

Energy from the Sun Smiles from LumenHaus

Clean, Affordable, Future-ready



LumenHaus GmbH

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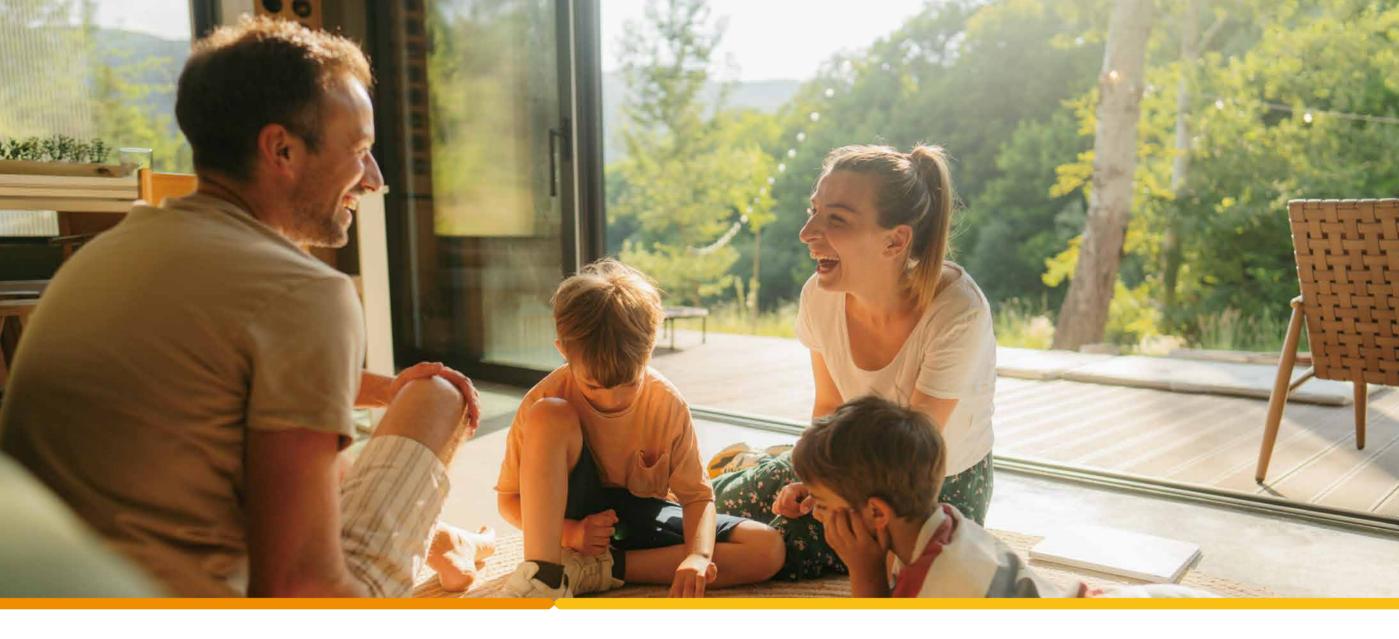








www.lumenhaus.com



Make your home energy independent — with LumenHaus!



Break free from rising energy costs and take control of your future with true energy independence. By effortlessly joining the clean energy movement, you not only reduce your environmental impact but also gain more time for what truly matters—your family.

We are LumenHaus – Your Energy Family

Our Vision

To become the world's largest one-stop platform for green & smart home energy solutions and the world's leading operator of virtual power plants.

UNIFIED

Organized in a decentralized and community-based way

ENERGY

Affordable and sustainable energy

LUMEN

LOCAL Local and sustainable energy supply **MEMBERSHIP**Part of a strong community

NET-ZEROCO2-neutral energy consumption

A Home.

A Platform.

A World.

LumenHaus is an innovative platform that drives the energy transition through decentralized, community-based, and sustainable energy supply. We offer easy-to-install, affordable, and efficient one-stop energy solutions and provide end-to-end services to customers worldwide, from consultation to installation and ongoing support. Partners and customers alike benefit from the advantages of the platform, which enables a sustainable and convenient energy future.

Our Values

Innovation

Constantly striving for breakthroughs in technology and design to improve sustainability and performance.

Sustainability

Commitment to reducing global dependence on electricity from dirty production and facilitating access to sustainable energy solutions for all households

Excellence

Striving for the highest standards in all areas of the business, from product design to customer service.

Integrity

Honesty and transparency in our dealings with customers, employees and stakeholders.

