VIVAX

Heat pumps and ESS catalogue **2025**

Contents

Heat pumps

Complete solution for heating, cooling and domestic hot water

Product overview

Heat pumps are becoming increasingly available economic and ecological solutions enabling heating, cooling and domestic hot water. Their numerous benefits make them a top solution for all the living spaces.

WHY HEAT PUMPS?

Heat pumps use free energy from the environment. Energy sources can be earth, groundwater or air. Only cost of the heat pump operation is electric energy that the heat pump uses.

5 YEAR FACTORY WARRANTY

The warranty for VIVAX heat pumps is 60 months with mandatory annual service by an authorised service centre. This is a regular warranty for our heat pumps, and after the purchase, no additional registration of the device is required to obtain the warranty. Detailed information on warranty conditions and a list of authorised services can be found at vivax.com.

LONGTERM COST EFFECTIVENESS

Although the initial investment in a heat pump is a bit higher it is a long-term cost-effective investment, compared to traditional heating solutions based on fossil fuels. Savings in heating goes over 75%. Considering the high savings in energy consumption, average investment in heat pump completely returns in only a few years. Seasonal efficiency coefficient (SCOP) of the VIVAX heat pumps is measured in different operation modes, considering the user needs. In heating mode, it is determined for a water supply temperature of 35 °C, where the values rise up to 6.91, and for a supply temperature of 55 °C, where the values rise up to 4.94.

Monoblock units R290

Capacity (kW)	8,0	10,0	12,0	14,0	16,0	26,0	30,0	35,0
220 ~ 240 - 1 Ph	•	•						
380 ~ 415 - 3 Ph			•	•	•	•	•	•

Split system R32

	Outdoor unit	Outdoor unit					Indoor unit		
Capacity (kW)	6.0	8.0	10.0	12.0	14.0	16.0	6.0	8.0-10.0	12.0-16.0
220 ~ 240 - 1 Ph	•	•	•				•	•	•
380 ~ 415 - 3 Ph				•	•	•		•	•

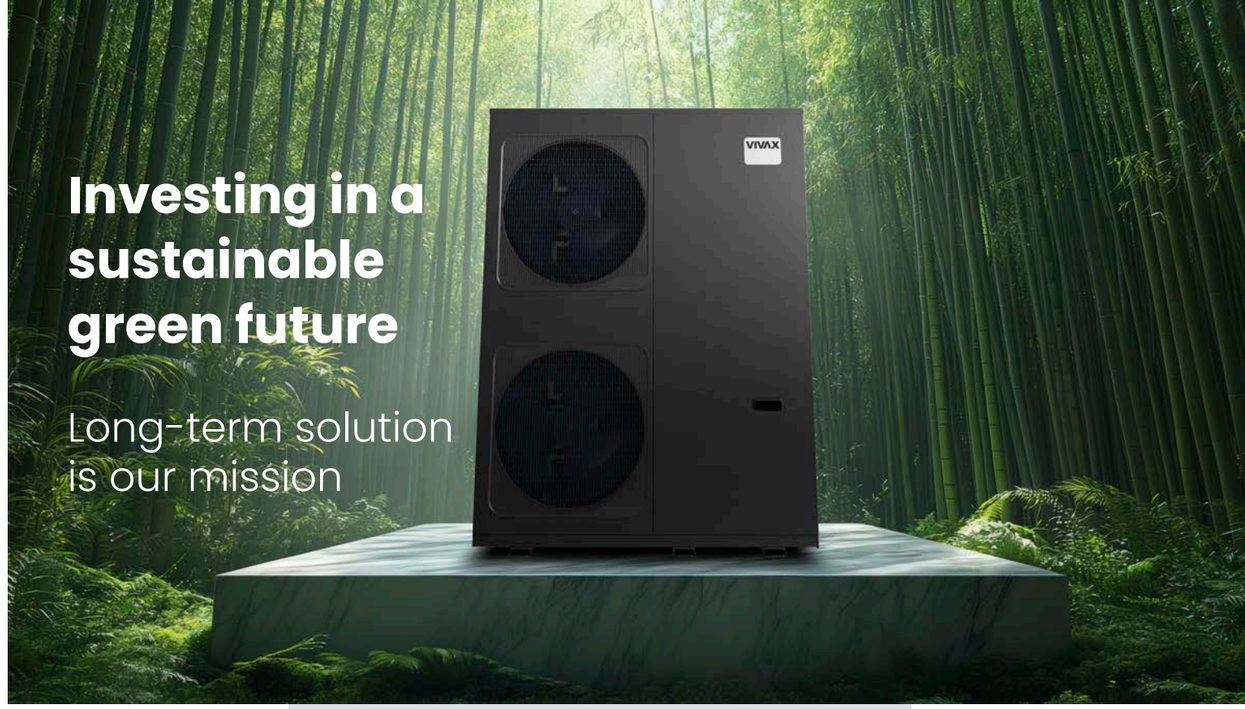
Split system R32

ESS

	Indoor unit		
Capacity (kW)	6.0	8.0-10.0	12.0-16.0
220 ~ 240 - 1 Ph	•	•	•
380 ~ 415 - 3 Ph	•	•	•

Monoblock units R32

Capacity (kW)	6.0	8.0	10.0	12.0	14.0	16.0
220 ~ 240 - 1 Ph	•	•	•			
380 ~ 415 - 3 Ph				•	•	•



Investing in a sustainable green future

Long-term solution is our mission

GWP **3** Lower global warming impact

ODP **0** Ozone layer neutral

Natural refrigerant

- The low GWP value further demonstrates its environmental protection characteristics, which provides great support to reach EU carbon neutrality.
- Thanks to the excellent thermodynamic properties of R290 and the advanced heat pump technology, with only a small amount of R290, VIVAX AENA and AEMA heat pumps show great performance under cold condition.
- It is a modern solution that balances ecosystem requirements with economic performance.

Comprehensive and flexible system monitoring in combination with PV panels and ESS system

- Heating, cooling, domestic hot water
- Ideal for replacement
- 80 °C high water

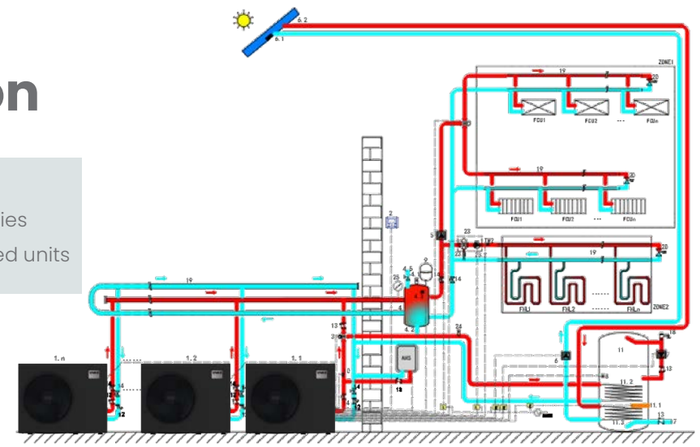
AENA Series

- 80 °C hot water from -10 °C to 15 °C ambient temperature by heat pump only.
- 80 °C hot water from -25 °C to 35 °C ambient temperature by heat pump with integrated electric heater.
- 60 °C hot water under -25 °C ambient temperature by heat pump only.

