Hoymiles

HOYMILES PRODUCT BROCHURE



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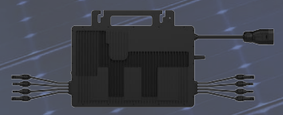
C&I SCENARIO

Solar Solution

Hoymiles offers a comprehensive product portfolio for C&I energy upgrades, including high-power microinverters, rapid shutdown devices, and data transfer unit. This integrated approach simplifies equipment selection, meets diverse energy needs, and delivers enhanced investment returns with green benefits.

What Hoymiles Offers



THREE-PHASE MICROINVERTER



DATA TRANSFER UNIT



RSD DEVICE



MONITORING PLATFORM

SOLUTION HIGHLIGHTS

Ideal For Large-Scale Projects

The world's first 5,000W microinverter supporting high-power PV modules.

Enhanced Safety Design

DC voltage as low as 120V/140V to minimize fire and electric shock risks.

Power From Any Rooftop

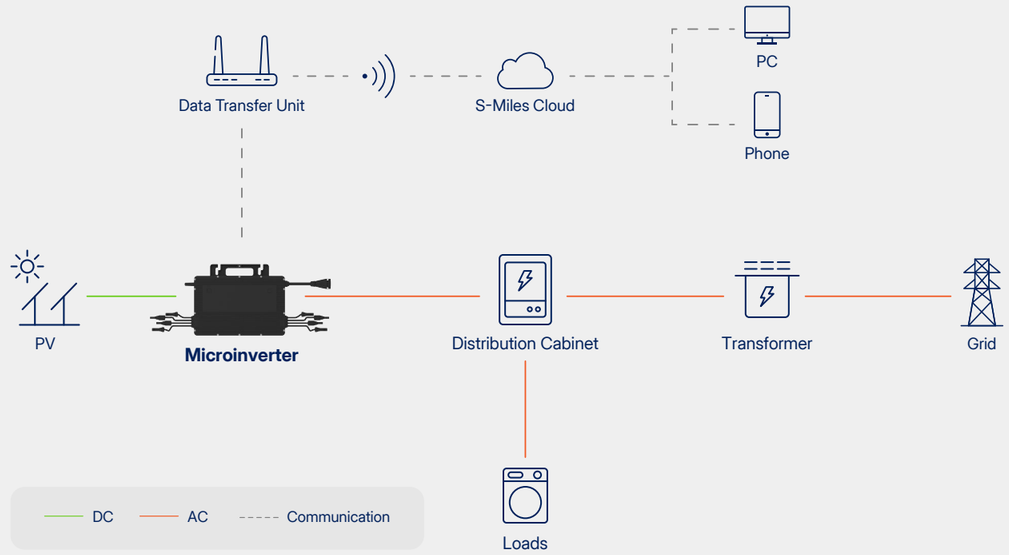
Independent 4 MPPTs easily handle shading scenarios.

Premium Quality Guaranteed

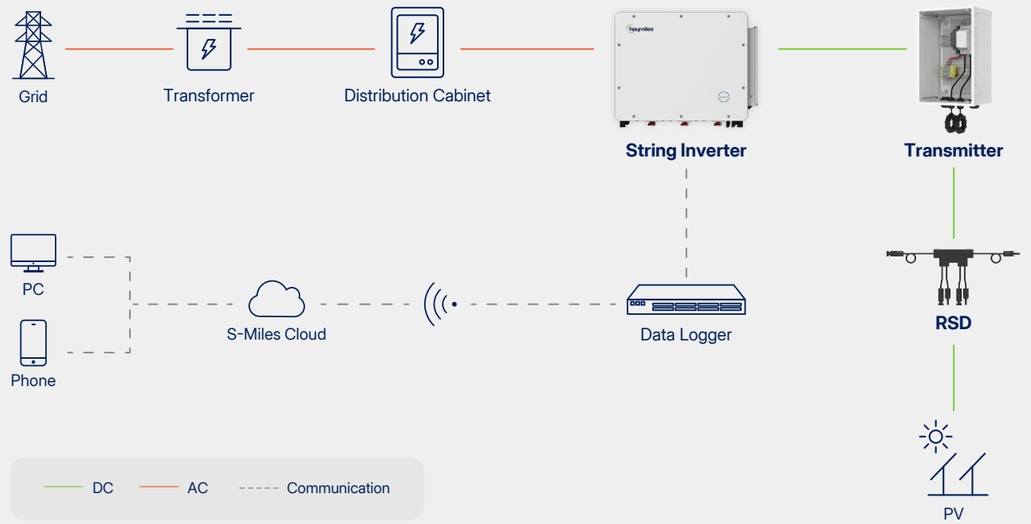
25-year stable operation significantly reduces maintenance costs.



Microinverter Solution



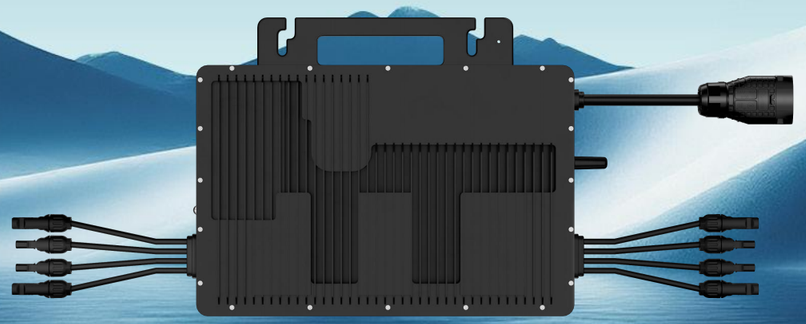
RSD Solution



MICROINVERTER | MIT SERIES

Hoymiles new generation microinverter MIT-5000-8T series is designed to accommodate eight high-powered PV modules, with output power up to 5000 W and input current up to 20 A. Its four MPPTs maximize energy harvest, ensuring optimal performance. The innovative 8-in-1 design significantly reduces system costs, making the MIT-5000-8T series a cost-effective choice. The Sub-1G wireless solution ensures stable communication with Hoymiles gateway DTU, and enables module-level monitoring and remote O&M on Hoymiles Monitoring Platform S-Miles Cloud.

4-5kW | Three Phase



Features

01 Output power up to 5000 W and input current up to 20 A, compatible with 182 mm/210 mm PV modules

02 Three-phase output, ideal for commercial and industrial applications

03 Four MPPTs, optimizing power generation

04 Low input voltage for safer rooftop installations, minimizing arc faults and electric shocks

05 8-in-1 design for quick installation with Flex-T5 Cable System, reducing costs