A Better Future Starts at Home.

Ready to start your energy transition? LumenHaus makes it easy.



















Start Online

custom energy plan.



Step 2

Free Consultation



Step 3

Home Visit

finalize your setup based



Step 4

and connects it to "my

- **Easy Installation:** Our solution integrates seamlessly into your home.
- **Full Control:** Monitor your energy consumption anytime, anywhere.
- **Save Money:** Start saving instantly with intelligent energy management.
- ☐ Safe and Reliable: Cutting-edge technology for a secure home.
- **Sustainable and Energy-Efficient:** Good for the environment and your wallet.
- **User-Friendly:** Simple and intuitive to use.
- ☐ Elegant and Modern: A home where you feel comfortable.

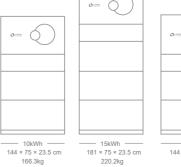




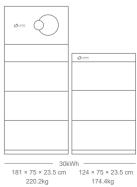




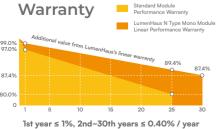
D . 10	ns					
Rated Output Power		12kW				
Norminal Capacity			10/15/20/25/30kWh(95%DoD)			
Battery Type		Li-ion	Li-ion(LFP)			
Cooling Concept		Natural	Natural cooling			
Noise Emission		≤35dB				
Degree of Protection		IP66				
Warranty		10 Years				
Hybrid-Wechselrich	ter					
Rated AC Voltage		220/380, 230/400, 3/N/PE, 3/PE				
Max. Recommended PV Ar	rray Power 19.2kW	Rated Grid Frequency	50/60Hz			
Max. Input Current (Input P	V / Input PV2) 2×20A	Backup Power	<20ms			
Max. DC Voltage	1100V	Communication	Ethernet/WiFi/4G/Bluetooth			
Max. Short Circuit Current 40		Operating Temperature Range	-18°C~51°C			
No. of MPP Trackers 1+1		Allowable Relative Humidity Range	5%~95%			
MPPT Voltage Range	150~1000\	/ Net Weight	39kg			
Max. Charge / Discharge Power 12kW		Dimension (W x H x D)	750 × 235 × 450 mm			
		Battery Soft-Start Protection				
		DC Reverse Polarity Protection				
Protection	Anti-Islanding Protection					
Protection	Surge Protection					
		AC Overvoltage Protection				
Batterie						
Nominal Capacity	5kWh	Dimension (W x H x D)	750 × 235 × 360 mm			
Usable Energy	4.75kWh	Weight	54kg			
Depth of Discharge	95%	System Battery Quantity	2~6			
Nominal Voltage	102.4V	Storage Temperature	-20°C~35°C			
Max. Charge Current 25A		Operating Temperature Range	-18°C~51°C			
Max. Charge Current		Charging Remperature	-18°C~51°C			
Max. Charge Current Max. Discharge Current	40A	Ondiging Kemperature	-10 C01 C			