Heat pump		-10 to 15℃	80℃
Heat pump + Internal electric heater		-25 to 35℃	80℃
Heat pump + Auxiliary heating source (Field supplied)	 	-25 to 35℃	80℃
Heat pump		-25℃	60℃

Complete solution

- Double zone application
- The possibility of achieving higher capacities (48~96 kW) with a maximum of 6 connected units



DC Inverter technology

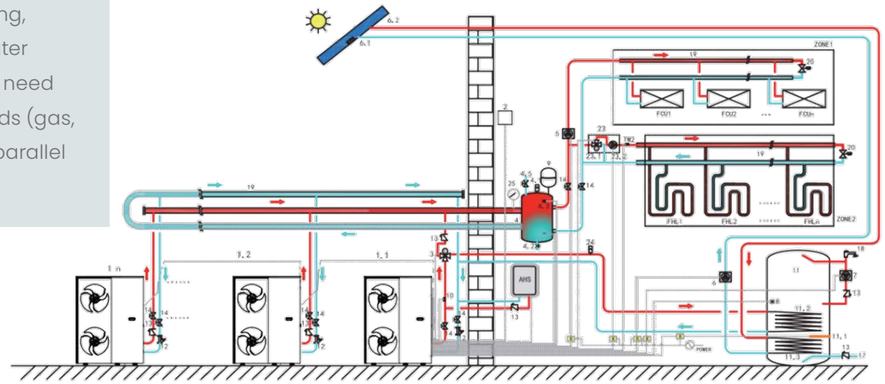
- CE/CCC certification
- BLDC fan motor
- Quiet operation
- Low power consumption

- CE certification
- Wide working frequency
- High efficiency
- Compact structure

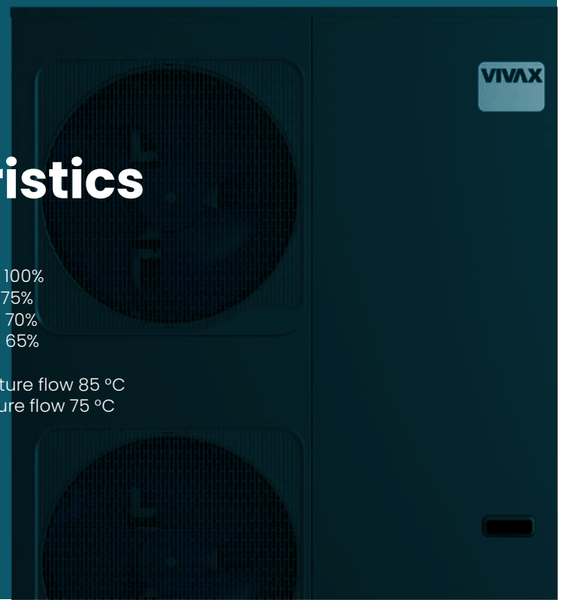
- CE certification
- High efficiency
- Level of protection IPX4D

AEMA Series

A complete solution for heating, cooling and domestic hot water needs that can eliminate the need for traditional heating methods (gas, wood, heating oil) or work in parallel with existing systems.



Main characteristics



- -10 °C Heating capacity = 100%
- -15 °C Heating capacity ≥ 75%
- -20 °C Heating capacity ≥ 70%
- -25 °C Heating capacity ≥ 65%

- Maximum water temperature flow 85 °C
- Maximum DHW temperature flow 75 °C

NATURAL REFRIGERANT

POWERFUL HEATING

HIGH EFFICIENCY

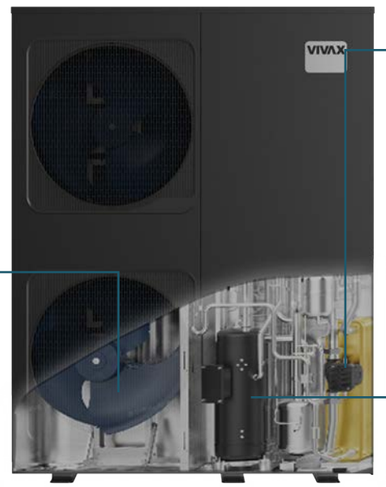
HIGH WATER TEMPERATURE

SMART CONTROL

NEW STRUCTURE & APPEARANCE

SAFETY

DC Inverter technology



DC INVERTER WATER PUMP

- Adaptive adjustment to the optimal target temperature difference
- Combine efficiency with user comfort
- The power consumption of water pump transmission and distribution can be reduced by 70%

INVERTER FAN AND COMPRESSOR

- Precise water temperature control (0.1 °C)
- Adaptive and efficient operation throughout the operating range

R290 EVI SCROLL KOMPRESOR

- Low temperature heating performance improved by 20%
- Condensation temperature is up to 85 °C, and the unit has a higher outlet water temperature

