

# MVS3200/4480-LV

MV Turnkey Solution for 1500 Vdc String Inverter SG350HX / SG350HX-20



## SAVED INVESTMENT

- Up to 4.48 MW block design
- Standard container design for efficient transportation
- Pre-assembled for quick setup and commissioning



## SAFETY

- MV and LV isolated, independent control room
- All key components front accessible, no need walk-in operation



## EASY O&M

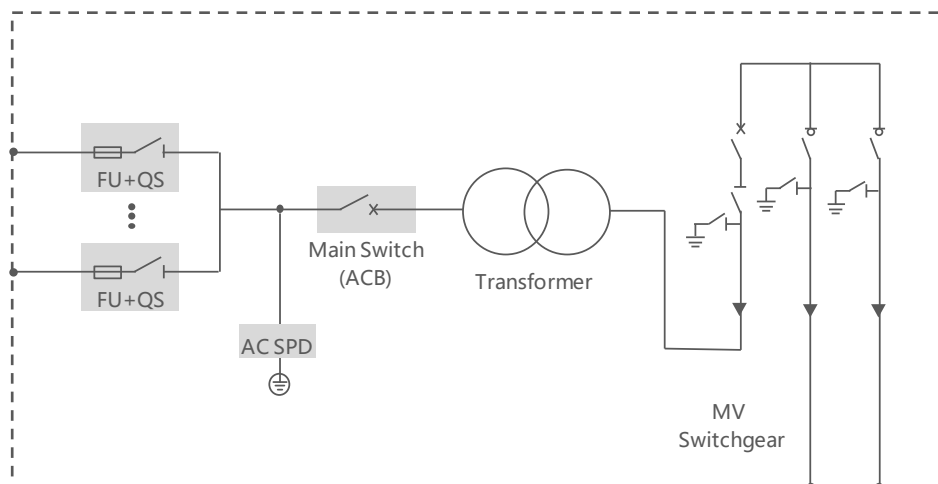
- Online diagnostics for rapid troubleshooting
- Modular design for easy main device replacement



## RELIABLE

- All components type-tested
- Compliance with standards: IEC 60076, IEC 62271, IEC 61439

## CIRCUIT DIAGRAM



| Type designation                                   | MVS3200-LV                                                       | MVS4480-LV                   |
|----------------------------------------------------|------------------------------------------------------------------|------------------------------|
| <b>Transformer</b>                                 |                                                                  |                              |
| Transformer type                                   | Oil immersed                                                     |                              |
| Rated power                                        | 3200 kVA @ 40 °C                                                 | 4480 kVA @ 40 °C             |
| Max. power                                         | 3520 kVA @ 30 °C                                                 | 4928 kVA @ 30 °C             |
| Vector group                                       | Dy11                                                             |                              |
| LV / MV voltage                                    | 0.8 kV / ( 10 - 35 ) kV                                          |                              |
| Maximum input current at nominal voltage           | 2540 A                                                           | 3557 A                       |
| Frequency                                          | 50 Hz                                                            |                              |
| Tapping on HV                                      | 0 , ± 2 * 2.5 %                                                  |                              |
| Efficiency                                         | Tier2                                                            |                              |
| Cooling method                                     | ONAN ( Oil Natural Air Natural )                                 |                              |
| Impedance                                          | 7 % ( ± 10 % )                                                   | 8 % ( ± 10 % )               |
| Oil type                                           | Mineral oil ( PCB free )                                         |                              |
| Winding material                                   | Al / Al                                                          |                              |
| Insulation class                                   | A                                                                |                              |
| <b>MV switchgear</b>                               |                                                                  |                              |
| Insulation type                                    | SF6 ***                                                          |                              |
| Rated voltage range                                | 24 kV – 40.5 kV                                                  |                              |
| Rated current                                      | 630 A                                                            |                              |
| Internal arcing fault                              | IAC AFL 20 kA / 1 s                                              |                              |
| <b>LV panel</b>                                    |                                                                  |                              |
| Main switch specification                          | 4000 A / 800 Vac / 3P, 1 pcs                                     |                              |
| Disconnecter specification                         | 260 A / 800 Vac / 3P, 10 pcs                                     | 260 A / 800 Vac / 3P, 14 pcs |
| Fuse specification                                 | 350A / 800 Vac / 1P, 30 pcs                                      | 350 A / 800 Vac / 1P, 42 pcs |
| <b>Protection</b>                                  |                                                                  |                              |
| AC input protection                                | Fuse+Disconnecter                                                |                              |
| Transformer protection                             | Oil-temperature, Oil-level, Oil-pressure, Buchholz               |                              |
| Relay protection                                   | 50 / 51, 50N / 51N                                               |                              |
| Surge protection                                   | AC Type I + II                                                   |                              |
| <b>General data</b>                                |                                                                  |                              |
| Dimensions(W*H*D)                                  | 6058 mm * 2896 mm * 2438 mm                                      |                              |
| Approximate weight                                 | 15 T                                                             | 17 T                         |
| Operating ambient temperature range *              | -30 °C – 60 °C **                                                |                              |
| Auxiliary transformer supply                       | 15 kVA / 400 V ( optional: max. 40 kVA )                         |                              |
| Degree of protection                               | IP54                                                             |                              |
| Allowable relative humidity range (non-condensing) | 0 % – 95 %                                                       |                              |
| Operating altitude                                 | 1000 m ( standard ) / > 1000 m ( optional )                      |                              |
| Communication                                      | Standard: RS485, Ethernet, Optical fiber                         |                              |
| Compliance                                         | IEC 60076, IEC 62271-200, IEC 62271-202, IEC 61439-1, EN 50588-1 |                              |

\* The ambient temperature is determined as the average temperature obtained from at least four evenly distributed temperature monitoring points located at a distance of 1 meter from the equipment, at a height halfway up the machine. The temperature sensors must be shielded from airflow, thermal radiation, and rapid temperature fluctuations to prevent display inaccuracies.

\*\* When the temperature is below -20°C, optional configuration is required.

\*\*\* 24kV RMU is SF6-Free.