06 Sub-1G wireless solution for stable communication and convenient O&M

Technical Specifications

Model	MIT-4000-8T		MIT-4500-8T		MIT-5000-8T	
Input Data (DC)						
Commonly used module power (W)	400 to 650+		560 to 700+		600 to 750+	
Maximum input voltage (V)	140					
Minimum/Maximum start-up voltage (V)	32/136					
MPPT voltage range (V)	12-136					
Peak power MPPT voltage range (V)	58-136		59-136		66-136	
Maximum input current (A)	4 × 20					
Maximum input short circuit current (A)	4 × 25					
Number of MPPTs	4					
Number of inputs per MPPT	1					
Output Data (AC)						
Grid type	Three Phase					
Rated output power (W)	4000		4500		5000	
Rated output current (A)	3 × 6.06	3 × 5.79	3 × 6.82	3 × 6.52	3 × 7.58	3 × 7.25
Nominal output voltage (V)	220/380, 3L+N+PE	230/400, 3L+N+PE	220/380, 3L+N+PE	230/400, 3L+N+PE	220/380, 3L+N+PE	230/400, 3L+N+PE
Nominal frequency (Hz)*	50/60					
Nominal range (Hz)*	45-55 / 55-65					
Adjustable power factor (@rated power)	>0.99 default 0.8 leading ... 0.8 lagging					
Total harmonic distortion (@rated power)	< 3%					
Maximum units per 2.5 mm² branch**	4	4	3	4	3	3
Maximum units per 4 mm² branch**	5	5	4	5	4	4
Maximum units per 6 mm² branch**	6	6	5	6	5	5
DC/AC ratio	≤ 1.35					
Efficiency						
Peak efficiency	97.40%		97.40%		97.40%	
EU weighted efficiency	96.10%		96.30%		96.40%	
Nominal MPPT efficiency	99.80%					
Night power consumption (mW)	< 50					
Mechanical Data						
Ambient temperature range (°C)	-40 to +65					
Storage temperature range (°C)	-40 to +85					
Dimensions (W × H × D [mm])	395 × 308 × 60					
Weight (kg)	9					
Enclosure rating	Outdoor-IP67					
Cooling	Natural convection-No fans					
Features						
Communication	Sub-1G					
Topology	Transformerless					
Monitoring	S-Miles Cloud (Hoymiles Monitoring Platform)					
Compliance	EN 50549-1: 2019, EN 50549-10:2022 IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 61000-3-2/-3, UL 3741					

* : The parameter may vary depending on local requirements.
**: Refer to local requirements for exact number of microinverters per branch.

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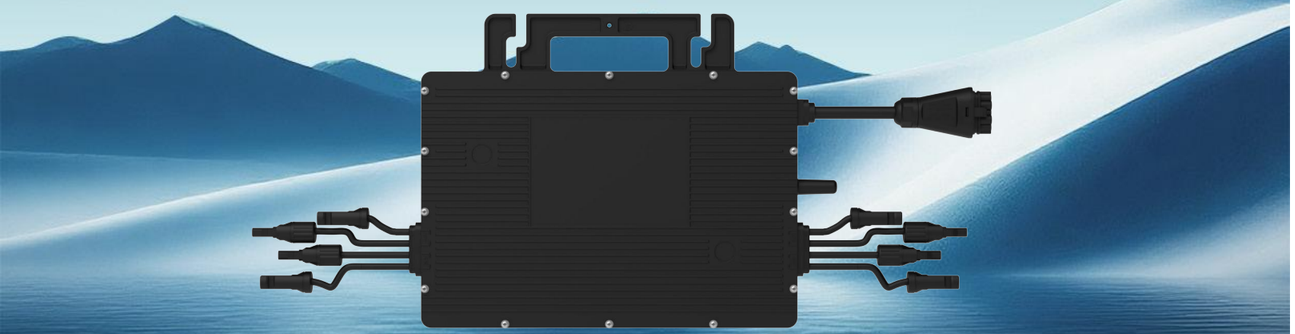
MICROINVERTER | HMT SERIES

The Hoymiles HMT-2000-4T series microinverter is designed for highpowered PV modules, offering a maximum output power of up to 2000 VA and a maximum DC input current of up to 16 A. Its innovative 4-input design streamlines installation and reduces costs, making the HMT-2000-4T series a highly cost-effective choice. The new Sub-1G wireless solution ensures stable communication with the Hoymiles gateway DTU, while the S-Miles Cloud platform enables module-level monitoring and remote operation and maintenance (O&M).

4-in-1 | 1.6-2kW | Three Phase



Features

01 Three-phase output, more suitable for commercial and industrial applications

02 With output power up to 2000 VA, compatible with 182 mm/210 mm PV module

03 Grid protection relay integrated

04 4-in-1 design enables faster installation and comes with a lower cost

05 Safer for rooftop solar stations with rapid shutdown compliance and isolated transformer

06 Sub-1G wireless solution allows stable communication in commercial and industrial settings

Technical Specifications

Model	HMT-1600-4T	HMT-1800-4T	HMT-2000-4T
Input Data (DC)			
Commonly used module power (W)	320 to 540+	360 to 600+	400 to 670+
Maximum input voltage (V)		65	
MPPT voltage range (V)		16–60	
Minimum/Maximum start-up voltage(V)		22/60	
Maximum input current (A)	4 × 14	4 × 15	4 × 16
Maximum input short circuit current (A)		4 × 25	
Number of MPPTs		2	
Number of inputs per MPPT		2	
Output Data (AC)			
Grid Type		Three Phase	
Rated output power (VA)	1600	1800	2000
Rated output current (A)	2.32 × 3	2.61 × 3	2.9 × 3
Nominal output voltage (V)		230/400, 3W+N+PE	
Nominal frequency (Hz)		50	
Adjustable power factor (@nominal power)		> 0.99 default	
Total harmonic distortion (@nominal power)		< 3%	
Maximum units per 2.5 mm^2 branch*	9	8	7
Maximum units per 4 mm^2 branch*	12	11	10
Maximum units per 6 mm^2 branch*	16	14	13
Efficiency			
Peak efficiency		96.50%	
Nominal MPPT efficiency		99.80%	
Night power consumption (mW)		< 50	
Mechanical Data			
Ambient temperature range (°C)		-40 to +65	
Storage temperature range (°C)		-40 to +85	
Dimensions (W × H × D [mm])		326 × 222 × 40.6	
Weight (kg)		5.9	
Enclosure rating		Outdoor-IP67	
Cooling		Natural convection-No fans	
Features			
Communication		Sub-1G	
Type of isolation		Galvanically Isolated HF Transformer	
Monitoring		S-Miles Cloud**	
Compliance		VDE-AR-N 4105: 2018, EN 50549-1:2019, VFR 2019, IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 61000-3-2/-3	

* : Refer to local requirements for exact number of microinverters per branch.

**: Hoymiles Monitoring System

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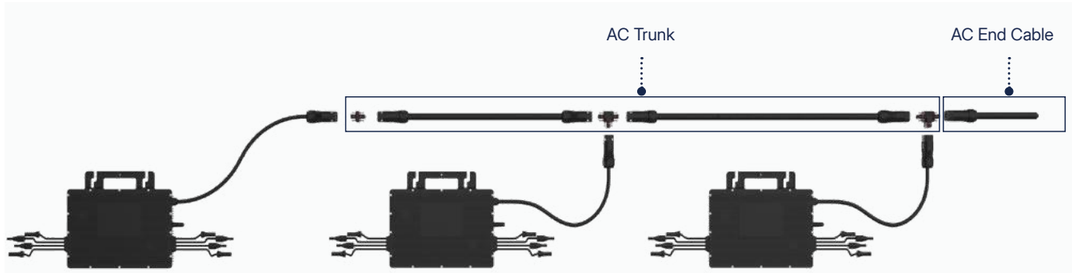
Flex-T5 Cable Accessories

I Simplify Your Installation with Easy, Flexible, and Reliable Cable System

The Flex-T5 Cable System is a revolutionary cabling solution designed for MiT series microinverters. Its user-friendly plug-and-play design makes the installation easier, faster, and more reliable. The Flex-T5 Cable System features high flexibility, allowing users to mix and match Flex-T5 Connection Cables of different sizes or lengths to achieve their desired wiring configuration at the lowest cost.



Time-saving: *Plug-and-play design eliminates the need for complex wiring, cutting installation time by 70%.*

Cost-effective: *The microinverter's AC output shares the same design as all connectors in the AC Trunk, enhancing flexibility while cutting costs.*

Flexibility: *Provide great flexibility for AC Trunk design that caters to the specific requirements of your PV system.*

Reliability: *Reconfigured wiring layout reduces heat production, ensuring a secure and stable connection.*

Flex-T5 Connection Cable

Makes a customized AC Trunk by utilizing Flex-T5 Trunk Connectors and Flex-T5 Extension Connectors.



