



Projektová kancelář dr. Pavel Jílek



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PROJEKTOVÁ DOKUMENTACE

Technika prostředí staveb,
ochrana před atmosférickým přepětím.

Dokumentace pro provádění stavby (DPS)

ve smyslu ustanovení § 157, odst. 1., písm. d) zákona
č. 283/2021 Sb. v platném znění

05 - Návrh střídačů

**Stavba: Instalace fotovoltaického systém, (FVE),
na budově Městského úřadu Bohušovice
Husovo náměstí čp.42**

user.corpInfo

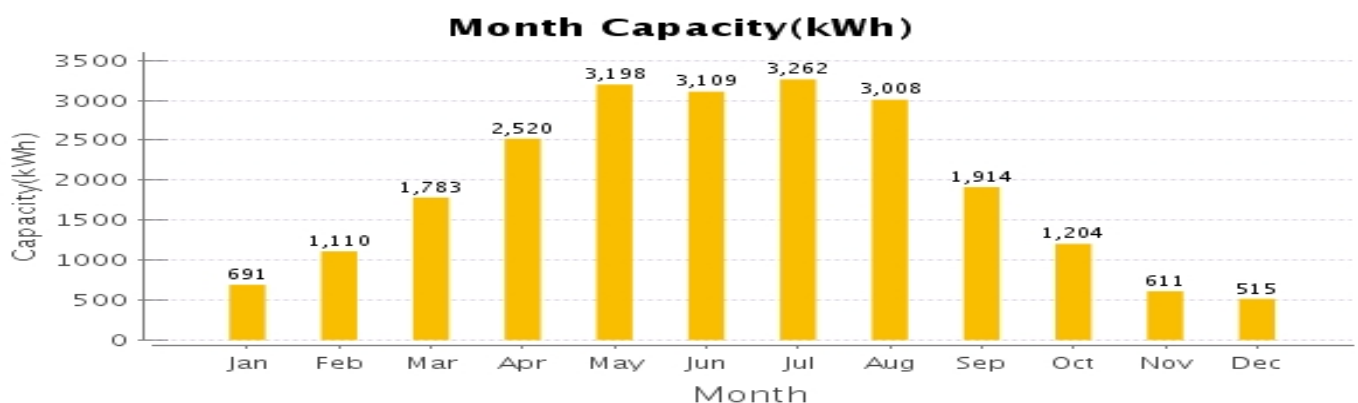
user.contactInfo

Project information

Project Name:	MU Bohusovice 1	Project number:	
Location:	Czech Republic/Prague	Grid AC voltage:	Three phase~230/400 V
Ambient temperature:	Record Low Temperature: -10 °C Average High Temperature: 25 °C Record High Temperature: 40 °C		
Application:	Battery: 27.0kWh/day Other loads consumption: 15300.0kWh/year		

NOTICE! Observe information on the "Design" page!

Total number of PV modules:	50	PV peak power:	27.5 kWp
Number of inverters:	1	Nominal AC power:	20 kW
Annual energy yield (approx.)*:	22,923.69 kWh	Line losses:	0 %



*Important: The yield values displayed are estimates. They are determined mathematically. Suntellite accepts no responsibility for the real yield value which can deviate from the yield values displayed here. Reasons for deviations are various outside conditions, such as soiling of the PV Modules or fluctuations in the efficiency of the PV modules.

Technical data

Inverter

Part number:	X3-ULT-25
PV peak power:	27.5 kWp
Total number of PV modules:	50
Number of inverters:	1
Max. DC power ($\cos \phi = 1.0$) :	50 kW
Max. AC active power ($\cos \phi = 1.0$) :	27.5 kW
Grid AC voltage range:	230/400 V
Nominal power ratio:	100% ⚠



Displacement Power Factor cos:	1	X3-ULT-25
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Battery

Part number:	HS25
Battery Qty:	11 Pcs
Useable battery capacity:	25.3 kWh
Max. EPS power:	25.3 kW



HS25

PV

input 1: PV module1
24 x LONGi Solar, , Azimuth: 270 ° , Inclination: 33 °
input 2: PV module1
13 x LONGi Solar, , Azimuth: 270 ° , Inclination: 33 °
input 3: PV module1
13 x LONGi Solar, , Azimuth: 270 ° , Inclination: 33 °

input1 PV module1

Number of strings:	2	
PV modules per string:	12	
Peak power (input):	13.2 kWp	
Typical PV voltage:	465V	✓
Min. PV voltage:	432 V	✓
Min. DC voltage:	465V	
Max. PV voltage:	653 V	✓
Max. DC voltage (PV):	498 V	
Max. current of PV array:	26.48 A	✓
Max. DC current:	26.48 A	