VIVAX AENA R290

Nominal capacity		kW	8	10	12	14	16
VIVAX R290 AENA Series			HPM-28CH84AENA R290-1	HPM-34CH100AENA R290-1	HPM-41CH120AENA R290-3	HPM-48CH140AENA R290-3	HPM-53CH155AENA R290-3
Power supply	V/Ph/Hz		220-240/1/50		380-415/3/50		
Heating A7W35	Capacity	W	8000	9500	12100	14000	15500
	Rated input	W	1524	1919	2444	2979	3444
	COP	/	5.25	4.95	4.95	4.70	4.50
Heating A7W55	Capacity	W	8000	9500	11900	13800	16000
	Rated input	W	2388	2969	3662	4381	5246
	COP	/	3.35	3.20	3.25	3.15	3.05
Heating A2W35	Capacity	W	7100	8200	9200	11000	13000
	Rated input	W	1732	2103	2300	2895	3714
	COP	/	4.10	3.90	4.00	3.80	3.50
Heating A2W55	Capacity	W	8000	9000	11500	12500	13800
	Rated input	W	2963	3529	4340	4808	5520
	COP	/	2.70	2.55	2.65	2.60	2.50
Heating A-7W35	Capacity	W	7000	8000	10000	12000	13100
	Rated input	W	2154	2540	3175	4286	4852
	COP	/	3.25	3.15	3.15	2.80	2.70
Heating A-7W55	Capacity	W	7500	8800	11000	12000	13000
	Rated input	W	3261	4000	4889	5581	6190
	COP	/	2.30	2.20	2.25	2.15	2.10
Cooling A35W18	Capacity	W	8300	10000	12000	14000	15000
	Rated input	W	1581	2174	2609	3182	3529
	EER	/	5.25	4.60	4.60	4.40	4.25
Cooling A35W7	Capacity	W	7450	8100	11500	12400	14000
	Rated input	W	2224	2613	3770	4133	5185
	EER	/	3.35	3.10	3.05	3.00	2.70
Seasonal space heating energy efficiency class	Leaving water temperature at 35 °C		A+++				
	Leaving water temperature at 55 °C		A+++				
SEER	LWT at 7 °C		5.61	5.53	4.99	4.97	4.98
	LWT at 18 °C		7.63	7.67	7.03	6.94	6.87
SCOP	Warmer climate	LWT at 35 °C	6.91	6.87	6.8	6.74	6.77
		LWT at 55 °C	4.86	4.85	4.89	4.87	4.86
	Average climate	LWT at 35 °C	5.35	5.33	4.94	4.76	4.72
		LWT at 55 °C	4.06	4.01	3.96	3.85	3.86
	Colder climate	LWT at 35 °C	4.6	4.53	4.53	4.45	4.31
		LWT at 55 °C	3.45	3.49	3.56	3.54	3.51
Erp Sound power level		dB	53	54	55	57	59
Sound power level	Heating A7W35	dB	40	41	43	46	49
	Cooling A35W18	dB	39	41	42	43	44
Water flow range		m^3/h	0.40 - 1.65	0.40 - 2.10	0.70 - 2.50	0.70 - 2.75	0.70 - 3.00
Notes: The above data test reference standard EN14511; EN14825; EN50564;EN 12102; (EU) No:811							

VIVAX AENA R290

Nominal capacity		kW	8	10	12	14	16
VIVAX R290 AENA Series			HPM-28CH84AENA R290-1	HPM-34CH100AENA R290-1	HPM-41CH120AENA R290-3	HPM-48CH140AENA R290-3	HPM-53CH155AENA R290-3
Compressor	Type		Twin rotary				
Outdoor fan	Motor type/ Number of fans		DC fan / 1				
Air-side heat exchanger			Finned tube heat exchanger				
Refrigerant	Type/Charged volume		R290/1100g		R290/1500g		
Unit dimensions (H×W×D)		mm	1051×1330×475				
Packing dimensions (H×W×D)		mm	1235×1390×570				
Net weight		kg	156		176		
Gross weight		kg	181		201		
Backup electric heater weight		kg	5				
Water-side heat exchanger			Plate heat exchanger				
Water-side Connection dimensions			G1 1/4"BSP				
Water pump	Max. pump head	m	9				
Safety valve		MPa	0.3				
Flow switch		m^3/h	0.36		0.6		
Outdoor air temperature range	Cooling	°C	-5~46				
	Heating	°C	-25~35				
	DHW	°C	-25~46				
Water setting temperature range	Cooling	°C	5~25				
	Heating	°C	25~80				
	DHW	°C	20~70				
Notes: The above data test reference standard EN14511; EN14825; EN50564;EN 12102; (EU) No:811							

VIVAX AEMA R290

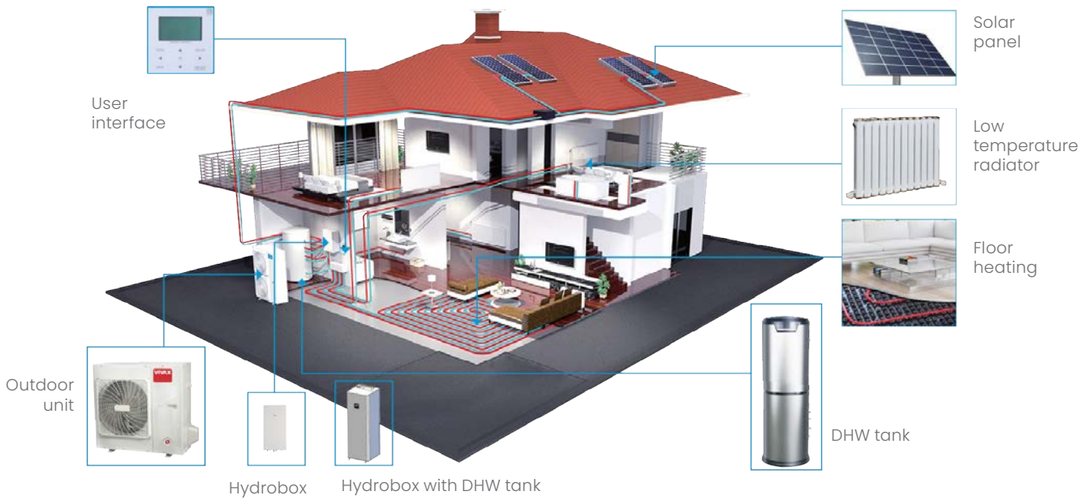
Nominal capacity		kW	26	30	35
VIVAX R290 AEMA Series			HPM-89CH260AEMA R290-3	HPM-102CH300AEMA R290-3	HPM-120CH350AEMA R290-3
Power supply	V/Ph/Hz		380-415/3/50		
Heating A7W35	Capacity	W	26000	30000	35000
	Rated input	W	5450	6670	8400
	COP	/	4.77	4.50	4.17
Heating A7W55	Capacity	W	26000	30000	35000
	Rated input	W	7850	9570	11750
	COP	/	3.31	3.13	2.98
Heating A2W35	Capacity	W	23500	26800	30400
	Rated input	W	6350	7620	9520
	COP	/	3.70	3.52	3.19
Heating A2W55	Capacity	W	21950	25350	29600
	Rated input	W	8100	9650	12060
	COP	/	2.71	2.63	2.45
Heating A-7W35	Capacity	W	21000	24000	28200
	Rated input	W	6930	8380	11100
	COP	/	3.03	2.86	2.54
Heating A-7W55	Capacity	W	18800	21300	24800
	Rated input	W	8170	9600	11900
	COP	/	2.30	2.22	2.08
Cooling A35W18	Capacity	W	26000	30000	35000
	Rated input	W	5600	6800	8500
	EER	/	4.64	4.41	4.12
Cooling A35W7	Capacity	W	26000	30000	32000
	Rated input	W	8400	10700	11980
	EER	/	3.10	2.80	2.67
Seasonal space heating energy efficiency class	LWT (leaving water temperature)	35 °C	A+++		
		55 °C	A+++	A++	
SCOP	Warmer climate	35 °C	6.57	6.26	6.08
		55 °C	4.94	4.90	4.75
	Average climate	35 °C	4.95	4.92	4.48
		55 °C	3.84	3.79	3.63
	Colder climate	35 °C	3.95	3.91	3.85
		55 °C	3.23	3.14	3.03
SEER	LWT (leaving water temperature)	7 °C	5.21	4.99	4.82
		18 °C	7.17	6.8	6.43
Erp Sound power level		dB	69	74	75
Sound power level	Heating A7W55	dB	54.8	61.3	61.7
	Cooling A35W18	dB	59.9	60.3	60.7
Water flow range		m^3/h	1.2-5.4	1.2-6.2	1.2-7.2
Notes: The above data test reference standard EN14511; EN14825; EN50564;EN 12102; (EU) No:811					