Flex-T5 Trunk Connector

Used to connect the microinverter's AC output to the AC Trunk, and to join together multiple Flex-T5 Connection Cables to create the AC Trunk.



Flex-T5 Extension Connector

Used to connect the first microinverter in the AC Trunk, to extend cable runs between microinverters when the distance exceeds the standard Flex-T5 Connection Cable length, and to create a cost-effective single-microinverter system.



Flex-T5 Cable Terminal Connector

Used to form the AC cable into an AC End Cable, which completes the connection between the end of the AC Trunk and the distribution box.



Flex-T5 Disconnect Tool

A versatile tool that can be used to take apart connectors, tighten nuts, and loosen nuts.



Technical Specifications

Connector System Parameter	
Compatible microinverter	MiT series
Pin number	3P + N + PE
Rated voltage	500 V
Rated current	40 A
Max. supported conductor size	6.0 mm²
Max. supported cable outer diameter	20.5 mm
Ambient temperature range	-40°C to +85°C
Protection rating	IP68
Flame resistance degree	UL94-V0
Compliance	RoHS, UV Resistant
Product standard	EN 61984
Cable Parameter	
Cable type	H07RN-F
Rated voltage	450 V / 750 V
Conductor size	2.5 / 4.0 / 6.0 mm²
Ambient temperature range	-40°C to +90°C
Compliance	RoHS
Product standard	EN50525-2-21

Ordering Options

Name	Model	Number per Box	Box Dimensions
Flex-T5 Trunk Connector	T5-TC	160 PCS	495 mm × 290 mm × 255 mm
Flex-T5 Extension Connector	T5-EC	300 PCS	495 mm × 290 mm × 255 mm
Flex-T5 Disconnection Tool	T5-DT	320 PCS	495 mm × 290 mm × 255 mm
Flex-T5 Cable Terminal Connector	T5-CTC-EN2540C	110 PCS	495 mm × 290 mm × 255 mm
	T5-CTC-EN60C	TBD	495 mm × 290 mm × 255 mm
	T5-CTC-EN2560C	TBD	495 mm × 290 mm × 255 mm
	T5-CTC-EN2560S	TBD	495 mm × 290 mm × 255 mm

Flex-T5 Connection Cable Model	Conductors Cross Sectional Area	Rated Current *	Cable Length Between Connectors **	Minimum Bending Radius	Number per Box	Box Dimensions
T5-CC-EN25-230	5 × 2.5 mm²	22 A	2.3 m	9 cm	TBD	345 mm × 345 mm × 375 mm
T5-CC-EN25-300	5 × 2.5 mm²	22 A	3.0 m	9 cm	TBD	345 mm × 345 mm × 375 mm
T5-CC-EN25-460	5 × 2.5 mm²	22 A	4.6 m	9 cm	TBD	345 mm × 345 mm × 375 mm
T5-CC-EN40-230	5 × 4.0 mm²	30 A	2.3 m	11 cm	TBD	345 mm × 345 mm × 375 mm
T5-CC-EN40-300	5 × 4.0 mm²	30 A	3.0 m	11 cm	TBD	345 mm × 345 mm × 375 mm
T5-CC-EN40-460	5 × 4.0 mm²	30 A	4.6 m	11 cm	TBD	345 mm × 345 mm × 375 mm
T5-CC-EN60-230	5 × 6.0 mm²	39 A	2.3 m	12 cm	TBD	345 mm × 345 mm × 375 mm
T5-CC-EN60-300	5 × 6.0 mm²	39 A	3.0 m	12 cm	TBD	345 mm × 345 mm × 375 mm
T5-CC-EN60-460	5 × 6.0 mm²	39 A	4.6 m	12 cm	TBD	345 mm × 345 mm × 375 mm

* : Comply with local standards when designing and installing cables.
** : Cable length can be customized. Contact Hoymiles sales for more details.

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COMMUNICATION | DTU-PRO-S

The Hoymiles DTU-Pro-S gateway collects data from PV microinverters using a Sub-1G wireless connection and transmits it to the Hoymiles monitoring platform S-Miles Cloud via Ethernet, Wi-Fi, or 4G. With the DTU-Pro-S, you can access real-time, module-level data and system alerts, monitor system performance remotely, and troubleshoot issues from anywhere using S-Miles Cloud.

WiFi | Ethernet | 4G | Max. 99 PV panels



Features

01 Reliable and Flexible

- Sub-1G wireless solution enables stable communication with HMS3, HMT, MiS, MiT3 series microinverters
- More communication options with Ethernet, Wi-Fi, or 4G
- Support of RS485, Ethernet to communicate with peripherals

02 Simple and Efficient O&M

- Module-level monitoring and data storage
- Local configuration with S-Miles Installer App
- Support remote O&M including remote upgrading, parameter setting

03 Smart

- Smart zero export control and power export limiting
- PV generation and load consumption monitoring

Technical Specifications

Model	DTU-Pro-S (Wi-Fi Version)	DTU-Pro-S (4G Version)
Communication to Microinverter		
Signal	Sub-1G	
Maximum distance (open space) (m)	400	
Monitoring data limit from solar panels[1]	99	
Communication to S-Miles Cloud		
Ethernet	RJ45 × 1, 100 Mbps	
Wireless standard[2]	Wi-Fi: 802.11b/g/n	4G: TDD-LTE, FDD-LTE 3G: SCDMA 2G: GSM/GPRS
Radio band (GHz)	2.4	
Sample rate (min)	Per 5	
Communication to Peripherals		
RS485	COM × 1, 9600 bps, Modbus-RTU	
Ethernet	RJ45 × 1, Modbus-TCP	
DRM	RJ45 × 1, DRM0/5/6/7/8	
Interaction		
LED	LED Indicator × 4 – RUN, Cloud, MI, ALM	
APP	S-Miles Installer	
Power Supply (Adapter)		
Type	External adapter	
Adapter input voltage/frequency (V AC/Hz)	100 to 240 / 50 or 60	
Adapter output voltage/current (V/A)	5 / 2	
Power consumption (W)	Typ. 1.5 / Max. 3.0	Typ. 2.5 / Max. 5.0
Mechanical Data		
Ambient temperature (°C)	-20 to +55	
Dimensions (W × H × D [mm])	200 × 101 × 29 (without antennas)	
Weight (kg)	0.20	
Installation method	Wall mounting / Desktop mounting	
Environmental rating	Indoor-IP20	
Compliance		
Certificates	CE, FCC, IC, RCM, Anatel	
Microinverter Compatibility		
Microinverter model	HMS series[3], HMT series, MiT series[3], MiS Series	

**1 This depends on the installation environment. Please refer to the user manual for more details.*
**2 Extended antenna is recommended if the DTU is installed inside a metal box or under a metal/concrete roof.*
**3 DTU-Pro-S is compatible with: (a) HMS Series microinverters except HMS-300W/350W/400W/450W/500W-1T, HMS-600W/700W/800W/900W/1000W-2T, and HMS-1600DW/1800DW/2000DW-4T microinverters; (b) MiT Series microinverters except MIT-4000/4500/5000-8E Series microinverters.*

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COMMUNICATION | DTU-LITE-S

The Hoymiles DTU-Lite-S is a compact data transfer unit for residential solar systems. Its small size and simple installation make it easy to set up. It uses Sub-1G wireless communication to collect data from microinverters and sends this data to the Hoymiles monitoring platform, S-Miles Cloud, using Wi-Fi. With the DTU-Lite-S, you can view real-time data and alarms for each PV module. You can monitor system performance remotely and perform maintenance anytime, from anywhere, through S-Miles Cloud.

