Apéndice C. Fuentes de precios y fichas técnicas de los componentes.

Panel fotovoltaico: LONGi Hi-MO X10 LR7-72HVH-650M (650 Wp). Precios verificados: 469 834 COP (Ferragro, NIT 800060880-3, ferragro.com) y 143 USD ≈ 572 000 COP (CELTEC, celtecgroup.com). Valor adoptado: 469 834 COP. Ficha técnica del fabricante adjunta.

Batería: Pylontech US5000 (LiFePO4, 48 V, 4,8 kWh, 100 Ah, >6000 ciclos al 90 % DoD). Precios verificados: 5 515 200 COP (Emergente, emergente.com.co) y 1 475 EUR ≈ 6 785 000 COP (Rebacas, rebacas.com). Valor adoptado: 5 515 200 COP. Ficha técnica: en.pylontech.com.cn/products/us5000.

Inversor-cargador: Deye SUN-8K-SG04LP3 (híbrido trifásico, 8 kW, 48 V, sobrecarga 2× por 10 s, 2 MPPT). Precios verificados: 9 921 600 COP (Emergente, emergente.com.co) y 1 573 EUR ≈ 7 236 000 COP (CuencaSolar, cuencasolar.es). Valor adoptado: 9 921 600 COP. Ficha técnica: deyeinverter.com.

Nota: cada componente se verificó en dos fuentes independientes (septiembre de 2026). Se adoptan los precios de tiendas colombianas (Ferragro, Emergente), corroborados por referencias internacionales, y coherentes con el diseño (13 módulos LONGi de 650 Wp y banco de 8 baterías de 4,8 kWh = 38,4 kWh). Se recomienda solicitar cotización formal (con NIT y vigencia) antes de la compra.

Hi-MO X10 Explorer

LR7-72HVH

630~650M

- Suitable for Distribution Market
- Highest efficiency with the best energy generation performance
- TaiRay wafer & BC technology enhances high product reliability
- Smart manufacturing & LONGi product lifecycle standards deliver exceptional product quality