VIVAX AEMA R290

Nominal capacity		kW	26	30	35
VIVAX R290 AEMA Series			HPM-89CH260AEMA R290-3	HPM-102CH300AEMA R290-3	HPM-120CH350AEMA R290-3
Compressor	Type		Scroll		
Outdoor fan	Motor type/Number of fans		DC fan / 2		
Air-side heat exchanger			Finned tube heat exchanger		
Refrigerant			R290 2900g		
Unit dimensions (W×H×D)		mm	1384×1816×523		
Packing dimensions (W×H×D)		mm	1480×2000×570		
Net weight		kg	260		
Gross weight		kg	285		
Water-side heat exchanger			Plate heat exchanger		
Water-side Connection method			Threaded connection		
Water side Connection dimension		mm	DN32		
Water pump	Max. pump head	m	12		
Expansion vessel (primary circuit)	Nominal volume	L	5		
	Charge pressure	Bar	8		
Safety valve		Bar	3		
Flow switch		m^3/h	0.87		
Outdoor air temperature range	Cooling	°C	-15~48		
	Heating	°C	-25~43		
	DHW	°C	-25~43		
Water setting temperature range	Cooling	°C	5~25		
	Heating	°C	25~85		
	DHW	°C	20~75		
Notes: The above data test reference standard EN14511; EN14825; EN50564;EN 12102; (EU) No:811					

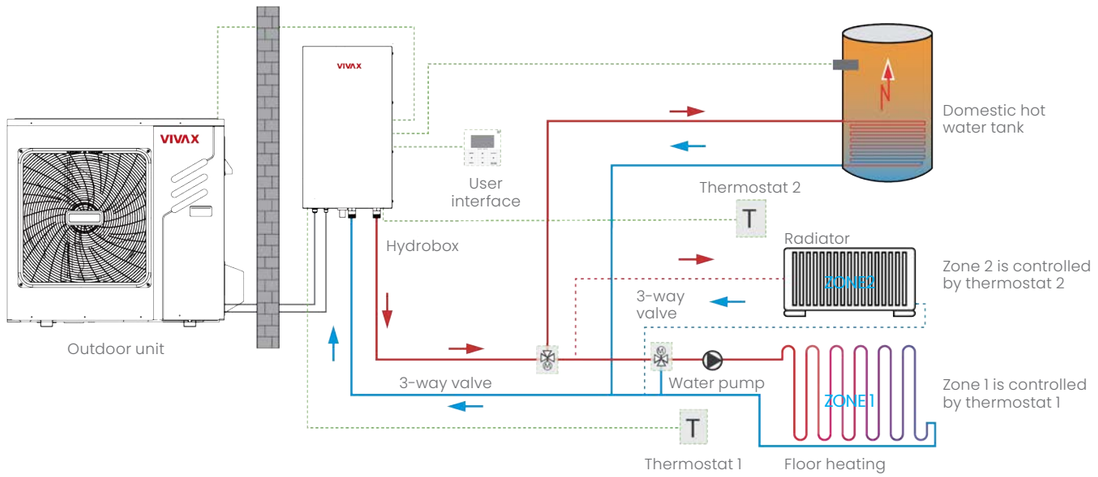

VIVAX
R32

Split system R32



Application	Heating + Cooling + Domestic hot water
Type	Split (outdoor unit + hydrobox)
Refrigerant piping	Between the outdoor unit and hydrobox
Water piping	Between the hydrobox and indoor heating appliances
Combinational parts	Under-floor heating loops Fan coil units Low temperature radiators Domestic hot water tank Auxiliary heat sources (such as water heaters and boilers)

Two zones controlled using user interface and thermostat.



SPLIT TYPE OUTDOOR UNIT

The outdoor unit absorbs heat from the outside air and transfers it inside through the refrigerant piping.

HYDROBOX

The hydrobox heats the water with refrigerant from the outdoor unit. The heated water circulates through heating apparatus such as floor heating, radiators, fan coil units as well as inner coil of domestic hot water tank.

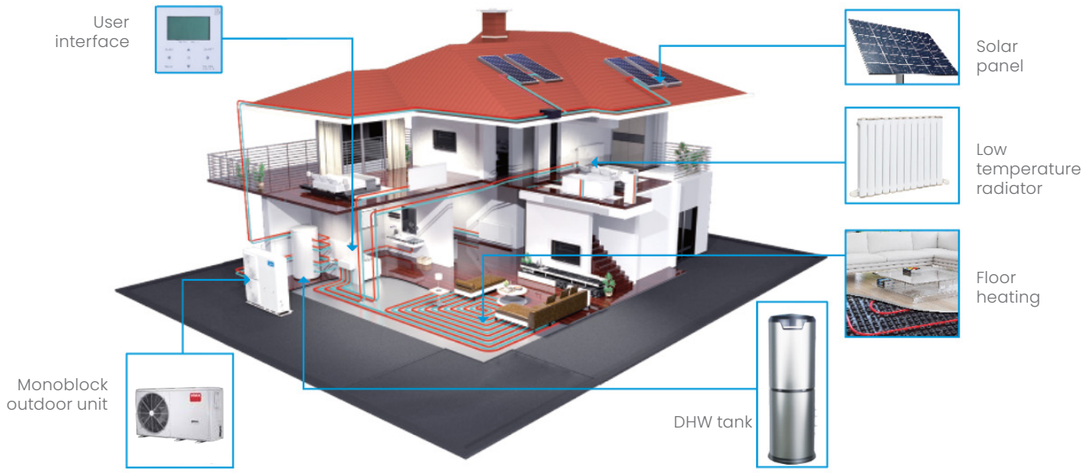
DOMESTIC HOT WATER TANK

Hot water from the hydrobox is circulated through the domestic hot water tank heating water coil, heating the domestic hot water inside the tank. Immersion electric heaters could be installed in domestic hot water tanks as a backup.