WiFi | Max. 99 PV panels



Features

01 Module-level monitoring and data storage

02 Plug and play, easy installation

03 Sub-1G wireless solution with microinverter

04 Real-time microinverter data and alarm on S-Miles Toolkit

05 Remote system management on S-Miles Cloud

Technical Specifications

Model	DTU-Lite-S
Communication to Microinverter	
Type	Sub-1G
Maximum distance (open space)	400 m
Monitoring data limit from solar panels[1]	99
Communication to S-Miles Cloud	
Wireless standard	Wi-Fi 802.11b/g/n
Radio band	2.4 Ghz
Sample rate	Per 15 minutes
Interaction	
LED	LED Indicator
Local app	S-Miles Toolkit
Power Supply (Adapter)	
Type	External adapter
Adapter input voltage/frequency	100 to 240 V AC / 50 or 60 Hz
Adapter output voltage/current	5V / 2A
Power consumption (DTU)	Typ. 1.0W / Max. 5.0W
Mechanical Data	
Ambient temperature range (°C)	-20 to +55
Dimensions (W × H × D [mm])	143 × 33 × 12.5
Weight (g)	43
Installation option	Direct plug-in
Compliance	
Certificate	CE, RCM, Anatel
Microinverter Compatibility	
Microinverter model	HMS series, HMT series, MiS series

*1 This depends on the installation environment. Please refer to user manual for more details.

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RAPID SHUTDOWN | HRSD

As part of Hoymiles Rapid Shutdown Solution for the PV system, HRSD-2C is connected with two modules. It meets NEC 2017, NEC 2020, UL 1741 and SunSpec Rapid Shutdown requirements, guaranteeing PV system safety. The HRSD device enables proper operation of the PV system when it is installed and receives a "permission to operate" signal from the Hoymiles Transmitter. In an emergency, the PV system would enter module-level rapid shutdown mode by simply disconnecting the AC power of the Transmitter or using an external initiator.

2 input | 20A input | Plug&Play



Features

01 Module-level Rapid Shutdown
Meets SunSpec RSD, NEC 2017&NEC 2020 690.12 requirements

02 Increased Reliability
Uses Active Bypass to reduce heat generation in shade and other situations

03 Better Temperature Uniformity
Uses graphene heat spreader to improve heat dissipation

04 Easy Installation
Plug & play, no configuration required

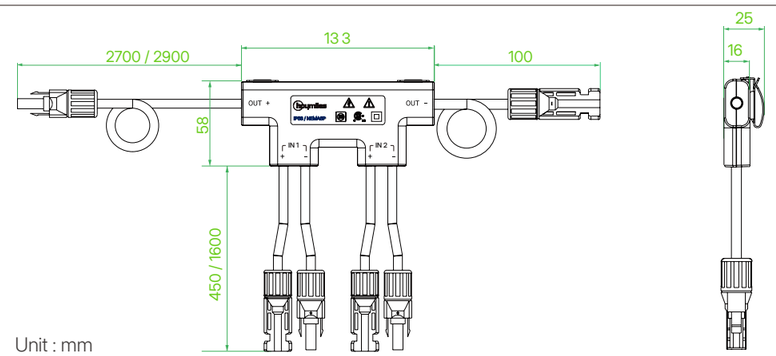
05 High Efficiency
Lower power consumption and wider operating voltage range

06 Reliable Communication
Able to avoid crosstalk with special communication modulation technique

Technical Specifications

Model	HRSD-2C	HRSD-2C-B
Electrical Data		
Output voltage range	16-160 V	16-130 V
Input voltage range	8-80 V	8-65 V
Maximum current	15 A	20 A
Maximum short circuit current	25 A	
Maximum system voltage	1000 V / 1100 V (1500 V optional)	
Communication type	SunSpec PLC	
Shutdown output voltage	1 V	
Power consumption	200 mW	
Mechanical Data		
Input connectors	MC4 / MC4 EVO2, optional	
Input cable length [1]	0.45 m (1.48 ft.) / 1.6 m (5.23 ft.), optional	
Output connectors	MC4 / MC4 EVO2, optional	
Output cable length [2]	2.7 m (+) / 0.1 m (-) 8.86 ft. (+) / 0.33 ft. (-)	2.9 m (+) / 0.1 m (-) 9.51 ft. (+) / 0.33 ft. (-)
Dimensions	133 x 58 x 16 mm (5.24 x 2.28 x 0.63 inch)	
Environmental		
Operating temperature range	-40°C to +85°C (-40°F to +185°F)	
Outdoor rating	IP68 / NEMA6P	
Compliance		
Safety	UL1741, CSA C22.2 No. 330-17, IEC/EN 62109-1	
EMC	FCC Part15 Class B, ICES-003, IEC/EN 61000-6-1/-2/-3/-4	

1. The former matches PV module output cables of 1.35 m (4.43 ft.) at minimum, and the latter matches those of 0.2 m (0.66 ft.) at minimum.
2. Fits PV module in portrait installation. Contact Hoymiles if horizontal installation is needed.



Unit : mm

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RAPID SHUTDOWN | HT-G20-KIT

As part of Hoymiles Rapid Shutdown solution, the HT-G20-Kit series are designed to work with HRSD for rapid shutdown at the module level. The kit comprises one HT-G20 (available in single or dual Core), one single-phase power supply, and an outdoor enclosure. When powered on, the HT-G20 uses PLC technology to continuously send a "permission to operate" signal to HRSD, enabling the PV system to start producing power. In case of emergency, the PV system would enter module-level rapid shutdown mode by simply disconnecting the AC power of the Transmitter or using an external initiator.*
* Refer to the user manual for details.

PLC | 75-250A per core | IP68



Features

01 Module-level rapid shutdown with Hoymiles HRSD

02 Achieves rapid shutdown through Transmitter power-off or external initiation

03 Advanced crosstalk prevention solution

04 Weatherproof outdoor enclosure

05 Complied with NEC 2017&NEC 2020 690.12 requirements

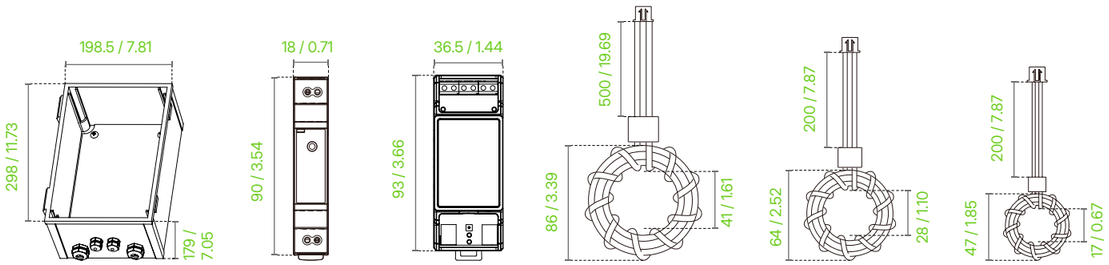
06 Equipped with single-phase power supply

