

YUNT

Mercury Series Bidirectional DCDC/MPPT Module

40-60kW



+ Features



Using interleaved parallel technology to reduce battery ripple current and extend battery life;



Supports photovoltaic MPPT and multi-scenario battery charge/discharge applications;



Standard 3U module design, easy to maintain, and convenient for expansion;



The application of SiC-MOS enhances product efficiency, with a maximum efficiency of 99%.



(whatsAPP)

Mercury Series Bidirectional DCDC/MPPT Module

Specifications	(DCDC)Mercury- **			(MPPT)Mercury- **-PV		
	40K	50K	60K	40K	50K	60K
DC low voltage side						
Power rating	40kW	50kW	60kW	4*10kW	4*12.5KW	4*15KW
Rated current	120A	150A	180A	4*30A	4*37.5A	4*45A
Rated voltage	350V					
Maximun voltage	1000V					
Voltage range	150~1000V					
Minimum voltage at full power	340V					
Buck mode low voltage side voltage requirements	150V ≤ Low-Voltage Voltage≤High-Voltage Voltage					
Low voltage side starting voltage	150V					
Voltage stability/current stability	1%					
DC high voltage side						
Power rating	40kW		50kW		60kW	
Rated current	60A		75A		90A	
Rated voltage	700V					
Maximun voltage	1000V					
Voltage range	350~1000V					
Full power voltage range	680~950V					
Boost mode High voltage side voltage requirements	Low-Voltage Voltage ≤ High-Voltage Voltage ≤ 1000V					
High voltage side starting voltage	350V					
Voltage stability/current stability	1%					
Protection and function						
Reverse protection	Yes					
Fuse protection	Yes					
Overcurrent protection	Yes					
Over/under voltage protection	Yes					
Overheat protection	Yes					
Low voltage side short circuit protec	Yes					
Insulation impedance detection	Yes					
Overvoltage rating	Type II					
Surge protection rating	Type II					
Basic working mode	DCDC:Constant Power, Constant Current, Constant Voltage					
Circuit operation mode	MPPT:MPPT					
Forward and reverse switching time	Full load switching time 30ms					
System parameter						
Topology	Non-Isolated					
IP protection grade	IP20					
Operating temperature range	-40~60℃ (>45℃ Derating operation)					
Relative humidity	<95 %No condensation					
Maximum working altitude	4000m (>3000m Derating operation)					
Maximum efficiency	99%					
Cooling method	Intelligent air cooling					
Communication method	Ethernet/RS485/CAN					
Display	LED					
Maximum number of parallel operations	8					
Mechanical parameters						
Weight	25kg					
Size(W*H*D)	444*130*550(Without Terminals)					
Installation method	Cabinet type fixed installation (left and right ears)					
Compliant with standards						
Safety regulations	IEC62477-1, IEC62109-1					
EMC	IEC 61000-6-2, IEC 61000-6-3					