USER INTERFACE

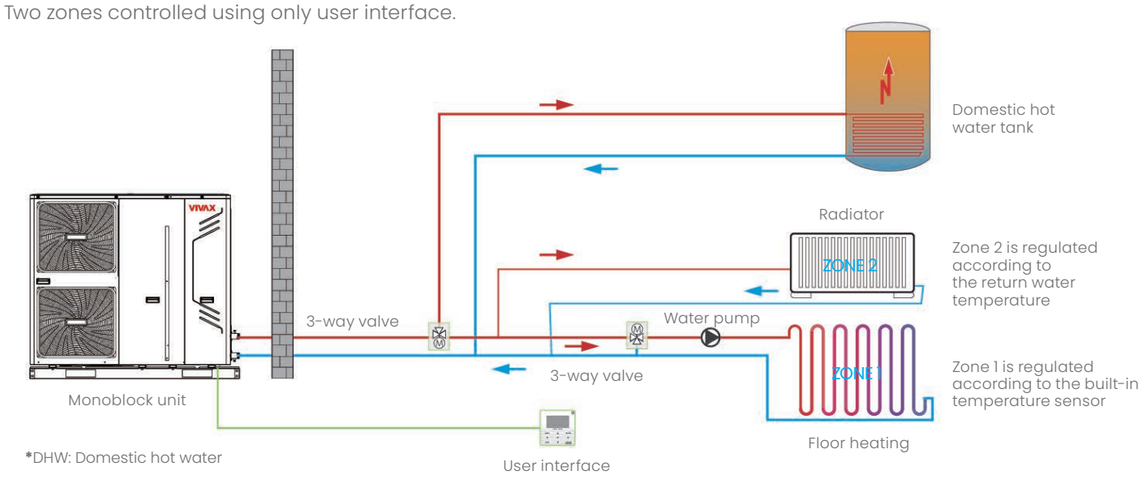
User interface is connected to the split unit through signal wire. Its main functions are ON / OFF, parameter setting, timer and service parameter setting.

Monoblock system R32



Application	Heating + Cooling + Domestic hot water
Type	Integrated (Heat pump and hydronic box are in the same casing)
Refrigerant piping	Inside outdoor unit
Water piping	Between outdoor unit and indoor heating appliances
Combinational parts	Under-floor heating coils Fan coil units Low temperature radiators Domestic hot water tank Auxiliary heat sources (such as water heaters and boilers)

Two zones controlled using only user interface.



*DHW: Domestic hot water

MONOBLOCK OUTDOOR UNIT

Monoblock outdoor unit absorbs heat from the outside air and transfers it to the water in the hydronic module, through water to supply heat to indoor side.

DOMESTIC HOT WATER TANK

Hot water from the monoblock unit is circulated through the domestic hot water tank's heating water coil, heating the domestic hot water inside the tank. Immersion heaters could be installed in domestic hot water tanks as a backup.

USER INTERFACE

User interface is connected to the monoblock unit through signal wire. Its main functions are ON/OFF, parameter setting, timer and service parameter setting.

Split systems R32
Outdoor units

Nominal capacity		kW	6	8	10	12	14	16
Outdoor unit model name			HPS-22CH65AERI /O1s R32	HPS-28CH84AERI /O1s R32	HPS-34CH100AERI /O1s R32	HPS-41CH120AERI /O3s R32	HPS-48CH140AERI /O3s R32	HPS-53CH155AERI /O3s R32
Heating A7W35	Capacity	kW	6.20	8.30	10.0	12.1	14.5	16.0
	Rated input	kW	1.24	1.60	2.00	2.44	3.09	3.56
	COP		5.00	5.20	5.00	4.95	4.70	4.50
Heating A7W55	Capacity	kW	6.00	7.50	9.50	12.0	13.8	16.0
	Rated input	kW	2.00	2.36	3.06	3.87	4.60	5.52
	COP		3.00	3.18	3.10	3.10	3.00	2.90
Heating A2W35	Capacity	kW	5.50	7.10	8.20	9.3	11.4	13.0
	Rated input	kW	1.39	1.73	2.02	2.35	3.12	3.71
	COP		3.95	4.10	4.05	3.95	3.65	3.50
Heating A2W55	Capacity	kW	5.65	7.10	8.10	11.40	11.80	13.40
	Rated input	kW	2.31	2.73	3.16	4.47	4.82	5.58
	COP		2.45	2.60	2.56	2.55	2.45	2.40
Heating A-7W35	Capacity	kW	6.10	7.10	8.25	10.00	12.00	13.30
	Rated input	kW	2.00	2.18	2.62	3.33	4.29	4.93
	COP		3.05	3.25	3.15	3.00	2.80	2.70
Heating A-7W55	Capacity	kW	5.15	6.15	6.85	10.00	11.00	12.50
	Rated input	kW	2.58	3.00	3.43	4.88	5.37	6.19
	COP		2.00	2.05	2.00	2.05	2.05	2.02
Cooling A35W18	Capacity	kW	6.55	8.40	10.00	12.00	13.50	14.90
	Rated input	kW	1.34	1.66	2.08	3.00	3.75	4.38
	EER		4.90	5.05	4.80	4.00	3.60	3.40
Cooling A35W7	Capacity	kW	7.00	7.40	8.20	11.6	12.7	14.0
	Rated input	kW	2.33	2.19	2.48	4.22	4.98	5.71
	EER		3.00	3.38	3.30	2.75	2.55	2.45
Seasonal space heating energy efficiency class[6]	Water outlet at 35°C		A+++					
	Water outlet at 55°C		A++					
SCOP	Water outlet at 35°C		4.95	5.21	5.19	4.81	4.72	4.62
	Water outlet at 55°C		3.52	3.36	3.49	3.45	3.47	3.41
SEER	Water outlet at 7°C		5.34	5.83	5.98	4.86	4.83	4.67
	Water outlet at 18°C		8.21	8.95	8.78	7.04	6.85	6.71

Split systems R32
Outdoor units

Nominal capacity			kW	6	8	10	12	14	16
Outdoor unit model name				HPS-22CH65AERI /O1s R32	HPS-28CH84AERI /O1s R32	HPS-34CH100AERI /O1s R32	HPS-41CH120AERI /O3s R32	HPS-48CH140AERI /O3s R32	HPS-53CH155AERI /O3s R32
Power supply			V/Ph/Hz	220-240/1/50			380-415/3/50		
MOP			A	18	19	19	14	14	14
MCA			A	14	16	17	10	11	12
Compressor	Type			Twin rotary					
	Poles			6					
	Speed range		rps	10~120					
	Capacity (60rps)		W	5450	7100		14000		
	Input (60rps)		W	1735	2230		4380		
	Max. heating frequency		Hz	96	86	96	78	86	92
	Max. cooling frequency		Hz	84	72	78	70	76	80
Outdoor fan	Motor type			DC fan					
	Number of fans			1					
	Air flow		m^3/h	2770	4030		4060		4650
Air side heat exchanger	Number of rows			2	2		3		
	Number of circuits			7	8		12		
Refrigerant	Type (GWP)			R32(675)					
	Charged volume		kg	1.5	1.65		1.84		
Throttle type				Electronic expansion valve					
Sound power level	Heating A7W35		dB	57	59	60	64	64	67
	Cooling A35W18		dB	58	60	60	64	64	67
Unit dimension (W×H×D)			mm	1007×712×426	1120×864×523				
Packing dimension (W×H×D)			mm	1065×800×485	1180×890×560				
Net/Gross weight			kg	57/62	77/82		126/132		
Pipe size O.D.	Liquid		mm	6.35	9.52				
	Gas		mm	15.88	15.88				
Connection method				Flared					
Between indoor and outdoor unit	Height difference		m	Max. 20					
	Pipe length		m	2~30					
Additional refrigerant	chargment		g/m	20	38				
	Min. pipe length		m	15					
Outdoor air temperature range	Cooling		°C	-5~43					
	Heating		°C	-25~35					
	DHW		°C	-25~43					

