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%

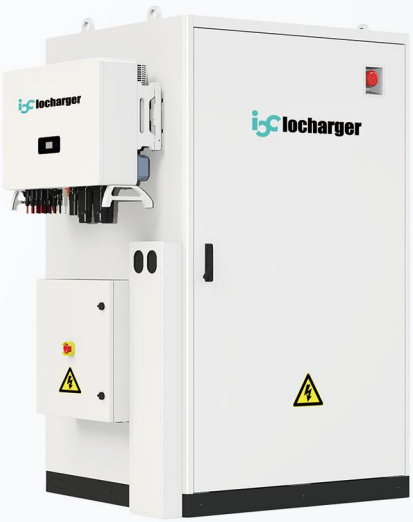
Long Cycle life
- Integrated high-quality LFP cell with high cycle life > 6000 cycles
- Optimized thermal design, accurate temperature control, and air duct design ensure every cell always works in the most appropriate temperature range

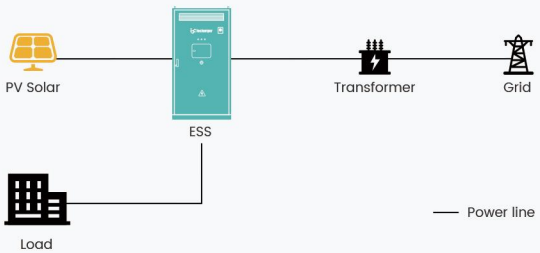
Versatile application
- Built-in functionalities such as peak shaving, demand management, demand response, power expansion, emergency backup power, etc
- Low noise, suitable for populated areas

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

Specification

Specifications are subject to change without notice.

Model		IOC30EPH96	IOC30EPH129	IOC30EPH161	IOC30EPH193
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			
General Parameters	Maximum efficiency	≥90%			
	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)			