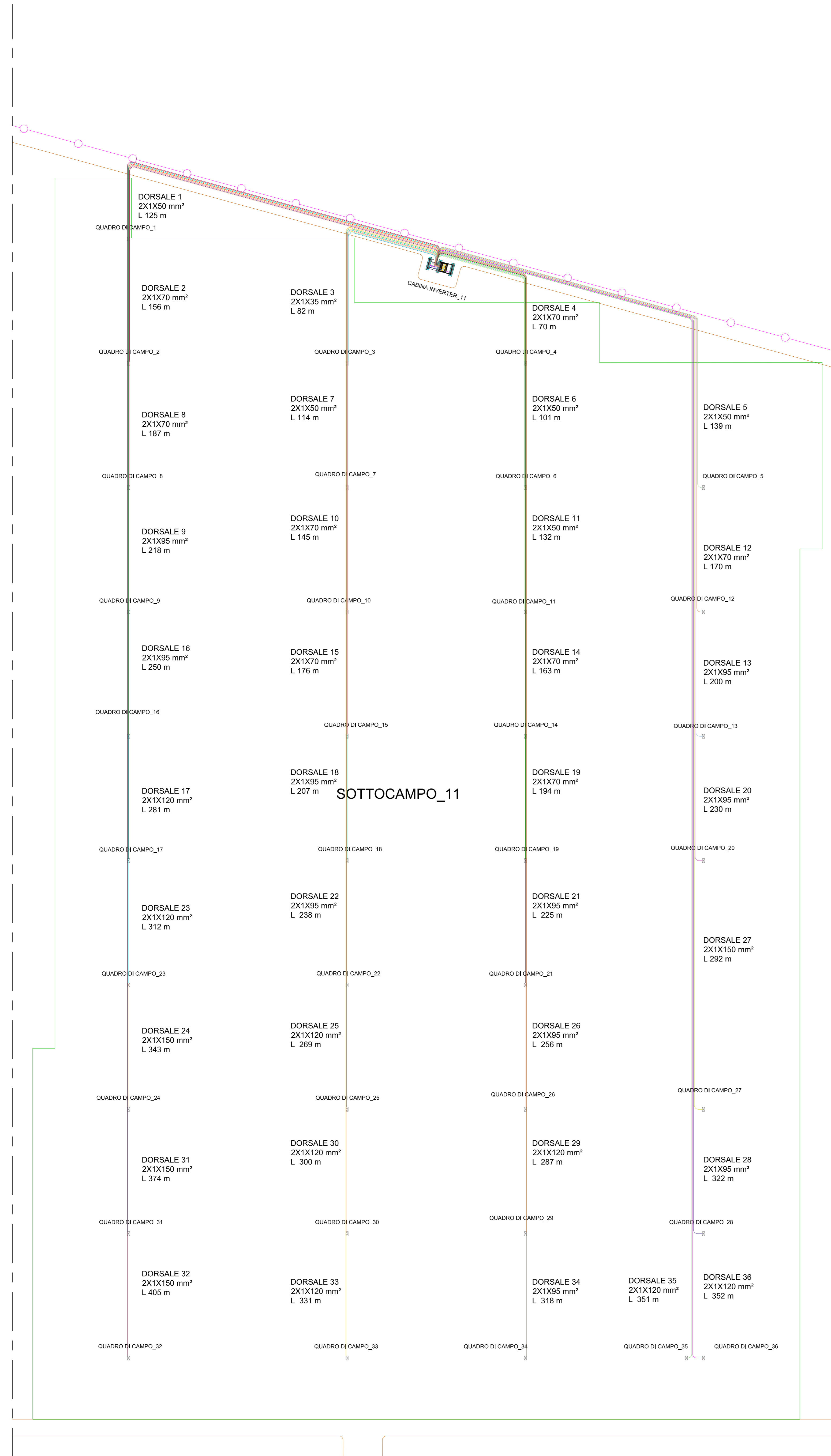


1. LEGENDA

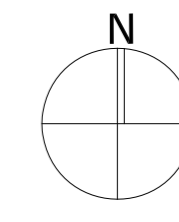
- AREA 01
- AREA 02
- AREA 03
- AREA 04
- AREA 05
- AREA 06
- AREA 07
- AREA 08
- AREA 09
- AREA 10
- AREA 11
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- AREA 31
- AREA 32
- AREA 33
- AREA 34
- AREA 35
- AREA 36



CABLING CALCULATION - "Cerignola"

