



HYBRID LIHUB

ALL-in-one Energy Storage System

All-in-one hybrid

- On-grid, off-grid, solar connection available
- High performance 3-level topology PCS, max efficiency 99.3%

Long Cycle life

- Integrated high-quality LFP cell with high cycle life > 6000 cycles
- Optimized thermal design, accurate temperature control, and air duct design ensure every cell always works in the most appropriate temperature range

Versatile application

- Built-in functionalities such as peak shaving, demand management, demand response, power expansion, emergency backup power, etc
- Low noise, suitable for populated areas

Safe & Efficient

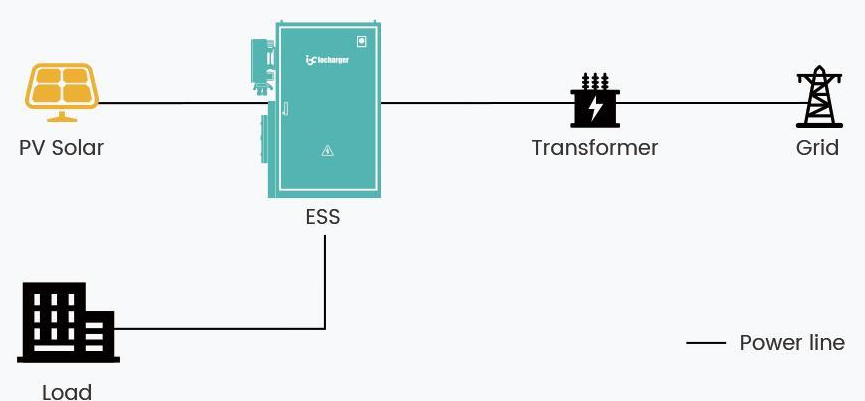
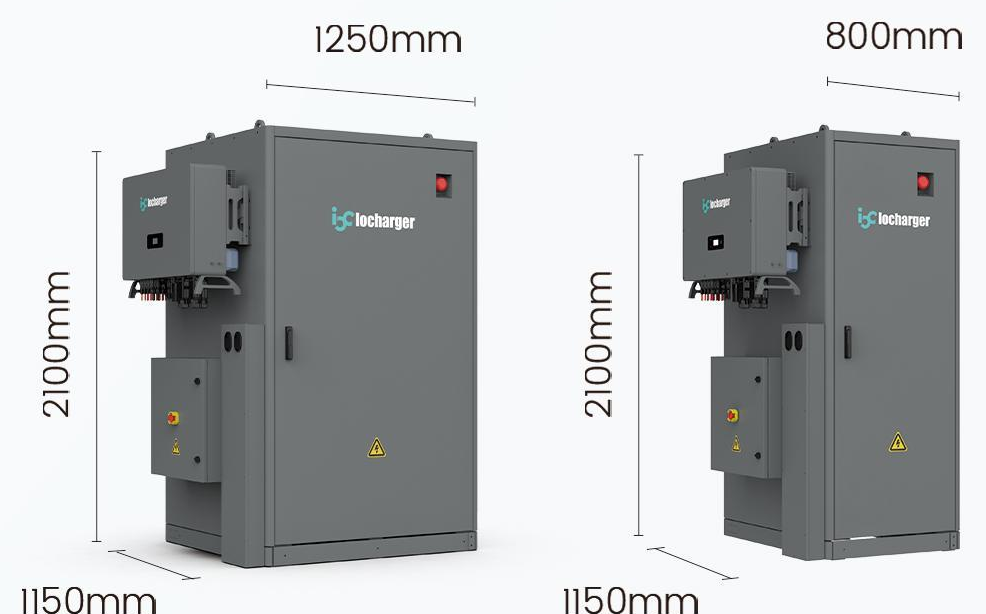
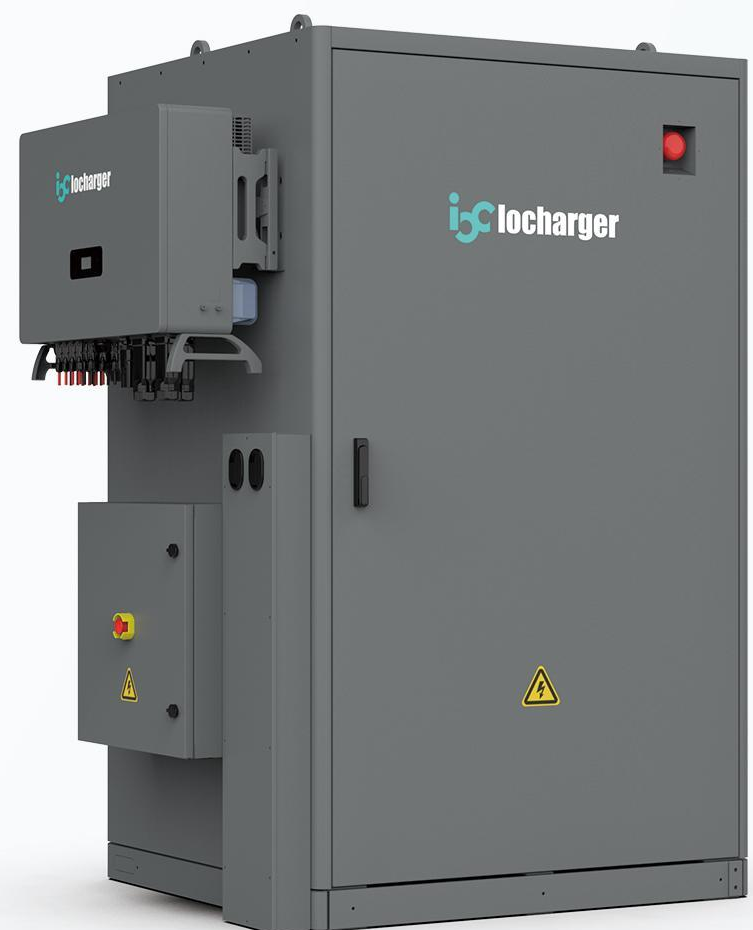
- Independent cabinet and modular battery design for increased safety
- Higher efficiency and longer life cycle. Double layer fire protection system with intelligent temperature control.

