

Instructions for integrating

## AC•THOR / AC•THOR 9s / AC ELWA 2

with ZCS Azzurro



**Make sure additional RS485 communication port is available for my-PV, otherwise communication with my-PV will not be reliable.**

**A connection with the AC ELWA-E is not possible, because it does not have Modbus RTU (RS485) communication!**

### 1. Default settings on my-PV devices

Before commissioning, it is essential that you read the assembly instructions that accompany the device, as well as the operating instructions available online.

Find the AC•THOR operation manual [here](#).

Find the AC ELWA 2 operation manual [here](#).

### 2. Communication with ZCS Azzurro (Modbus RTU)

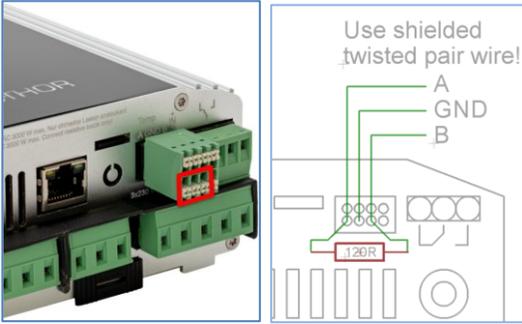
The combination was tested with the type ZCS Azzurro 1PH HYD 3600 ZSS HP

The my-PV device is connected directly to the ZCS Azzurro inverter via three-pin Modbus RTU cabling.

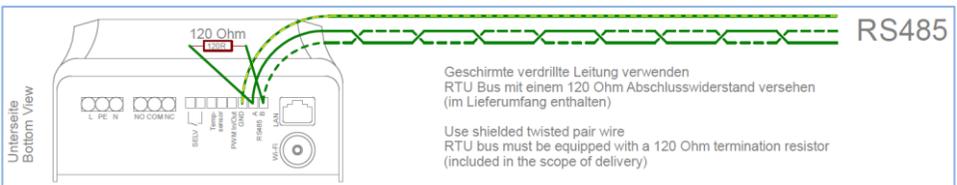
 Use shielded twisted pair cable and connect the shield to earth (GND) at one end!

 RTU gateway with a 120 Ohm terminating resistor!

 The M7 operating mode cannot be used with the AC•THOR when controlled by Modbus RTU!



Three pins on the 8-pin connector of the AC•THOR are the Modbus RTU communication port. The 120 Ohm terminating resistor is not included with the AC•THOR!



On the AC ELWA 2 the connection is marked by RS485, A, B, GND.

⚠ When controlled by an inverter, a feed-in meter is required in the system. Otherwise, the query of the inverter does not provide any data.

### 3. Settings on my-PV

On the display, select control source „ZCS Azzurro (Modb. RTU)“.



Alternatively, these settings can also be made on the web interface. For this purpose, my-PV device must also be integrated into the local network.

If there is a battery storage (ESS) and this is to be charged with priority, then "control target" should be set to -150 W. Otherwise we recommend leaving -50 W.



**⚠** The following information and illustrations have been kindly provided to my-PV by ZCS Azzurro. my-PV cannot guarantee the accuracy of the information or that the views are up to date.

## Connection to ZCS Azzurro 3PH HYD

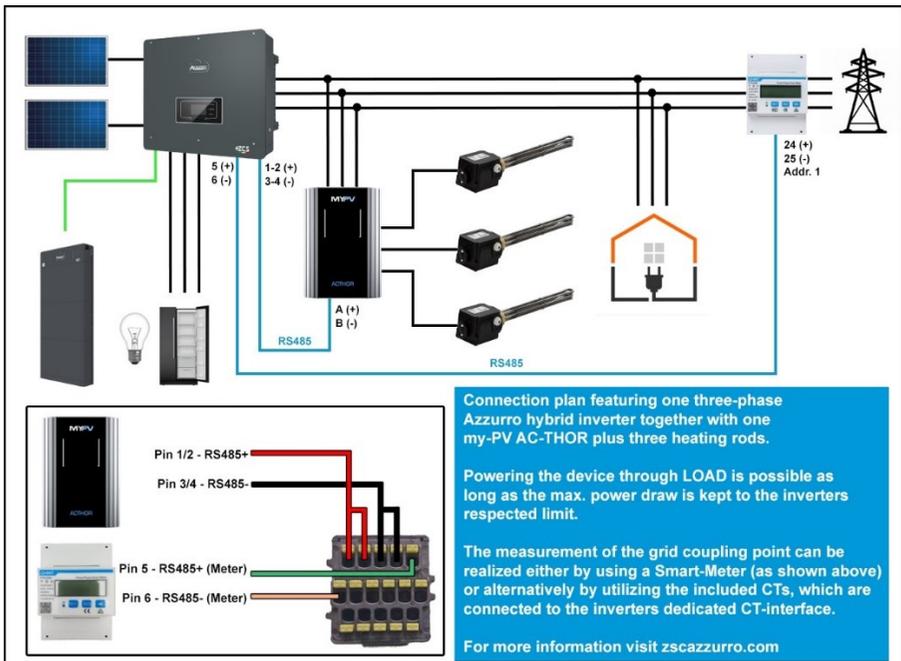
**⚠** There are differences between the device types when wiring the COM connector.

