

Školenie TT 3.11.2022

časť – Hybrid 3F

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On Grid – pracuje len keď je prítomnosť elektrickej siete

Off Grid – vlastný generátor elektrickej energie – **limitovaný výkon**

Hybrid – kombinácia OnGrid a OffGrid

Obsah Hybrid 3F časti

Prehľad Sofar Solar Hybrid výrobkov

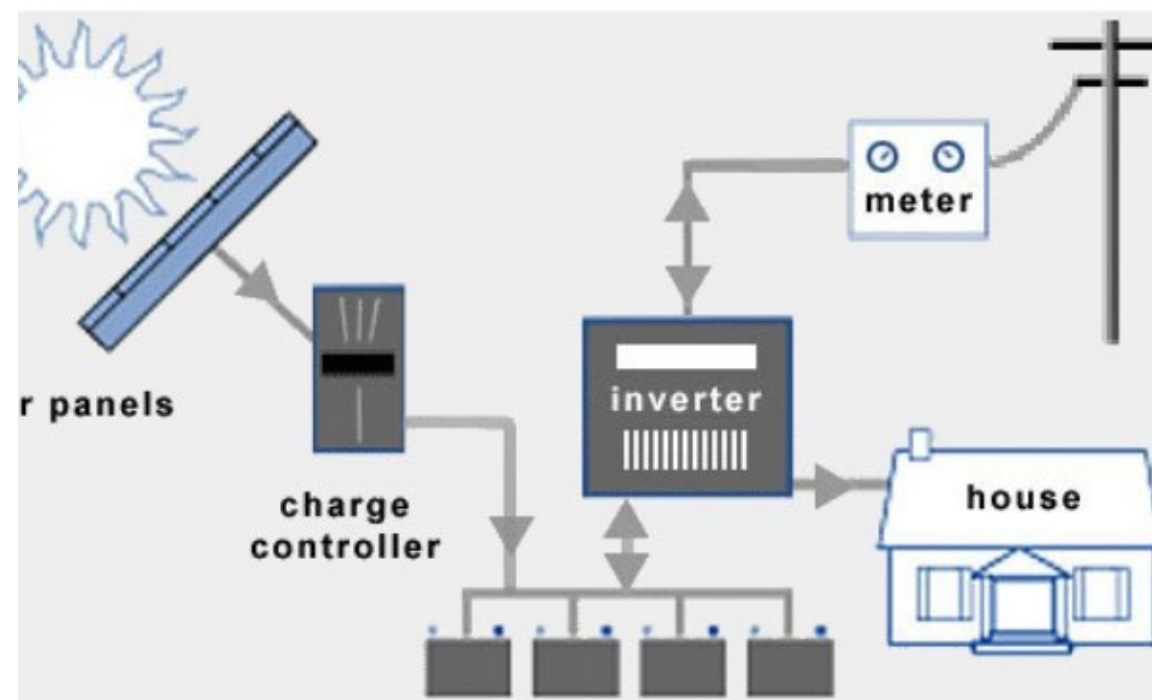
1, HYD módy a info

2, HYD zapojenie 3F

3, Smart meter

4, Inštalácia rozvádzač

5, Sofar batérie BTS 5K a BDU



- SOFARSOLAR Hybrid a skladování energie -

Úložiště - Měnič



1-fázový
ME 3000-SP
LV

3-fázový
ME 5KTL-3PH
...
ME 20KTL-3PH

Vstupy HV / 2 baterie

Hybridní Měnič



1-fázový
HYD 3000-EP
...
HYD 6000-EP

LV

3-fázový
HYD 5KTL-3PH
...
HYD 20KTL-3PH

HV / 2 bateriové vstupy

Úložiště LV



GTX 5000
5,0 kWh
(48 V)

Skladování HV



GTX 3000-H
10...25 kWh
(200...600 V)

Napájení všeho



BTS 5K **Vše v jednom**
5...20 kWh 5...30 kWh
(400 V) (400 V)

Trnava XXII 11 – Batériový menič



ME 5K – 20KTL-3PH

ME 20 kW / 29A trvalý prúd
OnGrid / OffGrid funkcie
Nesymetrický výstup
OnGrid / OffGrid za menej ako 10ms
2 x 25A batériový vstup
180-800V DC napätie batérie
2 x Smart meter + 6 x CT 200A
Smart WIFI monitoring

AC retrofit HYD / ME



Trnava XXII 11 – Hybridný menič



HYD 5K – 20KTL-3PH

OnGrid / OffGrid funkcie
Paralelná spolupráca až 10ks
2 MPPT PV vstup
Nesymetrický výstup
OnGrid / OffGrid za menej ako 10ms
2 x 25A batériový vstup
180-800V DC napätie batérie
Smart meter + 3 x CT 200A
Smart WIFI monitoring



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Trnava XXII 11 – Hybridný menič



