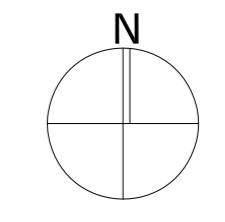


1. LEGENDA
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  - DORSALE QUADRO\_36

**CABLING CALCULATION: "Cerignola"**

MODULE DATA SHEET		GP - Inverter Electrical Characteristics		Voltage drop from Strings to QPS			
Module Type	60 Solar HELIOS 6K	GP	1161.42 V	Moduli per each string	20.00		
Peak Power (Pm)	(Wp) 375.00	Line per GP	1363.20 V	String per GP	1.00		
Open Circuit Voltage (Voc)	(V) 53.20	Medium Length	120.80 A	Medium Resistance	0.1719 Ω		
Optimum Operating Voltage (Vmp)	(V) 44.67	Section Line		Voltage Drop at 65°C	0.19 %		
Current (Imp)	(A) 12.88	Voltage Drop at 10°C		Voltage Drop at 10°C	0.18 %		
Temperature Coefficient Voltage (β)	-0.350 V/K°C						
Temperature Coefficient Current (α)	0.048 A/K°C						
CHARACTERISTICS FOR ONE STRING							
Modules for each f	N°	20.00					
Voltage	Vmp	1161.42					
Current	A	12.88					
Peak Power (Pm)	kWp	14.95					
FINAL DATA							
String to line	N°	315					
Power of all Strings	(Peak)	4739.25 kWp					
Total Modules	N°	6300					
QPS = Smart String Box	SM - Supply Central 4000 EV						
VALUES VERIFICATION FOR ONE QPS TO INVERTER							
Estimation of the maximum voltage Vmp: For a temperature of the modules that are 65°C	1206.14V	MIN MPPT VOLTAGE	840 V				
Estimation of the maximum current Imp: For a temperature of the modules that are 65°C	131.27 A	MAX MPPT VOLTAGE	1325 Vdc				
Estimation of the maximum open-circuit voltage Voc: For a temperature of the modules that are 65°C	1161.42V	MAXIMUM VOLTAGE	1500 Vdc				
Estimation of the maximum current Imp: For a temperature of the modules that are 10°C	128.84 A						
Estimation of the maximum voltage Voc: For a temperature of the modules that are 10°C	1242.81V						
CALCULATION OF THE VOLTAGE DROP ON THE CABLES STC							
CODE	N° OF STRINGS TO QPS	AREAS	MAXIMUM LENGTH	LINE SECTION	VOLTAGE DROP FROM QPS TO INVERTER	TOTAL VOLTAGE DROP	NUMBER OF AREAS IN THE PV PLANT
SC 01	9	A.01	85.00	35	0.98	1.20	1
SC 02	9	A.02	89.00	35	0.95	1.10	2
SC 03	9	A.03	89.00	35	0.92	1.10	3
SC 04	9	A.04	156.00	35	0.91	1.10	4
SC 05	9	A.05	120.00	50	0.87	1.10	5
SC 06	9	A.06	89.00	50	0.82	1.10	6
SC 07	9	A.07	125.00	50	0.81	1.10	7
SC 08	9	A.08	155.00	70	0.80	1.00	8
SC 09	9	A.09	120.00	50	0.87	1.10	9
SC 10	9	A.10	131.00	70	0.78	1.00	10
SC 11	9	A.11	218.00	85	0.83	1.00	11
SC 12	9	A.12	180.00	70	0.84	1.10	12
SC 13	9	A.13	160.00	70	0.78	1.00	13
SC 14	9	A.14	180.00	70	0.80	1.20	14
SC 15	9	A.15	210.00	85	0.82	1.00	15
SC 16	9	A.16	280.00	70	0.83	1.10	16
SC 17	9	A.17	214.00	85	0.82	1.00	17
SC 18	9	A.18	280.00	85	0.82	1.10	18
SC 19	9	A.19	245.00	85	0.83	1.10	19
SC 20	9	A.20	211.00	85	0.82	1.00	20
SC 21	9	A.21	260.00	100	0.84	1.10	21
SC 22	9	A.22	277.00	100	0.84	1.00	22
SC 23	9	A.23	241.00	85	0.82	1.10	23
SC 24	9	A.24	210.00	100	0.83	1.00	24
SC 25	9	A.25	311.00	100	0.82	1.00	25
SC 26	9	A.26	307.00	100	0.83	1.10	26
SC 27	9	A.27	272.00	100	0.82	1.00	27
SC 28	9	A.28	307.00	100	0.83	1.10	28
SC 29	9	A.29	337.00	150	0.81	1.00	29
SC 30	9	A.30	300.00	100	0.81	1.10	30
SC 31	9	A.31	338.00	150	0.82	1.00	31
SC 32	7	A.32	373.00	150	0.88	1.10	32
SC 33	8	A.33	404.00	150	0.87	1.10	33
SC 34	7	A.34	369.00	150	0.87	1.10	34
SC 35	7	A.35	332.00	85	0.88	1.20	35
SC 36	9	A.36	388.00	150	0.89	1.10	36

MINIMUM VOLTAGE	1.907 %
MAXIMUM VOLTAGE	1.209 %
AVERAGE VOLTAGE	1.200 %



CERIGNOLA REGIONE PUGLIA PROVINCIA DI FOGGIA

IMPIANTO AGRIVOLTAIICO E RELATIVE OPERE ED INFRASTRUTTURE CONNESSE DELLA POTENZA ELETTRICA DI 140,66 MW (ex 120MW) SITO NEL COMUNE DI CERIGNOLA

PROGETTO DEFINITIVO  
Layout Campo "A1" - Sottocampo 5 - Dimensionamento delle dorsali-Tabella calcolo dorsali

Proprietario: CERIGNOLA SOLAR 2 S.R.L. Via Antonio Locatelli n.1 37122 Verona P.IVA 04741630232 cernigol solar2@pec.it

Progettazione: WH Group s.r.l. Via A. Locatelli n. 1 - 37122 Verona (VR) P.IVA 12336131003 ingegneris@enitgroup.eu



Spazio riservato agli Enti:

Fid: PE17Q00\_BibonatoGrafico\_412\_236 Cod. PE17Q00 Scale 1:500

Rev.	Data	Descrizione	Redatto	Approvato
00	08/03/2022	V.I.A. Messeriale	A. Tartaglia	S.M. Caputo

4.2.9\_2.36