

Schneider Electric Solution for Prosumer Homes - IEC Catalog 2024



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### Who is a Prosumer?

#### Homeowners of the millennium are facing a new dilemma

#### Growing consumption of electricity at home

The demand for electricity at home is growing at unprecedented rate, driven largely by the **rise in EV**, charging at home in more than 80% of cases<sup>(1)</sup>, **and increased use of heat pumps**.

This means that your customers' homes need, or will sooner or later need, more power than ever before.

#### Electricity needs to be greener and more affordable

#### Domestic electricity accounts for 20% of CO<sub>2</sub> emissions. (2)

Homeowners are looking for ways to reduce their carbon footprint without compromising their comfort, especially at home.

#### Spiraling energy costs

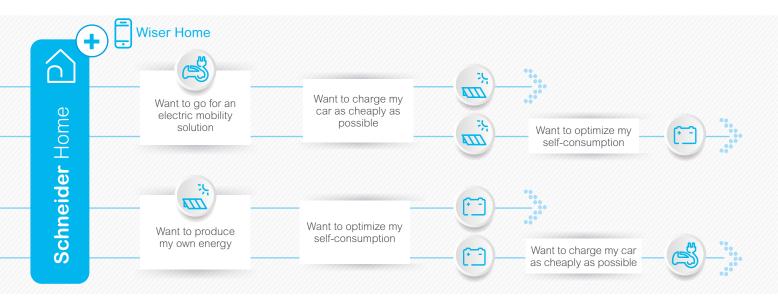
Prices are fluctuating more than ever before, and homeowners are looking for solutions to control and reduce their spending.

#### "Prosumer" is a portmanteau term of electricity PROducer and conSUMER.

A prosumer is a homeowner who has a domestic means of electricity production, usually from a solar installation, and who consumes the electricity they produce.

Prosumers can access the grid power supply to supplement their domestic production levels to meet their needs or can export back to the grid any solar energy they have produced which is surplus to requirements.

### A prosumer journey can start by producing OR by consuming more sustainable energy



(1) A biginners' guide to Electric Cars - Charge Hub - Canada's EV charging strategy reaches fork in the road - Reuters

<sup>(2)</sup> The carbon footprint of household energy use in the United States - PNAS - The rise of home energy efficiency - Schneider Electric

# **Schneider** Home Solution from Schneider Electric

Self-produce, consume better, consume smarter

#### Schneider Home solution helps homeowners to:

Moderate exposure to price hikes



by producing their own electricity.

Reduce bills, optimize consumption



by responding to increased power needs with less electricity coming from energy retailers. Improve carbon footprint



by driving EV powered with green and self-generated electricity.

**Schneider** Home is a residential ecosystem which evolves with domestic needs. This is a scalable system that can be installed in new or existing houses, all-at-once or starting from one component and adding more to complete the system as the homeowners' needs change.

**Schneider** Home is the first comprehensive, all-in-one home energy management solution from one single vendor making installation and management easy.

#### **Schneider** Home solution



#### Schneider Inverter

Choose a high-power hybrid inverter for converting solar energy output into usable AC electricity.



#### **Schneider** Boost

Store solar energy during the day so it can be used during peak-rate hours to save on utility bills.



#### Schneider Charge

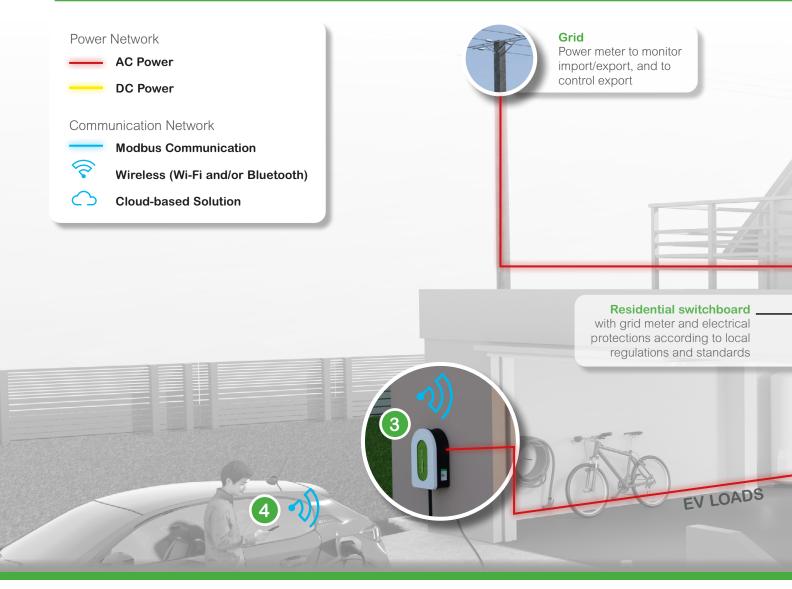
Charge electric vehicles conveniently while reducing costs and CO<sub>2</sub> emissions.



**Schneider** Home hardware can be managed seamlessly by the Wiser Home App. Wiser isn't just about basic home functions and device control, including EV charging. It's a complete ecosystem for decoding consumption patterns and reducing energy waste.

What's more, Wiser can help to harness the full solar potential of your installation.

