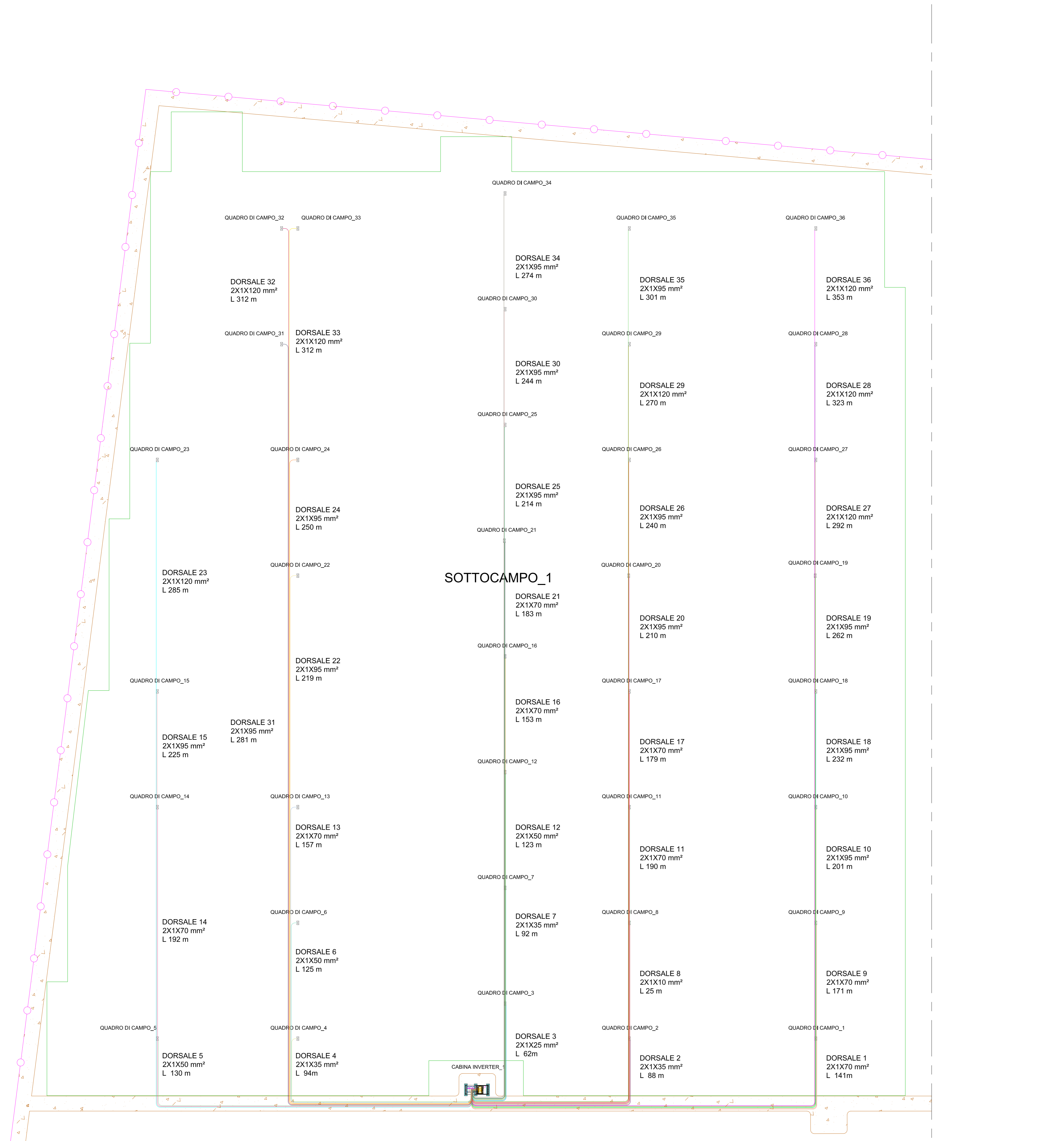


1. LEGENDA

- AREA 01
- AREA 02
- AREA 03
- AREA 04
- AREA 05
- AREA 06
- AREA 07
- AREA 08
- AREA 09
- AREA 10
- AREA 11
- AREA 12
- AREA 13
- AREA 14
- AREA 15
- AREA 16
- AREA 17
- AREA 18
- AREA 19
- AREA 20
- AREA 21
- AREA 22
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- AREA 27
- AREA 28
- AREA 29
- AREA 30
- AREA 31
- AREA 32
- AREA 33
- AREA 34
- AREA 35
- AREA 36



CABLING CALCULATION: "Cerignola"

MODULE DATASHEET		QP - Inverter Electrical Characteristics		Voltage drop from Strings to QPS	
MODULE TYPE	SEC Sawi RECOPRE B&K	MAX DC/DC	1151.42 V	Modules per row (MPP)	20.00
Peak Power (P _{max})	(Wp)	Characteristics at STC	1393.20 V	Line per QP	10
Open Circuit Voltage (V _{oc})	(V)	V _{oc} OUT	128.80 A	Strings per QP	10.00
Optimum Operating Voltage (V _{mp})	(V)			Medium Length	≤ 45 m
Current (I _{mp})	(A)			Medium Resistance	0.1719 Ω
Temperature Co-efficient Voltage (β)				Section Line	10 mm
Temperature Co-efficient Current (α)	0.048 A/W°C			Voltage Drop at STC	0.19 %
				Voltage Drop at 65°C	0.17 %
				Voltage Drop at -10°C	0.18 %