15 15-year Warranty for Materials and Processing

30 30-year Warranty for Extra Linear Power Output



Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730

ISO9001:2015: ISO Quality Management System

ISO14001: 2015: ISO Environment Management System

ISO45001: 2018: Occupational Health and Safety

IEC62941: Guideline for module design qualification and type approval

LONGi

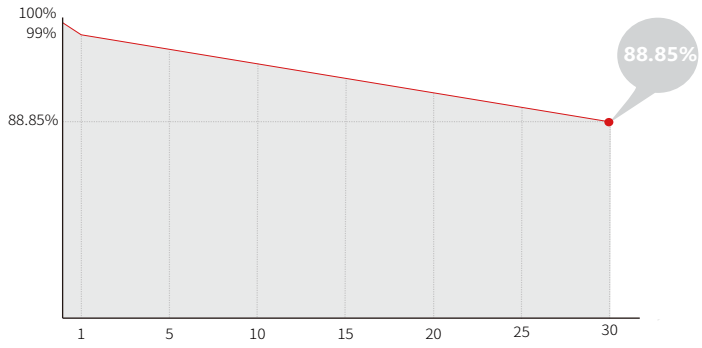
Hi-MO X10 Explorer

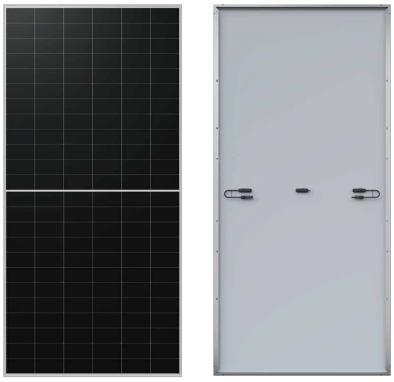
LR7-72HVH 630~650M

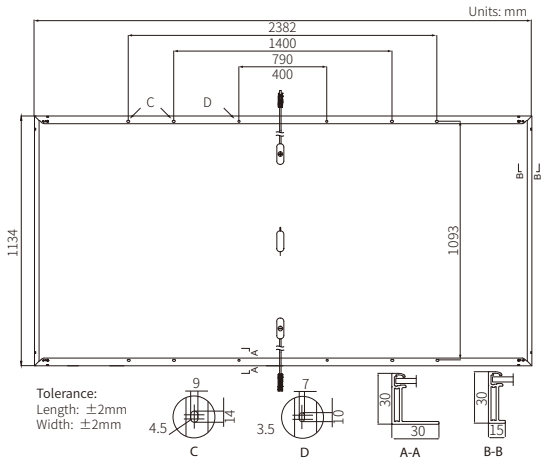
24.1%	0~3%	<1%	0.35%	BC-CELL
MAX MODULE EFFICIENCY	POWER TOLERANCE	FIRST YEAR POWER DEGRADATION	YEAR 2-30 POWER DEGRADATION	LOWER OPERATING TEMPERATURE

Additional Value

30-Year Power Warranty







Mechanical Parameters

Cell Orientation	144 (6×24)
Junction Box	IP68, three diodes
Output Cable	4mm², +400, -200mm/±1400mm length can be customized
Glass	Single glass, 3.2mm coated tempered glass
Frame	Anodized aluminum alloy frame
Weight	28.5kg
Dimension	2382×1134×30mm
Packaging	36pcs per pallet / 144pcs per 20' GP / 720pcs per 40' HC

Electrical Characteristics

STC : AM1.5 1000W/m² 25°C NOCT : AM1.5 800W/m² 20°C 1m/s Test uncertainty for Pmax: ±3%

Module Type	LR7-72HVH-630M		LR7-72HVH-635M		LR7-72HVH-640M		LR7-72HVH-645M		LR7-72HVH -650M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	630	480	635	483	640	487	645	491	650	495
Open Circuit Voltage (Voc/V)	53.50	50.84	53.60	50.94	53.70	51.04	53.80	51.13	53.90	51.23
Short Circuit Current (Isc/A)	14.97	12.02	15.05	12.09	15.13	12.15	15.21	12.22	15.29	12.28
Voltage at Maximum Power (Vmp/V)	44.16	41.96	44.26	42.06	44.36	42.15	44.46	42.25	44.56	42.35
Current at Maximum Power (Imp/A)	14.27	11.44	14.35	11.50	14.43	11.56	14.51	11.63	14.59	11.69
Module Efficiency(%)	23.3		23.5		23.7		23.9		24.1	

Operating Parameters

Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0 ~ 3%
Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	45±2°C
Protection Class	Class II
Fire Rating	IEC Class C

Mechanical Loading

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

Temperature Ratings (STC)

Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.200%/°C
Temperature Coefficient of Pmax	-0.260%/°C

LONGi

Specifications included in this datasheet are subject to change without notice.
LONGi reserves the right of final interpretation. (20240927 V01 Draft)

Three Phase Hybrid Inverter

SUN-5/6/8/10/12K-SG04LP3-EU-AM2-LV



Safe

- 48V low voltage battery, transformer isolation design

Intelligent

- 6 time periods for battery charging/discharging

Flexible

- AC couple to retrofit existing solar system
- Max. 10 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel

Reliable

- Max. charging/discharging current of 240A
- Support storing energy from diesel generator
- 100% unbalanced output, max. output up to 50% rated power for each phase