### Introducing Schneider Home Solution





#### **Schneider** Inverter (DC/AC) Hybrid Solar and Storage Inverter

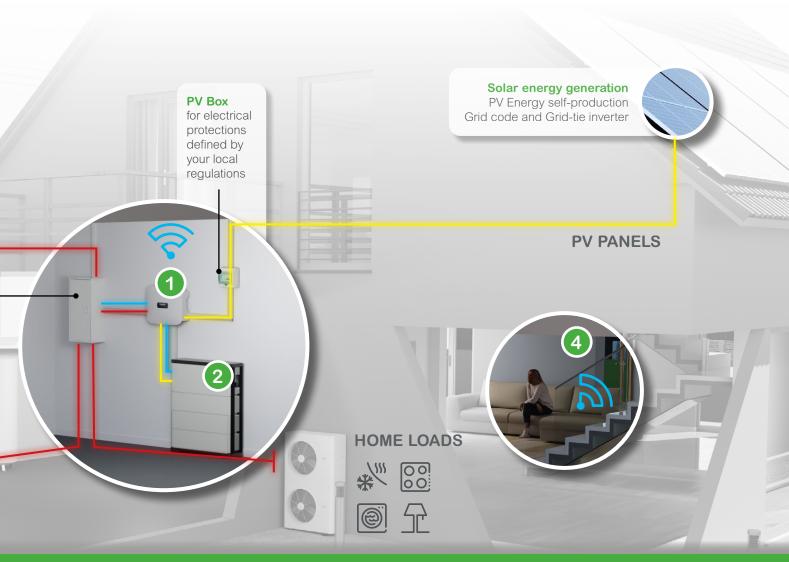
Technical specifications:

- 3 x 1P models (4.6, 6 & 8 kW)
- 3 x 3P models (8, 10 & 14 kW)
- Up to 97.5% EU efficiency
- Up to 3 MPPTs
- · Natural convection cooling
- Wi-Fi dongle





Monitor performance of your installed base and unable remote diagnosis on any incident.





#### **Schneider** Boost Flexible Battery System

To maximize self-consumption of solar energy

- 3.4 kWh module, stackable (max. 6 modules)
- LFP chemistry
- 92% Roundtrip efficiency



#### Schneider Charge **EV Charging Station**

For the installer:

- Effortless installation in minutes
- Simple and fast commissioning via Schneider Electric apps (Wiser Home or eSetup)
- End-to-end EV solution
- 1P 7kW Level 2 charger
- 3P 11kW Level 2 charger
- Anti-tripping module

For the homeowners:

- · Aesthetic and robust charger
- Efficient use of energy
- Remote control with Wiser Home App





#### Wiser Home

To enable homeowners to control their Schneider Home solution conveniently via their smartphone:

- Optimize cost and energy usage: Reduce my bill feature leverages PV, hot water tank, EV charging and grid tariffs
- Monitor grid, local production and home loads\*
- Control EV charging

<sup>\*</sup> Metering and control of other home loads possible with additional devices from the Wiser system.



## Schneider Home (IEC products)

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### Power your home with sunshine and save money

on electricity bills with the **Schneider** Inverter.



Offer your customers a high-power hybrid inverter for converting solar energy output into usable AC electricity. **Schneider** Inverter supports a broad range of solar array sizes and comes with integrated MPPT channels, maximizing power production.

And scale it up to maximize energy autonomy by pairing with **Schneider** Boost batteries.

#### **Key Benefits**

- Integrated MPPT channels help maximize power output
- Supports wider MPPT voltage range
- Low conversion losses due to DC coupling
- Flexible installation indoor or outdoor
- Fast commissioning through Wiser Home app
- · Advanced features, including power shutdown and embedded Residual Current Monitoring Unit
- Compact design that requires minimum space
- Real-time energy monitoring from anywhere, with the easy-to-use Wiser Home app



#### > Schneider Inverter

- 3 x 1P models (5, 6 & 8 kW)
- 3 x 3P models (8, 10 & 14 kW)
- Up to 17kWp
- Up to 3 MPPTs
- Grid Tied Inverter
- 97.5% EU efficiency
- Natural air-cooled
- Smart dongle: Wi-Fi





#### Characteristics



**Schneider** Inverter 1-phase: HY5K1EU1; HY6K1EU1; HY6K1EU1

Schneider Inverter 3-phase: HY8K3EU1; HY10K3EU1; HY14K3EU1

#### Standards

IEC 62109-1/-2 Grid connection: VDE-AR-N-4105 Emissions: IEC61000-6-1, IEC61000-6-3 RoHS, ReACH and WEEE directives

Spanish Certifications (1-Phase only): RD1699, RD647, RD413, UNE 217002, NTS V2.1

#### Hybrid Solar & Storage Inverter (IEC)

#### **Conversion Efficiency**

PV to Grid:

Schneider Inverter 1-phase:

HY5K1EU1: 96.7% HY6K1EU1: 96.7% HY8K1EU1: 96.7%

Schneider Inverter 3-phase:

HY8K3EU1: 97.1% HY10K3EU1: 97.5% HY14K3EU1: 97.5%

#### **Specifications**

- Supported communication interfaces: RS485, WLAN
- Commissioning: Schneider Electric commissioning tool
- Transformer-less, ungrounded: Yes
- Max. short-circuit Current:
- 20\*2 Adc (HY5K1EU1, HY8K3EU1, HY10K3EU1, HY14K3EU1),
- 20\*3 Adc (HY6K1EU1, HY8K1EU1)
- DC ground-fault isolation detection: 100kΩ sensitivity
- Battery port reverse-polarity protection: No, only physical distinct dummy terminal
- · Anti-island protection: Yes, integrated
- PV Port reverse polarity protection: No, only physical distinct dummy terminal
- Insulation resistance detection: >1  $M\Omega$
- · Ground-fault detection: Residual current monitoring
- · AC short-circuit protection: Yes, integrated
- AC overcurrent protection: Yes, integrated
- Battery port overcurrent protection: No, but integrated in Schneider Boost
- Overheating protection: Yes, integrated
- DC surge protection: Yes, integrated
- AC surge protection: Yes, integrated
- AC overvoltage protection: Yes, integrated
- PV DC switch: Yes
- Battery switch: No, but integrated in Schneider Boost