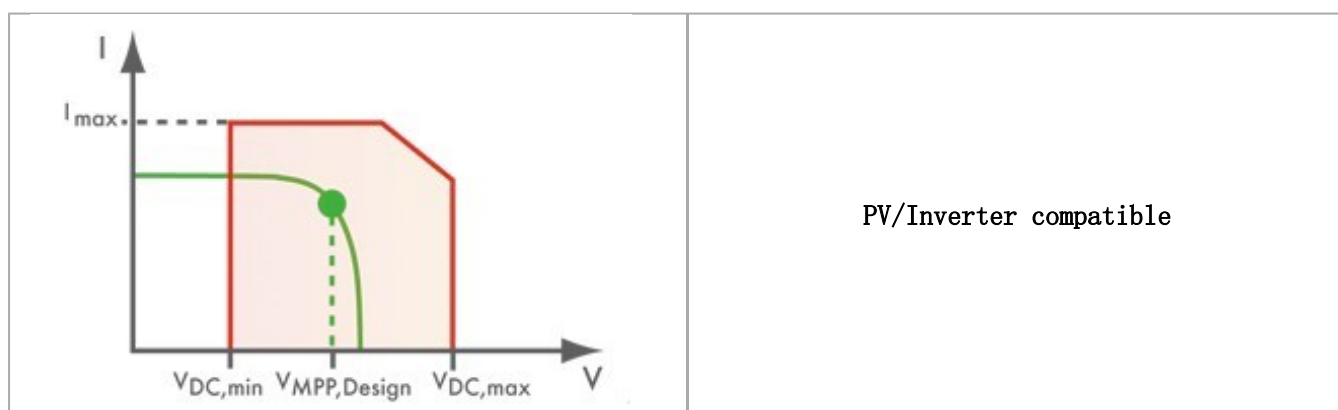
input2 PV module1

Number of strings:	1	
PV modules per string:	13	
Peak power (input):	7.15 kWp	
Typical PV voltage:	504V	✓

Min. PV voltage:	468 V	✓
Min. DC voltage:	504V	
Max. PV voltage:	707 V	✓
Max. DC voltage (PV):	540 V	
Max. current of PV array:	13.24 A	✓
Max. DC current:	13.24 A	

input3 PV module1
:

Number of strings:	1	
PV modules per string:	13	
Peak power (input):	7.15 kWp	
Typical PV voltage:	504V	✓
Min. PV voltage:	468 V	✓
Min. DC voltage:	504V	
Max. PV voltage:	707 V	✓
Max. DC voltage (PV):	540 V	
Max. current of PV array:	13.24 A	✓
Max. DC current:	13.24 A	



Equipment list:

inverter:	X3-ULT-25 x 1
DC MPPT1 Cross section per string/DC:	10mm ²
DC MPPT2 Cross section per string/DC:	10mm ²
DC MPPT3 Cross section per string/DC:	10mm ²
DC MPPT1 Cable Diameter AC Cable Diameter:	3.57mm
DC MPPT2 Cable Diameter AC Cable Diameter:	3.57mm
DC MPPT3 Cable Diameter AC Cable Diameter:	3.57mm
pv modules:	PV module1 x 50
battery:	HS25 X 11
Master box:	x 1

DC Cable Length: 80 m

AC Cable Length: 10 m

Information

✓ MU Bohusovice 1

✓ 1 X X3-ULT-25

user.corpInfo

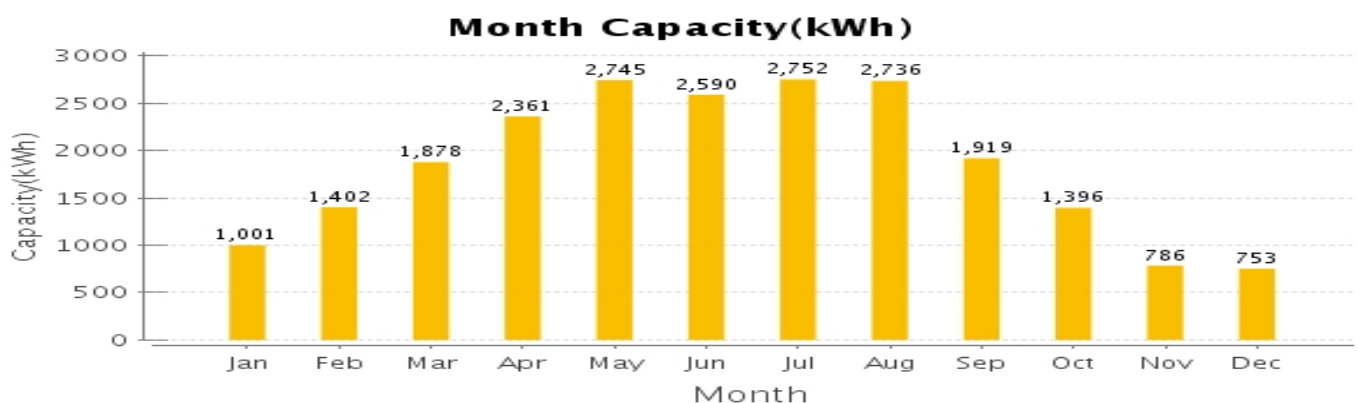
user.contactInfo

Project information

Project Name:	MU Bohušovice 2	Project number:	
Location:	Czech Republic/Prague	Grid AC voltage:	Three phase~230/400 V
Ambient temperature:	Record Low Temperature: -10 °C Average High Temperature: 25 °C Record High Temperature: 40 °C		
Application:	Battery: 22.0kWh/day Other loads consumption: 15300.0kWh/year		

NOTICE! Observe information on the "Design" page!