Pracovné módy

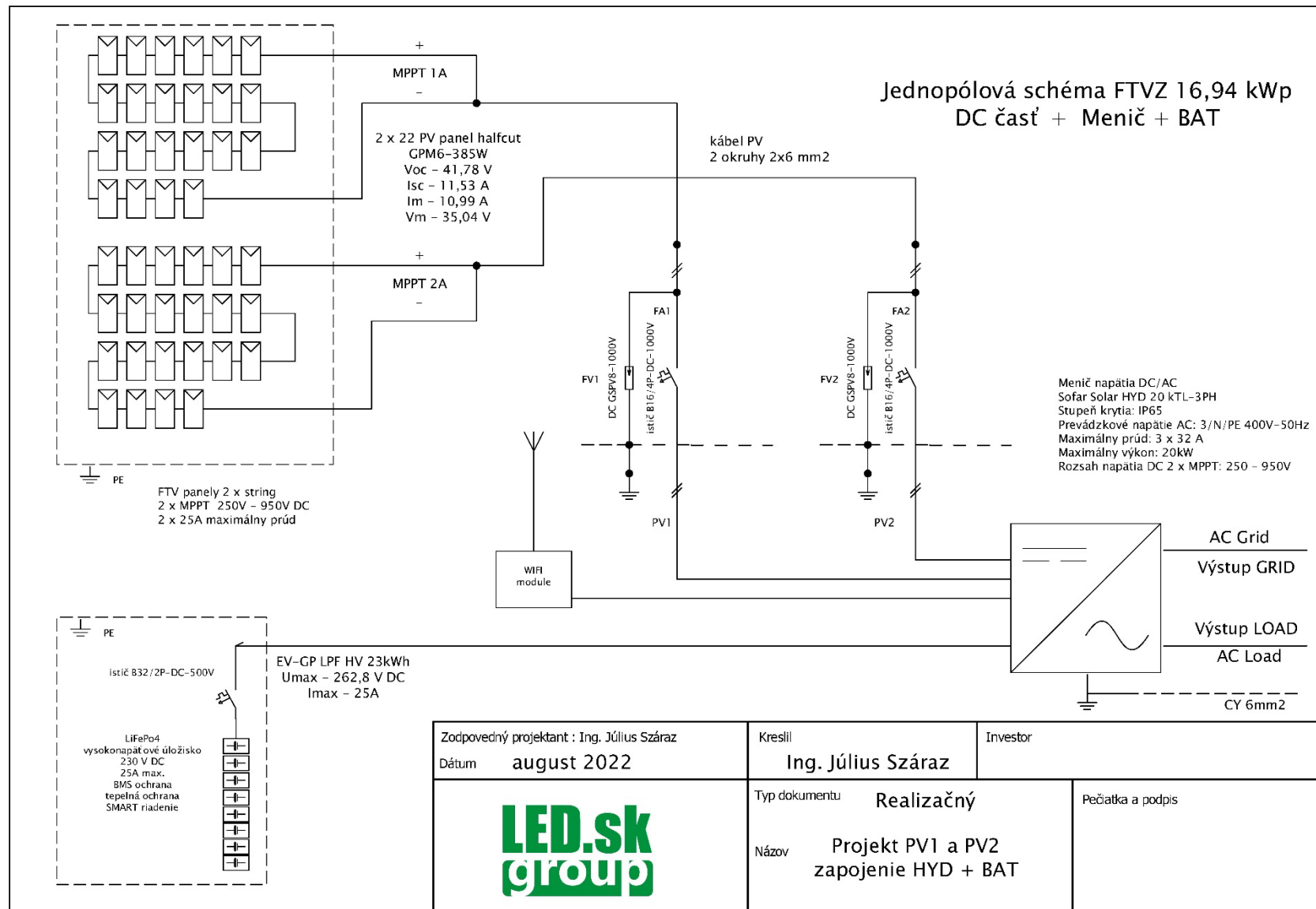
1. Self-use Mode (Default setting)
2. Time-of-Use Mode
3. Timing Mode
4. Passive Mode
5. EPS Mode
6. Peak Shaving
7. Offgrid Mode

Ochrana batérií

- Ak SOC je nižšie ako 8%, inverter nabije batériu na 30% SOC
- Ak batéria nie je ani raz nabitá nad 97% za posledných 30 dní batérie budú automaticky nabité na plnú úroveň zo siete.
- Funkciu "Force Charge" môže byť nastavená v požadovanom čase

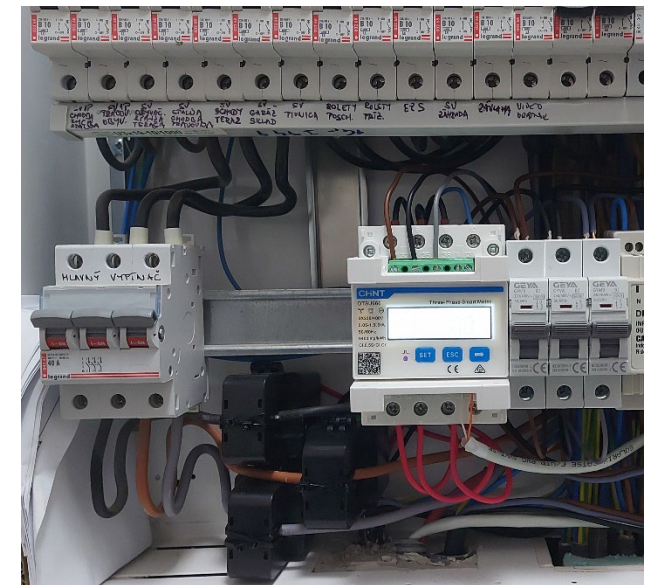
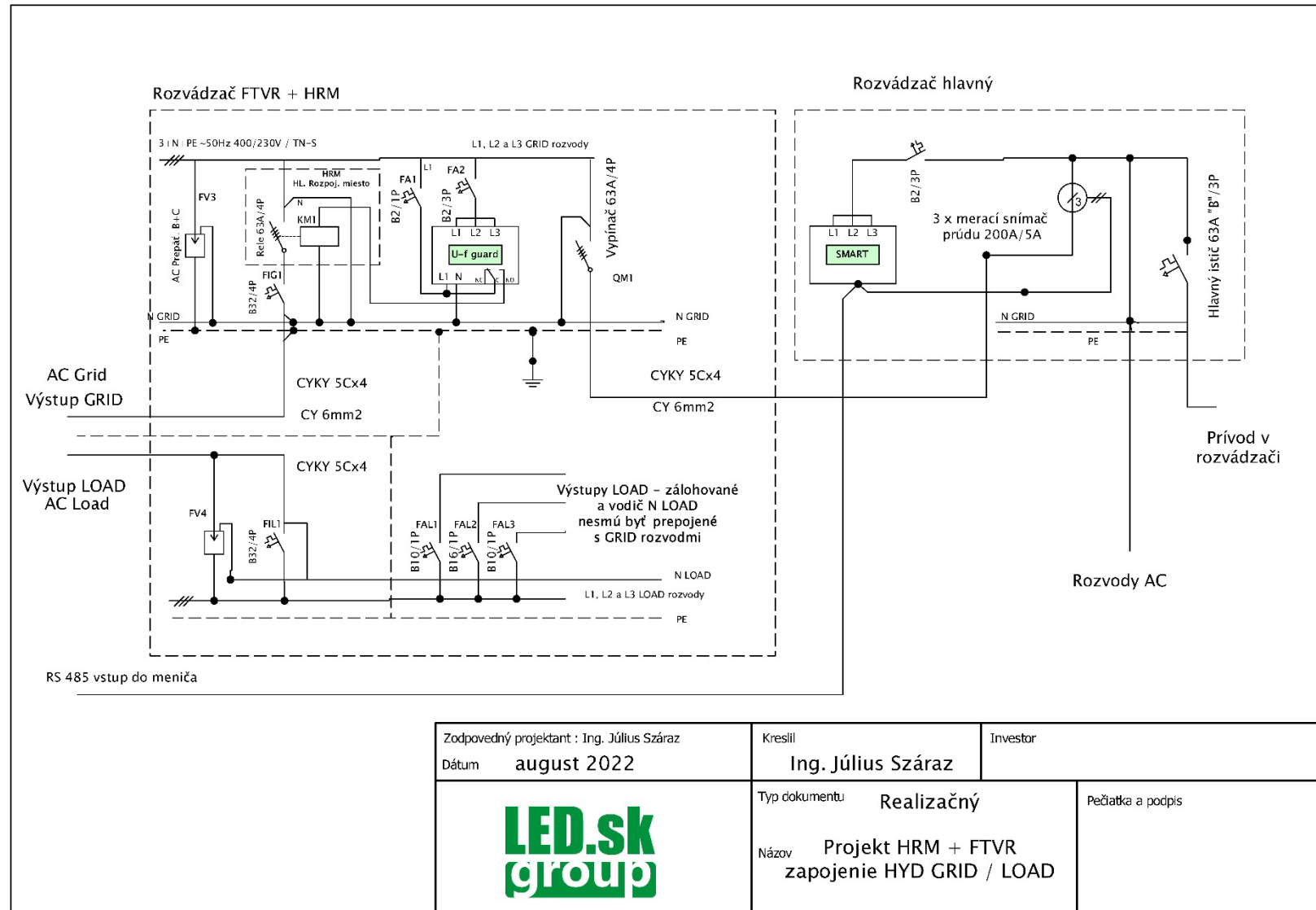