#### **Mechanical and Environmental Characteristics**

Conduit specification (Voltage/area)

AC Side:

1-P: 450 Vac/ 4 mm<sup>2</sup>; 450 Vac/ 6 mm<sup>2</sup>

3-P: 450 Vac/ 4 mm<sup>2</sup>

Battery Side: 1000 Vdc / 4 mm<sup>2</sup> PV Side: 1000 Vdc / 4 mm<sup>2</sup>

- Dimensions (H x W x D): 400 x 484 x 177 mm
- Weight: 1-P: 18 kg; 3-P: 19 kg
- Noise: <45 dBA
- Mounting: Wall-mounted/Brackets provided
- Cooling: Natural convection
- Operating temperature range: -25 to 60°C
- Ingress protection rating: IP65
- Humidity: 0% 95% RH
- Max. operating altitude: 1-P: 4000 m; 3-P: 2000 m

Schneider Inverter can be ordered with Schneider Boost products

Please refer to p.30 for details of available kits

#### > DC INPUT from solar panels and battery cabling

	Sch	neider Inverter 1-p	hase	Sch	neider Inverter 3-p	hase
	HY5K1EU1	HY6K1EU1	HY8K1EU1	HY8K3EU1	HY10K3EU1	HY14K3EU1
INPUT - DC (PV)	•			•		
Max. PV Array Size	6900 Wp	9000 Wp	10000 Wp	12000 Wp	15000 Wp	17250 Wp
Max. MPPTs	2	3	3	2	2	2
Strings per MPPT	1	1	1	1	1	1
DC Oversizing-Allowed DC/AC Ratio	1.5	1.5	1.25	1.5	1.5	1.25
Rated Input Voltage		360 V			680 V	
MPPT operating voltage range		80 - 500 V			140-950 V	
Max. Open Circuit Voltage (Voc)		500 V			950 V	
Max. Input Voltage		600 V			1000 V	
Start-up Voltage		100-500 V			200-950 V	
Max. Input Current	13.5*2 Adc	13.5*3 Adc	13.5*3 Adc	13.5*2 Adc	13.5*2 Adc	13.5*2 Adc
Max. Input Short Circuit Current	20*2 Adc	20*3 Adc	20*3 Adc	20*2 Adc	20*2 Adc	20*2 Adc
Voltage Measurement accuracy			±¢	3 V		
Peak Efficiency	97.4%	97.4%	97.4%	98.1%	98.4%	98.4%
EU Efficiency	96.7%	96.7%	96.7%	97.1%	97.5%	97.5%
PV Array Configuration			Ungro	ounded		
PV Over Voltage Category				II		
2-pole Disconnection			Y	es		
INPUT - DC (Battery)						
Supported Battery Types			Schneid	ler Boost		
Number of Batteries per Inverter			2 (2*6module	s/7 to 40 kWh)		
Rated Port Voltage	400 V			750 V		
Port Voltage Range	360 - 480 V		690-900 V			
Max. Continuous Power	4680 W	5760 W	7920 W	8280 W	10350 W	13800 W
Max. Port Current	13 Adc	16 Adc	22 Adc	12 Adc	15 Adc	18 Adc
2-pole Disconnection			Y	es		
Battery-to-Inverter Communication		[BMU]C	AN[BCU]CAN	[DCDC]RS485[I	INVERTER]	

#### > AC OUTPUT

	Schi	neider Inverter 1-p	hase	Sch	neider Inverter 3-p	hase
	HY5K1EU1	HY6K1EU1	HY8K1EU1	HY8K3EU1	HY10K3EU1	HY14K3EU1
OUTPUT- AC ON GRID						
Max. Apparent AC Power	5000 VA	6600 VA	8800 VA	8800 VA	11000 VA	13800 VA
Rated AC Active Power	4600 W	6000 W	8000 W	8000 W	10000 W	13800 W
AC Output Voltage Range		230 Vac			400/230 Vac	
AC Output Voltage — Line to Neutral Range		196-253		L-L:340-440		
AC Frequency Range (min nom max.)		50±5, 60±5 Hz		50±5 Hz		
Grids Supported		L+N+PE		3 / N / PE T	hree Phase (WYE v	vith Neutral)
Current Total Harmonic Distortion (THD)	<3%					
Power Factor	0.8 lead - 0.8 lag					
Utility Monitoring, Islanding Protection Country-configurable Thresholds	Yes					
AC Over Voltage Category	III					
Charge Battery from AC (if allowed)	Yes					
Typical Nighttime Power Consumption			<5	5 W		

Technical documentation

Please refer to bibliography in Appendix

### Schneider Electric Installer Portal

Monitor performance of your install base and remotely diagnose incidents.



Schneider Electric Installer Portal is a cloud-based remote monitoring platform designed for seamless oversight and management of **Schneider** Home solar and storage sites, specifically tailored for Schneider inverters and batteries.

The Installer Portal simplifies maintenance and troubleshooting processes of solar and energy storage systems. With remote access to real-time information, it significantly improves installers' efficiency and accuracy, saving valuable time and effort.

It also facilitates collaboration and communication within teams, with customers, and with Schneider Electric. This fosters a better understanding of customer systems, allowing for improved interaction with Schneider Electric's customer care center for better support and faster issue resolution.

Moreover, the portal's intuitive design caters to installers of varying experience levels, accommodating all users.



Monitoring sites with the Installer Portal

#### **Overview Page**

Access real-time monitoring and quickly troubleshoot issues thanks to a dedicated page and two live widgets: power flow and devices. This page also includes power graphs, energy graphs, lifetime energy production and consumption data for comprehensive insights.

