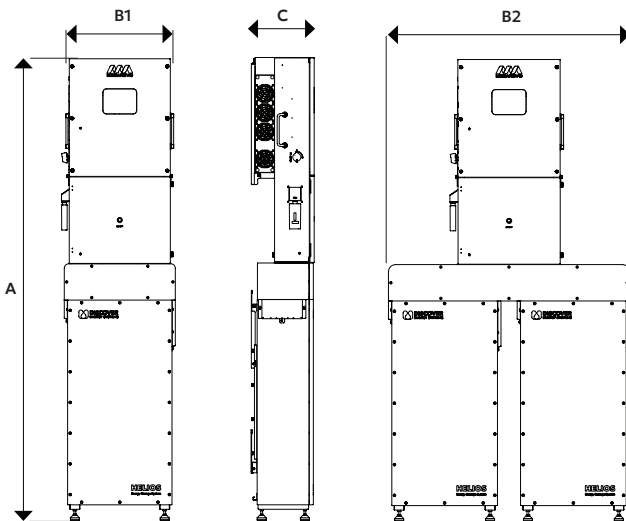


HELIOS Battery + Hybrid Inverter Platform

Helios Hybrid Inverter Bundle (HIB) integrates Discover's HELIOS lithium battery with a Megarevo hybrid inverter in a pre-engineered energy storage system.

The platform provides 16 kWh or 32 kWh usable storage and up to 16 kW inverter output for residential and light commercial applications. The system supports whole-home backup, solar self-consumption, hybrid energy management, and scalable battery expansion.

MECHANICAL SPECIFICATIONS

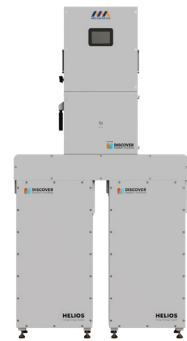


SINGLE BATTERY SYSTEM HIB-MGR-16000



- 1× HELIOS battery (16 kWh)
- 1× Megarevo inverter (12 kW)
- DC cable kit
- Communication cable (CAN)
- Conduit box
- Mounting hardware

DUAL BATTERY SYSTEM HIB-MGR-32000



- 2× HELIOS batteries (32 kWh)
- 1× Megarevo inverter (16 kW)
- DC cable kit
- Communication cable (CAN)
- Dual conduit box
- Mounting hardware

Model Number	HIB-MGR-16000	HIB-MGR-32000
Total System Height (A)	2,029 mm	
Total System Width (B1) (B2)	510.95 mm	1,112 mm
Total System Depth (C)	272.5 mm	

SYSTEM CONFIGURATIONS

	Battery	Inverter
Height	934 mm	495 mm
Width	465 mm	900 mm
Depth	272.5 mm	260 mm
Weight	136 kg (299 lb)	56 kg (124 lb)
IP Rating	IP65 / NEMA 3R	
Installation	Floor standing or wall mounted.	Wall mounted



Model Number	HIB-MGR-16000	HIB-MGR-32000
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SYSTEM CONFIGURATIONS

Battery Configuration	1 × HELIOS	2 × HELIOS
Total Usable Energy	16.08 kWh	32.16 kWh
Nominal Voltage	51.2 V	51.2 V
Total Capacity	314 Ah	628 Ah
Inverter output power	12 kW	16 kW
Maximum solar array size	18 kW	24 kW
Max grid passthrough	200 A	
Transfer time	<10 ms	

INVERTER SPECIFICATIONS

PV INPUT (INVERTER)

Max Input Power	18 kW	24 kW
Min / Max PV Input Voltage	120 V / 500 V	
MPPT Voltage Range	120 – 500 VDC	
Operating Voltage Range	120 – 430 VDC	
Rated PV Input Voltage	310	
MPPT trackers (Inputs)	4 (1/1/1/1)	
Rated Input Current per MPPT	16/16/16/16	20/20/20/20
Max Short Circuit Current	22/22/22/22	25/25/25/25

AC OUTPUT (GRID)

Rated Grid Voltage	120/208V 120/240V Split Phase (2L+N+PE) 240V Single Phase	
Frequency (Range)	60 Hz (55~65Hz)	
Rated Power (Apparent kVA)	12 kW (13.2 kVA)	16 kW (17.6 kVA)
Rated / Max Current	50 A / 55 A	66.7 A / 73.3 A
Max Grid Passthrough	200 A	
THDI	<3%	

AC OUTPUT (OFF-GRID)

Battery Inverted Power	12 kW	13 kW
Max. Apparent Power (with PV) ¹	13.2 kVA	16 kVA
Nominal Output Voltage	120/240 V	
Nominal output frequency	60 Hz	
Output Power Factor	0.8 leading to 0.8 lagging	
Output THDU	<2%	

The R16KLNA inverter provides a maximum AC output of 16 kVA when PV power is available. Without PV generation, AC output is limited to 13.2 kVA by the battery DC/DC converter (280 A maximum discharge current at the minimum battery operating voltage).



BATTERY SPECIFICATIONS

Model Number	HIB-MGR-16000	HIB-MGR-32000
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DC POWER (INVERTER)

Max. Charge/Discharge Current	250 A / 260 A	260 A / 280 A
Charge/Discharge Power (Nominal)	12.8 kW / 13.3 kW	13.3 kW / 14.3 kW
Max. Battery to Load Efficiency	94.6%	
Max. PV to Battery Charging Efficiency	95.8%	
Max. Grid to Battery Charging Efficiency	94.5%	

BATTERY SPECIFICATIONS

Total Storage Capacity	16.08 kWh	32.16 kWh (2 x 16.08 kWh)
Nominal Voltage	51.2V	
Total Amp-Hours	314 Ah	628 Ah (2 x 314 Ah)
Max. Charge Current (per inverter)	192 A	260 A
Max. Discharge Current (per inverter)	192 A	280 A

GENERAL SPECIFICATIONS

ENVIRONMENTAL

Operating temperature	-25 °C to 60 °C
Relative humidity	0-95%
Operating altitude	Up to 4,000 m (derating above 2,000 m)

SYSTEM PROTECTION

Protection Features (All from inverter)	Arc fault protection, Residual current monitoring, Ground fault detection, Over-current protection, Over-voltage protection, Short circuit protection, Island protection.
Rapid Shutdown Transmitter (RSD)	12 VDC output for optional Rapid Shutdown System (RSS) transmitter to support NEC 690.12 compliance where required. A dedicated connection is available for rapid shutdown initiator integration.

COMMUNICATION

Communication Interfaces	CAN (Battery BMS), RS485 (Meter / EMS). Wi-Fi monitoring - Inverter, 4G monitoring (optional) - Inverter
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REGULATORY

	DC ESS	INVERTER
Certifications	UN38.3, UL 1973, UL 9540A, UL 9540 DC ESS 3rd Edition	UL1741, UL1741SA&SB all options, UL1699B, CSA -C22.2 NO.107.1-01, RSD (NEC690.5, 11, 12)