Easy to operate & maintain

- All-in-one modular solution allows for quick installation time and minimizes maintenance required for local failures
- Cloud EMS allows easy remote monitoring and control of all LiHub units.

Multiple Standards Support

- EN/IEC 62109-1/2, EN IEC 61000-6-1:2019, EN IEC 61000-6-2:2019, EN IEC 61000-6-3:2021, EN IEC 61000-6-4:2019, EN 50549-1, VDE-AR-N 4105, DIN VDE V 0124-100, IEC 62619



Example Application

Model		IOC30EPH96	IOC30EPHI29	IOC30EPHI61	IOC30EPHI93
PV Parameters	Maximum input power	30kW			
	Maximum input voltage	1000V			
	MPPT voltage range	200-850V			
	Starting voltage	135V			
	Maximum input current	30A*4			
	Maximum short circuit current	40A*4			
	MPPT quantity	4（2 Strings/MPPT）			
Battery Parameters	Cell parameters	LFP 3.2V/280Ah			
	Module configuration	1P18S			
	Module rated voltage	57.6Vdc			
	Module capacity	16.128kWh			
	Module size（W*D*H）	440*798*216（mm）			
	Module weight	117kg			
	Cluster configuration	6Modules +HVB	8Modules +HVB	10Modules +HVB	12Modules +HVB
	Cluster capacity	96kWh	129kWh	161kWh	193kWh
	Cluster rated voltage	345.6Vdc	460.8Vdc	576.0Vdc	691.2Vdc
	Cluster voltage range	302.4Vdc ~ 378.0Vdc	403.2Vdc ~ 504.0Vdc	504.0Vdc ~ 630.0Vdc	604.8Vdc ~ 756.0Vdc
	Max.charge/discharge power	30kW/30kW			
	Max. charge/discharge current	100Adc/100Adc	75Adc/75Adc	60Adc/60Adc	50Adc/50Adc
On-Grid Parameters	Rated power	30kW			
	Rated Current	43.0A（@230/400V）			
	Max. Current	50.0A			
	Rated voltage	220/380V;230/400V;240/415V;3P+N+PE			
	Grid voltage range	-15%~+10%			
	Rated grid frequency	50Hz/60Hz			
	Power factor	-0.8~+0.8			
	THDi	<3%			
	DCI	<0.5%Ipn			
Off-Grid Parameters	Apparent power	30kVA			
	Power factor	1			
	Rated Current	43.0A（@230/400V）			
	Max. Current	50.0A			
	Rated voltage	220/380V; 230/400V; 240/415V; 3P+N+PE			
	Rated frequency	50Hz/60Hz			
	THDu	<3%（Linear load）			
	Unbalanced load capacity	100%			
	Overload capacity	33kW/10Min.,36kW/1Min.			
	Off-grid switching time	<20ms			
	Maximum efficiency	≥90%			
General Parameters	Charge and discharge rate	0.31C	0.23C	0.18C	0.15C
	Discharge depth	95%DOD			
	Battery cycle life	8000			
	Dimensions（W*D*H）	800*1150*2100+ 800*300*620（mm）	1250*1150*2100+800*300*620（mm）		
	Weight	1600kg	1750kg	2000kg	2250kg
	Protection level	IP55			
	FFS	Aerosol			
	Cooling method	Industrial air conditioner			
	Operating temperature	-25℃~55℃			
	Communication method	RS485（WiFi/4G/GPRS optional）			

