



# Three Phase Hybrid Inverters



- 100** 100% unbalanced output, each phase
-  AC couple to retrofit existing solar system
- 10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 50** Max. charging/discharging current of 50A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

# Three Phase Hybrid Inverters

	10kW	15kW	20kW
	SKU: 12168 EAN: 3800170225114	SKU: 12169 EAN: 3800170225121	SKU: 12170 EAN: 3800170225138

Battery Input Data			
Battery Type	Lithium-ion		
Battery Voltage Range (V)	160-700		
Max. Charging Current (A)	37		
Max. Discharging Current (A)	37		
Charging Strategy for Li-ion Battery	Self-adaption to BMS		
Number of Battery Input	1		
PV String Input Data			
Max. PV Input Power (W)	13000	19500	26000
Max. PV Input Voltage (V)	1000		
Start-up Voltage (V)	180		
MPPT Voltage Range (V)	150-850		
Rated PV Input Voltage (V)	600		
Max. Operating PV Input Current (A)	20+20	26+20	26+26
Max. Input Short-Circuit Current (A)	30+30	39+30	39+39
No. of MPP Trackers/ No. of Strings per MPP Tracker	2/1+1	2/2+1	2/2+2
AC Input/Output Data			
Rated AC Input/Output Active Power (W)	10000	15000	20000
Max. AC Input/Output Apparent Power (VA)	11000	16500	22000
Rated AC Input/Output Current (A)	15.2/14.5	22.8/21.8	30.4/29
Max. AC Input/Output Current (A)	16.7/16	25/24	33.4/31.9
Max. Three-phase Unbalanced Output Current (A)	22	30	35
Max. Continuous AC Passthrough (grid to load) (A)	40	80	80
Peak Power (off-grid) (W)	1.5 times of rated power, 10s		
Power Factor Adjustment Range	0.8 leading to 0.8 lagging		
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un		
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65		
Grid Connection Form	3L+N+PE		
Total Current Harmonic Distortion THDi	<3% (of nominal power)		
DC Injection Current	<0.5% In		
Efficiency			
Max. Efficiency	97.6%		
Euro Efficiency	97.0%		
MPPT Efficiency	>99%		
Equipment Protection			
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level		
Surge Protection Level	TYPE II(DC), TYPE II(AC)		
Interface			
Communication Interface	RS485/RS232/CAN		
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)		
General Data			
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating		
Permissible Ambient Humidity	0-100%		
Permissible Altitude	2000m		
Noise (dB)	≤55		
Ingress Protection(IP) Rating	IP 65		
Inverter Topology	Non-Isolated		
Over Voltage Category	OVC II(DC), OVC III(AC)		
Cabinet Size (WxHxD mm)	408×638×237 (Excluding Connectors and Brackets)		
Weight (kg)	30.5		
Type of Cooling	Intelligent Air Cooling		
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy		
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105		
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		

# Hi-MO **X6** Explorer

LR5-72HTD

## 560~585M

- Adatto al mercato della distribuzione
- Il design semplice incarna uno stile moderno
- Migliori prestazioni di generazione di energia
- Il modulo di alta qualità garantisce un'affidabilità a lungo termine



Garanzia di 15 anni per materiali e lavorazione



Garanzia di 30 anni per una potenza di uscita extra lineare

### Certificazioni complete di sistema e di prodotto

IEC 61215, IEC 61730, UL 61730

ISO9001:2015: Sistema di gestione della qualità ISO

ISO14001: 2015: Sistema di gestione ambientale ISO

ISO45001: 2018: Salute e sicurezza sul lavoro

IEC62941: Linee guida per la qualificazione della progettazione e l'omologazione dei moduli

