IP65 (optional) | |
| | Efficiency | |
| Max. efficiency | > 99.0% | |
| European efficiency | > 98.7% | |
| | Transformer | |
| Type | Oil-immersed, fully sealed, Dy11 | |
| Nominal voltage | 10kV ~ 35kV / 0.63kV | 10kV ~ 35kV / 0.66kV |
| Loss | Tier1 / Tier2 (optional) | |
| Short circuit impedance | 8% (deviation ±10%) | |
| | General | |
| Dimension (W × H × D) | 6058mm × 2896mm × 2438mm, standard 20-foot container | |
| Protection | IP54 | |
| Temperature range | -35°C ~ 60°C (> 40°C derating) | -35°C ~ 60°C (> 50°C derating) |
| Relative humidity range | 0% ~ 100% (no condensing) | |
| Max. operating altitude | 1500m / > 1500m (optional) | |
| Communication interface | RS485 / Ethernet | |
| Communication protocol | Modbus-RTU / Modbus-TCP / IEC104 | |
| Auxiliary transformer | Dry, 3 phase, Dyn11, level H | |
| UPS | 5kVA / 0.63kV / 0.4kV | 1kVA, 30min 5kVA / 0.66kV / 0.4kV |
| | Standard Compliance | |
| Compliance | IEC61727, IEC62109-1/2, IEC62116, IEC62271-200/202, IEC60076, IEC61439 | |

The technical parameters are for reference only, and the actual products shall prevail