144 × 75 × 23.5 cm 87 × 75 × 23.5 cm 166.3kg 120.5kg





















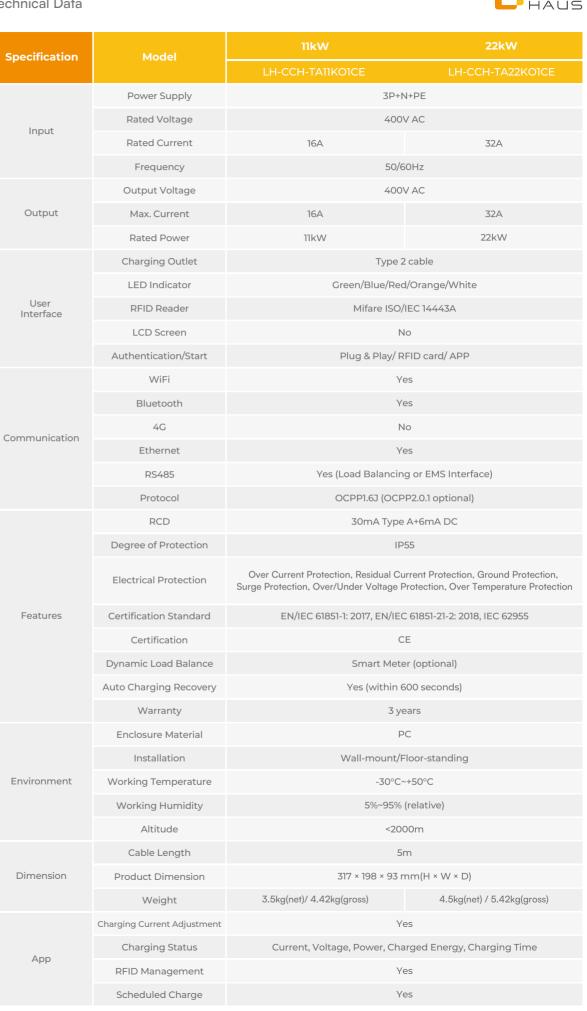
Technical Data



Technical Data			HAUS			
Electrical Specification	ns					
Module Type		LH-NR48TBH440GL/GB				
STC/NOCT		STC	NOCT			
Maximum Power -Pmp(W)		440	333			
Open Circuit Voltage -Voc (V)	35.29	33.83			
Short Circuit Current -lsc(A)		15.79	12.69			
Maximum Power Voltage -	Vmp(A)	29.38	27.48			
Maximum Power Current -	Imp(V)	14.98	12.10			
Module Efficiency STC-η(%)		22.0%				
Power Tolerance(W)		0-+3%				
Pmax Temperature Coeffic	ient	-0.30%/°C				
Voc Temperature Coefficien	nt	-0.22%/°C				
Isc Temperature Coefficien	t	+0.042%/°C				
Fire Performance		Typ 29 (UL)				
Mechanical Specificati	ons	Curve				
External Dimension 1762 ×	1134 × 30 mm / 69.37 × 44.65 × 1.18inch					
Weight	24.5kg/54.01lbs					
Solar Cells	N-Type Mono-crystalline (96pcs)	Power-Voltage Curve(450W)	Current-Voltage Curve(450W)			
Front Glass/Back Glass	2.0mm/2.0mm(0.08inch)	1000W/mf 400 900W/mf	16 N000W/Hr/F			
Frame	Anodized aluminium alloy	300 — 600W/nf. 300 — 400W/nf. 300 — 200W/nf.	u 800W/m² 600W/m²			
Junction Box	IP68, 3 diodes	100	* 400Mim²			
Cable Length (Including Connector)	4,0 mm²(12AWG), Portrait: 200mm(+)/400mm(-); Or customized	Voltage(V)	Voltage(V)			
Connector	MC4 Compatible					
Power Bifaciality*	80%±10%					
Application Conditions	;	Physical Characteris	stics			
Maximum System Voltage	1500VDC					
Maximum Series Fuse Ratir	ng 30A					
Operating Temperature	-40~+85°C	30 <u>(1.18</u>) G	0 4 rounding holes			
Nominal Operating Cell Ter	mperature 45±2°C					
Maximum Mechanical Load	5400Pa/2400Pa		1150(45.28) 1400(55.12)			
Hail Protection	Withstands hailstones up to 25mm in diameter at speeds of up to 23m/s.	M	9x14 dounting holes places			
Packing Manner			1094(43.07) 1134(44.85)			
Container	40'HQ	40 12 12	Units: mm (Zoll)			
Pieces per Pallet	36	15, B-B A-A	Tolerance: Length: +2 mm Width: +2 mm Height: ±1 mm Hole: ±1 mm			
Size of packing (mm/inch)	1785 × 1130 × 1264 / 70.28 × 44.49 × 49.76	* The above drawing is a graphical representation For engineering quality drawings please contact I	n of the product.			
Weight of packing (kg/lbs)	921/2030.46					
Pieces per Container (Normal/Weight-limited area)	936/720					









Adaptable, Fast, and Easy Installation

13





















- Unmatched Heating Performance
- Seamless Smart Integration
- Real-Time Control with the myLumenHaus App
- Precise Heating with Zone Control

