

HCA G2-Inverter Compatibility and Communication Wiring

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Note

Due to product version upgrades or other reasons, the document content will be updated from time to time. Unless otherwise specified, the document content shall not replace the safety precautions on the product label. All descriptions in the document are for guidance only.

Preface

This document mainly introduces the product information, installation and wiring, configuration and commissioning, fault troubleshooting, and maintenance of the inverter. Before installing and using this product, please read this manual carefully to understand the product safety information and familiarize yourself with the functions and features of the product. The document may be updated from time to time. Please obtain the latest version of the materials and more product information from the official website.

Applicable Products

This document applies to the following models of charging piles (hereinafter referred to as "HCA").

- GW7K-HCA-20
- GW11K-HCA-20
- GW22K-HCA-20

Applicable personnel

For use only by professionally trained personnel who are familiar with local codes, standards, and electrical systems and have thorough knowledge of this product.

Symbol Definitions

To better use this manual, the following symbols are used to highlight important information. Please read the symbols and descriptions carefully.



Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 Warning
Indicates a moderately hazardous situation which, if not avoided, could result in death or serious injury.
 Caution
Indicates a low potential hazard which, if not avoided, could result in moderate or minor injury.
Note
The emphasis and supplementary content may also provide tips or tricks for optimal product use, helping you solve a problem or save time.

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1 Safety Precautions

The safety precautions contained in this document must always be strictly observed when operating the equipment.

Note

The charging pile has been strictly designed in accordance with safety regulations and has passed testing. However, as electrical equipment, relevant safety instructions must be followed before any operation. Improper operation may result in serious injury or property damage.

1.1 General Safety

Note

- Due to product version upgrades or other reasons, the document content may be updated from time to time. Unless otherwise specified, the document content shall not replace the safety precautions on the product label. All descriptions in the document are for guidance only.
- All operations of the equipment shall be performed by professional and qualified electrical technicians, who shall be thoroughly familiar with the relevant standards and safety regulations at the project location.
- When operating the charging pile, use insulated tools and wear personal protective equipment to ensure personal safety. When touching electronic components, wear anti-static gloves, anti-static wrist straps, anti-static clothing, etc., for the Protection of the charging pile from electrostatic damage.

1.2 Charging pile safety

Danger

- Charging pile equipment components must not be disassembled privately, and the charging gun cable must not be extended, otherwise it may lead to a reduction in the Ingress Protection Rating of the charging pile or cause electric shock hazards.
- The charging pile only supports charging electric vehicles. Do not connect other devices.
- After using the charging gun, please put the protective cap back on the gun head, coil the charging cable, and hang it on the protruding hook of the charging pile.
- Avoid over-bending, squeezing, or crushing the charging connector and cable, otherwise equipment damage may occur.
- When performing installation, maintenance, or other operations on the charging pile, the charging pile must be de-energized and the upstream switch disconnected.
- It is strictly prohibited to touch the charging gun core while the charging pile is energized.

Warning

Please regularly check whether the charging pile enclosure and the charging gun are normal in appearance.

Danger

After installation of the charging pile, the labels and warning signs on the enclosure must be clearly visible and shall not be obscured, altered, or damaged.

The warning label on the charging pile cabinet is as follows:

	DANGER: HIGH VOLTAGE. The charging pile operates with high voltage. Before performing installation or maintenance operations on the charging pile, ensure that the charging pile has been de-energized.		Delayed discharge. After the equipment is de-energized, wait 5 minutes until the equipment is fully discharged.
	Please read the product manual carefully before operating the equipment.		Potential hazards exist after the equipment is in operation. Please take protective measures when operating.
	The surface of the charging pile is at high temperature. Do not touch while the equipment is in operation, otherwise it may cause burns.		RCM Mark.
	CE marking		The device shall not be treated as household waste. Please dispose of the device in accordance with local laws and regulations, or return it to the equipment manufacturer.
	Brazilian ANATEL mark		

1.3 Personnel Requirements

Note

- Personnel responsible for installing and maintaining equipment shall first undergo rigorous training, understand all safety precautions, and master proper operating methods.
- Only qualified professionals or trained personnel are permitted to install, operate, maintain, or replace equipment or components.

