



Midea Energy



NEPCSO-6900UD-MV

High Power Density & Integrated Design

- 690 kVA rated power at 45°C, supporting stable power output under high ambient temperatures
- Integrated PCS and dual-split MV transformer design for streamlined system configuration

Flexible System Adaptability

- Wide 1000–1500 V DC operating range for compatibility with different battery configurations
- Configurable 10–33 kV MV output for diverse grid connection requirements

On-grid & Off-grid Operation

- Supports both grid-connected and off-grid operating modes
- 100% unbalanced load capability for operation under varying load conditions

Efficient Operation & IEC Integration

- Up to 99% PCS efficiency with an operating temperature range of –35°C to +55°C
- Supports IEC 104 and IEC 61850 communication for integration with plant-level control systems

Parameter		NEPCSO-6900UD-MV (IEC Version)
DC-side Parameters		
Max. DC Voltage		1500 V
Min. DC current		1825 A × 4
DC voltage range		1000-1500V
Number of DC inputs		4
AC-side (on-grid) parameter		
Nominal Power		6900 kVA @ 45°C, 7590 kVA @ 30°C
PCS nominal AC voltage		690 V (3P + PE)
PCS AC voltage range		587–759 V (adjustable)
PCS Max. AC current		1588 A × 4 @ 30°C 1443 A × 4 @ 45°C
Nominal grid frequency		50 Hz, 60 Hz
Current THD (THDi)		< 3% (at rated power)
Power factor		> 0.99 (at rated power)
AC-side (off-grid) parameter		
PCS nominal AC voltage		690 V (3P + PE)
PCS AC voltage range		587–759 V (adjustable)
AC voltage distortion		< 3% (linear load)
DC voltage component		< 0.5% Un (linear balanced load)
Unbalanced load capacity		100% unbalanced load
Nominal grid frequency		50 Hz, 60 Hz
Transformer parameter		
Isolation mode		Oil-immersed transformer (dual-split)
Rated power		7100 kVA @ 45°C
LV/MV voltage		LV: 0.69 kV MV: 33 kV (10-33 kV, optional)
Vector group		Dy11y11
Cooling type		ONAN, KNAN (optional)
Oil type		Mineral oil (no PCB), degradable oil (optional)
General data		
PCS Max. efficiency		99%
Ingress protection (IP) rating		IP54
Operating ambient temperature range		–35°C to +55°C (> 45°C derating)
Relative humidity range		0–100% RH (non-condensing)
Max. operating altitude		1000 m, 2000 m (optional)
Cooling method		Forced air cooling
Dimensions (W × D × H)		12192 mm × 2438 mm × 2896 mm
Weight		≤ 34 t
Communication manner		RS485, CAN, Ethernet, optical fiber
Communication protocol		Modbus TCP, IEC 104, IEC 61850
Compliance		EN 50549, IEC 62477, IEC 61000, IEC 62271-202