Technical Data

Model	SUN-5K-SG04LP3 -EU-AM2-LV	SUN-6K-SG04LP3 -EU-AM2-LV	SUN-8K-SG04LP3 -EU-AM2-LV	SUN-10K-SG04LP3 -EU-AM2-LV	SUN-12K-SG04LP3 -EU-AM2-LV
Battery Input Data					
Battery Type	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	40-60				
Max. Charging/Discharging Current (A)	120	150	190	210	240
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	1				
PV String Input Data					
Max. PV Input Power (W)	6500	7800	10400	13000	15600
Max. PV Input Voltage (V)	600				
Start-up Voltage (V)	160				
MPPT Voltage Range (V)	200-450				
Rated PV Input Voltage (V)	400				
Max. Operating PV Input Current (A)	13+13			26+13	
Max. Input Short-Circuit Current (A)	19.5+19.5			39+19.5	
No. of MPP Trackers/ No. of Strings MPP Tracker	2/1+1			2/2+1	
AC Input/Output Data					
Rated AC Input/Output Active Power (W)	5000	6000	8000	10000	12000
Max. AC Input/Output Apparent Power (VA)	5000	6000	8000	10000	12000
Rated AC Input/Output Current (A)	13.2/12.6	15.8/15.1	21/20.1	26.3/25.1	31.5/30.1
Max. AC Input/Output Current (A)	13.2/12.6	15.8/15.1	21/20.1	26.3/25.1	31.5/30.1
Max. Continuous AC Passthrough (grid to load) (A)	45				
Peak Power (off-grid) (W)	2 times of rated power, 10s				
Power Factor Adjustment Range	0.8 leading to 0.8 lagging				
Rated input/output voltage	127/220V, 133/230V 0.88Un-1.1Un 3L+N+PE				
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65				
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 Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI) (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection				
Surge Protection Level	TYPE II(DC), TYPE II(AC)				
Interface					
LCD/LED Display	LCD				
Communication Interface	WIFI, RS485, CAN				
General Data					
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating				
Permissible Ambient Humidity	0-100%				
Permissible Altitude	2000m				
Noise (dB)	≤45				
Ingress Protection(IP) Rating	IP 65				
Inverter Topology	Non-Isolated (solar), Isolated (battery)				
Over Voltage Category	OVC II(DC), OVC III(AC)				
Cabinet Size (WxHxD mm)	422×658×254 (Excluding Connectors and Brackets)				
Weight (kg)	40				
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	EN50549, AS4777.2, VDE0126, IEC61727, VDEN4105, G99, NBT32004, CEI0-21, NRS097, NBR16149/16150, RD1699				
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				

Deye
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Performance Data Sheet according to EU Regulation 2015/1095

COP Declaration Model: LH64E/2EES-2Y

Refrigerant: R134a

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	3,79		kW
Rated power input	D_A	1,67		kW
Rated COP	**COP_A**	**2,27**		

Point B: Parameters at part load and ambient temperature 25°C (information only)

Declared cooling capacity	P_B	4,17		kW
Declared power input	D_B	1,59		kW
Declared COP	**COP_B**	**2,63**		

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	3,22		kW
Declared power input	D_E	1,78		kW
Declared COP	**COP_E**	**1,81**		

Other items

Capacity control	—		
Reference temperature	Dew point temp.		
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	

Additional document: Declaration of Conformity AC-500

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** Symbols taken from english version of the Regulation 2015/1095*

Performance Data Sheet according to EU Regulation 2015/1095

SEPR Declaration Model: LH64E/2EES-2Y

Refrigerant: R404A

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C
Annual electricity consumption	Q	12356	8999	kWh/a
Seasonal Energy Performance Ratio	SEPR	3,11	1,67	

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	6,26	2,02	kW
Rated power input	D_A	2,85	1,64	kW
Rated COP	**COP_A**	**2,19**	**1,23**	

Point B: Parameters at part load and ambient temperature 25°C

Declared cooling capacity	P_B	7,01	2,32	kW
Declared power input	D_B	2,70	1,62	kW
Declared COP	**COP_B**	**2,60**	**1,43**	

Point C: Parameters at part load and ambient temperature 15°C

Declared cooling capacity	P_C	8,04	2,73	kW
Declared power input	D_C	2,42	1,56	kW
Declared COP	**COP_C**	**3,32**	**1,75**	