Technical Specifications

Model	HT-G20-Kit-A1S2			HT-G20-Kit-B1S2			HT-G20-Kit-B2S2			HT-G20-Kit-C2S2		
Electrical												
Transmitter input voltage	12 V DC (+/-2%)											
Transmitter input current	1 A											
PSU input voltage range	85-277 V AC											
Communication												
Communication type	PLC											
Max. cable length between inverter input (+) and input (-)	800 m (2624.67 ft.)											
Core												
Number of Core connected	1			1			2			2		
Max. allowable current per Core	75 A			150 A			150 A			250 A		
DC cable diameter	Φ 6 mm (0.24")	Φ 6.45 mm (0.25")	Φ 7 mm (0.28")	Φ 6 mm (0.24")	Φ 6.45 mm (0.25")	Φ 7 mm (0.28")	Φ 6 mm (0.24")	Φ 6.45 mm (0.25")	Φ 7 mm (0.28")	Φ 6 mm (0.24")	Φ 6.45 mm (0.25")	Φ 7 mm (0.28")
Max. number of strings per Core *	5	4	3	15	12	10	15	12	10	20	18	16
Max. number of HRSD-1Cs per Core **	150	120	90	450	360	300	450	360	300	600	540	480
Max. number of HRSD-2Cs per Core **	75	60	45	225	180	150	225	180	150	300	270	240
Mechanical												
Dimensions	198.5 × 298 × 179 mm (7.81" × 11.73" × 7.05")											
Mounting type	Wall-mounted											
Environmental												
Operating temperature range	-40°C to +85°C (-40°F to +185°F)											
Outdoor rating	IP65											
Compliance												
Safety	UL3741, UL1741, CSA C22.2 No. 330-17											
EMC	FCC Part 15B, ICES-003											

* The maximum number of strings per Core is determined by the DC cable current and diameter. The total cable current should not exceed the Core's maximum allowable current, and the total cable diameter should not exceed the Core's diameter.

** Max. number of HRSDs per Core = Max. number of strings per Core × number of PV modules per string (In the table we have assumed each string has 30 PV modules.)



Unit : mm / inch

Power Supply (85-277 V) | Transmitter | Core-250 A | Core-150 A | Core-75 A

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RAPID SHUTDOWN | HT-G20

The HT-G20 Series Transmitters are part of the Hoymiles Rapid Shutdown solution and work with HRSD for module-level rapid shutdown. When the transmitter is powered on, it uses PLC technology to send a "permission to operate" signal to HRSD allowing the PV system to produce power. In an emergency, the PV system can be shut down by turning off the transmitter's AC power or using an external switch.*
*For more details, see the user manual.

PLC | 75-250A per core | IP10



Features

01 Works with Hoymiles HRSD for quick module shutdown

02 Quickly shuts down by powring off the transmitter or using an external initiation

03 Advanced crosstalk prevention solution, prevents signal interference effectively

04 Complied with NEC 2017&NEC 2020 690.12 requirements

05 Available with single or dual cores

Technical Specifications

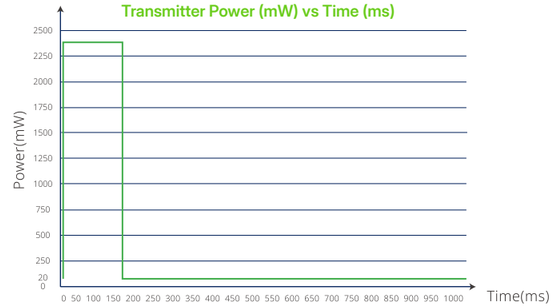
Model	HT-G20-A102			HT-G20-B102			HT-G20-B202			HT-G20-C202		
Electrical												
Transmitter input voltage	12 V DC (+/-2%)											
Transmitter input current	0.06 A											
Communication												
Communication type	PLC											
Max. cable length between inverter input (+) and input (-)	800 m (2624.67 ft.)											
Core												
Number of Core connected	1			1			2			2		
Max. allowable current per Core	75 A			150 A			150 A			250 A		
DC cable diameter	Φ 6 mm (0.24")	Φ 6.45 mm (0.25")	Φ 7 mm (0.28")	Φ 6 mm (0.24")	Φ 6.45 mm (0.25")	Φ 7 mm (0.28")	Φ 6 mm (0.24")	Φ 6.45 mm (0.25")	Φ 7 mm (0.28")	Φ 6 mm (0.24")	Φ 6.45 mm (0.25")	Φ 7 mm (0.28")
Max. number of strings per Core *	5	4	3	15	12	10	15	12	10	20	18	16
Max. number of HRSD-1Cs per Core **	150	120	90	450	360	300	450	360	300	600	540	480
Max. number of HRSD-2Cs per Core **	75	60	45	225	180	150	225	180	150	300	270	240
Mechanical												
Dimensions	93 × 36.5 × 53 mm (3.66" × 1.44" × 2.09")											
Mounting type	DIN35 rail											
Environmental												
Operating temperature range	-40°C to +85°C (-40°F to +185°F)											
Outdoor rating	IP10 / NEMA1											
Compliance												
Safety	UL3741, UL1741, CSA C22.2 No. 330-17											
EMC	FCC Part 15B, ICES-003											

* The maximum number of strings per Core is determined by the DC cable current and diameter. The total cable current should not exceed the Core's maximum allowable current, and the total cable diameter should not exceed the Core's diameter.

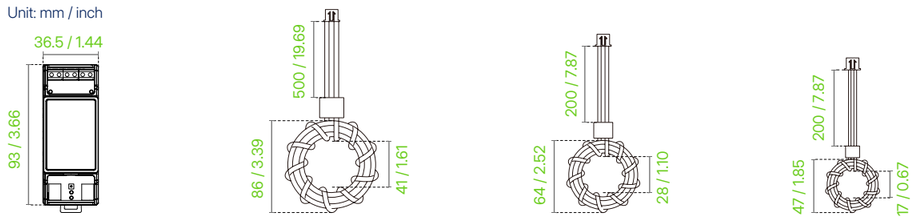
** Max. number of HRSDs per Core = Max. number of strings per Core × number of PV modules per string (In the table we have assumed each string has 30 PV modules.)

When installed inside an inverter, the HT-G20 needs to be powered with the following power curve at least.

- Voltage: 12 V DC (+/-2%)
- Power standby: 0.2 W
- Duty cycle: 16%
- Max. power: 3 W



Unit: mm / inch



Transmitter | Core-250 A | Core-150 A | Core-75 A

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C&I SCENARIO

Storage Solution

Hoymiles offers power conversion systems (PCS), energy storage batteries, all-in-one battery systems, and other equipment to C&I owners. All products utilize liquid cooling technology, offering superior power density and efficiency and meeting the diverse needs of various C&I scenarios.



SOLUTION HIGHLIGHTS

Full Liquid-Cooling Design

Reliable operation from -30°C to +55°C with 30% lower auxiliary power use.