Notes
The above data test reference standard EN14511:2013; EN14825:2013; EN50564:2011; 12102:2011; (EU) No:811:2013; (EU)No:813:2013; OJ 2014/C 207/02:2014

Split systems R32
Hydrobox

Compatible Outdoor Unit			kW	6	8	10	12	14	16
Indoor unit model name				HPS-42HM65AERI/I1s	HPS-84HM100AERI/I1s		HPS-120HM155AERI/I1s		
Indoor unit model name with backup heater of 3 kW				HPS-42HM65AERI/I1H3s	HPS-84HM100AERI/I1H3s		/		
Indoor unit model name with backup heater of 9 kW				/	HPS-84HM100AERI/I1H9s		HPS-120HM155AERI/I1H9s		
Unit dimension (W×H×D)			mm	420×790×270					
Packing dimension (W×H×D)			mm	520×1050×360					
Net/Gross weight			kg	41/47			43/49		
Water side heat exchanger				Plate type					
Water pump	Max. pump head		m	9					
Expansion vessel (Primary circuit)	Volume		L	8					
	Charge pressure		MPa	0,3					
Connection	Water side		mm	R1"					
	Refrigerant liquid		mm	6.35	9.52		9.52		
	Refrigerant gas		mm	15.88	15.88		15.88		
Safety valve			MPa	0.3					
Flow switch			m^3/h	0.36			0.6		
Backup E-heater	Standard mounted		kW	/					
	Optional		kW	3	3/9		9		
	Capacity steps			1					
	Power supply	3kW	V/Ph/Hz	220~240/1/50					
		6/9kW		380~415/3/50					
Room temperature range			℃	5~35					
Water outlet temperature range	Cooling		℃	5~30					
	Heating		℃	12~65					
	DHW (tank)		℃	10~60					
Nominal return water temperature range	Cooling mode		℃	6~35					
	heating mode (DHW)		℃	12~59					
Sound power level			dB	38	42	42	43	43	43
The above data test reference standard EN14511:2013; EN14825:2013; EN50564:2011; 12102:2011; (EU) No:811:2013; (EU)No:813:2013; OJ 2014/C 207/02:2014									

Split systems R32
Hydrobox with integrated tank

Compatible Outdoor Unit			kW	6	8	10	6	8	10	12	14	16
Indoor unit model name with backup heater of 3 kW				HPS-42HM65AERI/I1T19H3s			HPS-84HM100AERI/I1T241H3s			HPS-120HM155AERI/I1T241H3s		
Indoor unit model name with backup heater of 9 kW				HPS-42HM100AERI/I3T19H9			HPS-42HM100AERI/I3T24H9			HPS-120HM155AERI/I3T24H9		
Power supply			V/Ph/Hz	220-240/1/50 or 380-415/3/50								
Rated input			W	3095			3095			3095		
Rated current			A	13.5			13.5			13.5		
DHW Tank	Type			Stainless steel								
	Material			SUS 316L								
	Water Volume		L	190			240			240		
	Maximum water temperature (Disinfection mode)		°C	70								
	Maximum water pressure limit		Bar	10								
	Insulation material			Polyurethane (Cyclopentane)								
	Insulation thickness			45								
Heat Exchanger				Plate heat exchanger								
Backup E-heater	Standard mounted		kW	3 or 9								
	Capacity steps			1								
Water Pump	Type			DC inverter								
	Max. Head		m	9								
Expansion vessel	Volume		L	8								
Water Piping connection	Water circuit	Inlet		R1"			R1"			R1"		
		Outlet										
	DHW tank water circuit	Cold Inlet		R3/4"			R3/4"			R3/4"		
		Hot Outlet										
		Recirculation										
Unit dimension (W×H×D)			mm	600x600x1943			600x600x1943			600x600x1943		
Packing dimension (W×H×D)			mm	730x730x1920			730x730x2180			730x730x2180		
Net/Gross weight			kg	140/161			157/178			159/180		
Ambient temperature range			°C	5~35			5~35			5~35		
LWT setting range	Heating		°C	25~65			25~65			25~65		
	Cooling		°C	5~25			5~25			5~25		
	Domestic hot water		°C									
Indoor unit sound Power Level(3)			dB	38	40		38	40		42	44	44

Notes:
(1)According to EN16147/2017;EU No:811/2013
(2)According to EN14511/2018; EN14825/2018; EU No:811/2013
(3)Sound power in heating mode, measured according to the EN 12102 under conditions of the EN 14825

Monoblock units R32

Nominal capacity		kW	6	8	10	12	14	16
Outdoor unit model name			HPM-22CH65 AERIs R32-1	HPM-28CH84 AERIs R32-1	HPM-34CH100 AERIs R32-1	HPM-41CH120 AERIs R32-3	HPM-48CH140 AERIs R32-3	HPM-53CH155 AERIs R32-3
Heating A7W35	Capacity	kW	6.35	8.40	10.0	12.1	14.5	15.9
	Rated input	kW	1.28	1.63	2.02	2.44	3.15	3.53
	COP		4.95	5.15	4.95	4.95	4.60	4.50
Heating A7W55	Capacity	kW	6.00	7.50	9.50	11.9	13.8	16.0
	Rated input	kW	2.03	2.36	3.06	3.90	4.68	5.61
	COP		2.95	3.18	3.10	3.05	2.95	2.85
Heating A2W35	Capacity	kW	5.50	7.10	8.20	9.2	11.0	13.0
	Rated input	kW	1.41	1.73	2.05	2.36	3.06	3.77
	COP		3.90	4.10	4.00	3.90	3.60	3.45
Heating A2W55	Capacity	kW	5.65	7.10	8.10	11.30	12.40	13.30
	Rated input	kW	2.31	2.73	3.16	4.52	5.06	5.54
	COP		2.45	2.60	2.56	2.50	2.45	2.40
Heating A-7W35	Capacity	kW	6.00	7.00	8.00	10.00	12.00	13.10
	Rated input	kW	2.00	2.19	2.62	3.33	4.21	4.85
	COP		3.00	3.20	3.05	3.00	2.85	2.70
Heating A-7W55	Capacity	kW	5.15	6.15	6.85	9.80	11.00	12.50
	Rated input	kW	2.58	3.00	3.43	4.78	5.37	6.25
	COP		2.00	2.05	2.00	2.05	2.05	2.00
Cooling A35W18	Capacity	kW	6.50	8.30	9.90	12.00	13.50	14.90
	Rated input	kW	1.35	1.64	2.18	3.04	3.75	4.38
	EER		4.80	5.05	4.55	3.95	3.60	3.40
Cooling A35W7	Capacity	kW	7.00	7.45	8.20	11.5	12.4	14.0
	Rated input	kW	2.33	2.22	2.52	4.18	4.96	5.60
	EER		3.00	3.35	3.25	2.75	2.50	2.50
Seasonal space heating energy efficiency class	Water outlet at 35 °C		A+++					
	Water outlet at 55 °C		A++					
SCOP	Water outlet at 35 °C		4.95	5.21	5.19	4.81	4.72	4.62
	Water outlet at 55 °C		3.52	3.36	3.49	3.45	3.47	3.41
SEER	Water outlet at 7 °C		5.34	5.83	5.98	4.86	4.83	4.67
	Water outlet at 18 °C		8.21	8.95	8.78	7.04	6.85	6.71