#### Dynamic Analysis

Empower installers with advanced troubleshooting capabilities through dynamic analysis. This feature allows installers to select additional parameters beyond those available on the overview page, enabling in-depth on-site issue analysis and resolution.

#### **Events**

Stay informed about site alarms and events.

#### **Firmware**

Stay updated on each device's firmware versions with our dedicative page.

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### Schneider Boost

### Maximize the self-consumption of solar energy

with the **Schneider** Boost battery's stackable architecture, which allows **for flexible system expansion**.



**Schneider** Boost works in conjunction with **Schneider** Inverter as a plug & play solution. Store excess photovoltaic energy in the battery for later use during nighttime or when electricity rates are high. The DC-Coupling architecture provides high system efficiency with fewer steps of power conversion.

#### **Key Benefits**

#### **High Performance**

- Excess PV power is stored directly in the battery using DC coupling
- High system efficiency with fewer steps of power conversion
- · Recharge from solar and grid
- Cobalt-free and LFP chemistry
- Optimized for extended battery life
- Supports up to 6 modules to achieve 20 kWh
- Compatible with three-phase and single-phase inverters
- Rated for outdoor and indoor installation (non-hazardous environment)
- Easy installation without external wiring between battery modules

#### **Smarter Energy Management**

- Maximize self-consumption by using the battery when PV power is not available at night
- Extend battery runtime with optional load control
- Real-time energy monitoring with the Wiser Home app



#### > Schneider Boost

- Up to 6 x 3.4 kWh stackable
- LFP chemistry
- 10-years warranty





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### Schneider Boost

#### Characteristics



#### Controller Module

BATPMEU2

#### **Battery Module**

BATB3KEU3

#### References of packages:

Controller Module + 2 Battery Modules

#### BAT7KEU1

Controller Module + 3 Battery Modules

#### BAT10KEU1

Controller Module + 4 Battery Modules

#### BAT14KEU1

Controller Module + 5 Battery Modules BAT17KEU1

Controller Module + 6 Battery Modules

#### BAT20KEU1

#### Standards

IEC 63056, IEC 62619, IEC 62477-1

Transportation: UN38.3 Emissions: EN61000-1/3

#### Spare parts

Please refer to p.12

#### Technical documentation

Please refer to bibliography in Appendix

#### Flexible Battery system (IEC)

#### Composition

#### **Controller Module (BATPMEU2)**

• Output voltage: 360 - 950 Vdc

• Input current: 25 A

• Dimensions (W x H x D): 798 x 335 x 218 mm

• Weight: 18.5 kg

#### Battery Module (BATB3KEU3)

• Nominal energy: 3.456 kWh

· Capacity: 60 Ah

• Nominal voltage: 57.6 Vdc

• Rated current: 25 Adc

• Quantity of cells (series / parallel): 54 (18 / 3) PCE

• Peak current: 60 Adc (for 10 seconds)

• Dimensions (W x H x D): 795 x 191 x 218 mm (H = 218 with fasten lug)

• Weight: 29±0.5 kg

#### **Specifications of Battery Modules (IEC)**

• Cycle Life: 10 year/ 3161 Cycles (25°C)

• Communication interfaces: RS485

• Required inverter: Schneider Inverter (HY5K1EU1, HY6K1EU1, HY8K1EU1, HY8K3EU1, HY10K3EU1, HY14K3EU1)

· Charging sources: Solar, Grid

· Warranty: 10 Years

Schneider Boost (IEC)	BAT7KEU1	BAT10KEU1	BAT14KEU1	BAT17KEU1	BAT20KEU1
Usable Energy	6200 Wh	9300 Wh	12400 Wh	15600 Wh	18600 Wh
Rated Power	2700 W	4050 W	5400 W	6750 W	8100 W
Modules	2S	3S	4S	5S	6S
DOD	90%	90%	90%	90%	90%
Nominal Energy	6.912 kWh	10.368 kWh	13.824 kWh	17.28 kWh	20.736 kWh
Working voltage of Battery	108.0 ~	162.0 ~	216.0 ~	270.0 ~	324.0 ~
modules	129.6 Vdc	194.4 Vdc	259.2 Vdc	324.0 Vdc	388.8 Vdc

#### **Mechanical and Environmental Characteristics**

· Mounting: Ground load-bearing • Operating temperature: -20~55°C

· Storage temperature:

- less than 1 month: -20  $\sim$  -10°C and 45  $\sim$  -50°C

- less than 3 months: 35 ~ -45°C - less than 4.5 months: 25 ~ -35°C - less than 6 months: -10 ~ 25°C

• Altitude: 6562 / 2000 ft / m

• Enclosure protection: IP55

• Humidity: 5% ~95%

· Cooling: Natural convection

• Noise (at 1m distance): <45 dBA

Schneider Boost (IEC)	BAT7KEU1	BAT10KEU1	BAT14KEU1	BAT17KEU1	BAT20KEU1
Dimensions in mm (W x H x D)	799 x 767 x 218	799 x 959 x 218	799 x 1150 x 218	799 x 1342 x 218	799 x 1533 x 218
Weight	80±1 kg	109±1.5 kg	138±2 kg	167±2.5 kg	196±3 kg

### Schneider Charge

# Offer your customer an attractive charging station enabling simple remote control of their EV charging.



**Schneider** Charge is an easy charging station to install for electricians. You can put it on on any wall and with any cable entry, indoor or outdoor and it's compatible with any EV or PHEV.

This charging solution is dedicated to home charging, especially for single-family homes. It meets the need for charging control, for fully electric vehicles without compromising the owners' comfort.

