

# ITS-4480-MV

## Integrated Transformer Station for 1500V Utility PV Plant (For SP-350K-H1 String inverter)



### High reliability

- LV busbar fully enclosed protection design
- MV and LV isolated, with independent control room
- Built-in fire alarm system



### Low system cost

- Turnkey solution convenient for utility PV project
- Standard 20 feet container design, saving transportation costs
- Integrated MV transformer, RMU, auxiliary transformer and UPS



### Convenient O&M

- Module design, easy for O&M
- Integrated internal device communication
- Support IEC 103, IEC 104, IEC 61850 communication protocol

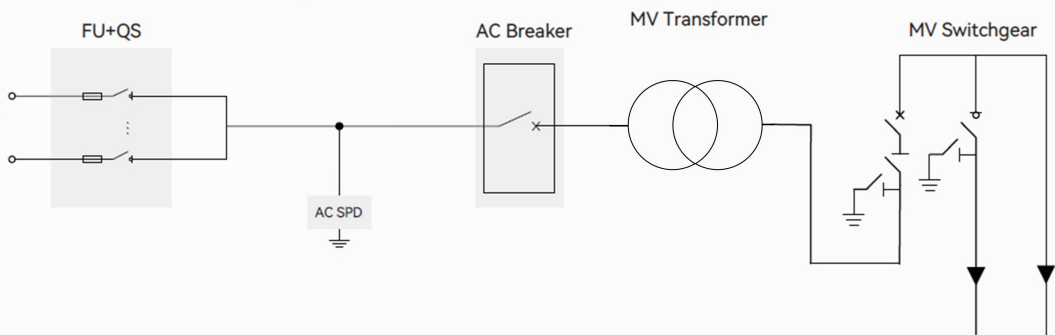


### More safety

- IP54 protection level
- Electrical and mechanical Interlocking more safety
- Compliance with IEC 60076 , IEC 61439, IEC 62271



## Circuit Diagram



| Model                                    | ITS-4480-MV                                           |
|------------------------------------------|-------------------------------------------------------|
| Input                                    |                                                       |
| AC power                                 | 4480kVA@40℃ / 4928kVA@30℃                             |
| Max. Inverters Quantity                  | 14                                                    |
| Rated Input voltage                      | 800V                                                  |
| Main switch specification                | 4000A/800Vac/3P, 1pcs                                 |
| Disconnecter specification               | 260A/800Vac/3P, 14pcs                                 |
| Fuse specification                       | 400A/800Vac/1P, 42pcs                                 |
| Output                                   |                                                       |
| Rated AC output Voltage                  | 11~35kV                                               |
| Transformer Type                         | Oil-immersed                                          |
| Transformer Vector Group                 | Dy11                                                  |
| Rated grid frequency/range               | 50Hz±5Hz/60Hz±5Hz                                     |
| Transformer Tappings                     | ±2x2.5%                                               |
| Impedance                                | 8% (±10%)                                             |
| MV Switchgear Type                       | SF6 Gas Insulated, 3 feeders                          |
| Protection                               |                                                       |
| AC input protection                      | Fuse+disconnecter                                     |
| Transformer protection                   | Oil-temperature, Oil-level, Oil-pressure and Buchholz |
| AC MV output protection                  | Circuit breaker                                       |
| LV Overvoltage protection                | Type II (Optional: Type I+II)                         |
| MV Relay Protection                      | 50/51, 50N/51N                                        |
| Internal arcing fault                    | IAC AFL 20kA/1s                                       |
| General Data                             |                                                       |
| Auxiliary power supply                   | Standard: 5kVA, Optional: Max. 40kVA                  |
| Degree of protection                     | IP54                                                  |
| Operating temperature                    | -30 to+60℃                                            |
| Allowed humidity (non condensing)        | 0-95%                                                 |
| Transformer Cooling mode                 | ONAN (Oil Natural Air Natural)                        |
| Max. operating altitude                  | 2000m (standard) />2000m (Optional)                   |
| Communication port                       | RS485/Ethernet, Optional: Optical fiber               |
| Certificates (more available on request) | IEC 60076, IEC 62271, IEC 61439                       |
| Dimensions (W×H×D)                       | 6058x2896x2438mm                                      |
| Approximate weight                       | 20 T                                                  |