Notes:
The above data test reference standard EN14511:2013; EN14825:2013; EN50564:2011; 12102:2011; (EU) No:811:2013; (EU)No:813:2013; OJ 2014/C 207/02:2014

Monoblock units R32

Nominal capacity			kW	6	8	10	12	14	16
Outdoor unit model name				HPM-22CH65 AERIs R32-1	HPM-28CH84 AERIs R32-1	HPM-34CH100 AERIs R32-1	HPM-41CH120 AERIs R32-3	HPM-48CH140 AERIs R32-3	HPM-53CH155 AERIs R32-3
Power supply			V/Ph/Hz	220-240/1/50			380-415/3/50		
MOP			A	18	19	19	14	14	14
MCA			A	14	16	17	10	11	12
Compressor	Type			Twin rotary					
	Poles			6					
	Speed range		rps	10-120					
	Capacity (60rps)		W	5450	7100		14000		
	Input (60rps)		W	1735	2230		4380		
	Max. heating frequency		Hz	96	86	96	78	86	92
	Max. cooling frequency		Hz	84	72	78	70	76	80
Outdoor fan	Motor type			Dc fan					
	Number of fans			1					
	Air flow		m^3/h	2770	4030		4060		4650
Air side heat exchanger	Number of rows			2	2		3		
	Number of circuits			7	8		12		
Refrigerant	Type (GWP)			R32 (675)					
	Charged volume		kg	1.4			1.75		
Throttle type				Electronic expansion valve					
Sound power level	Heating max		dB	61	61	62	65	65	69
	Cooling max		dB	61	61	62	65	65	69
Unit dimension (W×H×D)			mm	1295×792×429	1385×945×526				
Packing dimension (W×H×D)			mm	1375×945×475	1465×1120×560				
Net/Gross weight			kg	98/121	121/148		160/188		
Connection method				Flared					
Outdoor air temperature range	Cooling		°C	-5~43					
	Heating		°C	-25~35					
	DHW		°C	-25~43					
Water side heat exchanger				Plate type					
Water pump	Max. pump head		m	9					
Expansion vessel (Primary circuit)	Volume		L	8					
	Charge pressure		MPa	0.3					
Water side connection			mm	R1"	R5/4"				
Safety valve			MPa	0,3					
Flow switch			m^3/h	0.36			0.6		
Total water volume			L	5					
Water outlet temperature range	Cooling		°C	5~30					
	Heating		°C	12~65					
	DHW (tank)		°C	10~60					
Nominal return water temperature range	Cooling mode		°C	6~35					
	Heating mode (DHW)		°C	12~59					

Notes:
The above data test reference standard EN14511:2013; EN14825:2013; EN50564:2011; 12102:2011; (EU) No:811:2013; (EU)No:813:2013; OJ 2014/C 207/02:2014

FLEXIBLE APPLICATION

Adapt to all application scenarios:

- PV Only;
- PV and energy storage;
- Existing PV system, expanding PV and energy storage.

CONTINUOUS OPERATION WITHOUT POWER OUTAGE

Supports 100% three-phase unbalanced output, which can maintain the normal operation of most household appliances in case of power grid outage.

INTEGRATED CONNECTION

Reserve a heat pump control interface to improve the PV selfconsumption rate by providing free PV electricity for hot water during the day.

REMOTE CONTROL

APP and WEB Monitoring for visualizing energy generation and consumption, user and installer friendly.

ESS Energy Storage System

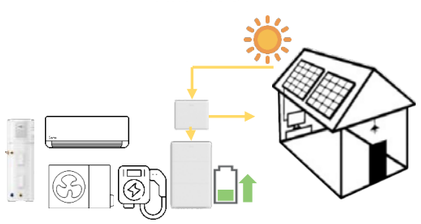
HOW IT WORKS?

UP TO 40 kW

The VIVAX ESS system is based on a modular design, consisting of an inverter, a power module and 5 kW batteries. One inverter allows connecting a maximum of two power modules and batteries with a total power of up to 40 kW.

