

EDCS50/63-M-MH DC-DC Converter



Smart Collaboration

- Support DC source inputs such as batteries, photovoltaic, etc.
- 160A LV side current, mainstream 280/314 Ah battery cells available
- Cluster-level battery management for solving battery circulating current issues
- Support constant voltage/constant current/constant power/boost-MPPT/buck-MPPT operation modes



Wide Voltage Range

- Support 0V pre-charging on Low voltage side
- Voltage wide-range operation



Safe & Reliable

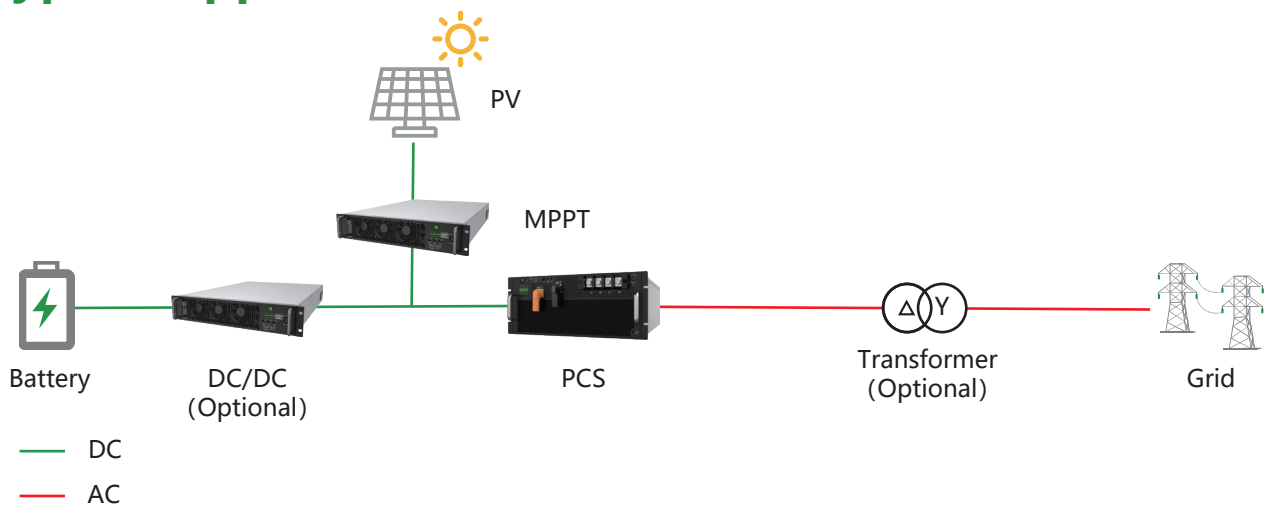
- Comprehensive and reasonable EMC design
- Support multi-branch control, perfect fault protection function
- Equipped with insulation detection on HV/LV side
- Equipped with high-performance contactor, safe and reliable



High-efficiency & Flexible

- Optimized structural 2U module design with high power density
- Support 16 parallel machines and automatic current sharing, current sharing unbalance below 5%
- Max. operating efficiency of over 99%

Typical Application



Technical Parameters

Spec.	EDCS50-M-MH	EDCS63-M-MH
Electrical Parameters		
Rated power	50kW	63kW
Long-term overload power	55kW	70kW
Voltage (HV side)	200V ~ 1000V	
Full-power voltage range (HV side)	455V~1000V	573V~1000V
Max. current (HV side)	110A	
Voltage (LV side)	0V ~ 900V	
Full-power voltage range (LV side)	313V~900V	394V~900V
Max. current (LV side)	160A	
Max. efficiency	99%	
Operating mode	Constant voltage, bi-directional constant voltage, constant current, constant power, boost-MPPT, buck-MPPT	
Static voltage stability	±1%	
Dynamic voltage stability	±5%	
Static current stability	±1%	
Dynamic current stability	±3%	
Auxiliary function	0V pre-charging (LV side can activate starting from 0V); The module supports triple power inputs (LV side/HV side/external 220V) , any input voltage over 200V can be powered up.	
Parallel operation	Supports parallel operation in all modes, with a maximum of 16 units.	
Protection functions	Fuse protection, Overcurrent protection, Over-temperature protection, Under/over-voltage on LV side, Under/over-voltage on HV side, Overpower protection, Short circuit protection on LV side, Reverse polarity protection, Anti-surge protection, Insulation detection protection, Temperature derating protection and so on	
General Parameters		
Dimensions (W × H × D)	440 × 88 × 620mm	
Weight	25kg	
Altitude	4000m (Derate above 2000m)	
Operating temperature	-30℃ ~ 60℃ (Derate above 50℃)	
IP rating	IP20	
Communication methods	RS485/CAN/Modbus RTU	
Compliant certifications	IEC/EN 62477-1:2012, IEC/EN 62109-1:2010	
Power port	HV± on HV Side, LV±on LV Side	
Protective class	I	
Cooling method	Intelligent air cooling	