Point D: Parameters at part load and ambient temperature 5°C

Declared cooling capacity	P_D	9,01	3,12	kW
Declared power input	D_D	2,09	1,45	kW
Declared COP	**COP_D**	**4,31**	**2,16**	

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	5,03	1,52	kW
Declared power input	D_E	3,03	1,61	kW
Declared COP	**COP_E**	**1,66**	**0,94**	

Other items

Capacity control		—	
Reference temperature		Dew point temp.	
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	
Coefficient of degradation for units w/o capacity control**	Cdc	0,25	

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Performance Data Sheet according to EU Regulation 2015/1095

SEPR Declaration Model: LH64E/2EES-2

Refrigerant: R407A

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C
Annual electricity consumption	Q			kWh/a
Seasonal Energy Performance Ratio	SEPR			

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	Error: -4	Error: -4	kW
Rated power input	D_A			kW
Rated COP	**COP_A**			

Point B: Parameters at part load and ambient temperature 25°C

Declared cooling capacity	P_B			kW
Declared power input	D_B			kW
Declared COP	**COP_B**			

Point C: Parameters at part load and ambient temperature 15°C

Declared cooling capacity	P_C			kW
Declared power input	D_C			kW
Declared COP	**COP_C**			

Point D: Parameters at part load and ambient temperature 5°C

Declared cooling capacity	P_D			kW
Declared power input	D_D			kW
Declared COP	**COP_D**			

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E			kW
Declared power input	D_E			kW
Declared COP	**COP_E**			

Other items

Capacity control	—		
Reference temperature	Dew point temp.		
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	
Coefficient of degradation for units w/o capacity control**	Cdc	0,25	

Additional document: Declaration of Conformity AC-500

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Performance Data Sheet according to EU Regulation 2015/1095

SEPR Declaration Model: LH64E/2EES-2Y

Refrigerant: R407C

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C
Annual electricity consumption	Q	11154		kWh/a
Seasonal Energy Performance Ratio	SEPR	2,99		

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	5,42		kW
Rated power input	D_A	2,49		kW
Rated COP	**COP_A**	**2,18**		

Point B: Parameters at part load and ambient temperature 25°C

Declared cooling capacity	P_B	5,97		kW
Declared power input	D_B	2,35		kW
Declared COP	**COP_B**	**2,54**		

Point C: Parameters at part load and ambient temperature 15°C

Declared cooling capacity	P_C	6,74		kW
Declared power input	D_C	2,12		kW
Declared COP	**COP_C**	**3,18**		

Point D: Parameters at part load and ambient temperature 5°C

Declared cooling capacity	P_D	7,50		kW
Declared power input	D_D	1,85		kW
Declared COP	**COP_D**	**4,06**		

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	4,56		kW
Declared power input	D_E	2,66		kW
Declared COP	**COP_E**	**1,71**		

Other items

Capacity control	—		
Reference temperature	Dew point temp.		
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	
Coefficient of degradation for units w/o capacity control**	Cdc	0,25	

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Performance Data Sheet according to EU Regulation 2015/1095

SEPR Declaration Model: LH64E/2EES-2

Refrigerant: R407F

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C
Annual electricity consumption	Q			kWh/a
Seasonal Energy Performance Ratio	SEPR			

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	Error: -4	Error: -4	kW
Rated power input	D_A			kW
Rated COP	**COP_A**			

Point B: Parameters at part load and ambient temperature 25°C

Declared cooling capacity	P_B			kW
Declared power input	D_B			kW
Declared COP	**COP_B**			

Point C: Parameters at part load and ambient temperature 15°C

Declared cooling capacity	P_C			kW
Declared power input	D_C			kW
Declared COP	**COP_C**			

