Hisense | 科林电气 KE ELECTRIC

30-50kW

PV-DIESEL-STORAGE HYBRID INVERTER



Designed for commercial, industrial and residential PV & storage applications, the KE 30–50 kW hybrid inverter integrates MPPT, PCS, STS, and EMS into a single compact unit. It supports multi-energy inputs from solar PV, battery storage, and diesel generators, delivering uninterrupted power supply and intelligent energy management across all scenarios.

HIGH-EFFICIENCY OPERATION

- Supports PV overloading up to 2× rated power, with max. 20 A string input current for seamless compatibility with high-power modules;
- Dual independent battery ports support 100–314 Ah batteries, with a max. charging current of 160 A for rapid charging;
- Peak efficiency of 98.6%, featuring three-level technology and wide DC input voltage range.

STABILITY & SAFETY

- Industrial-grade protection with IP66 rating, optional C4/C5 anti-corrosion for coastal high-humidity and salt-spray environments;
- 160% overload for 2 seconds and 150% overload for 10 seconds in off-grid mode, ensuring reliable startup of large loads;
- Multiple safety protections ensure trouble-free operation.

FLEXIBLE ADAPTATION

- Smart 3-in-1 interface supports connection to PV, wind, diesel generators, and other power sources;
- Supports three-phase unbalanced loads, with each phase capable of independent load carrying;
- Supports DC/AC dual coupling for flexible system retrofitting and expansion, Parallel configuration expands system capacity up to 500 kW.

INTELLIGENT OPERATION & MAINTENANCE

- Cloud-based AI strategies for remote control and instant fault diagnosis;
- Demand control + anti-reverse power function to reduce electricity costs through EMS strategies;
- Grid-on/off transfer time ⩽ 10 ms for seamless switching.

Product Parameters

KE (PV-DIESEL-STORAGE HYBRID INVERTER)

PRODUCT MODEL		KE-5124-30K	KE-5124-50K
Input (PV)	Max. PV Array Power	60 kW	100 kW
	Max. PV Input Power	60 kW	100 kW
	Max. PV Voltage	1000 V	
	MPPT Voltage Range	150 ~ 850 V	
	PV Nominal Voltage	600 V	
	PV Startup Voltage	180 V	
	Grid-feed Startup Voltage	180 V	
	Max. Input Current	40A × 3	40 A × 4
	Max. PV Short-Circuit Current	60 A × 3	60 A × 4
	Number of MPPT	3	4
	Number of Strings	6	8
Battery	Cell Type	Li-ion	Li-ion
	Max. Charge/Discharge Power	33 kW × 2	55 kW × 2
	Max. Charging/Discharging Current	80 A × 2	
	Number of Battery Input Ports	2	
	Battery Voltage Range	150 ~ 800 V	
	Battery Communication	CAN/RS485	
Output (grid)	Nominal Output Power	30 kW	50 kW
	Max. Apparent Power (Grid-Tied)	30 kVA	50 kVA
	Nominal Output Current	45.6/43.3 A	76.0/72.2 A
	Max. Output Current	45.6/43.3 A	76.0/72.2 A
	Nominal AC Voltage	3/(N)/PE AC220/380V 3/(N)/PE AC230/400V 3/(N)/PE AC240/415V	
	Nominal Frequency	50 Hz/60 Hz	
	Grid Frequency Range	45~55/55~65 Hz	
	Power Factor	> 0.99 (0.8 Leading ~ 0.8 Lagging)	
	Current THD (THDi)	< 3%	
Input(grid)	Max. Bypass Current	91.2/86.6 A	152/144.4 A
	Nominal Input Voltage	3/(N)/PE AC220/380V 3/(N)/PE AC230/400V 3/(N)/PE AC240/415V	
	Nominal Input Frequency	50 Hz/60 Hz	
Generator Input	Max. Input Power	30 kW	50 kW
	Nominal Input Current	45.6/43.3 A	76.0/72.2 A
	Nominal Input Voltage	3/(N)/PE AC220/380V 3/(N)/PE AC230/400V 3/(N)/PE AC240/415V	
	Nominal Input Frequency	50 Hz/60 Hz	
Output(off-grid)	Nominal Output Power	30 kW	50 kW
	Nominal Output Current	45.6/43.3 A	76.0/72.2 A
	Max. Overload Capacity	1.6Pn@2s 1.5Pn@10s	
	Nominal Output Voltage	3/(N)/PE AC220/380V 3/(N)/PE AC230/400V 3/(N)/PE AC240/415V	
	Grid/Off-Grid Switching Time	< 10 ms	
	Max. Unbalanced Power per Phase	33% Nominal Power	
	Voltage THD (THDv)	< 3%	
Efficiency	Max. Efficiency	97.9%	
	Max. PV Charging Efficiency	98.6%	
	Max. Battery Charging/Discharging Efficiency	97.6%	
Protection	Anti-island Protection	Integrated	
	Insulation Resistance Detection	Integrated	
	DC Component Detection	Integrated	
	AC Overcurrent/Short-Circuit Protection	Integrated	
	Output Overvoltage Protection	Integrated	
	PV DC Switch	Integrated	
	DC Reverse Polarity Protection	Integrated	
	Surge Protection/Lightning Protection Level	Type II (AC Port) Type II (PV & Battery)	
	AFCI	Optional	
General Data	Dimensions (W×H×D)	530×850×290 mm	
	Weight	80 kg	
	Topology	Transformerless	
	Night Consumption	< 35 W	
	Operating Temperature Range	-25~60°C (Derated Above 45°C)	
	Relative Humidity	0~95%	
	Ingress Protection Rating	IP66	
	Cooling Method	Smart Air Cooling	
	Max. Operating Altitude	4000m (>3000m Derating)	
Features	PV/DC Port	MC4 Quick Connector	
	Battery Port	Terminal Block	
	AC Port	Terminal Block	
	Display/User Interface	LED Indicator Bluetooth + APP	
	Communication Interface	4G/CAN/RS485 Ethernet/Bluetooth/WiFi	
Certification	IEC/EN 62109、IEC/EN 61000		

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