MODULE DATA SHEET		GP - Inverter Electrical Characteristics		Voltage drop from Strings to GPS			
Module Type	REC Solar / REC SOLAR BLK	DC-OUT	1161.42 V	Module for each string	20.00		
Peak Power (P _{max})	(Wp)	575.00	Characteristics at STC	Line per GP	10		
Open Circuit Voltage (V _{oc})	(V)	53.30	V _{oc} OUT	String per GP	10.00		
Optimum Operating Voltage (V _{mp})	(V)	44.87	I _{sc}	Medium Length	≤ 45 m		
Current (I _{mp})	(A)	12.88		Medium Resistance	0.1719 Ω		
Temperature Coefficient Voltage (β)		-0.280 V/W°C		Section Line	10 mm		
Temperature Coefficient Current (α)		0.048 A/W°C		Voltage Drop at STC	0.19 %		
CHARACTERISTICS FOR ONE STRING				Voltage Drop at 65°C	0.17 %		
Modules for each 1	N°	20.00		Voltage Drop at -10°C	0.17 %		
Voltage	V _{mp}	1161.42					
Current	A	12.88					
Peak Power (P _{max})	KWp	14.95					
FINAL DATA							
String to the	N°	315					
Power of all Strings	(Peak)	4709.25 KWp					
Total Modules	N°	6300					
*GPS = Smart String Box							
VALUES VERIFICATION FOR ONE GPS TO INVERTER			SMC Sunny Central 4000-SEV				
Estimation of the minimum voltage V _{mp} For a temperature of the modules that are 65°C	1281.50V	MIN MPPT VOLTAGE	649 V				
Estimation of the maximum current I _{mp} For a temperature of the modules that are 65°C	131.27 A						
Estimation of the maximum voltage V _{oc} For a temperature of the modules that are STC	1161.42V	MAX MPPT VOLTAGE	1325 Vdc				
Estimation of the minimum current I _{mp} For a temperature of the modules that are -10°C	128.64 A						
Estimation of the maximum voltage V _{oc} For a temperature of the modules that are -10°C	1247.85V	MAXIMUM VOLTAGE	1500 Vdc				
CALCULATION OF THE VOLTAGE DROP ON THE CABLES STC							
CODE	N° OF STRINGS TO GPS	AREAS	MAXIMUM LENGTH	LINE SECTION	VOLTAGE DROP FROM DC TO INVERTER	TOTAL VOLTAGE DROP	NUMBER OF AREAS IN THE PLANT
SC 01	9	A 01	125.00	50	0.89	1.30	1
SC 02	9	A 02	158.00	50	0.79	1.00	2
SC 03	9	A 03	82.00	50	0.80	1.00	3
SC 04	9	A 04	70.00	50	1.00	1.20	4
SC 05	9	A 05	130.00	50	0.99	1.20	5
SC 06	9	A 06	101.00	50	0.72	0.90	6
SC 07	9	A 07	114.00	50	0.81	1.00	7
SC 08	9	A 08	187.00	50	0.95	1.30	8
SC 09	9	A 09	218.00	50	0.92	1.00	9
SC 10	9	A 10	145.00	50	0.74	0.90	10
SC 11	9	A 11	132.00	50	0.84	1.10	11
SC 12	9	A 12	170.00	50	0.86	1.10	12
SC 13	9	A 13	200.00	50	0.75	0.90	13
SC 14	9	A 14	150.00	50	0.83	1.00	14
SC 15	9	A 15	170.00	50	0.90	1.10	15
SC 16	9	A 16	250.00	50	0.84	1.10	16
SC 17	9	A 17	281.00	100	0.83	1.00	17
SC 18	9	A 18	207.00	95	0.78	1.00	18
SC 19	9	A 19	184.00	70	0.89	1.20	19
SC 20	9	A 20	230.00	95	0.86	1.10	20
SC 21	9	A 21	250.00	95	0.84	1.00	21
SC 22	9	A 22	238.00	100	0.89	1.10	22
SC 23	9	A 23	312.00	100	0.83	1.10	23
SC 24	9	A 24	240.00	100	0.81	1.00	24
SC 25	9	A 25	240.00	100	0.80	1.00	24
SC 26	9	A 26	256.00	95	0.96	1.20	24
SC 27	9	A 27	292.00	100	0.84	1.10	24
SC 28	7	A 28	322.00	95	0.84	1.10	25
SC 29	9	A 29	287.00	100	0.85	1.00	25
SC 30	9	A 30	300.00	100	0.89	1.10	27
SC 31	9	A 31	374.00	100	0.89	1.10	28
SC 32	8	A 32	405.00	100	0.85	1.00	29
SC 33	8	A 33	331.00	100	0.87	1.10	29
SC 34	7	A 34	318.00	95	0.93	1.10	31
SC 35	7	A 35	351.00	100	0.81	1.00	32
SC 36	8	A 36	352.00	100	0.93	1.10	33

MEDIAN VALOR	1.800 %
MINIMUM VALOR	0.800 %
MAXIMUM VALOR	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 11 - Dimensionamento delle dorsali-Tabella calcolo dorsali

Proprietario: 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 ingegneria@whgroup.eu

Spazio riservato agli Enti:

File: PE17Q0_ElaboratoGrafico_4.2.9_2.78	Cod. PE17Q0	Scala: 1:500		
Rev.	Data	Descrizione	Redatto	Approvato
00	08/03/2022	V.I.A. Minorile	A. Tartaglia	S.M. Caputo
4.2.9_2.78				
CERIGNOLA SOLAR 2 S.R.L. Via Antonio Locatelli n.1 37122 Verona cerignolasolar2@pec.it				