Trnava XXII 11 – 3 fázové pripojenie



EV-GP
Electric Vehicle - Green Power

Trnava XXII 11 – 3 fázové pripojenie



Zodpovedný projektant : Ing. Július Száraz	Kreslil	Investor
Dátum august 2022	Ing. Július Száraz	
LED.sk group	Typ dokumentu Realizačný	Pečiatka a podpis
	Názov Projekt HRM + FTVR zapojenie HYD GRID / LOAD	

EV-GP

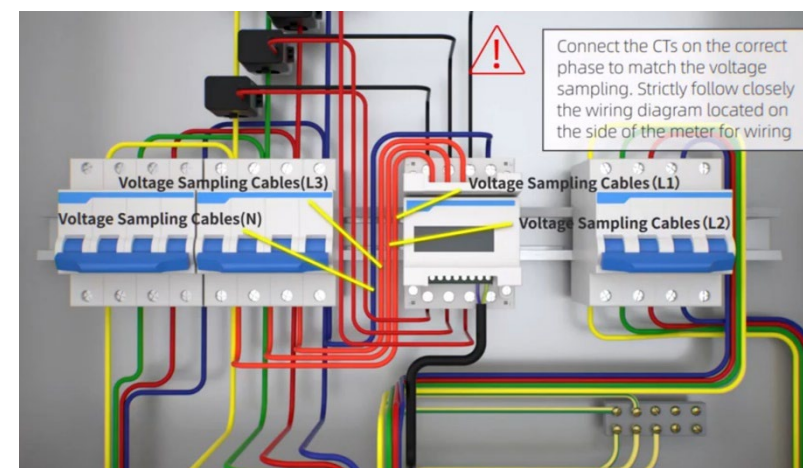
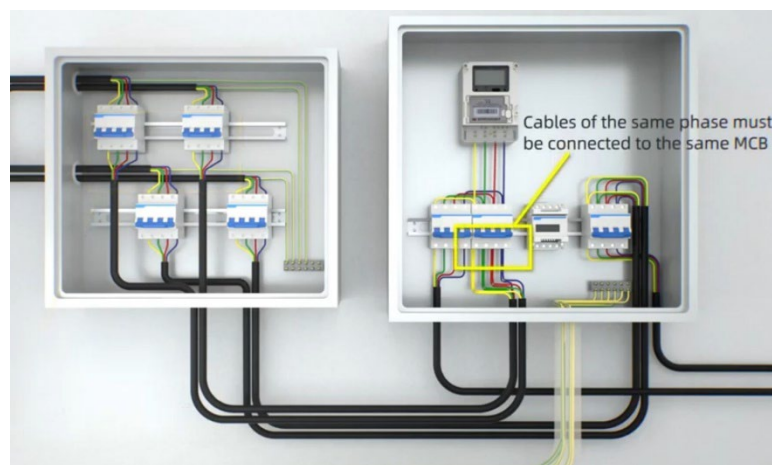
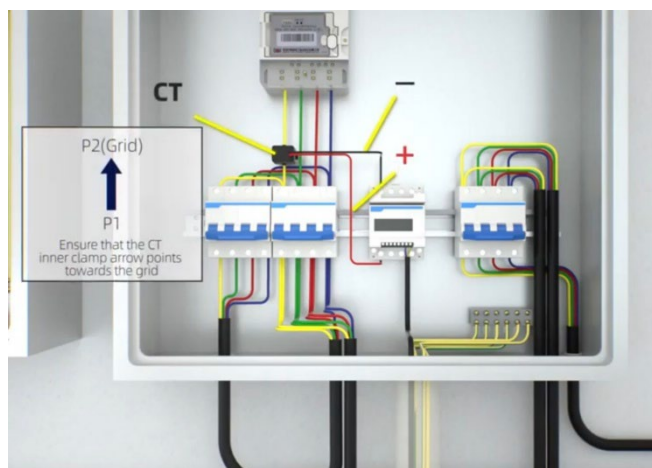
Electric Vehicle - Green Power

Trnava XXII 11 – 3 fázové pripojenie

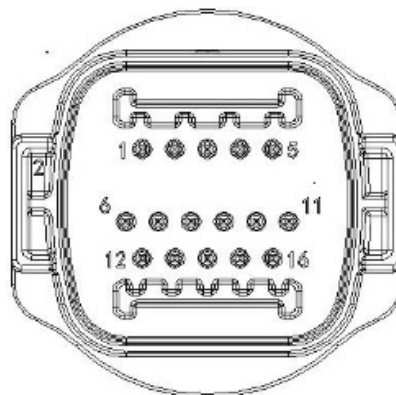
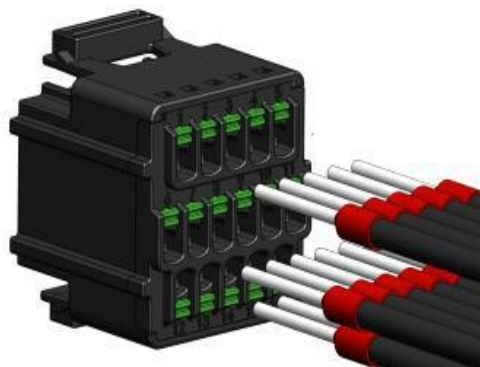


Video návody pre montáž HYD meničov a batérií

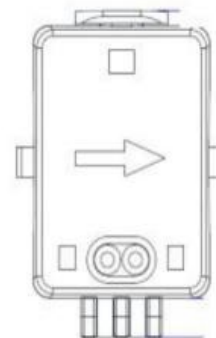
<https://www.youtube.com/watch?v=0UrV-QgDynI>