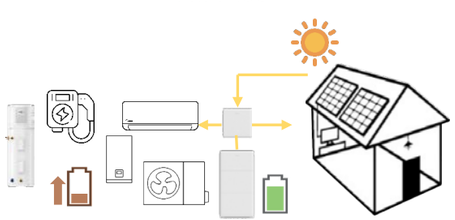
BATTERY CHARGING WITH SOLAR POWER

SUNRISE
AM 7:00



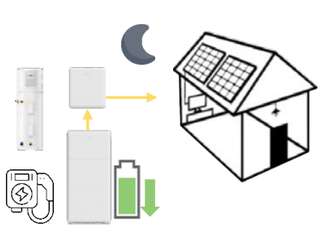
HEATING/COOLING WITH SOLAR POWER

DAYTIME
PM 12:00



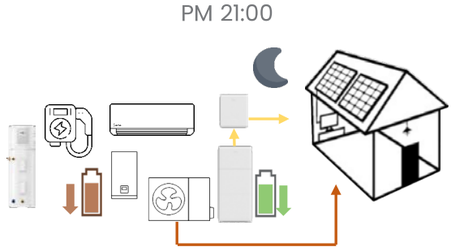
USING DHW AND BATTERY POWER

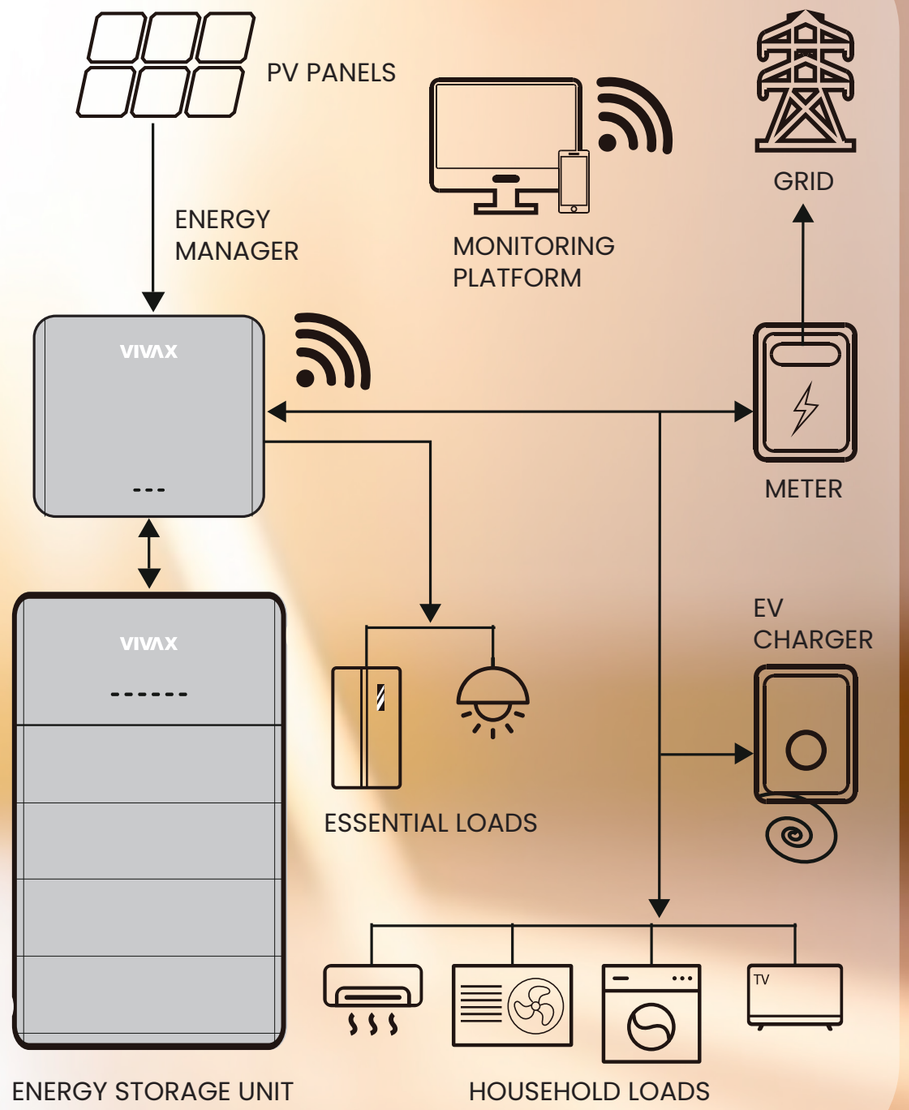
SUNSET
PM 17:30



SUPPLIES YOUR HOME WITH BATTERY POWER

NIGHT
PM 21:00





Smart

Simple

Safe

ESS
Energy Storage System

Inverter model		EMS-EM-3P-10K01
Input (PV)	Recommended max. PV power (Wp)	15000
	Max. input voltage (Vdc)	1000
	MPPT operating voltage range (Vdc)	160~800
	Start-up voltage(Vdc)	200
	Nominal input voltage(Vdc)	600
	Max. input current per MPPT(A)	14
	Max. short-circuit current (A)	16
	Number of MPP trackers	2
	Max. input number per MPP tracker	1
Input (Battery)	Battery Type	Li-ion
	Operating voltage range (Vdc)	600~980
	Max operating current (A)	16,7
	Max charge power (W)	10000
	Max discharge power (W)	10000
Output (AC Grid)	Grid connection	Three phase
	Nominal output power (W)	10000
	Max. apparent power (VA)	11000
	Nominal output voltage (Vac)	220/380, 230/400, 3/N/PE
	Nominal AC grid frequency (Hz)	50/60
	Nominal output current (A)	14,5
	Max. output current (A)	16
	Adjustable power factor	0.8 leading~0.8 lagging
	Max. total harmonic distortion	≤ 3 %
Output (AC backup)	Maximum apparent AC power (VA)	10000
	Output voltage (Vac)	220/380, 230/400, 3/N/PE
	Max. output current (A)	14,5
	Switching to backup mode	<3s
Efficiency	Max. Efficiency (%)	97,6
Protections & Features	Input-side disconnection device; Anti-Islanding protection; DC reverse polarity protection; Insulation monitoring; Residual current monitoring; AC overcurrent protection; AC short-circuit protection; AC overvoltage protection; LVRT; Energy Management; Black start; Back-up power	Yes
General Data	Operating temperature range (°C)	– 25~+60
	Relative operating humidity (%RH)	0~100
	Max. operating altitude (m)	2000
	Cooling	Natural convection
	Display	LED indicators; integNominal WLAN + APP
	Communication	RS485, WLAN
	Net Weight (kg)	33,6
	Gross Weight (kg)	40,4
	Body Dimension (L×W×H)(mm)	521×247×516
	Package Dimension (L×W×H)(mm)	750×640×320
	Degree of protection	IP65
Standard Compliance	EMC	EN 61000-6-1,EN 61000-6-3,EN 62920
	Safety	IEC62109-1, IEC62109-2
	Grid	EN 50549-1, VDE-AR-N 4105

Power Module model	EMS-PM-LV-5K01
Rated charge and discharge power (W)	5kW
Nominal voltage (Vdc)	600V
Operating voltage range(three phase system) (Vdc)	600~980V
Power module Net dimension (L×W×H) (mm)	690×168×407
Power module Package dimension (L×W×H) (mm)	750×640×320
Power module Net weight (kg)	25,2
Power module Gross weight (kg)	38
Ingress Protection	IP65

Energy Storage Module Model	EMS-BM-LV-5K01
Nominal Voltage (V)	51,2
Voltage Range (V)	45~57,6
Max. Continuous Current (A)	50
Battery usable energy 1 (kWh)	5,12
Energy storage module net dimension (L*W*H) (mm)	690*165*408
Energy storage module package dimension (L*W*H) (mm)	785*535*285
Energy storage module Net weight (kg)	52
Power module Gross weight (kg)	58
Ingress Protection	IP66
Cell technology	Lithium-iron phosphate (LiFePO4)
Certificates	IEC 62477, EN 61000-6-1, EN 61000-6-3, IEC62619, UN38.3,IEC 62040-1, VDE2510-50

VIVAX

Simply good.

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Quality Assurance ISO 9001

Environmental Management ISO 14001

VIVAX PARTNER