Safety You Can Trust

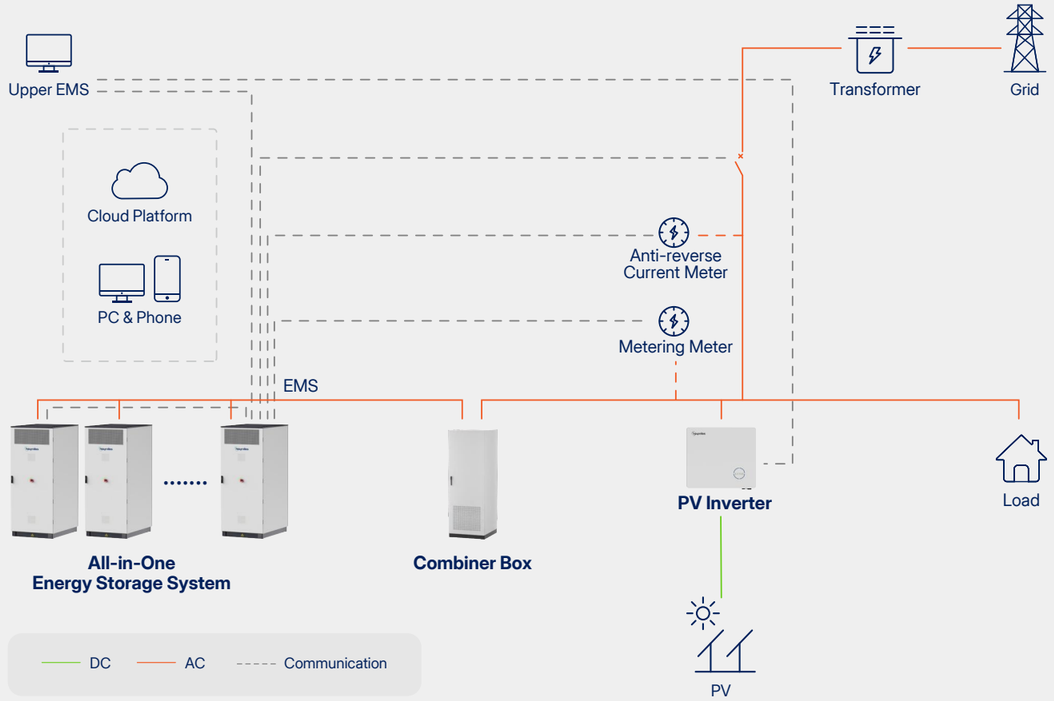
Triple-level fire protection and sixfold safeguards ensure ultimate system stability.

Smart & Fast Operation

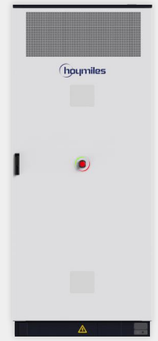
Cloud-based diagnostics with rapid 24-hour fault recovery keep downtime near zero.

Perfect Fit Anywhere

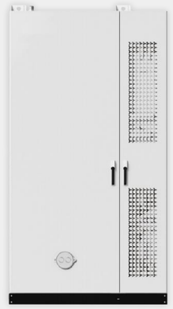
Compact, quiet (just 60 dB) design—seamlessly blends into malls, hotels, and communities.



What Hoymiles Offers



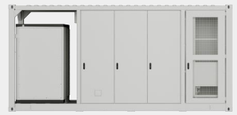
ALL-IN-ONE ESS



DC CABINET



PCS



CONTAINERIZED ESS

ENERGY STORAGE SYSTEM | HOYULTRA 2

HoyUltra 2 series (Model:HESS-261-2h)is a next-generation fully liquid cooling C&I battery system by Hoymiles, Its maximum round-trip efficiency can reach 90.3%.Equipped with a 3-level, 6-type safety protection mechanism, it ensures 24/7 safe operation. The edge EMS and local APP system enable inteligent operation and maintenance.The battery and PCS feature a fully liquid cooling design, allowing for full - capacity operation without derating even at 50'C. The core components boasting an IP55 protection rating and noise levels as low as 60dB

125kW | 261kWh



Features

01 Three-level and six-type safaty protection

- Active / Passive / Ultimate protection
- 3S Active intervention / PACK / Cabinet / Interlocked exhaust ventilation / Pressure relief / Cloud early warning protection

02 Efficient Energy Management

- Local optimization of edge EMS, global data analysis in the cloud
- Interconnected with the APP system to achieve division of labor, collaboration, and efficient management

03 Multi-scene applications

- Coordinated control of Photovoltaic, Energy Storage and Charging
- Fully liquid cooling design for battery and PCS, enabling operation without derating at 50°C
- IP55 protection level for core components,waterproof and dustproof
- Noise levels as low as 60dB, adaptable to supermarkets,hotels, and communities
- Operating with 100% three-phase imbalance under load at ff-Grid

Technical Specifications

Model	HESS-261-2h
DC Side	
Cell Type	LFP3.2V / 314 Ah
Pack Configuration	1P52S / 52.25 kWh
System Configuration	1P260S
Battery Voltage Range	728 - 936 VDC
Nominal Battery Energy	261 kWh
Temperature Detection	Battery cell+Module+Positive and Negative terminals
AC Side (On-Grid)	
Rated Output Power	125 kW（@50°C）
Maximum Output Power	137.5 kW
Rated Grid Voltage Range	340 - 440 VAC
Rated Grid Frequency	50/60 Hz , ±5Hz
THDi	< 3% (@rated power)
Grid Type	3P3W / 3P4W
AC Side (Off-Grid)	
Rated Output Power	125 kW（@ 50°C）
Rated Output Voltage Range	340 - 440 VAC
Rated Grid Frequency	50/60 Hz
THDu	< 3%（Linear load）
DC Injection	< 1% U_n (Balanced linear load)
Efficiency	
Rated Round-trip Efficiency	≥ 88.4%
Maximum Round-trip Efficiency	90.3%
Overload	
Overload Capacity	Operate for a long time at 1.1 times (137.5 kW @45°C), Operate for no less than 1 minutes at 1.2 times the rated load
General Data	
Dimensions（W×H×D）	1030 mm × 2450 mm × 1400 mm
Weight	< 2700 kg
Operating Temperature	-30 to +55°C (> 50°C, derating operation)
Operating Humidity	0 - 100%RH (non-condensing)
Altitude	≤ 2000 m (Optional ≤ 4000 m)
IP Rating	IP55
Cooling Method	Fully liquid cooling (PCS + Battery)
Noise	70 dB (Optional 60 dB)
Rated Charge/Discharge Rate	≤ 0.5P
Fire Suppression System	Perfluorohexanone + PACK-level fire protection + Water fire protection + Interlocked exhaust ventilation +Pressure relief (Optional) + Aerosol (Optional)
AC Inlet Method	Front bottom inlet
Display and Communication	
Communication Interface	RS485、Ethernet、DIO
Communication Protocol	MODBUS-RTU、MODBUS-TCP、DL/T645
Cloud Service	Default S-Miles APP (Support third-party cloud platforms)
Standard and Regulation	
Grid Code Compliance	GBT 34120-2023, EN 50549-1/-2/-10, PGMcv 1.4, Synergrid Listed, G99/1-10/03.24, ENA Listed, VDE-AR-N 4105/11.18, DIN VDE V 0124-100/06.20, VDE-AR-N 4110/4120, ZEREZ Listed, CEI 0-21, CEI 0-16, RESP-73/2020, 2016/631 EU-(NC RfG), PSE 2018, PTPiREE Listed, RD244, UNE217001:2020, RD647:2020, UFD Listed, IEC 62116, IEC61727
Production Compliance	EN/IEC 62477-1:2012, IEC 62619:2022, EN IEC 61000-6-2/4:2019, IEC 63056:2020, GB/T 34131-2023, GB/T 36276-2023, UN38.3 Rev.8, IEC60730-1 AnnexH, IEC 61683, EN&IEC 62920