#### **Key Benefits**

#### Schneider Charge Single family home charging station

- Aesthetic, functional and robust home EV charging solution
- Easy installation and wiring in minutes: 3 cabling options, wall spacers for uneven walls

# SEAL Appears

#### Schneider Charge Anti-tripping module

 Continuously adapts the charging power, taking home consumption and self-generated energy into account.

#### Wiser Home

• A smart App for the homeowners to control EV charging and more...





#### > Schneider Charge

- T2S socket up to 22 kW, combined 1P/3P
- Up to 7.4 kW 1P or 11 kW 3P, with 5 or 7 m attached cable with T2 connector
- OCPP 1.6J
- Single push-button for configuration
- Signal connectors for iMNx, DSO (Distribution System Operator - for Germany only)







**Bottom** 

### Schneider Charge

#### Characteristics



#### Certification

Schneider Charge has obtained the test certificate, establishing compliance with the IEC 61851-1 standard.

#### Standards

EN 61851-1 Ed3.0 (2019) EN61000-6-1 EN61000-6-3 IEC61851-21-2

Compliant with RoHS/REACh regulations

#### Charging station offer

Charging power:

Attached cable version: 5 m or 7 m with T2 connector:

7.4 kW single-phase or 11 kW three-phase

T2S version:

7.4 kW 1-phase and 11 kW/22 kW 3-phase

- Maximum charging current can be adjusted from 6 A to 32 A
- T2 socket outlet with shutter
- Attached cable (5 m or 7 m) with T2 connector

#### Power supply network

- 230 V +/- 10% single-phase 50-60 Hz for 7,4 kW charging stations
- 400 V +/- 10% three-phase 50-60 Hz for 11 kW/22 kW charging stations
- Internal protection: 6 mA DC filter
- Suitable earthing systems: TT, TN-S, TN-C-S, IT/TT without Neutral (230 V AC only)

#### Mechanical and environmental characteristics

- Ingress protection code: IP55
- Impact protection code: IK10
- · Operating temperature:

	T2 socket outlet	Attached cable
1P 32 A	-3050°C	-3550°C
3P 16 A	-3055°C	-3555°C
3P 32 A	-3045°C	

- Storage temperature: -40°C to +85°C
- Relative humidity 5% to 95%
- Altitude < 2000 m
- Attached cable length: 5 m for versions supporting it

#### **Dimensions**

- Attached cable version: 352x244x107 mm
- T2S version: 352x244x117 mm
- · Weight:

T2 socket outlet	Attached cable		
	1P + N	3P + N	
3.3 kg	5m: 4.5 kg 7m: 5.3 kg	5m: 4.5 kg 7m: 5.2 kg	
	7m: 5.3 kg	7m: 5.2 k	

#### Installation

· Wall-mounting

#### **Anti-tripping**

- Energy management options: real-time maximum charging current control (with the addition of an external anti-tripping module)
- Power Line Carrier communication between the charging station and the anti-tripping module

#### Services offer

- Worldwide network of installers providing on-site installation and commissioning
- · Worldwide customer care center

#### Commissioning

• eSetup mobile phone application or Wiser Home (according to your country)

#### Interoperable with EV charging applications

- Wiser Home (France, Germany, Spain, Portugal, Sweden, Norway, Finland, Denmark)
- Third-party EV charging applications\*

For third-party party application integration requests, please contact your local sales representative.

### Schneider Charge

#### Charging station references



EVH5A22N2S

Schneider Charg	je				
References (1)	Number of phases	Type of socket	Power kW	Output current	Embedded protection
T2 with shutters					
EVH5A22N2S	1P/3P+N	T2S	(7.4)(11)/22	32A	with 6 mA DC filter
With attached 5 r	n <sup>(1)</sup> cable and T	2 connect	or		
EVH5A07N2C5	1PH	-	7.4	32A	with 6 mA DC filter
EVH5A11N2C5	3PH	-	11	16 A	with 6 mA DC filter
With attached 7 m <sup>(1)</sup> cable and T2 connector					
EVH5A07N2C7	1PH	-	7.4	32A	with 6 mA DC filter
EVH5A11N2C7	3PH	-	11	16 A	with 6 mA DC filter

<sup>(1)</sup>References to be defined and local availability to be checked by Schneider Electric front offices.

Schneider Charge with TIC <sup>(2)</sup> (France offer)					
References	Number of phases	Type of socket	Power kW	Output current	Embedded protection
T2 with shutters					
EVH5A22N400F	1P/3P+N	T2S	(7.4)(11)/22	32A	with 6 mA DC filter

<sup>&</sup>lt;sup>(2)</sup>For France only: TIC- Anti-tripping module connected to the energy meter (Linky)

#### > Protections and options with **Schneider** Charge

Description			
Charging	Single-phase	Three-phase	
Rated Power - Current	7.4 kW - 32 A	11 kW - 16 A	22 kW - 32 A
Protection			
Circuit breaker (overcurrent) (1)	40 A Curve C	20 A Curve C	40 A Curve C
RCD (residual current) (1)	30 mA A-SI Type (2)	30 mA A-SI Type (2)	30 mA A-SI Type (2)
Under voltage tripping auxiliary (3)(4)	iMNX	iMNX	iMNX

<sup>(1)</sup> References to be defined and local availability to be checked by Schneider Electric front offices.

#### Accessory references

### **Schneider** Charge EV cable holder

# EVlink Cable for T2 and T2S charging station



EVA5GH Wall-mounted universal EV Cable Holder.



To connect the car to the charging station. Available in different lengths with a T2 connector.