Trnava XXII 11 – Smart meter

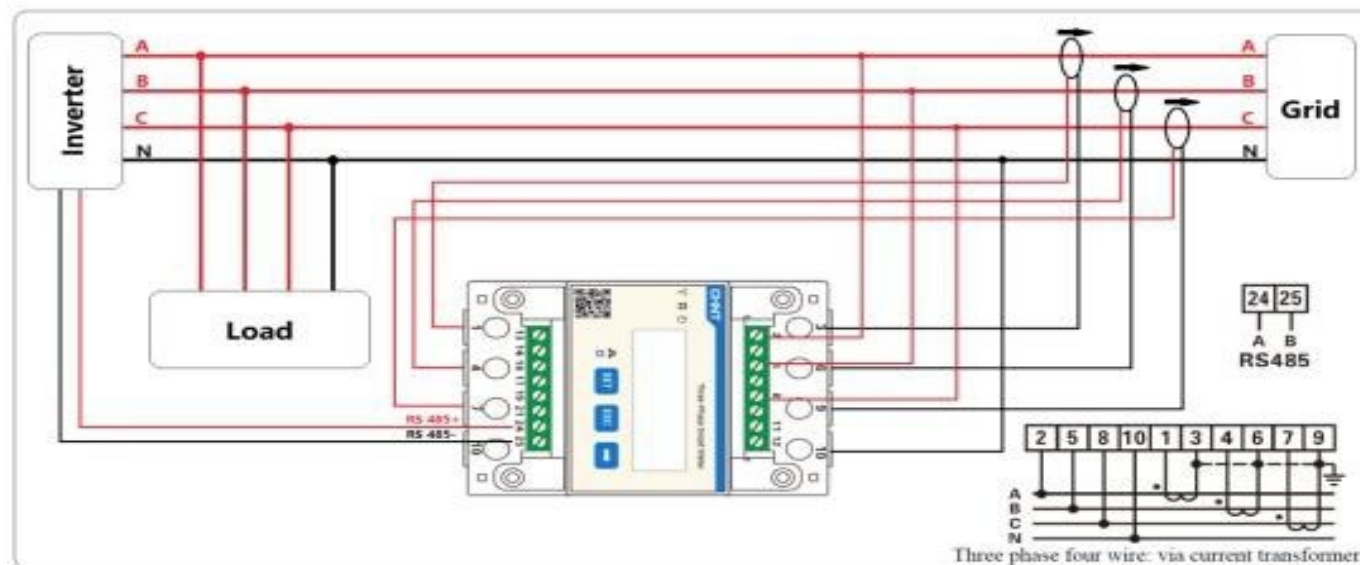


P1 → P2 Grid



Port Description:

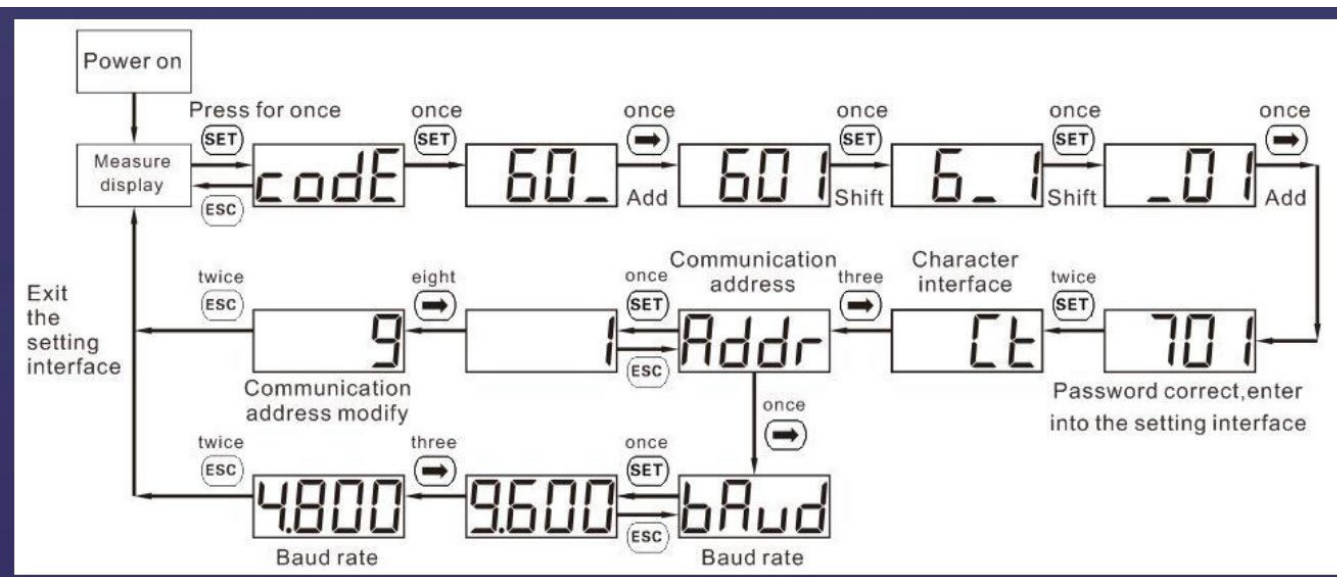
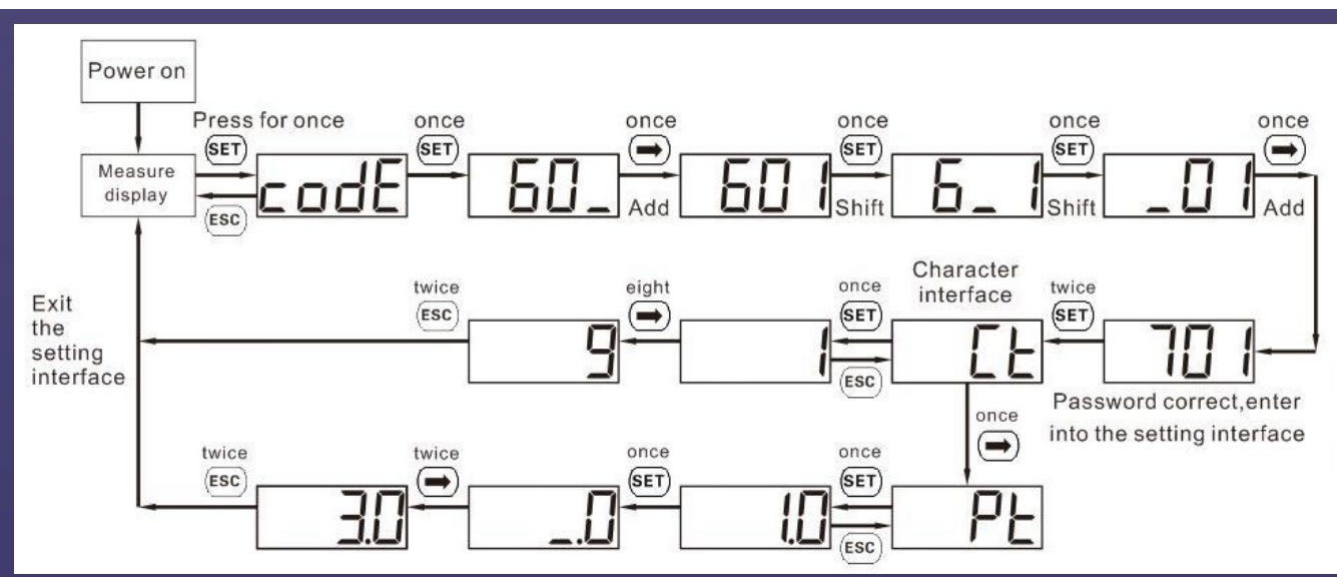
PIN	Define	Function	Note
1	RS485A	RS485 signal+	Wire connection monitoring or multiple inverter monitoring
2	RS485A	RS485 signal+	
3	RS485B	RS485 signal-	
4	RS485B	RS485 signal-	
5	Electric meter RS485A	Electric meter RS485 signal+	Wire connection Electric meter
6	Electric meter RS485B	Electric meter RS485 signal-	
7	GND.S	Communication ground	As RS485 signal ground or DRMS port ground
8	DRM0	Remote shunt down	DRMS port
9	DRM1/5	DRMS port logical IO	