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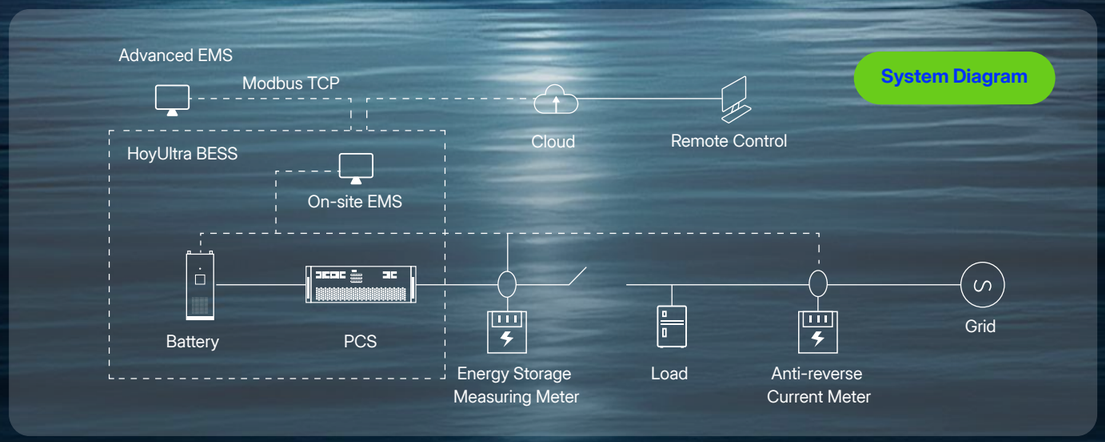
ENERGY STORAGE SYSTEM | HOYULTRA

A standalone system with an integrated multilevel BMS ensures exceptional safety, while multi-DC fuse protection guarantees fastbreaking and anti-arc safety. Advanced thermal management ensures cell consistency and extends cycle life, with a one-string-one-management approach for enhanced usable capacity. Easily transportable and pre-assembled, saves the installation time on site. Supports multicabinet parallel connection and offers PQ, VF, black start, and more. Enhanced safety features include a fire suppression system, gas detection, and an emergency shutdown function for added protection.

100kW | 215kWh





Technical Specifications

DC Side	
Battery Type	LFP (Lithium Iron Phosphate)
Configuration	1P240S
Rated Capacity (Ah)	280
Battery Capacity (BOL) (kWh)	215
Rated Voltage (V)	768
Rated Power (kW)	100
Rated Charge (Discharge) Rate	0.5C
Operating Voltage Range (V)	672 to 864
Standard Charge (Discharge) Current (A)	140
Cooling	Liquid Cooling
Coolant	Ethylene Glycol: Aqueous Solution (50%v: 50%v)
Cycles	8000
Fire Suppression System	NOVEC1230 (Perfluorohexanone)
Fire Suppression Equipment	Somke Detector, Temperature Detector, Flammable Gas Detector
AC Side	
Rated AC Power (kW)	100
AC Overload Capacity (kVA)	110
AC Connection	Three-phase, Four-wire System
Rated Grid Voltage (V)	380/400
Rated Gird Frequency (Hz)	50/60
Total Harmonic Distortion of Current	< 3% (at Nominal Power)
Power Factor	> 0.99 (at Nominal Power)
Voltage Regulation Accuracy	≤ ±2%
Current Regulation Accuracy	≤ ±5%
Max. Conversion Efficiency	98%
Cooling	Air Cooling
Battery System	
Operating Temperature Range (°C)	-30 to 55 (> 45 Derating)
Noise (dB)	< 75
Dimensions (W × D × H) (mm)	935 × 1250 × 2380
Weight (T)	2.3 ± 0.1
Anti-corrosion	C4
IP Rating	Battery Compartment: IP65 Electrical Compartment: IP54
Operating Humidity	0 to 95% (Non-condensing)
Operating Altitude (m)	≤ 3000 (> 2000 Derating)
Efficiency	Up to 86%
Communication Interface	CAN, Ethernet
Communication Protocol	Modbus TCP
Operating Modes	
Peak Shaving and Valley Filling	Yes
Demand Control	Yes
Economic Operation Mode	Yes
Reactive Power Regulation	Yes
Grid Dispatch Interface	Yes
Remote Dispatch Interface	Yes
Local Data Storage	Yes
Anti-reverse Current	Yes
Certification	
BMS	IEC/EN 60730-1: 2020 Annex H, UL60730-1: 2016 Annex H, GB/T 34131-2017
Battery/System	GB/T 36276-2018, IEC 62619-2017, ANSI/CAN/UL 1973: 2022, ANSI/CAN/UL 9540A: 2019, UN 38.3, EN 62477-1: 2012+A11: 2014+A1: 2017+A12: 2021, EN IEC 61000-6-1: 2019, EN IEC 61000-6-2: 2019, EN IEC 61000-6-3: 2021, EN IEC 61000-6-4: 2019
PCS	CE, GB/T 34120, GB/T 34133, EN 50549-1: 2019+AC: 2019-04, EN 50549-2: 2019+AC: 2019-03, CEI 0-21, CEI 0-16, NRS 097-2-1: 2017, EN 50549+Deviations of Netherlands, EN 50549+C10/11: 2019, EN 50549+Deviations of Greece, EN 50549+Deviations of Sweden, NC RFG, PTPiREE, G99, VDE-AR-N 4105: 2018, DIN VDE V 0124-100: 2020-06, UNE 217001: 2020, UNE 217002: 2020, NTS V2.1

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ENERGY STORAGE SYSTEM | HOYCORE

344kWh



Features

01 Efficient and Flexible

- Utilizing intelligent liquid cooling to minimize power consumption and extend system life. Enhanced scalability with seamless stack additions.

02 Intelligent and User-friendly

- Advanced big data management continuously monitors cell status, offering real-time predictions and warnings to identify potential issues early.

03 Safe and Reliable

- Multi-layer insulation for enhanced safety, a three-level short-circuit protection system to minimize risks, and a compre-hensive three-level fire protection system for rapid thermal runaway suppression.

04 Easy Maintenance

- Automatic rehydration eliminates manual intervention. Fault reporting and SOC calibration to eliminate the need for frequent inspections and operational shutdowns.

Technical Specifications

DC side

Battery Type	LFP (Lithium Iron Phosphate)
Configuration	1P384S
Rated Capacity (Ah)	280
Battery Capacity (BOL) (kWh)	344
Rated Voltage (V)	1228.8
Rated Charge (Discharge) Rate	0.5C
Operating Voltage Range (V)	1075.2 to 1382.4
Standard Charge (Discharge) Current (A)	140
Cooling Mode	Liquid Cooling
Coolant	Ethylene Glycol: Aqueous Solution (50%v: 50%v)
Fire Suppression System	NOVEC1230 (Perfluorohexanone)
Fire Safety Equipment	Smoke Detector, Temperature Detector, Flammable Gas Detector

Compliance

BMS	GB/T 34131-2017, IEC/UL 60730
Battery	GB/T 36276-2018, IEC 62619, UL 1973, UL 9540A, UL 9540, NFPA 69, NFPA 855

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PCS | HPCS125

HPCS125 is based on ANPC, Peak efficiency >98.7%; Intelligent liquid cooling; Higher power density and smaller size; no derating up to 45°C; IP65, adapting to high salt, high humidity, high temperature, high evaporation and other complex and harsh operating environments.