Point D: Parameters at part load and ambient temperature 5°C

Declared cooling capacity	P_D			kW
Declared power input	D_D			kW
Declared COP	**COP_D**			

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E			kW
Declared power input	D_E			kW
Declared COP	**COP_E**			

Other items

Capacity control	—		
Reference temperature	Dew point temp.		
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	
Coefficient of degradation for units w/o capacity control**	Cdc	0,25	

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Performance Data Sheet according to EU Regulation 2015/1095

SEPR Declaration Model: LH64E/2EES-2Y

Refrigerant: R454C

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C
Annual electricity consumption	Q	10697	7353	kWh/a
Seasonal Energy Performance Ratio	SEPR	2,91	1,39	

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	5,06	1,37	kW
Rated power input	D_A	2,40	1,29	kW
Rated COP	**COP_A**	**2,10**	**1,06**	

Point B: Parameters at part load and ambient temperature 25°C

Declared cooling capacity	P_B	5,62	1,59	kW
Declared power input	D_B	2,28	1,30	kW
Declared COP	**COP_B**	**2,46**	**1,23**	

Point C: Parameters at part load and ambient temperature 15°C

Declared cooling capacity	P_C	6,41	1,91	kW
Declared power input	D_C	2,07	1,29	kW
Declared COP	**COP_C**	**3,10**	**1,48**	

Point D: Parameters at part load and ambient temperature 5°C

Declared cooling capacity	P_D	7,21	2,22	kW
Declared power input	D_D	1,82	1,27	kW
Declared COP	**COP_D**	**3,97**	**1,76**	

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	4,18	1,01	kW
Declared power input	D_E	2,55	1,22	kW
Declared COP	**COP_E**	**1,64**	**0,82**	

Other items

Capacity control		—	
Reference temperature		Dew point temp.	
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	
Coefficient of degradation for units w/o capacity control**	Cdc	0,25	

Additional document: Declaration of Conformity AC-500

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Performance Data Sheet according to EU Regulation 2015/1095

COP Declaration Model: LH64E/2EES-2Y

Refrigerant: R455A

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	4,94	1,28	kW
Rated power input	D_A	2,62	1,32	kW
Rated COP	**COP_A**	**1,89**	**0,97**	

Point B: Parameters at part load and ambient temperature 25°C (information only)

Declared cooling capacity	P_B	5,53	1,53	kW
Declared power input	D_B	2,51	1,35	kW
Declared COP	**COP_B**	**2,21**	**1,14**	

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	4,01	--	kW
Declared power input	D_E	2,74	--	kW
Declared COP	**COP_E**	**1,46**	**--**	

Other items

Capacity control	—		
Reference temperature	Dew point temp.		
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	

Additional document: Declaration of Conformity AC-500

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Performance Data Sheet according to EU Regulation 2015/1095

SEPR Declaration Model: LH64E/2EES-2Y

Refrigerant: R507A

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C
Annual electricity consumption	Q	12377	9013	kWh/a
Seasonal Energy Performance Ratio	SEPR	3,19	1,75	

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	6,42	2,12	kW
Rated power input	D_A	2,86	1,64	kW
Rated COP	**COP_A**	**2,24**	**1,29**	

Point B: Parameters at part load and ambient temperature 25°C

Declared cooling capacity	P_B	7,20	2,44	kW
Declared power input	D_B	2,70	1,62	kW
Declared COP	**COP_B**	**2,66**	**1,50**	

Point C: Parameters at part load and ambient temperature 15°C

Declared cooling capacity	P_C	8,26	2,86	kW
Declared power input	D_C	2,43	1,56	kW
Declared COP	**COP_C**	**3,40**	**1,84**	

Point D: Parameters at part load and ambient temperature 5°C

Declared cooling capacity	P_D	9,27	3,28	kW
Declared power input	D_D	2,10	1,45	kW
Declared COP	**COP_D**	**4,41**	**2,26**	