# LONGI



**22,6%**  
EFFICIENZA  
MODULO MASSIMA

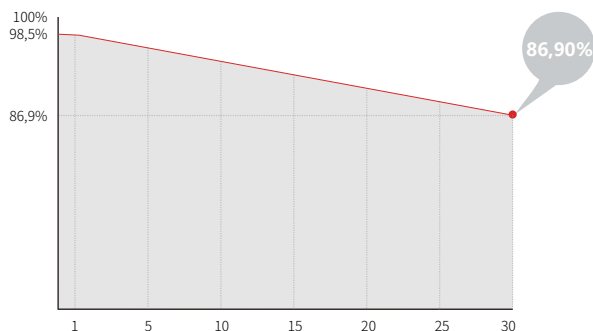
**0~3%**  
TOLLERANZA  
DI POTENZA

**<1,5%**  
DEGRADAZIONE POTENZA  
PRIMO ANNO

**0,40%**  
DEGRADAZIONE POTENZA  
ANNI 2-30

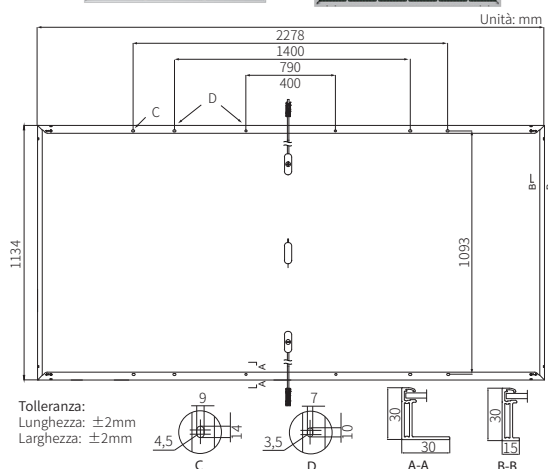
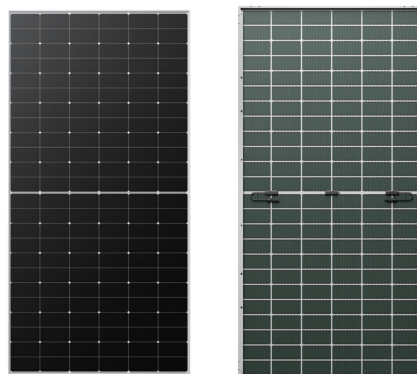
## Valore aggiuntivo

Garanzia potenza 30 anni



## Parametri meccanici

Orientamento celle	144 (6×24)
Scatola di derivazione	IP68
Cavo di uscita	4mm <sup>2</sup> , +400, -200mm/±1400mm lunghezza personalizzabile
Vetro	Doppio vetro 2 mm semitemperato
Telaio	Telaio in lega di alluminio anodizzato
Peso	31,8kg
Dimensioni	2278×1134×30mm
Imballaggio	36 pz. per pallet / 180 pz. per 20' GP / 720 pz. per 40' HC



## Caratteristiche elettriche

STC: AM 1,5 1000 W/m<sup>2</sup> 25°C

NOCT: AM 1,5 800 W/m<sup>2</sup> 20°C 1 m/s

Incertezza test per Pmax: ±3%

Tipo di modulo	LR5-72HTD-560M		LR5-72HTD-565M		LR5-72HTD-570M		LR5-72HTD-575M		LR5-72HTD-580M		LR5-72HTD-585M	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Condizione di test	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Potenza massima (Pmax/W)	560	418	565	422	570	426	575	430	580	433	585	437
Tensione a circuito aperto (Voc/V)	51,70	48,54	51,85	48,68	52,00	48,82	52,15	48,96	52,30	49,10	52,45	49,25
Corrente di corto circuito (Isc/A)	13,87	11,20	13,93	11,25	14,00	11,31	14,06	11,36	14,13	11,41	14,19	11,46
Tensione alla massima potenza (Vmp/V)	43,25	39,47	43,40	39,60	43,55	39,74	43,70	39,88	43,85	40,01	44,00	40,15
Corrente alla massima potenza (Imp/A)	12,95	10,60	13,02	10,66	13,09	10,72	13,16	10,77	13,23	10,83	13,30	10,89
Efficienza modulo (%)	21,7		21,9		22,1		22,3		22,5		22,6	

## Caratteristiche elettriche con guadagno di potenza sul lato posteriore diverso (riferimento a 575 W anteriore)

Pmax /W	Voc/V	Isc /A	Vmp/V	Imp /A	Pmax gain
604	52,15	14,76	43,70	13,82	5%
633	52,15	15,47	43,70	14,48	10%
661	52,25	16,17	43,80	15,13	15%
690	52,25	16,87	43,80	15,79	20%
719	52,25	17,58	43,80	16,45	25%