1.4 Declaration of Conformity

Europe

Equipment with wireless communication functions that may be sold on the European market shall comply with the requirements of the following directives:

- Radio Equipment Directive 2014/53/EU (RED)
- Restrictions of Hazardous Substances Directive 2011/65/EU and (EU) 2015/863 (RoHS)

UK

Equipment with wireless communication functionality that may be placed on the UK market shall comply with the requirements of the following directives:

- Radio Equipment Regulations 2017
- The Restrictions of the use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (S.I. 2012/3032)

Brazil

Equipment with wireless communication functions that may be sold in the Brazilian market shall meet the following directive requirements:

- Incorpora produto homologado pela Anatel sob número HHHHH-AA-FFFFF.
- Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados. Para maiores

informações, consulte o site da ANATEL www.gov.br/anatel/pt-br.

2 Over view

This manual aims to clarify the range of inverters compatible with the HCA G2 series AC charging piles, provide RS485 communication wiring diagrams and operating instructions corresponding to each compatible model, and guide on-site commissioning personnel in correctly completing the connection of communication cables.

3 Inverter Compatibility List

The following table is the list of inverter models compatible with the HCA G2 series AC charging piles:

Inverter type	Series Name / Power Range	Model	Inverter ARM version requirements
On-Grid Inverter	SDT G2	GW5K-DT GW6K-DT GW8K-DT GW10KT-DT GW12KT-DT GW15KT-DT	59.183 and above
	SDT G3	GW4000-SDT-30 GW5000-SDT-30 GW6000-SDT-30 GW8000-SDT-30 GW10K-SDT-30 GW10K-SDT-EU30 GW12K-SDT-30 GW15K-SDT-30 GW17K-SDT-30 GW20K-SDT-30 GW12KLV-SDT-C30 GW17KLV-SDT-C30 GW23K-SDT-C30 GW25K-SDT-C30 GW27K-SDT-C30 GW20K-SDT-31 GW25K-SDT-P31 GW30K-SDT-C30	05.56 and above
		GW50K-SDT-C30	0.6 and above
		GW5000-SDT-AU30 GW6000-SDT-AU30 GW8000-SDT-AU30 GW9990-SDT-AU30 GW15K-SDT-AU30 GW20K-SDT-AU30 GW25K-SDT-AU30 GW29K-SDT-AU30 GW25K-SDT-30 GW30K-SDT-30	0.0 and above

Inverter type	Series Name / Power Range	Model			Inverter ARM version requirements
Energy storage inverter	ET G1 (5-10kW)	GW5K-ET GW10K-ET GW5KN-ET GW5KL-ET ET	GW6.5K-ET GW10KL-ET GW8KN-ET GW6KL-ET	GW8K-ET GW8KL-ET GW10KN-ET GW6.5KN-ET	30.290 and above
	ET G2 (6-15kw)	GW6000-ET-20 ET-20 GW10K-ET-20 GW15K-ET-20	GW8000-ET-20 GW12K-ET-20	GW9900-ET-20	13.436 and above
	ET (15-30kW)	GW12KL-ET GW20K-ET GW25K-ET	GW15K-ET GW29.9K-ET	GW18KL-ET GW30K-ET	13.436 and above
	ES G2 (3-6kW)	GW3000-ES-20 ES-20 GW6000-ES-20 GW5000M-ES-20 GW6000M-ES-20 GW3500L-ES-BR20 GW3600-ES-BR20 GW6000-ES-BR20	GW3600-ES-20 GW3600M-ES-20	GW5000-ES-20	10.427 and above
	EHB	GW9.99K-EHB-AU-G11 G11 GW5K-EHB-AU-G11	GW8.6K-EHB-AU-G11		31.309 and above
	EH Plus	GW3600N-EH GW5000N-EH-BE	GW5000N-EH GW6000N-EH		31.309 and above