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	5,14	1,60	kW
Declared power input	D_E	3,03	1,61	kW
Declared COP	**COP_E**	**1,70**	**0,99**	

Other items

Capacity control		—	
Reference temperature		Dew point temp.	
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	
Coefficient of degradation for units w/o capacity control**	Cdc	0,25	

Additional document: Declaration of Conformity AC-500

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** Symbols taken from english version of the Regulation 2015/1095*

*** Since condensing units are non functional systems Cdc can not be determined by test. For this reason the default degradation coefficient Cdc (0.25) has to be applied according to EN 13215, Annex A.*

Performance Data Sheet according to EU Regulation 2015/1095

SEPR Declaration Model: LH64E/2EES-2

Refrigerant: R448A

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C
Annual electricity consumption	Q			kWh/a
Seasonal Energy Performance Ratio	SEPR			

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	Error: -4	Error: -4	kW
Rated power input	D_A			kW
Rated COP	**COP_A**			

Point B: Parameters at part load and ambient temperature 25°C

Declared cooling capacity	P_B			kW
Declared power input	D_B			kW
Declared COP	**COP_B**			

Point C: Parameters at part load and ambient temperature 15°C

Declared cooling capacity	P_C			kW
Declared power input	D_C			kW
Declared COP	**COP_C**			

Point D: Parameters at part load and ambient temperature 5°C

Declared cooling capacity	P_D			kW
Declared power input	D_D			kW
Declared COP	**COP_D**			

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E			kW
Declared power input	D_E			kW
Declared COP	**COP_E**			

Other items

Capacity control	—		
Reference temperature	Dew point temp.		
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	
Coefficient of degradation for units w/o capacity control**	Cdc	0,25	

Additional document: Declaration of Conformity AC-500

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Performance Data Sheet according to EU Regulation 2015/1095

SEPR Declaration Model: LH64E/2EES-2Y

Refrigerant: R449A

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C
Annual electricity consumption	Q	11731	7852	kWh/a
Seasonal Energy Performance Ratio	SEPR	3,01	1,48	

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	5,74	1,56	kW
Rated power input	D_A	2,65	1,39	kW
Rated COP	**COP_A**	**2,16**	**1,12**	

Point B: Parameters at part load and ambient temperature 25°C

Declared cooling capacity	P_B	6,35	1,82	kW
Declared power input	D_B	2,51	1,40	kW
Declared COP	**COP_B**	**2,53**	**1,30**	

Point C: Parameters at part load and ambient temperature 15°C

Declared cooling capacity	P_C	7,23	2,18	kW
Declared power input	D_C	2,26	1,38	kW
Declared COP	**COP_C**	**3,20**	**1,57**	

Point D: Parameters at part load and ambient temperature 5°C

Declared cooling capacity	P_D	8,11	2,53	kW
Declared power input	D_D	1,97	1,34	kW
Declared COP	**COP_D**	**4,12**	**1,89**	

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	4,77	1,16	kW
Declared power input	D_E	2,83	1,33	kW
Declared COP	**COP_E**	**1,69**	**0,88**	

Other items

Capacity control		—	
Reference temperature		Dew point temp.	
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	
Coefficient of degradation for units w/o capacity control**	Cdc	0,25	

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*** Since condensing units are non functional systems Cdc can not be determined by test. For this reason the default degradation coefficient Cdc (0.25) has to be applied according to EN 13215, Annex A.*

Performance Data Sheet according to EU Regulation 2015/1095

COP Declaration Model: LH64E/2EES-2Y

Refrigerant: R450A

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	3,32		kW
Rated power input	D_A	1,52		kW
Rated COP	**COP_A**	**2,18**		

Point B: Parameters at part load and ambient temperature 25°C (information only)

Declared cooling capacity	P_B	3,66		kW
Declared power input	D_B	1,45		kW
Declared COP	**COP_B**	**2,53**		