Technical Data



Node	Model name			8kW	10kW	12kW	14kW	16kW
Capacity RW 8.4 10.0 14.9 16.2 17.8	Model			LH-HHP-TE8K01CE	LH-HHP-TEI0K01CE	LH-HHP-TE10K01CE	LH-HHP-TE14K01CE	LH-HHP-TE16K01CE
Heating A7W35	Power Supply		V/Ph/H					
COP		Capacity	kW	8.4	10.0	14.9	16.2	17.8
Capacity	Heating A7W35	Rated Input	kW	1.68	2.08	3.33	3.74	4.25
Heating A7WSS Rated Input RW 2.36 2.92 3.42 3.86 4.38		COP		5.0	4.8	4.5	4.3	4.2
COP		Capacity	kW	7.8	9.5	14.7	15.8	17.2
Capacity RW 8.3 10.0 13.0 14.8 16.2	Heating A7W55	Rated Input	kW	2.36	2.92	3.42	3.86	4.38
Rated Input		COP		3.3	3.3	4.3	4.1	3.9
EER		Capacity	kW	8.3	10.0	13.0	14.8	16.2
Capacity	Cooling A35W7	Rated Input	kW	1.61	2.11	2.77	3.43	4.28
Rated Input		EER		5.2	4.8	4.7	4.3	3.9
Seasonal Space		Capacity	kW	7.5	8.9	12.2	14.2	16.2
Seasonal Space LWT bei 35°C	Cooling A35W18	Rated Input	kW	2.18	2.74	2.97	3.63	4.36
Heating Energy Efficiency Class7		EER		3.5	3.3	4.1	3.9	3.7
Efficiency Class7 LWT bei 55°C LWT bei 515 LWT bei 55°C LWT bei 515 LWT	Heating Energy	LWT bei 35°C		A+++	A+++	A+++	A+++	A+++
SCOP6		LWT bei 55°C		A+++	A+++	A+++	A+++	A+++
Nater Pump Nat	SCORS	LWT bei 35°C		5.15	5.15	4.98	4.94	4.91
Water Pump Max. Flow m³/h 4.5 Adapter Diameter DN25 Sound Pressure Level Monobloc Unit dB(A) 48 49 46 47 47 Sound Power Level Monobloc Unit dB 57 57 57 58 Packed Dimensions (WXDxH) Monobloc Unit mm 1355 × 545 × 1210 1355 × 545 × 1210 1355 × 545 × 1210 Body Dimensions (WXDxH) Monobloc Unit mm 1280 × 450 × 1040 1280 × 450 × 1040 1280 × 450 × 1040 Net Weight Monobloc Unit kg 140 154 154 Gross Weight Monobloc Unit kg 153 167 154 Operating Temperature Range Heating °C -25-48 -5-48 -5-48 DHW(tank) °C -25-43 -25-43 -25-80 -25-80 Setting Water Temperature Range Heating °C 25-80 -25-80 DHW(tank) °C 30-75 -25-80 -25-80 Piping Connections in	SCOP6	LWT bei 55°C		3.88	3.93	3.84	3.83	3.80
Sound Pressure Level Monobloc Unit dB(A) 48 49 46 47 47	Water Pump	Pump Head m		9				
Sound Pressure Level Monobloc Unit dB(A) 48 49 46 47 47		Max. Flow	m³/h	4.5				
Sound Power Level Monobloc Unit dB 57 57 57 58		Adapter Diameter				DN25		
Packed Dimensions (WXDXH) Monobloc Unit mm 1355 × 545 × 1210 1355 × 545 × 1210 Body Dimensions (WXDXH) Monobloc Unit mm 1280 × 450 × 1040 1280 × 450 × 1040 Net Weight Monobloc Unit kg 140 154 Gross Weight Monobloc Unit kg 153 167 Operating Temperature Range Cooling °C -5~48 DHW(tank) °C -25~43 Cooling °C -25~43 Setting Water Temperature Range Heating °C 5~25 DHW(tank) °C 25~80 DHW(tank) °C 30~75 Piping Connections inch G1"BSP Safety Valve Set Pressure MPa 0.3 Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9	Sound Pressure Level	Monobloc Unit	dB(A)	48	49	46	47	47
Monobloc Unit Monobloc Uni	Sound Power Level	Monobloc Unit	dB	57	57	57	57	58
Net Weight Monobloc Unit kg 140 154 Gross Weight Monobloc Unit kg 153 167 Operating Temperature Range Cooling °C -5~48 DHW(tank) °C -25~35 DHW(tank) °C -25~43 Setting Water Temperature Range Heating °C 5~25 DHW(tank) °C 30~75 Piping Connections inch G1"BSP Safety Valve Set Pressure MPa 0.3 Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9		Monobloc Unit	mm	1355 × 5	1355 × 545 × 1210 1355 × 545 × 1210		210	
Gross Weight Monobloc Unit kg 153 167 Operating Temperature Range Cooling °C -5~48 DHW(tank) °C -25~35 DHW(tank) °C -25~43 Setting Water Temperature Range Heating °C 5~25 DHW(tank) °C 30~75 Piping Connections inch G1"BSP Safety Valve Set Pressure MPa 0.3 Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9	Body Dimensions (WxDxH)	Monobloc Unit	mm	1280 × 450 × 1040 1280 × 450 × 10		040		
Cooling °C -5~48 Operating Temperature Range Heating °C -25~35 DHW(tank) °C -25~43 Cooling °C 5~25 Setting Water Temperature Range Heating °C 25~80 DHW(tank) °C 30~75 Piping Connections inch GI"BSP Safety Valve Set Pressure MPa 0.3 Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9	Net Weight	Monobloc Unit	kg	140 154				
Operating Temperature Range Heating °C -25~35 DHW(tank) °C -25~43 Cooling °C 5~25 Setting Water Temperature Range Heating °C 25~80 DHW(tank) °C 30~75 Piping Connections inch G1"BSP Safety Valve Set Pressure MPa 0.3 Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9	Gross Weight	Monobloc Unit	kg	153 167				
Temperature Range Heating °C -25~35 DHW(tank) °C -25~43 Setting Water Temperature Range Cooling °C 5~25 Heating °C 25~80 DHW(tank) °C 30~75 Piping Connections inch G1"BSP Safety Valve Set Pressure MPa 0.3 Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9	Operating	Cooling	$^{\circ}$ C	-5~48				
DHW(tank) °C -25~43	Temperature	Heating	$^{\circ}\!\mathbb{C}$	-25~35				
Setting Water Temperature Range Heating °C 25~80 DHW(tank) °C 30~75 Piping Connections inch G1"BSP Safety Valve Set Pressure MPa 0.3 Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9	Range	DHW(tank)	$^{\circ}$ C	-25~43				
Temperature Range Heating °C 25~80 DHW(tank) °C 30~75 Piping Connections inch G1"BSP Safety Valve Set Pressure MPa 0.3 Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9	Temperature	Cooling	°C	5~25				
DHW(tank) °C 30~75 Piping Connections inch G1"BSP Safety Valve Set Pressure MPa 0.3 Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9		Heating	$^{\circ}$ C	25~80				
Water Circuit Safety Valve Set Pressure MPa 0.3 Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9		DHW(tank)	$^{\circ}$ C	30~75				
Water Circuit Flow Switch m³/h 0.6 Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9	Water Circuit	Piping Connections	inch	G1"BSP				
Expansion Tank Volume L 5 Capacity of The Back-Up Heater kW 9		Safety Valve Set Pressure	MPa	0.3				
Capacity of The Back-Up Heater kW 9		Flow Switch	m³/h		0.6			
		Expansion Tank Volume	L		5			
Stuffing Quantity 40H/40/20 Unit 68/33/16		Capacity of The Back-Up Heater	kW	9				
	Stuffing Quantity	40H/40/20	Unit	68/33/16				