Charging cables	References
EVlink charging cables	
T2-T2 plug connector 32 A 1 Phase 5 m length	EVP1CNS32122
T2-T2 plug connector 32 A 1 Phase 7 m length	EVP1CNL32122
T2-T2 plug connector 32 A 1 Phase 10 m length	EVP1CNX32122
T2-T2 plug connector 32 A 3 Phase 5 m length	EVP1CNS32322
T2-T2 plug connector 32 A 3 Phase 7 m length	EVP1CNL32322
T2-T2 plug connector 32 A 3 Phase 10 m length	EVP1CNX32322

<sup>&</sup>lt;sup>(2)</sup> In accordance with the electrical installation standard HD 60364-7-722:2016. Refer to local regulations.

 $<sup>^{(3)(4)}</sup>$  To comply with IEC60364-5-53 regulation an undervoltage release tripping unit is mandatory to protect the EV charging station.

### Schneider Charge Anti-tripping

#### Characteristics

#### 1-phase Universal Peak controller:





EVA4HPC1 from 16 A to 50 A

EVA2HPC1 from 32 A to 100 A

#### 3-phase Universal Peak controller:



FVA2HPC3 from 16 A to 50 A

#### Standards

EN 61326-1-2013 EN 61010-1-2010

#### **Main function**

- Schneider Charge Anti-tripping is a power-load management system that adapts the power supplied to charge the car continuously, taking home consumption into account\*.
- The power availability is calculated by the Home Anti-tripping Module comparing the utility power limit, and the home consumption gathered by a current transformer positioned on the bottom of the main circuit breaker.
- · For photovoltaic application it continuously adapts the charging power taking into account home consumption and self-generated energy (PV, wind, storage...).
- \* The Anti-Tripping Module limits the maximum power draw of the charging station, in some cases completely stopping the charging according to the power available in the electrical installation, especially if the home is equipped with a heat pump. Minimum recommendation: 25A 3P+N.

#### **Pairing functionality**

· Pairing functionality with Schneider Charge charging station. Up to 6 pairs can be used at the same time within PLC function range (200-meter power cable length).

#### Power supply network and electrical characteristics

- 220/230 V (+/- 10%) 50 Hz (+/- 10%)
- TT, TN, IT/TT without Neutral (230V AC only)
- Rated power 4W
- Overvoltage category: III, Pollution degree: 2
- Insulation degree: reinforced insulation

#### **Mechanical and environmental**

- Dimensions: 70.4 x 93.2 x 68.8 mm
- Weight: 196 a
- Mounting type: Top-hat rail mounting • Nominal temperature: -30°C to +50°C

#### **Settings**

- · Possible current value settings:
- 1P (EVA4HPC1): 16A, 20A, 25A, 32A, 40A and 50A
- 1P-HR (EVA2HPC1): 32A, 40A, 50A, 63A, 80A and 100A
- 3P (EVA2HPC3): 16A, 20A, 25A, 32A, 40A and 50A

#### Communication

 Communication with Schneider Charge charging stations via Power Line Carrier

Technical documentation

Please refer to bibliography in Appendix



### Wiser Home

### Wiser Home

#### Make homes more sustainable, efficient and resilient with Wiser

Wiser isn't just about basic home functions and device control. It's a complete ecosystem that deciphers consumption patterns, manages home loads, reduces energy waste, and optimizes energy costs. By leveraging embedded artificial intelligence, Wiser optimizes your energy costs by prioritizing off-peak and solar production hours for heavy load operations, all while considering your specific needs. This advanced and comprehensive energy management experience will enable you to fully harness the potential of your solar installation.

#### > Wiser Home: one app to rule them all





#### **Main function**

- Self-consumption optimization (with AI)
- · Management of exports to grid
- · Battery management
- · Return on investment tracking

#### **Smart EV charging**

- Cost efficient charging modes (with AI)
- Anti-tripping management

#### Smart temperature management (heating/cooling)

- · Room-by-room management
- Smart modes & heating insights
- Intelligent shutters control
- Water heater consumption optimization (with AI)

#### **Energy flow and awareness**

- Consumption live view and history
- Energy bill view
- Production and storage live view and history
- Solar savings overview
- · Self-consumption and self-sufficiency insights





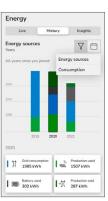
#### Wiser Energy Dashboard

Wiser is a modular and integrated Home Energy Management solution that focuses on reducing customers' energy bills and carbon footprint, while also maintaining power continuity without compromising on comfort, thanks to products and functions which are built to last.

Thanks to Schneider Electric's long and proven expertise in energy management, you can transform your homes into a more sustainable, efficient, and resilient place to live.



Real-time view of the instant power flow (kW) - multi-sources



History of electricity produced, stored, used or sold (kWh)



**Energy consumption** monitoring and history per load (kWh)



Solar energy production monitoring



Solar energy storage monitoring (kW)



Control, monitoring and scheduling of EV charging

### Wiser Home

#### One app to commission all the solution

For single-home projects, the Wiser Home app provides the simplest commissioning process, getting the system ready for homeowners to use. The process is completed in just a few clicks: simply create an account, add the home and the rooms, add the gateway, and then pair Wiser with Schneider Home devices.

Finally, generate a handover code for your customers, granting them access to all the functionalities of their Wiser installation.

#### > Select Wiser for your Home Automation and Energy Management projects



#### **Integrated Home Automation & Energy Management solution**

- Scalable, easy-to-install systems using a single app for commissioning (including offline).
- A complete system based on standard protocols for interoperability and longevity.

#### A flexible solution designed to grow with your customers and keep your business growing

- Stay ahead by keeping your skills and knowledge up-to-date with our continuous training.
- Stand out from the competition by expanding your services and swiftly adapting to the ever-changing needs of your customers.