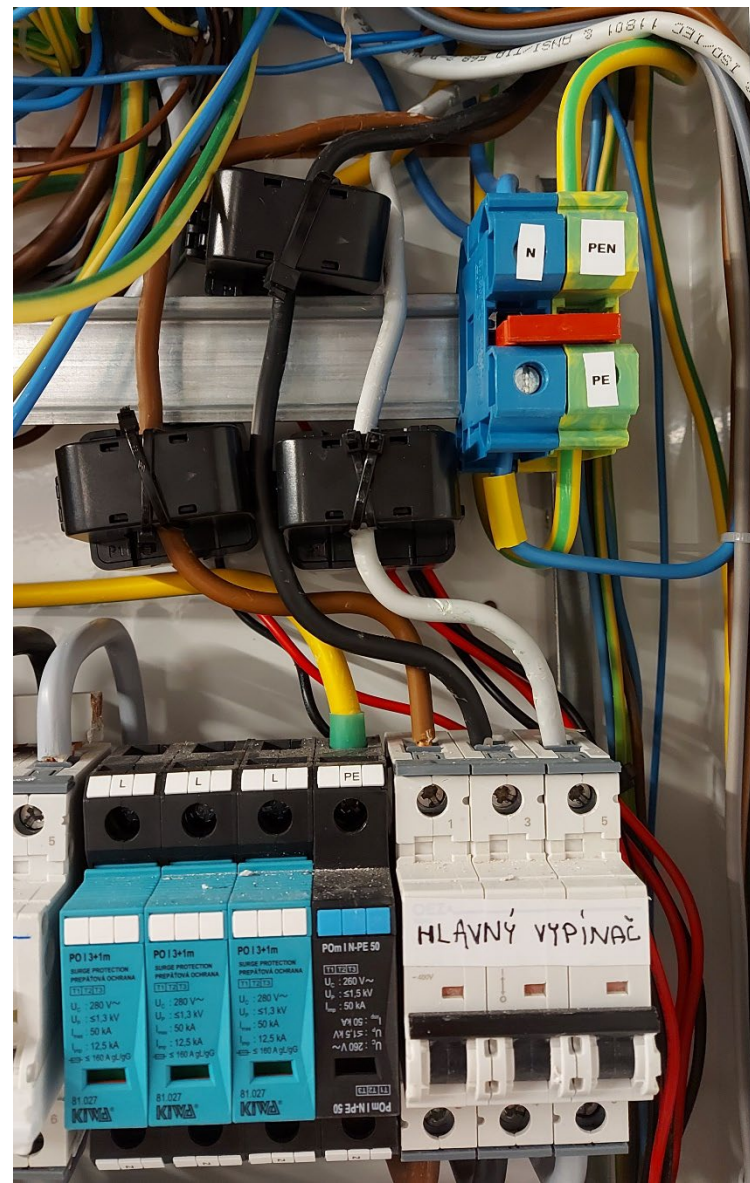
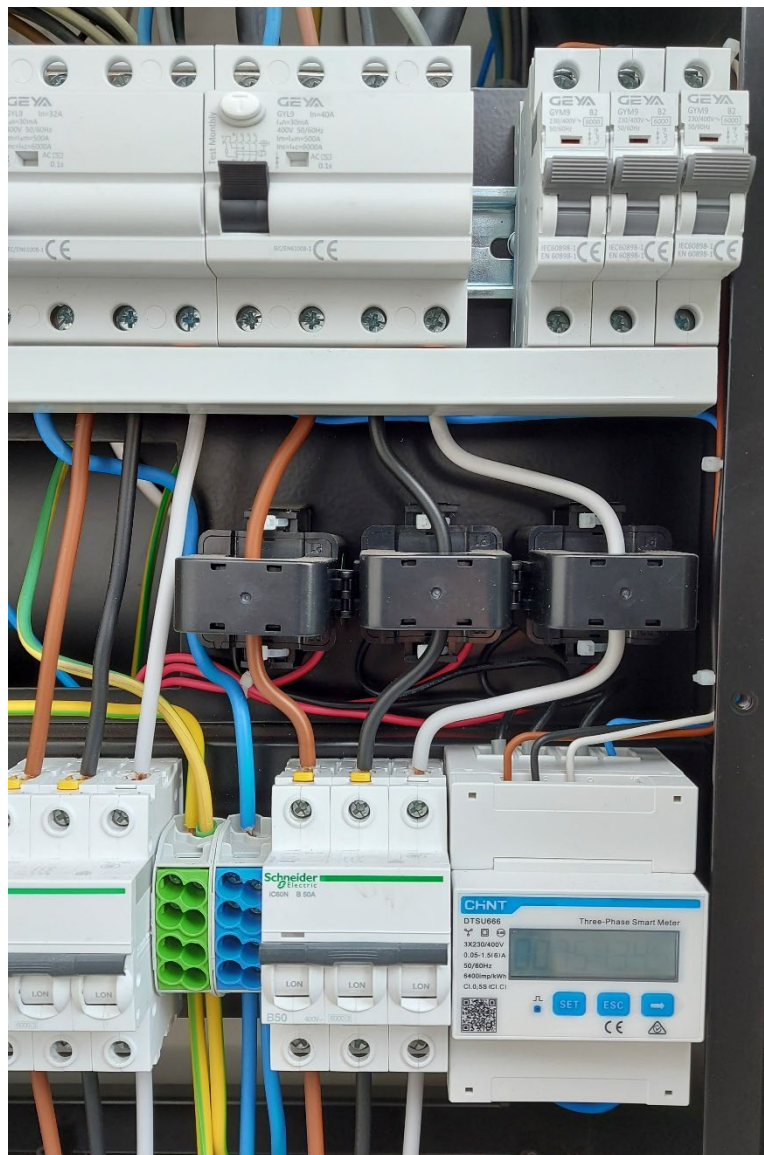
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Trnava XXII 11 – Smart meter