## Parameteri operativi

Temperatura operativa	-40°C ~ +85°C
Tolleranza di potenza in uscita	0 ~ 3%
Tensione massima del sistema	DC1500V (IEC/UL)
Valore massimo del fusibile di serie	30A
Temperatura nominale di esercizio della cella	45±2°C
Classe di protezione	Classe II
Bifacialità	60±5%
Classificazione di resistenza al fuoco	Classe C IEC









## Carico meccanico

Carico statico massimo lato anteriore	5400Pa
Carico statico massimo lato posteriore	2400Pa
Test grandine	25mm di grandine alla velocità 23m/s




## Valori di temperatura (STC)

Coefficient di temperatura di Isc	+0,050%/°C
Coefficient di temperatura di Voc	-0,230%/°C
Coefficient di temperatura di Pmax	-0,280%/°C

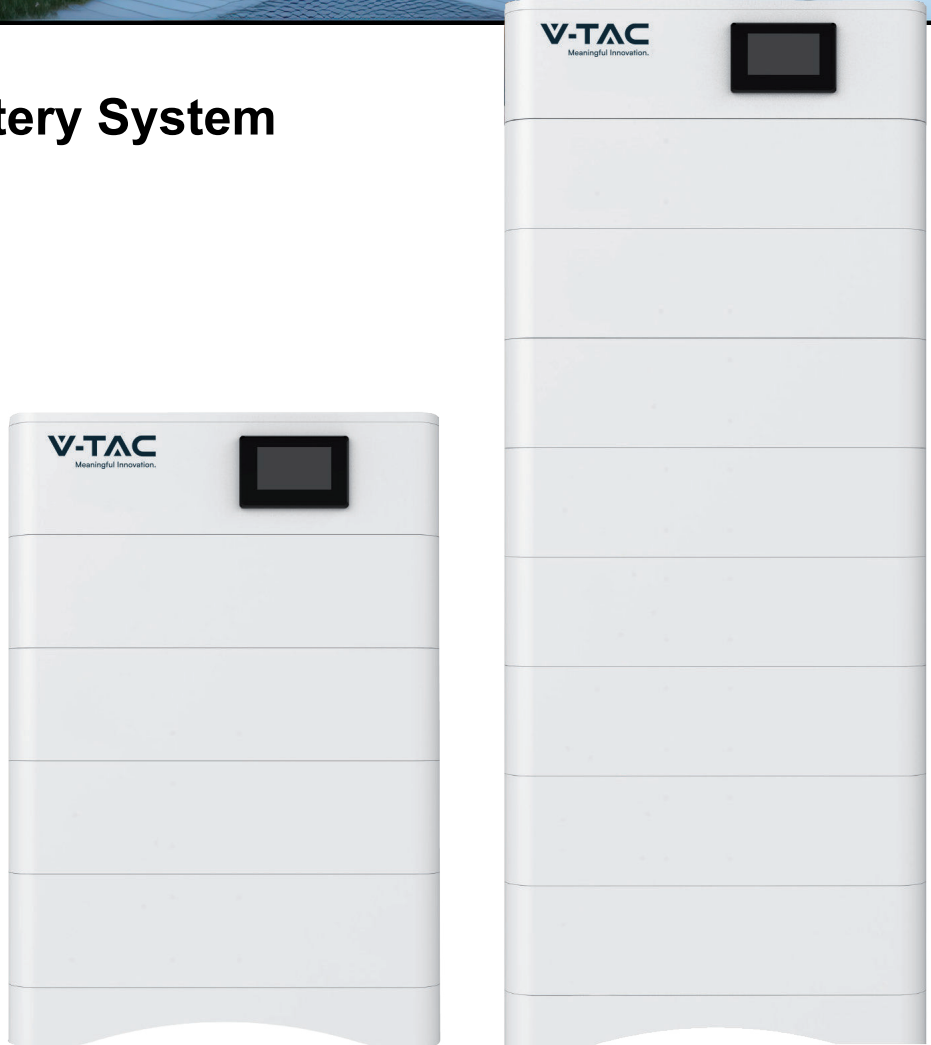


-  Cell Balance function
-  Voltage Protection
-  Over Charge Protection
-  Over Discharge Protection
-  Over Current Protection
-  Short-circuit Protection
-  Temperature Protection
-  Soft Start Function

