



2024.V03.2

Midea MHELIOS Home Energy Manager (Single Phase)

M1-S3/3.6/4/4.6/5/6K



Higher yield

- 200% PV oversized, 16 A input current, 75V low start output voltage



Worry-free of outages

- Seamless switch, 150% backup output, keep appliances running during outages



Fast charging

- 30A charging current, maximize solar energy self-consumption and achieve higher yield



Intelligent management

- High self-consumption with optimized built-in energy management function

Model	M1-S3 K	M1-S3.68 K	M1-S4 K	M1-S4.6 K	M1-S5 K	M1-S6 K
DC Input (PV)						
Max. PV array power (Wp)	6000	7400	8000	9200	10000	12000
Max. input voltage (V)	600					
MPPT operating voltage range (V)	60-550					
Start-up voltage (V)	75					
Rated input voltage (V)	360					
Max. input current (input PV1 /input PV2)	16/16					
Max. short-circuit current	20/20					
No. of MPP trackers	2					
Max. input number per MPP tracker	1					
Battery connection						
Battery type	Lithium-ion battery[1]					
Voltage range (V)	85-460					
Max. charging current / max. discharging current (A)	30					
Max. charge/ discharge power(W)	4500/3000	5500/3680	6000/4000	6000/4600	6000/5000	6000/6000
AC connection						
Nominal AC output power (W)	3000	3680	4000	4600	5000	6000
Max. AC output apparent power (VA)	3300	3680	4400	5000	5500	6000
Max. AC output current (A)	15	16	20	23	25	27.3
Max. AC input apparent power (VA)	6300	7360	8400	9600	10000	10000
Max. AC input current (VA)	27.4	32.0	36.5	41.7	43.5	43.5
Nominal AC voltage (V)	220 /230/ 240					
Nominal grid frequency (Hz)	50 /60					
Adjustable power factor	0.8 leading ... 0.8 lagging					
Max. total harmonic distortion	3%					
AC(backup) output						
Nominal output power (W)	3000	3680	4000	4600	5000	6000
Peak apparent power (VA)	6000, 10s	7360, 10s	8000, 10s	9000, 10s	9000, 10s	9000, 10s
Max. continous current (A)	13.0	16.0	17.4	20.0	21.7	26.1
Nominal voltage (V)	230					
Frequency (Hz)	50/60					
Switch time (ms)[2]	<20					
Efficiency						
Max. efficiency (%)	97.6					
General Data						
Operating temperature range	-25°C to + 60°C(Derating above 45°C @ Rated output power)					
Relative operating humidity	0%-100%RH					
Max. operating altitude	0-4000m(Derating above 2000m)					
Noise emissions(dB)	<30					
Cooling	Natural convection					
Display	Indicator LED, WLAN+App					
Weight (kg)	24.5					
Dimension(W/H/D) (mm)	450/485/187					
Degree of protection	IP66					
Mounting method	Wall Mounted					
Number of interfaces: WLAN/RS485	1/6					
Number of digital inputs / outputs	6/3					
Protections						
Anti-Islanding protection	Yes					
PV string current monitoring	Yes					
Battery reverse polarity protection	Yes					
PV reverse polarity protection	Yes					
Insulation resistance monitoring	Yes					
DC surge protection	Yes					
AC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11					
Residual current monitoring Unit	Yes					
AC short-circuit protection	Yes					
AC overcurrent protection	Yes					
AC overvoltage protection	Yes					
Ground fault monitoring	Yes					
DC switch	Yes					
Remote shutdown	Yes					
Certification						
Safety	IEC/EN62109-1 & IEC/EN62109-2, LVD-2014/35/EU					
EMC	EN 61000-6-1, EN 61000-6-3, EN 62920					
Grid	CEIO-21,VDE-AR-N 4105,VDE 0126-1-1,UTE C 15-712-1, EN 50549, IEC 62116, IEC 61727, G98/G99					
Warranty						
Warranty	Standard 10 years					

[1] Compatible with high voltage & low voltage batteries from Midea

[2] Available with a later firmware release

*All specifications are subject to change without notice.