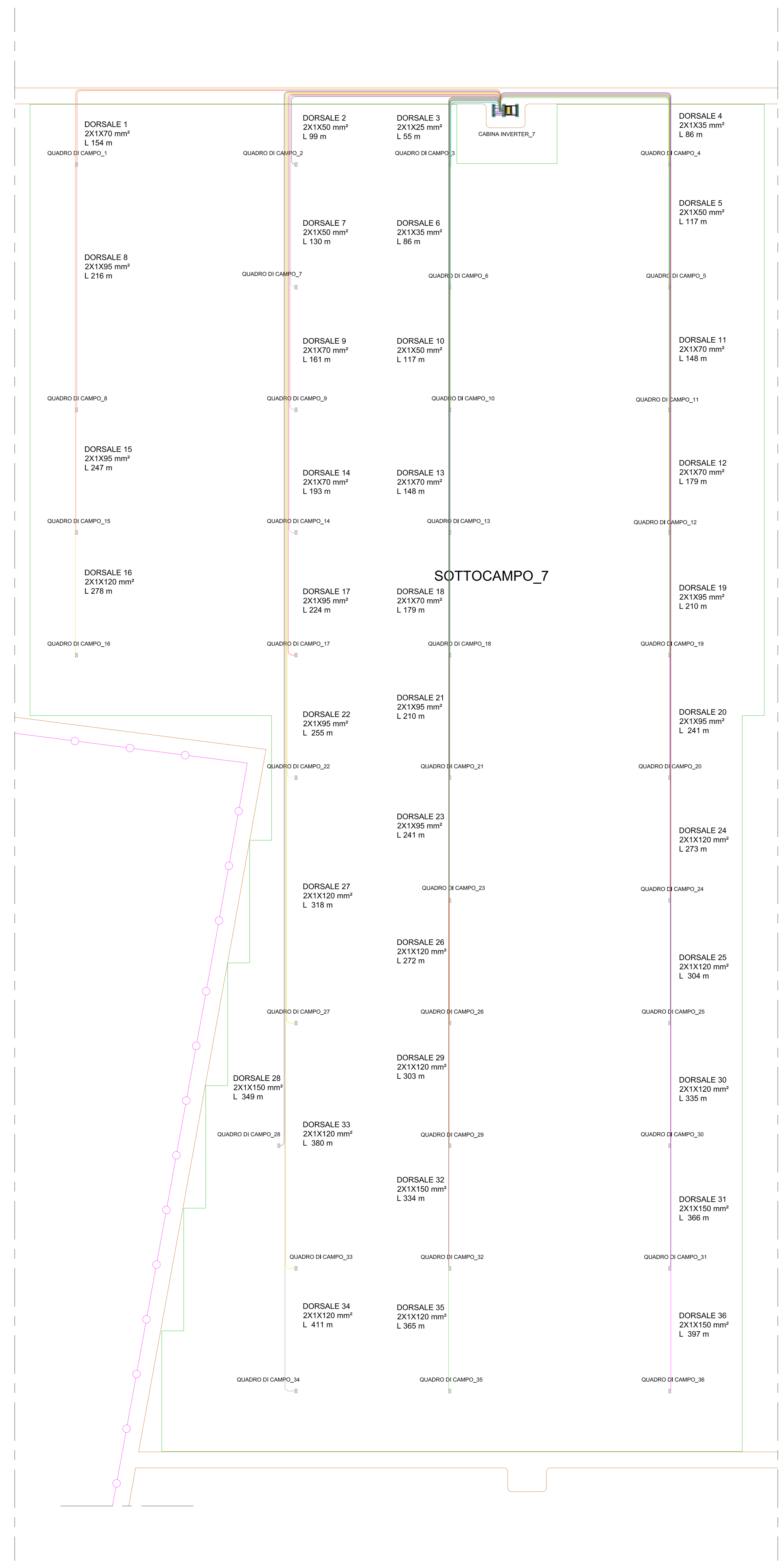


1. LEGENDA
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  - DORSALE QUADRO\_36



**CABLING CALCULATION: "Cerignola"**

MODULE DATA SHEET		GP - Inverter Electrical Characteristics		Voltage drop from Strings to QPS	
MODULE TYPE	REC Solar / REC4PPE 604	UP OUT	1161.42 V	Modules for each string	20.00
Peak Power (Pm)	(Wp) 575.00	Vo OUT	1385.23 V	Line per GP	10
Open Circuit Voltage (Voc)	(V) 53.20	Characteristics at STC		Strings per GP	10.00
Optimum Operating Voltage (Vmp)	(V) 44.67			Medium Length	± 45 m
Current (Imp)	(A) 12.88			Medium Resistance	0.1718 Ω
Temperature Coefficients Voltage (β)	-0.260 V/W°C			Section Line	10 mm²
Temperature Coefficients Current (α)	0.046 A/W°C			Voltage Drop at STC	0.19 %
				Voltage Drop at 50°C	0.17 %
				Voltage Drop at -10°C	0.18 %

CHARACTERISTICS FOR ONE STRING		GP - Sunny Optim 4000-EV	
Modules for each 1	N° 20.00	Estimation of the minimum voltage Vmp	1266.14V
Voltage	Vmp 1161.42	Estimation of the maximum current Imp	131.27 A
Current	A 12.88	Estimation of the minimum voltage Vmp For a temperature of the modules that are 55°C	1161.42V
Peak Power (Pm)	kWp 14.95	Estimation of the maximum current Imp For a temperature of the modules that are 55°C	126.64 A