#### Dedicated support from a trusted partner

• Take advantage of tailored Programs for our Partners. Learn more about the Wiser Approved Installer program.





#### Download Wiser Home

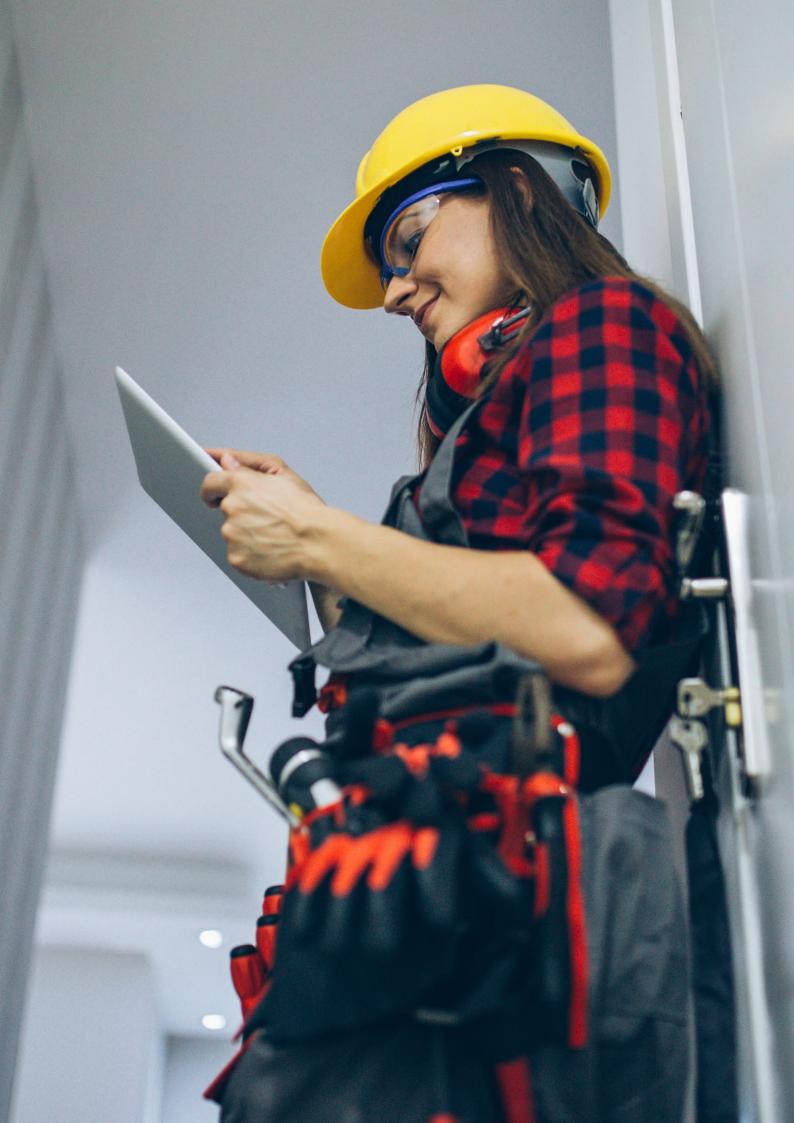




> Reduce installation and commissioning time with Wiser

A single application for commissioning Schneider Home products and other Wiser system devices.





### Electrical Distribution

### **Electrical Distribution**

#### Solar and PV Standards and Recommendations

Always refer to your local regulation when designing the electrical distribution of a solution.

### IEC 60364 -part 7-712 for Low Voltage electrical installations (Photovoltaic)

Requirements for special installations or locations - Solar photovoltaic (PV) power supply systems.

#### >Devices installed into the residential switchboard\*

An MCB shall be installed in the switchboard.

According to local regulations it is highly recommended or mandatory, to install a surge protection device (SPD) to protect against surge voltage. In case of cable lengths over 10 m, it is recommended to install a second SPD near the Schneider Inverter

#### >PV Box\*

It is recommended to install a connection box with surge protection device as part of your installation, to protect the inverter and other devices in the event of a surge from the PV components.

\*Product references to be defined with Schneider Electric front offices in compliance with local regulations.

#### > Electric Vehicle standards

Charging an electric vehicle means connecting to a powerful electricity supply. All electrical installations must be properly designed, constructed, and treated according to the IEC standards for EV installations.

### IEC 60364 -part 7-722 for Low Voltage electrical installations (Electric Vehicles)

Requirements for special installations or locations - Supplies for electric vehicles

IEC 60364-part 7-722 requires electrical protective measures:

- Protection against short-circuits and overloads with circuit breakers
- Protection against electric shocks and risks of electrocution with a 30 mA RCD.
- Protection against overvoltage with a surge protection device (SPD)

In countries where the installation standard IEC/HD 60364-7-722 or equivalent local regulations apply, a RCD type B must be used instead of RCD type A-Si.



The International Electrotechnical Committee (IEC) has defined a set of standards for EV infrastructure, covering devices, protection and electrical installation.



Schneider Inverter



Schneider Charge



White Paper Safety measures for electric vehicle charging

### > Grid Metering

Grid metering is recommended to optimize the energy produced and consumed at home and to monitor the balance of electricity imported and exported.