CHARACTERISTICS FOR ONE STRING	
Modules for each 1	N° 20.00
Voltage	V _{mp} 1151.42
Current	A 12.88
Peak Power (P _{max})	Wp 14.65

FINAL DATA	
String to In	N° 315
Power of each String (P _{max})	479.25 kWp
Total Modules	N° 8190

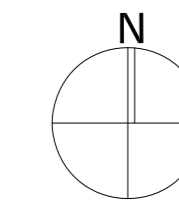
VALUES VERIFICATION FOR ONE QPS TO INVERTER

SW: Sunny Center 4000EV	
Estimation of the minimum voltage V _{mp} For a temperature of the modules that are 65°C	1296.14V MIN.MPP1 VOLTAGE 840 V
Estimation of the maximum current I _{mp} For a temperature of the modules that are 65°C	131.37 A
Estimation of the maximum input voltage V _{oc} For a temperature of the modules that are STC	1161.42V MAX.MPP1 VOLTAGE 1325 Vdc
Estimation of the maximum current I _{mp} For a temperature of the modules that are -10°C	126.64 A
Estimation of the maximum voltage V _{oc} For a temperature of the modules that are -10°C	1242.81V MAXIMUM VOLTAGE 1500 Vdc

CALCULATION OF THE VOLTAGE DROP ON THE CABLES STC

CODE	N° OF STRINGS TO QPS	AREAS	MINIMUM LENGTH	LINE SECTION	VOLTAGE DROP FROM QP TO INVERTER		TOTAL VOLTAGE DROP	NUMBER OF AREAS IN THE PV PLANT
					m	%		
SC01	9	A.01	141.00	70	0.73	0.90	1	
SC02	9	A.02	88.00	28	0.81	1.15	2	
SC03	9	A.03	82.00	25	0.80	1.10	3	
SC04	9	A.04	84.00	26	0.87	1.06	4	
SC05	9	A.05	130.00	50	0.84	1.10	5	
SC06	9	A.06	129.00	50	0.81	1.15	6	
SC07	9	A.07	82.00	25	0.85	1.10	7	
SC08	9	A.08	82.00	25	0.81	1.15	8	
SC09	9	A.09	171.00	70	0.89	1.10	9	
SC10	9	A.10	201.00	85	0.77	1.00	10	
SC11	9	A.11	149.00	70	0.77	1.00	11	
SC12	9	A.12	143.00	50	0.89	1.10	12	
SC13	9	A.13	112.00	70	0.81	1.10	13	
SC14	9	A.14	192.00	70	0.99	1.20	14	
SC15	9	A.15	212.00	85	0.86	1.10	15	
SC16	9	A.16	163.00	70	0.79	1.00	16	
SC17	9	A.17	179.00	85	0.83	1.10	17	
SC18	9	A.18	232.00	95	0.88	1.10	18	
SC19	9	A.19	262.00	95	1.00	1.20	19	
SC20	9	A.20	210.00	85	0.80	1.00	20	
SC21	9	A.21	183.00	70	0.85	1.10	21	
SC22	9	A.22	219.00	85	0.83	1.00	22	
SC23	9	A.23	285.00	100	0.86	1.10	23	
SC24	9	A.24	290.00	95	0.95	1.10	24	
SC25	9	A.25	214.00	85	0.82	1.00	24	
SC26	9	A.26	240.00	85	0.92	1.10	24	
SC27	9	A.27	250.00	100	0.88	1.10	24	
SC28	9	A.28	323.00	120	0.97	1.20	25	
SC29	9	A.29	270.00	120	0.81	1.00	25	
SC30	9	A.30	244.00	85	0.83	1.10	27	
SC31	8	A.31	281.00	85	0.85	1.10	28	
SC32	8	A.32	312.00	100	0.84	1.00	28	
SC33	8	A.33	312.00	100	0.84	1.00	30	
SC34	7	A.34	274.00	85	0.81	1.00	31	
SC35	7	A.35	301.00	85	0.89	1.10	32	
SC36	7	A.36	303.00	100	0.83	1.00	33	

MEAN VALUE	1.940 %
MINIMUM VALUE	0.800 %
MAXIMUM VALUE	1.200 %



CERIGNOLA 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 I - Dimensionamento delle dorsali-Tabella calcolo dorsali

Proponente: **CERIGNOLA SOLAR 2 S.R.L.**
Via Antonio Locatelli n.1
37122 Verona
P.IVA 0474163022
cerignolasolar2@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:

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

4.2.9.2.8

Fil: PE17Q60_ElaboratoGrafico_4.2.9.2.8 Cod. PE17Q60 Scal: 1:500

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