

MID 29.9-50K-HU

- DC/AC ratio up to 2
- 3/4 MPP trackers for more flexibility
- Integrated backup function
- Support unbalanced output



P O W E R
- I N G O
T O M O -
R R O W O

Datasheet	MID 29.9K-HU	MID 30K-HU	MID 33K-HU	MID 36K-HU	MID 40K-HU	MID 50K-HU
Input data (DC)						
Max. recommended PV power (for module STC)	59800W	60000W	66000W	72000W	80000W	100000W
Max. DC voltage	1000V					
Start Voltage	160V					
Normal Voltage	600V					
MPPT voltage range	200-1000V					
No. of MPP trackers	3				4	
No. of PV strings per MPP tracker	2					
Max. input current per MPP tracker	40A					
Max. short-circuit current per MPP tracker	50A					
Battery data (DC)						
Compatible battery	APX HV Battery 1.0 APX HV Battery 2.0(5kWh~30kWh)					
Operating voltage range	APX 1.0 Battery: 600 V ~ 980 V APX 2.0 Battery: 660 V ~ 980 V					
Max. operating current	APX 1.0 Battery: 83.3A APX 2.0 Battery: 75.8A					
Max. discharge power*1	APX 1.0 Battery:29.9kW	APX 1.0 Battery:30kW				
	APX 2.0 Battery:29.9kW	APX 2.0 Battery:30kW	APX 2.0 Battery:33kW	APX 2.0 Battery:36kW	APX 2.0 Battery:40kW	APX 2.0 Battery:45kW
Max. charge power	APX 1.0 Battery: 50kW/APX 2.0 Battery: 50kW					
Output data (AC)						
AC nominal input power	35.9kW	36kW	39.6kW	43.2kW	48kW	60kW
Max. AC apparent power	35.9kVA	36kVA	39.6kVA	43.2kVA	48kVA	60kVA
Nominal AC voltage	220/380V, 230/400V					
AC grid frequency (range*)	50/60 Hz (45-55Hz/55-65Hz)					
Power factor (nominal power)	> 0.99					
Max. input current	54.4A	54.5A	60A	65.5A	72.7A	90.9A
Adjustable power factor	0.8leading...0.8lagging					
THDi	<3%					
AC grid connection type			3W+N+PE/3W+PE			
Backup output (AC)						
Nominal output power	29.9kW	30kW	33kW	36kW	40kW	50kW
Max. apparent power*2	29.9kVA	30kVA	33kVA	36kVA	40kVA	50kVA
Nominal AC voltage	220/380V, 230/400V					
Max. output current*3	45.3A	45.5A	54.5A	50A	60.6A	75.8A
Norminal frequency	50/60Hz					
Overload capability	1.2 times of rated power, 10s					
THDv	<3%					
Efficiency						
Max. efficiency	98.6%					
European efficiency	97.2%					
Protection devices						
DC switch	Yes					
DC reverse polarity protection	Yes					
AC/DC surge protection	Type II					
Insulation resistance monitoring	Yes					
Output surge protection	Type II					
AC short-circuit protection	Yes					
Ground fault monitoring	Yes					
Grid monitoring	Yes					
Anti-islanding protection	Yes					
Residual-current monitoring unit	Yes					
String fault monitoring	Yes					
AFCI protection	Optional					

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General data						
Dimensions (W / H / D)	680/570/256mm					
Weight	48kg				50kg	
Noise level	-25°C ... +60°C					
Operating temperature range	≤55dB(A)					
Nighttime power consumption	4000m					
Topology	Transformerless					
Cooling	Smart air cooling					
Protection degree	IP66					
AC connection	0~100%					
DC connection	H4/MC4(Optional)					
Relative humidity	Waterproof PG connector+OT terminal					
Interfaces: RS485/CAN/USB	OLED+LED/WIFI+APP					
Display	Yes					
Monitor: WiLAN-X2/4G-X/ ShineMaster-X	Optional					
Warranty	5/10 years(optional)					
CE, N4105, EN50549-1, C10/C11, CEI 0-21, G99, G100						

* 1. Compatible with APX 1.0 battery (max. discharge power 30 kW) and APX 2.0 battery (max. discharge power 45 kW).

* 2. Compatible with APX 1.0 (30 kVA backup power / 30 kW max. charge power) and APX 2.0 (50 kVA backup power / 45 kW max. charge power).

* 3. Max. output current with APX battery: 75.8 A

* MID-HU supports three-phase unbalanced output only when work with an APX HV Battery or APX HV Battery 2.0.

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