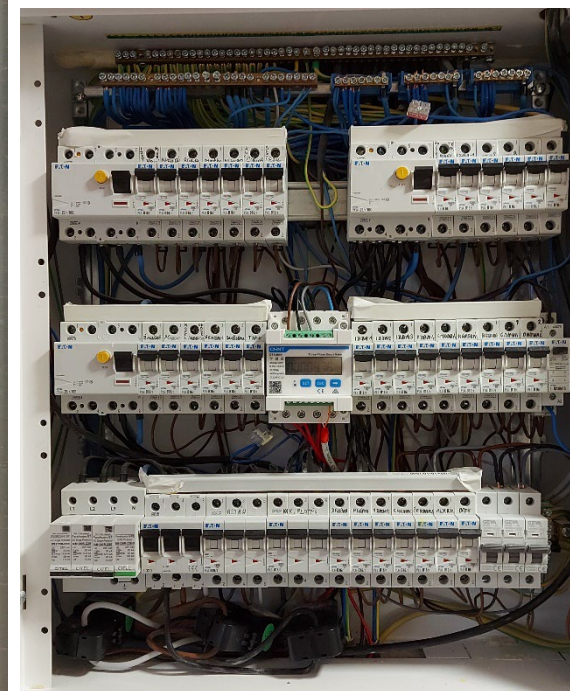
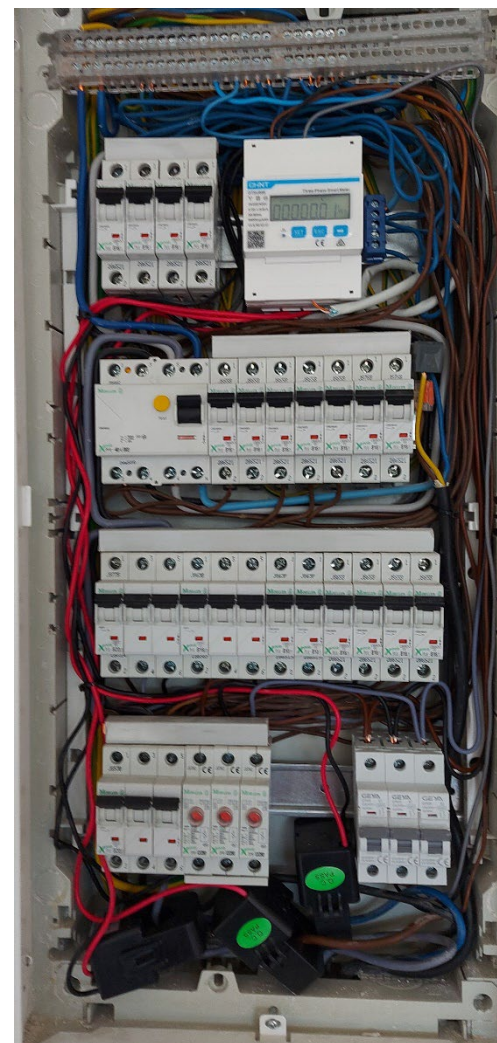
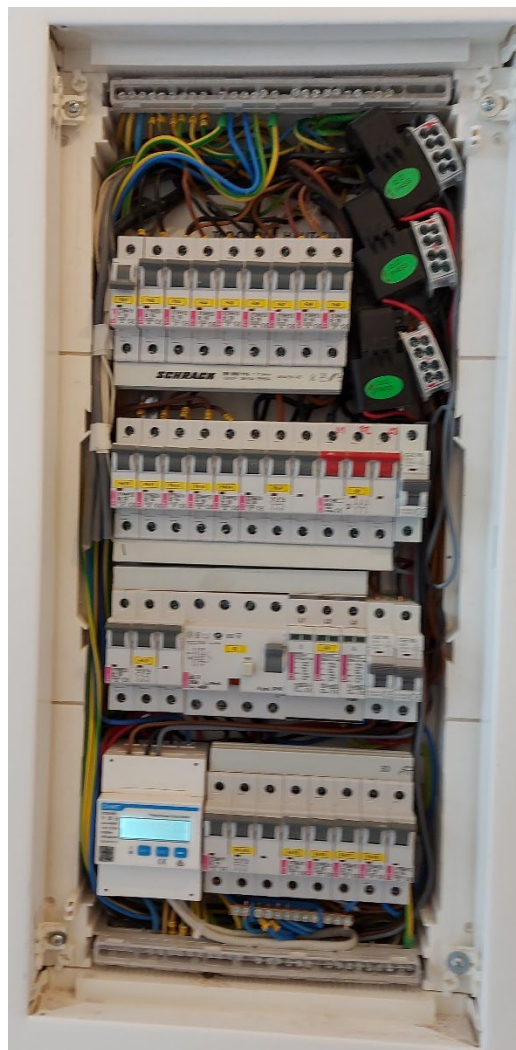
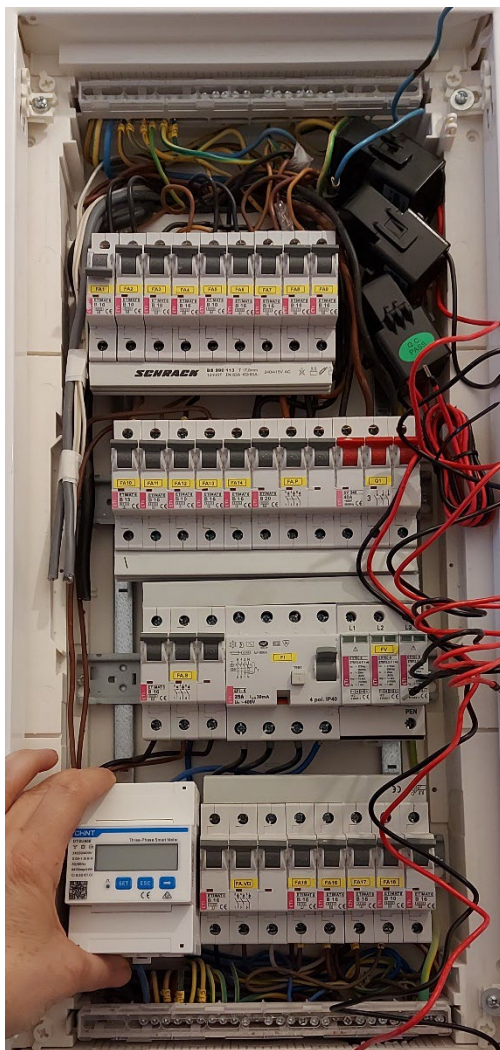
Trnava XXII 11 – 3 fázové pripojenie



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Trnava XXII 11 – 3 fázové pripojenie



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Trnava XXII 11 – Sofar batérie