- Optimize the power efficiency of homes
- Allocate energy costs to lower the cost of operations
- Monitor the energy imported and exported from/to the grid

Product references to be defined with your Schneider Electric front offices

Please refer to PowerLogic catalog



# Appendix

### List of Commercial References

#### **Schneider** Inverter

Characteristics		References
Schneider Home Solar and Battery Storage - Hybrid Inverter		Schneider Inverter
Schneider Inverter 1-phase		
	4.6KW, 1Phase, 230V AC	HY5K1EU1
	6KW, 1Phase, 230V AC	HY6K1EU1
	8KW, 1Phase, 230V AC	HY8K1EU1
Schneider Inverter 3-phase		
	8KW, 3Phase, 230V AC	HY8K3EU1
	10KW, 3Phase, 230V AC	HY10K3EU1
	14KW, 3Phase, 230V AC	HY14K3EU1

#### **Schneider** Boost

Characteristics		References		
Schneider Home Solar a	chneider Home Solar and Battery Storage		Schneider Boost	
Battery Controller and Bat	tery Module		·	
		Battery Module 3.4 kW	BATB3KEU3	
		Battery Controller	BATPMEU2	
Schneider Boost - Assem	nblies		· ·	
Controller Module	+ 2 Battery Modules	Battery Assembly, 6.9 kWh	BAT7KEU1	
	+ 3 Battery Modules	Battery Assembly, 10.36 kWh	BAT10KEU1	
•	+ 4 Battery Modules	Battery Assembly, 13.8 kWh	BAT14KEU1	
•	+ 5 Battery Modules	Battery Assembly, 17.2 kWh	BAT17KEU1	
•	+ 6 Battery Modules	Battery Assembly, 20.7 kWh	BAT20KEU1	

#### **Schneider** Home Assemblies

Title	References
Description	
Definition of the product	XXXX

### List of Commercial References

#### Schneider Charge

Characteristics		References
		Schneider Charge
Charging stations with socket outlet		
	7.4 kW (1P32A),11 kW (3P 16A), 22 kW (3P 32A)	EVH5A22N2S
Charging stations with 5 m attached cable at	nd T2 connector	
	7.4 kW (1P - 32 A)	EVH5A07N2C5
	11 kW (3P - 16 A)	EVH5A11N2C5
Charging stations with 7 m attached cable at	nd T2 connector	·
	7.4 kW (1P - 32 A)	EVH5A07N2C7
	11 kW (3P - 16 A)	EVH5A11N2C7
Ohtiti		Defenses
Characteristics		References
		Schneider Charge with TIC*
Charging stations with socket outlet		
	7.4 kW (1P32A),11 kW (3P 16A), 22 kW (3P 32A) (1P/3P+N)	EVH5A22N400F

<sup>\*</sup>Only for France

Accessories	References
Peak controller	·
1 Phase anti-tripping module (peak controller from 16 A to 50A)	EVA4HPC1
1 Phase anti-tripping module (peak controller from 32 A to 100 A)	EVA2HPC1
3 Phase anti-tripping module (peak controller from 16A to 50A)	EVA2HPC3
Gun Holder	·
Schneider Charge Gun Holder	EVA5GH

Charging cables	References
EVlink charging cables	
T2-T2 plug connector 32 A 1 Phase 5 m length	EVP1CNS32122
T2-T2 plug connector 32 A 1 Phase 7 m length	EVP1CNL32122
T2-T2 plug connector 32 A 1 Phase 10 m length	EVP1CNX32122
T2-T2 plug connector 32 A 3 Phase 5 m length	EVP1CNS32322
T2-T2 plug connector 32 A 3 Phase 7 m length	EVP1CNL32322
T2-T2 plug connector 32 A 3 Phase 10 m length	EVP1CNX32322

### Recommended electrical protections, metering and other devices

Title	References
Description	
Definition of the product	xxxx

### Bibliography

#### **Schneider** Home Documentation

Document	Languages	References <sup>(1)</sup>
Schneider Charge		
Product data-sheet	EN	998-22833864
Installation guide	EN/FR/DE/ES/IT	PKR9096301 <sup>(1)</sup>
Commissioning guide	EN/FR/DE/ES/IT	PKR9545101 <sup>(1)</sup>
Anti-tripping module 1P - Installation guide	EN/FR/ES/IT	BQT5080501 <sup>(1)</sup>
Anti-tripping module 3P - Installation guide	EN/FR/DE/ES/IT	BQT5080401 <sup>(1)</sup>
EV cable holder - Installation guide	EN	PKR9458701
Schneider Inverter	· ·	·
Product datasheet - 3P	EN	998-22861438
Product datasheet - 1P	EN	998-22861437
Schneider Inverter Quick Guide for Germany	EN / DE	TME47602 <sup>(1)</sup> / TME47602-005 <sup>(1)</sup>
Schneider Inverter Quick Guide for Spain	EN/ES	TME47603 <sup>(1)</sup> / TME47603-006 <sup>(1)</sup>
Wireless LAN Smart Dongle Guide	EN/DE/ES	TME34287 / TME34287-005 / TME34287-006
Schneider Inverter Installation Guide (1P)	EN/ES	TME38690 / TME38690-006
Schneider Inverter Installation Guide (3P)	EN / DE	TME26990 / TME26990-005
Schneider Boost	•	·
Product datasheet	EN	998-22861439
Schneider Boost Quick Guide for Germany	EN /DE	TME47604 <sup>(1)</sup> / TME47604-005 <sup>(1)</sup>
Schneider Boost Quick Guide for Spain	EN/ES	TME47605 <sup>(1)</sup> / TME47605-006 <sup>(1)</sup>
Schneider Boost Installation and Operation Guide	EN/DE/ES	TME27412 / TME27412-005 / TME27412-006
Wiser Home	·	·
Wiser Home System User Guide	EN / FR	View online
Wiser Catalog	EN	View online

<sup>(1)</sup> Delivered with the product

s.com Schneider Home Catalog (IEC) | 35



#### **Schneider Electric Industries SAS**

35, rue Joseph Monier CS 30323 92506 Rueil Malmaison Cedex France

RCS Nanterre 542 048 574 Capital social 2 268 274 220 € www.se.com

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