COM connector: Pins for my-PV 1 or 2 = A (RS485+)  
3 or 4 = B (RS485-)

**⚠** Pins 1 and 2 as well as 3 and 4 are bridged. If the RS485 communication connection on the inverter is still being used by other Modbus master devices, communication with my-PV is not reliably possible!

*The 3PH has a dedicated CT connection for three instrument transformers (3000:1). The same flow direction applies to both 1PH and 3PH - the arrow must point towards the mains.*

*Alternatively, the measurement is also carried out via a suitable Chint DTSU666, which is connected to terminals 5 (RS485+) and 6 (RS485-). In our test system, the measurement of the network exchange is carried out via a Chint DTSU666. Here is an overview of the 3PH COM connector, the Connex Box stands for all devices that communicate with the inverter via Modbus.*



## 4. Information on other types of ZCS Azzurro

The combination was tested with the type ZCS Azzurro 1PH HYD 3600 ZSS HP.

**For other types, the compatibility of my-PV cannot be certified!**

For this type the communication parameters are from AC•THOR firmware a0021100, for AC ELWA 2 from firmware e0000600 preset.



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*The Modbus protocol of the tested unit is the same for all inverters in the list, while the pin to be used on the COM port may differ for each model. The information about RS485 connection is provided in PIN-Table of inverter manual.*

Single phase PV inverter	Three phase PV inverter	Single phase Hybrid inverter	Three phase Hybrid inverter
1PH 1100 TL-V3	3PH 3.3 KTL-V3	1PH HYD 3000 ZSS HP	3PH HYD 5000 ZSS
1PH 1600 TL-V3	3PH 4.4 KTL-V3	1PH HYD 3600 ZSS HP	3PH HYD 6000 ZSS
1PH 2200 TL-V3	3PH 5.5 KTL-V3	1PH HYD 4000 ZSS HP	3PH HYD 8000 ZSS
1PH 2700 TL-V3	3PH 6.6 KTL-V3	1PH HYD 4600 ZSS HP	3PH HYD 10000 ZSS
1PH 3000 TL-V3	3PH 8.8 KTL-V3	1PH HYD 5000 ZSS HP	3PH HYD 15000 ZSS
1PH 3300 TL-V3	3PH 11 KTL-V3	1PH HYD 6000 ZSS HP	3PH HYD 20000 ZSS
	3PH 12 KTL-V3		
1PH 3000 TLM-V3			
1PH 3680 TLM-V3	3PH 15000 TL-V3		
1PH 4000 TLM-V3	3PH 17000 TL-V3		
1PH 4600 TLM-V3	3PH 20000 TL-V3		
1PH 5000 TLM-V3	3PH 22000 TL-V3		
1PH 6000 TLM-V3	3PH 24000 TL-V3		
	3PH 25 KTL-V3		
	3PH 30 KTL-V3		
	3PH 33 KTL-V3		
	3PH 36 KTL-V3		
	3PH 40 KTL-V3		
	3PH 45 KTL-V3		
	3PH 50 KTL-V3		
	3PH 60 KTL-V3		
	3PH 80 KTL-V3		
	3PH 80 KTL-LV		
	3PH 100 KTL-LV		
	3PH 110 KTL-LV		
	100 KTL-V4		
	110 KTL-V4		

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