Model		IOC50EPH145	IOC50EPH161	IOC50EPH177	IOC50EPH193
PV Parameters	Maximum input power	50kW			
	Maximum input voltage	1000V			
	MPPT voltage range	200-850V			
	Starting voltage	135V			
	Maximum input current	30A*4			
	Maximum short circuit current	40A*4			
	MPPT quantity	4 (2 Strings/MPPT)			
Battery Parameters	Cell parameters	LFP 3.2V/280Ah			
	Module configuration	1P18S			
	Module rated voltage	57.6Vdc			
	Module capacity	16.128kWh			
	Module size (W*D*H)	440*798*216 (mm)			
	Module weight	117kg			
	Cluster configuration	9Modules +HVB	10Modules +HVB	11Modules +HVB	12Modules +HVB
	Cluster capacity	145kWh	161kWh	177kWh	193kWh
	Cluster rated voltage	518.4Vdc	576.0Vdc	633.6Vdc	691.2Vdc
	Cluster voltage range	453.8Vdc ~ 567.0Vdc	504Vdc ~ 630Vdc	554.4Vdc ~ 693.0Vdc	604.8Vdc ~ 756.0Vdc
	Max.charge/discharge power	50kW/50kW			
	Max. charge/discharge current	100Adc/100Adc	100Adc/100Adc	90Adc/90Adc	83Adc/83Adc
On-Grid Parameters	Rated power	50kW			
	Rated Current	72.0A (@230/400V)			
	Max. Current	83.0A			
	Rated voltage	220/380V;230/400V;240/415V;3P+N+PE			
	Grid voltage range	-15%~+10%			
	Rated grid frequency	50Hz/60Hz			
	Power factor	-0.8~+0.8			
	THDi	<3%			
	DCI	<0.5%Ipn			
Off-Grid Parameters	Apparent power	50kVA			
	Power factor	1			
	Rated Current	72.0A (@230/400V)			
	Max. Current	83.0A			
	Rated voltage	220/380V;230/400V;240/415V;3P+N+PE			
	Rated frequency	50Hz/60Hz			
	THDu	<3%(Linear load)			
	Unbalanced load capacity	100%			
	Overload capacity	55kW/10Min.,60kW/1Min.			
	Off-grid switching time	<20ms			
General Parameters	Maximum efficiency	≥90%			
	Charge and discharge rate	0.34C	0.31C	0.28C	0.26C
	Discharge depth	95%DOD			
	Battery cycle life	8000			
	Dimensions (W*D*H)	1250*1150*2100+800*300*620 (mm)			
	Weight	1900kg	2000kg	2150kg	2250kg
	Protection level	IP55			
	FFS	Aerosol			
	Cooling method	Industrial air conditioner			
	Operating temperature	-25℃~55℃			
	Communication method	RS485 (WiFi/4G/GPRS optional)			