125kW



Features

01 Compact construction, efficient conversion

- ANPC topology, peak efficiency > 98.7%
- Intelligent liquid cooling, no derating up to 45 °C
- Higher power density and smaller size
- Adapted to high altitude, up to 5000 m
- IGBT Delta-T < 2°C, extend service life

02 Multi-scene applications

- Support L/HVRT, stable operation in weak grid, efficient and adaptable
- Comply with GB/T 34120-2023
- Managing low harmonics and three-phase power imbalances
- 3P4W grid type, Supports 100% single-phase unbalanced loads in off-grid mode

03 High compatibility, quick adjustment

- DC voltage range 580 V to 1000 V, rated output power 125 kW, compatible with various specifications of batterycells (280 AH to 320 AH)
- Supports on-grid, off-grid, and hybrid (on/off-grid) modes,constant voltage, constant current and constant power inbattery charge/discharge

04 Comprehensive protection, safe and reliable

- IP65, Explosion-proof housing, safe and reliable
- Load switch, fuses and buffer circuit on DC side
- Over-voltage and over-current protection, linkable with BMS and EMS, realization of multiple protections
- Grouped protection to reduce the barrel effect
- Fault filtering, 500 ms duration

Technical Specifications

Model	HPCS125
DC Side	
DC voltage range	580 V to 1000 V
Maximum continuous DC-side current @45°C	214.8 A
Number of inputs	1
AC Side (On-Grid)	
Rated output power @50°C	125 kW
Maximum continuous output power @45°C	137.5 kW
Rated current @50°C	180.4 A
Maximum continuous AC-side current @45°C	198.5 A
Rated AC voltage	400 V
AC voltage range	340 V to 440 V
Rated grid frequency / grid frequency range	50 Hz / 45 Hz to 55 Hz
DC injection	< 0.5% * rated current
AC current harmonic	< 2% (@rated power)
Power factor	> 0.99 (@rated power)
Power control precision	≤1%Pn (output power > 20% * Pn)
Reactive power adjustment range	-105% to +105%
Grid type	3P3W / 3P4W (compatible)
Charge/discharge switching time	< 20 ms
AC Side (Off-Grid)	
Rated AC voltage	400 V, 3W + PE + (N)
AC voltage range	340 V to 440 V
Rated grid frequency / grid frequency range	50 Hz / 45 Hz to 55 Hz
Output voltage imbalance	< 2% (< 4% in short time)
AC voltage harmonic	< 2% (off-grid with no load or rated resistive load)
DC component of AC-side voltage	< 0.5% Un (balanced linear load)
Unbalance load capacity	100% (single-phase load 41.6kVA)
Efficiency	
Peak efficiency	> 98.7%
Protection and Overload	
DC input / reverse polarity protection	Load switch + Fuses
Surge protection	DC Type II / AC Type II
Grid monitoring and grounding fault monitoring	Integrated
Insulation monitoring	Integrated
Overheat and overtemperature protection	Integrated
Short circuit protection	Integrated
DC overvoltage and undervoltage protection	Integrated
AC line phase sequence error protection	Integrated
Cooling system failure protection	Integrated
Communication failure protection	Integrated
Anti-islanding protection	Integrated, Combination of active and passive
Overload capacity	Operate for a long time at 1.1 times the rated load. Operate for no less than 2 minutes at 1.2 times the rated load
General Data	
Dimensions （W×H×D）	650 × 250 × 750 mm
Weight	75 kg
Operating temperature	-35 to +60°C (> 45°C, derating operation)
Operating humidity	0 to 100%RH (non-condensing)
Altitude	≤5000 m (> 3000 m, derating operation)
IP rating	IP65
Cooling method	Intelligent liquid cooling
Isolation method	Transformerless isolation
Overvoltage degree	DC port : II, AC port : III
Display and Communication	
Display	LED + S-Miles Installer App
Communication interface	RS485, CAN, Ethernet, Wi-Fi
Communication protocol	MODBUS-RTU, CAN2.0, MODBUS-TCP
Standard and Regulation	
Compliance	GB/T 34120, GB/T 34133, GB/T 36547, IEC/EN 62477, IEC/EN 61000, IEC/EN 50549

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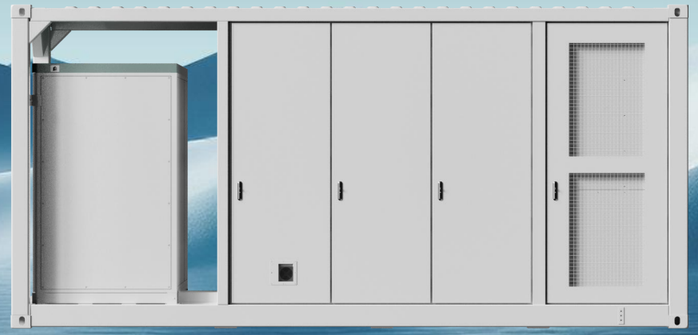
ENERGY STORAGE SYSTEM | HOYPRIME

1MW | 2MWh



Features

01 Cost-effective and Efficient

- Intelligent liquid cooling reduces auxiliary power consumption and extends lifespan.
- The compact, non-walk-in design increases energy density in a smaller footprint.

02 Smart and Friendly

- Comprehensive cell status monitoring provides early warnings for potential issues.
- High-level protection ensures performance in extreme environments.
- Standardized external interfaces simplify on-site installation.

03 Safe and Reliable

- Multi-layer insulation enhances safety.
- Three-level short-circuit protection minimizes risks.
- A comprehensive three-level fire protection system ensures swift suppression of thermal runaway

04 Easy Maintenance

- Automatic coolant replenishment, fault reporting, and SOC calibration eliminate the need for manual intervention or system downtime.

Technical Specifications

Model	HoyPrime 1MW/2MWh Containerized Battery Energy Storage System
DC side	
Battery Type	LFP (Lithium Iron Phosphate)
Configuration	6P384S
Rated Energy (MWh)	2.064
Rated DC Voltage (V)	1228.8
Rated Charge/Discharge Rate	0.5C
Operating Voltage Range (V)	1075.2 to 1382.4
Standard Charge/Discharge Current (A)	840
Cooling Mode	Liquid Cooling
Coolant	Ethylene Glycol: Aqueous Solution (50%v: 50%v)
Cycles	8000
Fire Extinguisher	NOVEC1230 (Perfluorohexanone) / FM200 (Heptafluoropropane), Water-Based Fire Suppression
Detector Type	Temperature Detector, Smoke Detector, Combustible Gas Detector
AC Side	
Rated AC Power (MW)	1
Rated AC continuous current (A)	836
Maximum AC Power (MW)	1.1
Maximum AC current (A)	920
Rated Grid Voltage (V ac)	690 (-15% to 10%)
Rated Grid Frequency (Hz)	50/60 (-5 to 5)
Total Harmonic Distortion (@ nominal power)	<3%
Power Factor (@nominal power)	> 0.99
Voltage Regulated Accuracy	≤±1.5%
Current Regulated Accuracy	≤±1%
Maximum Conversion Efficiency	99%
Cooling Mode	Liquid Cooling
General Parameters	
Operating Temperature Range (°C)	-30 to 55 (> 45°C derating)
Noise (dB)	<80
Dimensions (L × W × H [mm])	6058 × 2438 × 2896
Weight (T)	28±0.5
Anti-corrosion Degree	C4
IP Rating	IP54
Relative Humidity	0 to 95% (non-condensing)
Standard Altitude (m)	≤ 3000 (>3000 m derating)
Charging/Discharging Efficiency	≥93%, (25°C ± 2°C, 0.5C)
Communication Interface	CAN, Ethernet, RS485
Communication Protocol	Modbus TCP/RTU, IEC 61850, GOOSE
Features	
Peak Shaving and Valley Filling	Yes
Demand Control	Yes
Economic Operation Mode	Yes
Reactive Power Regulation	Yes
Grid Dispatch Interface	Yes
Remote Dispatch Interface	Yes
Local Data Storage	Yes
Compliance	
BMS	GB/T 34131-2023, IEC/UL 60730
Battery	GB/T 36276-2018, IEC 62619, UL 1973, UL 9540A
PCS	IEC 61000, VDE-AR-N 4110: 2018, VDE-AR-N 4120: 2018, G99, NTS 631 V2.1 (Type B/C/D), GB/T 34120-2017, GB/T 34133-2017, IEC 62477-1, EN 50549

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