Total number of PV modules:	40	PV peak power:	22 kWp
Number of inverters:	1	Nominal AC power:	20 kW
Annual energy yield (approx.)*:	22,319.56 kWh	Line losses:	0 %



*Important: The yield values displayed are estimates. They are determined mathematically. Suntellite accepts no responsibility for the real yield value which can deviate from the yield values displayed here. Reasons for deviations are various outside conditions, such as soiling of the PV Modules or fluctuations in the efficiency of the PV modules.

Technical data

Inverter

Part number:	X3-ULT-20
PV peak power:	22 kWp
Total number of PV modules:	40
Number of inverters:	1
Max. DC power ($\cos \phi = 1.0$) :	40 kW
Max. AC active power ($\cos \phi = 1.0$) :	22 kW
Grid AC voltage range:	230/400 V
Nominal power ratio:	100% ⚠



Displacement Power Factor cos:	1	X3-ULT-20
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Battery

Part number:	HS25
Battery Qty:	10 Pcs
Useable battery capacity:	23 kWh
Max. EPS power:	22 kW



HS25

PV

input 1: PV module1

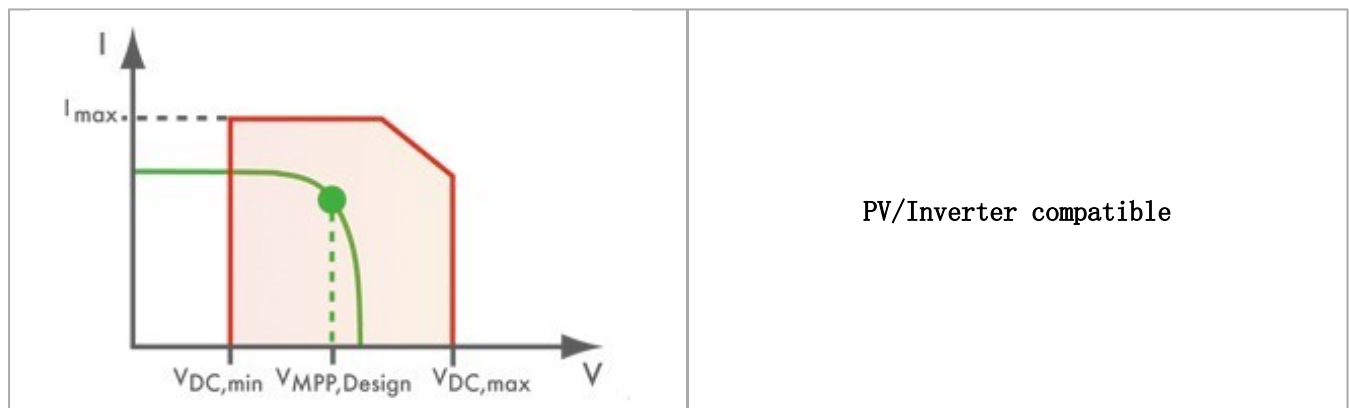
20 x LONGi Solar, , Azimuth: 0 ° , Inclination: 33 °

input 2: PV module1

20 x LONGi Solar, , Azimuth: 0 ° , Inclination: 33 °

input1 PV module1 :		
Number of strings:	2	
PV modules per string:	10	
Peak power (input):	11 kWp	
Typical PV voltage:	388V	✓
Min. PV voltage:	360 V	✓
Min. DC voltage:	388V	
Max. PV voltage:	544 V	✓
Max. DC voltage (PV):	415 V	
Max. current of PV array:	26.48 A	✓
Max. DC current:	26.48 A	
input2 PV module1 :		
Number of strings:	2	
PV modules per string:	10	
Peak power (input):	11 kWp	
Typical PV voltage:	388V	✓
Min. PV voltage:	360 V	✓
Min. DC voltage:	388V	

Max. PV voltage:	544 V	✓
Max. DC voltage (PV):	415 V	
Max. current of PV array:	26.48 A	✓
Max. DC current:	26.48 A	



Equipment list:

inverter:	X3-ULT-20 x 1
DC MPPT1 Cross section per string/DC:	10mm ²
DC MPPT2 Cross section per string/DC:	10mm ²
DC MPPT1 Cable Diameter AC Cable Diameter:	3.57mm
DC MPPT2 Cable Diameter AC Cable Diameter:	3.57mm
pv modules:	PV module1 x 40
battery:	HS25 X 10
Master box:	x 1
DC Cable Length:	80 m
AC Cable Length:	10 m

Information

✓ MU Bohušovice 2
✓ 1 X X3-ULT-20