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	2,81		kW
Declared power input	D_E	1,62		kW
Declared COP	**COP_E**	**1,74**		

Other items

Capacity control	—		
Reference temperature	Dew point temp.		
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	

Additional document: Declaration of Conformity AC-500

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Performance Data Sheet according to EU Regulation 2015/1095

COP Declaration Model: LH64E/2EES-2Y

Refrigerant: R513A

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	4,04		kW
Rated power input	D_A	1,76		kW
Rated COP	**COP_A**	**2,30**		

Point B: Parameters at part load and ambient temperature 25°C (information only)

Declared cooling capacity	P_B	4,45		kW
Declared power input	D_B	1,67		kW
Declared COP	**COP_B**	**2,67**		

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	3,41		kW
Declared power input	D_E	1,86		kW
Declared COP	**COP_E**	**1,83**		

Other items

Capacity control	—		
Reference temperature	Dew point temp.		
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	

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Performance Data Sheet according to EU Regulation 2015/1095

COP Declaration Model: LH64E/2EES-2Y

Refrigerant: R1234yf

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	3,88		kW
Rated power input	D_A	1,72		kW
Rated COP	**COP_A**	**2,25**		

Point B: Parameters at part load and ambient temperature 25°C (information only)

Declared cooling capacity	P_B	4,29		kW
Declared power input	D_B	1,63		kW
Declared COP	**COP_B**	**2,63**		

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	3,25		kW
Declared power input	D_E	1,84		kW
Declared COP	**COP_E**	**1,76**		

Other items

Capacity control	—		
Reference temperature	Dew point temp.		
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	

Additional document: Declaration of Conformity AC-500

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Performance Data Sheet according to EU Regulation 2015/1095

COP Declaration Model: LH64E/2EES-2Y

Refrigerant: R1234ze

Item	Symbol*	Value		Unit
Evaporating temperature	t	-10	-35	°C

Point A: Parameters at full load and ambient temperature 32°C

Rated cooling capacity	P_A	2,86		kW
Rated power input	D_A	1,35		kW
Rated COP	**COP_A**	**2,11**		

Point B: Parameters at part load and ambient temperature 25°C (information only)

Declared cooling capacity	P_B	3,17		kW
Declared power input	D_B	1,29		kW
Declared COP	**COP_B**	**2,45**		

Point E: Parameters at full load and ambient temperature 43°C (information only)

Declared cooling capacity	P_E	2,41		kW
Declared power input	D_E	1,43		kW
Declared COP	**COP_E**	**1,68**		

Other items

Capacity control	—		
Reference temperature	Dew point temp.		
Suction gas temperature	toh	20°C	
Power voltage	Net	400V/50Hz	

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US 5000 RESIDENTIAL ESS

Ideal for Back Up
Tailored for off-grid system .

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More affordable for both initial investment and ongoing maintenance .
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US 5000

Flexible for Mixed Usage

Free to Scale Up

19 inch Rack Compatible

Ultra Cost effectiveness



Module		US5000
Nominal Voltage (VDC)		8
Battery Module Capacity (kWh)		4.8
Usable Capacity (kWh)		4.56
Dimension (W*D*H mm)		442*420*161
Weight(kg)		39.7
Depth of Discharge		95%
Charge/ Discharge (A)	(Normal)	100
	(Max)	101-120 @15min
	(Peak)	121-200 @15s
Communication port		RS485/CAN
IP rating		IP20
Single String Quantity (pcs)		20
Working Temperature/ (℃) Charge		-10~55
Working Temperature/ (℃) Discharge		-10~55
Storage Temperature/ (℃)		-20~60
Humidity (RH)		5%~95% No condensation
Short current/duration time (A)		<2000/1ms
Altitude (m)		≤4000
Design life (@25℃)		15years
Cycle life (@25℃)		>6,000
Certification		UL1973/UL9540A/IEC62619/IEC63056/IEC61000-6-2/3/UN38.3