FINAL DATA		MAX MPPT VOLTAGE	
String 0 m	N° 310	Estimation of the minimum voltage Vmp For a temperature of the modules that are -10°C	1242.81V
Drop of all Strings (Peak)	4705.23 kWp	Estimation of the maximum current Imp For a temperature of the modules that are -10°C	1500 Vdc
Total Modules	N° 8190		

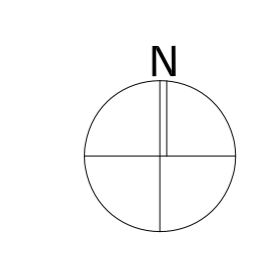
VALUES VERIFICATION FOR ONE QPS TO INVERTER		MAXIMUM VOLTAGE	
Estimation of the minimum voltage Vmp	1266.14V	Estimation of the minimum voltage Vmp For a temperature of the modules that are 55°C	1161.42V
Estimation of the maximum current Imp	131.27 A	Estimation of the maximum current Imp For a temperature of the modules that are 55°C	126.64 A
Estimation of the minimum voltage Vmp For a temperature of the modules that are 55°C	1161.42V	Estimation of the maximum current Imp For a temperature of the modules that are -10°C	1500 Vdc
Estimation of the maximum current Imp For a temperature of the modules that are 55°C	126.64 A	Estimation of the maximum current Imp For a temperature of the modules that are -10°C	1500 Vdc

CALCULATION OF THE VOLTAGE DROP ON THE CABLES STC								
CODE	N° OF STRINGS TO QPS	AREAS	MAXIMUM LENGTH	LINE SECTION	VOLTAGE DROP FROM QP TO INVERTER		TOTAL VOLTAGE DROP	NUMBER OF AREAS IN THE PV PLANT
					m	%		
SC01	9	A.11	154.00	70	0.80	1.00	1	
SC02	9	A.12	99.00	50	0.72	0.90	2	
SC03	9	A.13	55.00	25	0.80	1.00	3	
SC04	9	A.14	86.00	35	0.89	1.10	4	
SC05	9	A.15	117.00	50	0.85	1.00	5	
SC06	9	A.16	186.00	70	0.89	1.10	6	
SC07	9	A.17	130.00	50	0.94	1.10	7	
SC08	9	A.18	216.00	85	0.92	1.00	8	
SC09	9	A.19	181.00	70	0.83	1.00	9	
SC10	9	A.20	117.00	50	0.85	1.00	10	
SC11	9	A.11	148.00	70	0.77	1.00	11	
SC12	9	A.12	179.00	70	0.90	1.10	12	
SC13	9	A.13	148.00	70	0.77	1.00	13	
SC14	9	A.14	150.00	70	0.86	1.10	14	
SC15	9	A.15	247.00	95	0.94	1.10	15	
SC16	9	A.16	278.00	100	0.94	1.00	16	
SC17	9	A.17	224.00	95	0.85	1.00	17	
SC18	9	A.18	179.00	70	0.84	1.10	18	
SC19	9	A.19	210.00	95	0.80	1.00	19	
SC20	9	A.20	241.00	95	0.92	1.10	20	
SC21	9	A.11	210.00	95	0.80	1.00	21	
SC22	7	A.22	255.00	95	0.79	1.00	22	
SC23	9	A.23	241.00	95	0.92	1.10	23	
SC24	9	A.24	272.00	100	0.82	1.00	24	
SC25	9	A.25	304.00	120	0.82	1.10	24	
SC26	9	A.26	272.00	100	0.82	1.00	24	
SC27	9	A.27	318.00	120	0.98	1.20	24	
SC28	9	A.28	349.00	150	0.84	1.00	25	
SC29	9	A.29	303.00	120	0.91	1.10	26	
SC30	9	A.10	335.00	120	0.81	1.00	27	
SC31	9	A.11	389.00	150	0.88	1.10	28	
SC32	9	A.12	344.00	150	0.81	1.00	29	
SC33	7	A.13	380.00	120	0.89	1.10	30	
SC34	7	A.14	411.00	120	0.96	1.20	31	
SC35	8	A.15	395.00	120	0.98	1.20	32	
SC36	8	A.16	387.00	120	0.85	1.00	33	

MEDIUM VALUE	1.873 %
MINIMUM VALUE	0.880 %
MAXIMUM VALUE	1.200 %



REGIONE PUGLIA PROVINCIA DI FOGGIA

**IMPIANTO AGRIVOLTAICO 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 7- Dimensionamento delle dorsali- Tabella calcolo dorsali**

Proponente: **CERIGNOLA SOLAR 2 S.R.L.**  
Via Antonio Locatelli n.1  
37122 Verona  
P.IVA 04741630232  
cerignolasolar2@pec.it

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

Spazio riservato agli Enti:

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

4.2.9\_2.50

Fid: PE17Q40\_ElaboratoGrafico\_4.2.9\_2.50 Cod: PE17Q40 Scala: 1:500

CERIGNOLA SOLAR 2 S.R.L. | Via Antonio Locatelli n.1 37122 Verona | cerignolasolar2@pec.it