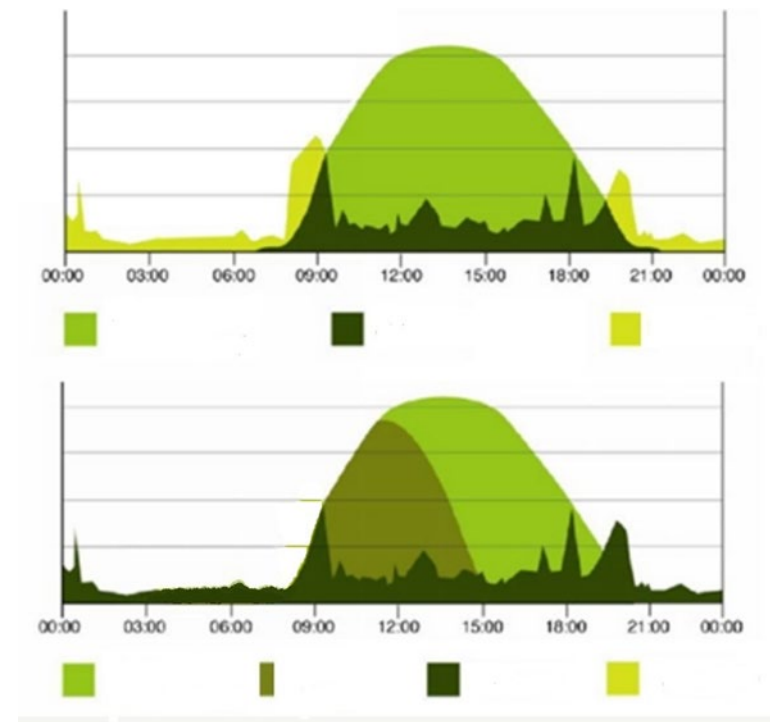


BTS 5K / E5 – E20

5 kWh / 400V modul
Maximálne 4 ks paralelne pre BDU
LiFePo4 batérie LV
Obsahuje batériový menič
Modul váži 50kg
Rozmer 708 x 170 x 420 mm

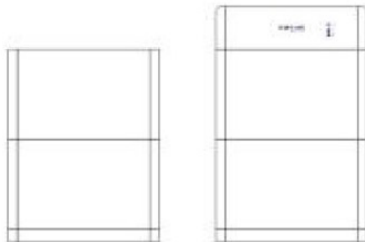
BTS 5K BDU – DS5

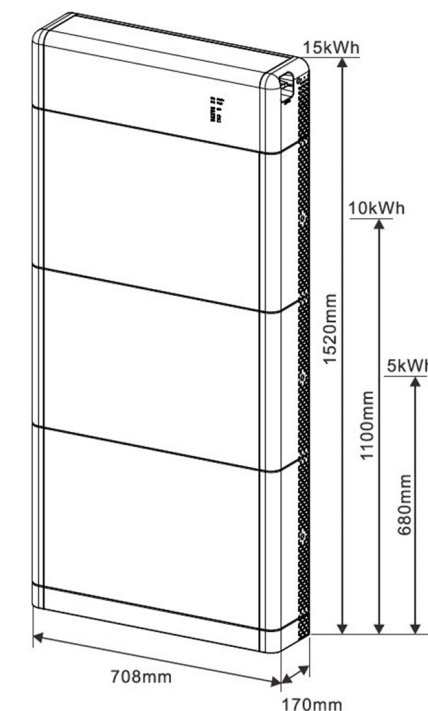
Je potrebný vždy jeden pre 1-4 batérie
DBU váži 7,5kg



Trnava XXII 11 – Sofar batérie



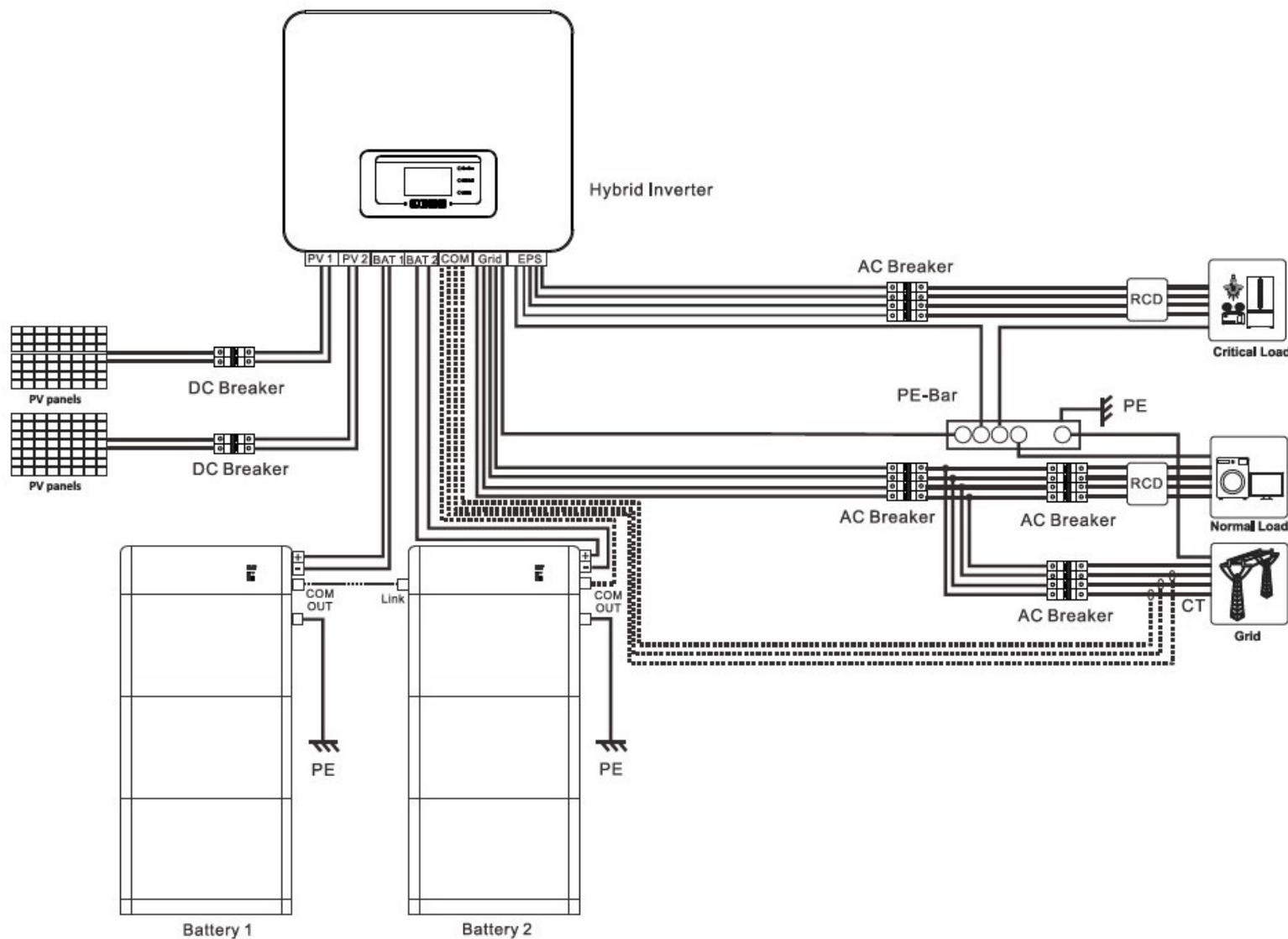
BTS E5-DS5	BTS E10-DS5	BTS E15-DS5	BTS E20-DS5
			