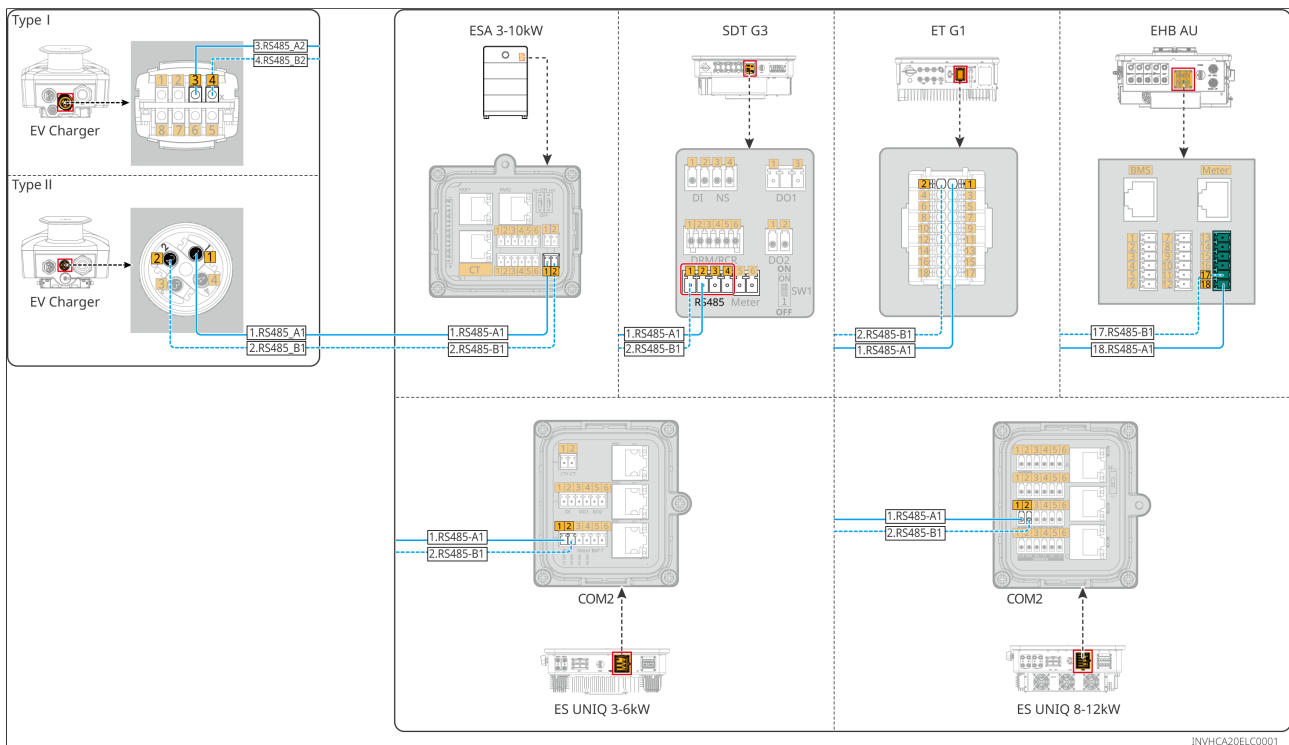
Inverter type	Series Name / Power Range	Model	Inverter ARM version requirements
All-in-One Residential Energy Storage System	ESA	GW3K-EHA-G20 GW3.6K-EHA-G20 GW5K-EHA-G20 GW6K-EHA-G20 GW8K-EHA-G20 GW10K-EHA-G20 GW9.999K-EHA-G20	02.100 and above
Smart inverter	ES Uniq	GW8000-ES-C10 GW10K-ES-C10 GW12K-ES-C10 GW3000 ES-C10 GW3600 ES-C10 GW5000 ES-C10 GW6000 ES-C10	16.0 and above