## Stackable LiFePo4 Battery System

-  **Smaller Footprint**  
higher energy density benefit from latest LFP technology
-  **Expandable**  
Module design  
Maximum 5.12kwh\*10S\*6P
-  **Monitor**  
Real-time monitoring of battery charging and discharging, online system updates and maintenance

Compatible with:



# Stackable LiFePo4 Battery System

Battery	SKU	EAN
15.36KW 5.12 x 3	120023	3800170224285
20.48KW 5.12 x 4	120024	3800170224292
25.6KW 5.12 x 5	120025	3800170224308
30.72KW 5.12 x 6	120026	3800170224315
35.84KW 5.12 x 7	120027	3800170224322
40.96KW 5.12 x 8	120028	3800170224339



## Technical Data

Technical specification	15KWH	20KWH	25KWH	30KWH	35KWH	40KWH
Installation Mode	Stackable					
Battery Type	LifePO4(LFP)					
Module Energy(kWh)	5.12					
Module Nominal Voltage(V)	51.2					
Module Capacity(Ah)	100					
System Model	OHS15K-100	OHS20K-100	OHS25K-100	OHS30K-100	OHS35K-100	OHS40K-100
Battery Module Qty InSeries(Optional)	3	4	5	6	7	8
System Nominal Voltage(V)	153.6	204.8	256.0	307.2	358.4	409.6
System Nominal Capacity(kWh)	15.36	20.48	25.60	30.72	35.84	40.96
Usable Capacity(kWh)	12.29	16.38	20.48	24.58	28.67	32.77
Dimension (mm)	590*420*698	590*420*849	590*420*1000	590*420*1151	590*420*1302	590*420*1453
Weight (Kg)	161.4	207.0	252.6	298.2	343.8	389.4
Recommend Charge/Discharge Current (A)	40					
Communication	CAN					
Altitude	≤2000m					
Cycle Life	25±2°C,0.5C/0.5C,EOL70%≥6000					
Monitoring Parameters	System voltage,Current,cell voltage,cell temperature,module temperature					
SOC	Intelligent algorithm					
Working Temperature	0°C~45°C Charge -10°C ~55°C Discharge					
Storage Temperature	0~35°C					

1. DC Usable Energy, test conditions: 80% DOD, 0.2C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.
2. The current is affected by temperature and SOC.
3. The warranty is due whichever reached first of warranty period or life cycle power.

## System Components

Model	Description	
OHS-HV100	High voltage battery cluster control box	
	Operating Voltage	120 ~ 750Vdc
	Nominal Charge/Discharge Current	40A
	Max Charge/Discharge Current	50A
	Operating Temperature Range	-10~55°C
	Ingress Protection	IP65
	Dimension (W/D/H)	590*420*165 mm
	Weight Approximate	16.1kg
	SKU: 12151	EAN: 3800170224254
		
OH-5K	LiFePo4 Battery Module	
	Battery Type	LiFePO4(LFP)
	Nominal Voltage	51.2Vdc
	Rated Capacity	100Ah
	Rated Energy	5.12kWh
	Nominal Charge/Discharge Current	40A
	Peak Discharge Current	50A
	Charge Temperature	0~45°C
	Discharge Temperature	-10°C ~ 55°C
	Storage Temperature	0°C ~ 35°C
	Ingress Protection	IP65
	Dimension (W/D/H)	590*420*194mm
	Weight Approximate	45.6kg
	SKU: 12002	EAN: 3800170224261
		
OH-Base	Battery module base	
	Dimension (W/D/H)	590*420*80mm
	Weight Approximate	8.5kg
	SKU: 12152	EAN: 3800170224278
		
COM Cable	Standard 2-meter communication cable connected to the external device	
		
Cable	Standard 2-meter power cable connected to the external PCS	
	25mm <sup>2</sup> Cable	
		