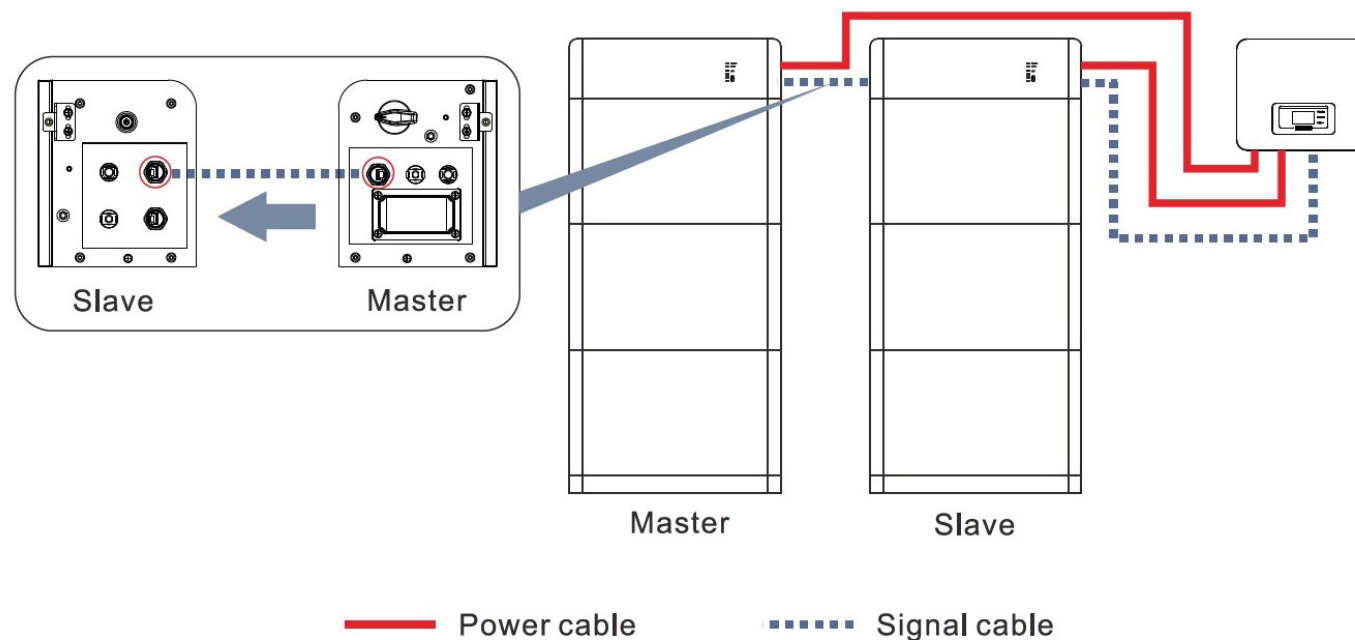
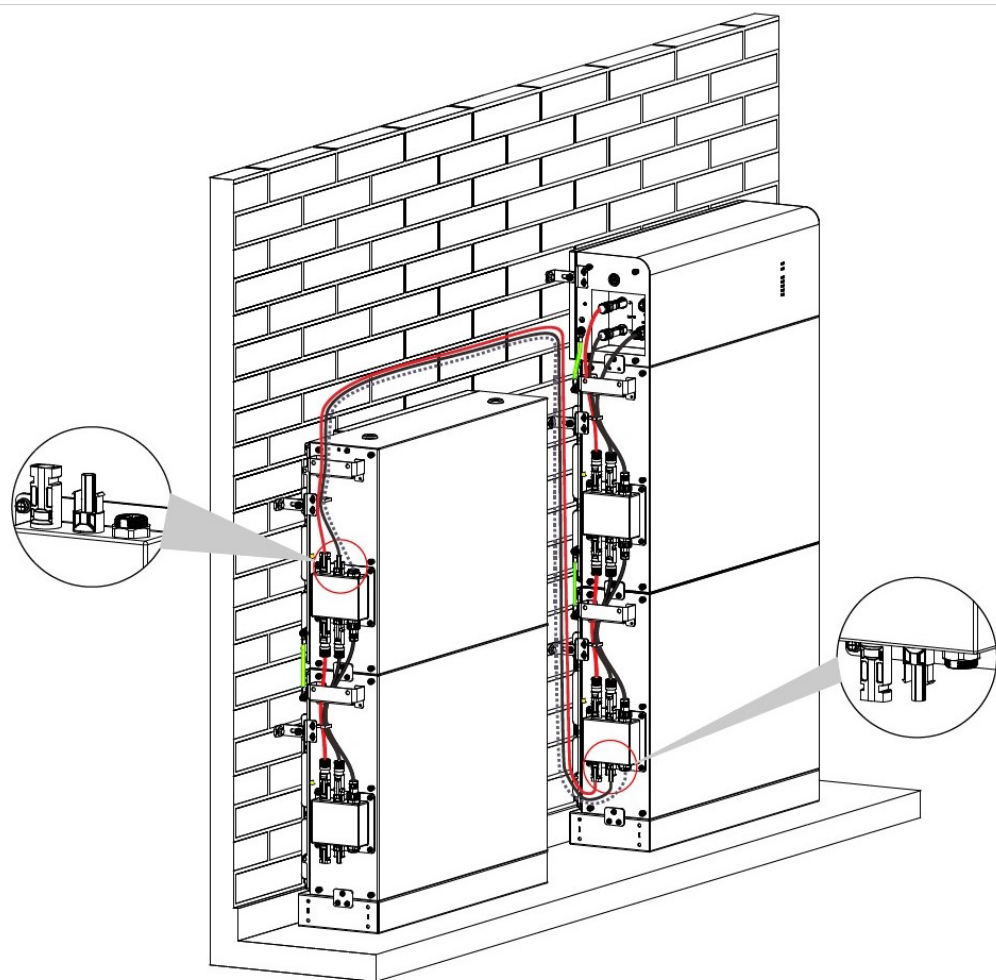
Trnava XXII 11 – Sofar batérie



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ĎAKUJEME

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