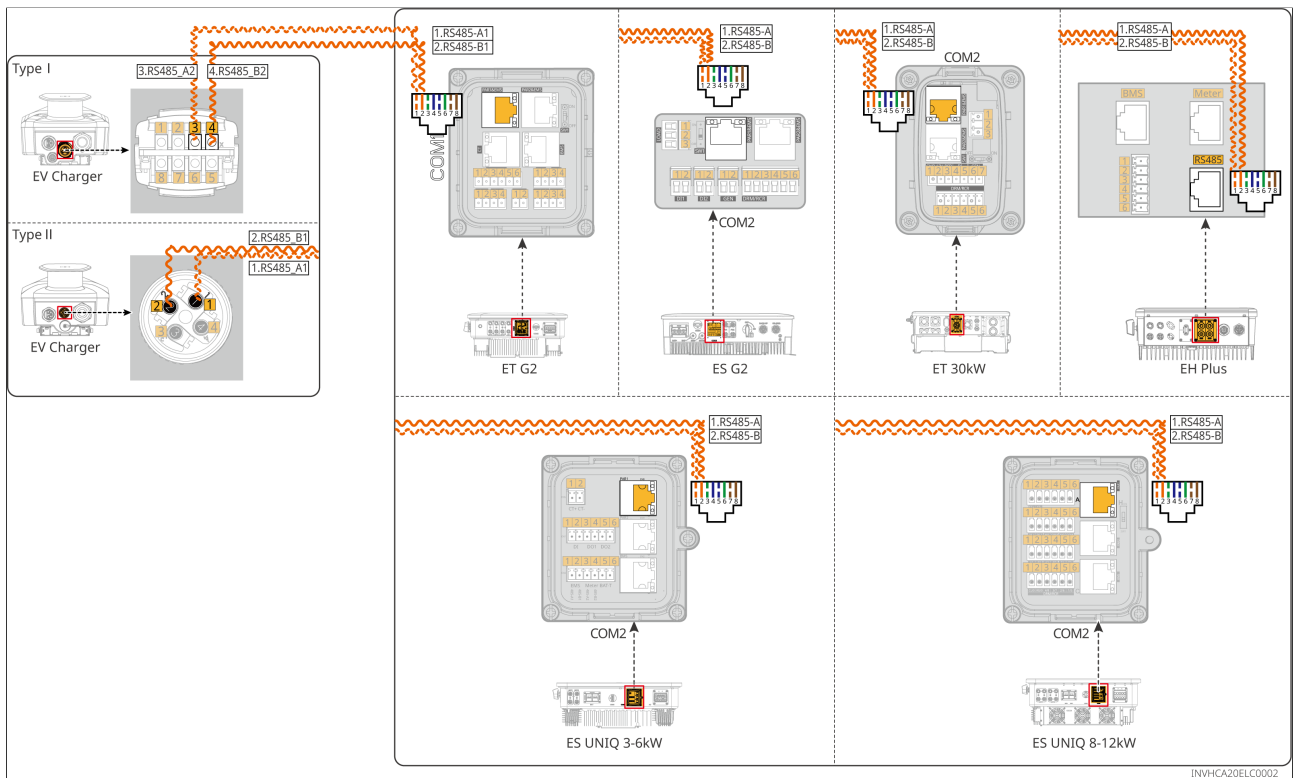
4 Telecommunication wiring summary

This chapter, based on the applicable product range, presents the RS485 communication wiring diagrams between the HCA G2 series AC charging piles and various series of inverters, providing a wiring reference for onsite commissioning personnel.

Note

Due to differences in RS485 terminal positions and pin definitions across different inverter series, please confirm the product series of your device before wiring, and refer to the corresponding diagram to complete the connection.





INVHCA20ELC0002

5 Contact Details

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