myLumenHaus App

Smart, green, and secure – Energy at your fingertips



AI-Driven Intelligence for Everyday Life

Lumi - Your Personalized Energy Assistant

Lumi, your AI assistant, understands simple commands in multiple languages. Just ask, and Lumi will quickly help you manage your energy devices or switch smart home settings with ease.

Forecast Energy Demand

Learn your habits to predict your household's energy needs, offering tailored and personalized recommendations for your home energy use.

Maximize Energy Savings

Automatically adapt to your energy plan—store energy when prices are low, use it when prices rise, and receive smart tips to optimize solar energy and reduce costs.



Your Smart Home, Always Connected

Monitor and control all your energy devices remotely, giving you peace of mind wherever you are.

Your Green Home, Effortless Savings

Optimize solar energy use and schedule off-peak consumption to save on bills while living sustainably.

Your Intelligent Home, Automated for You

SmartEco Mode connects all your devices and optimize energy usage based on real-time electricity tariffs from your energy plan—like having a smart energy manager in your pocket.

Your Secure Home, Always Protected

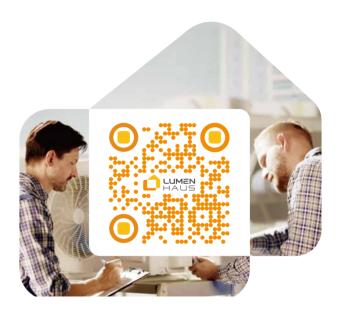
Rest easy with robust data security, protecting your information and smart home systems.







Become the Hero of Your Energy Transition — You're Closer Than You Think.



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