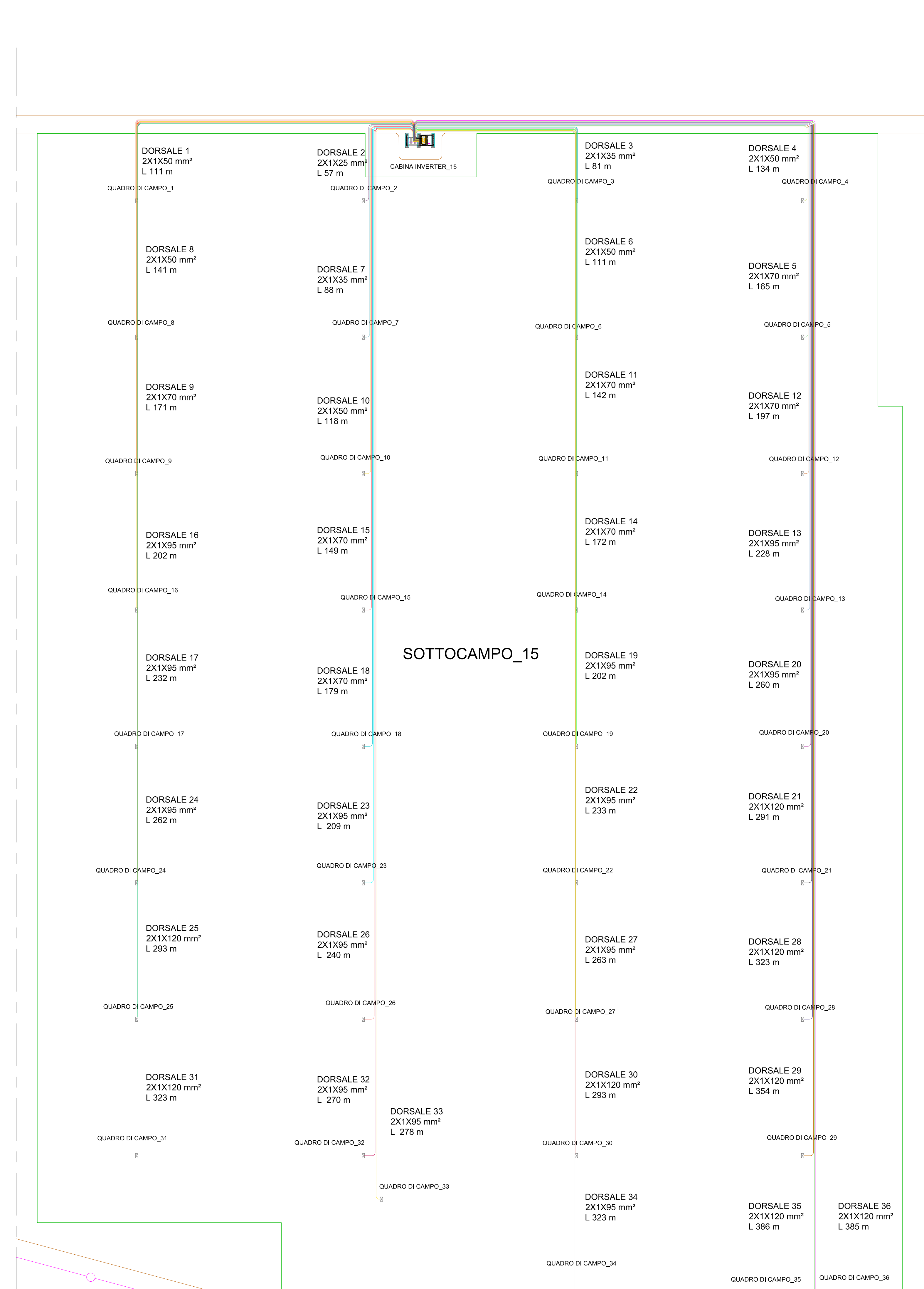


1. LEGENDA
- AREA 01
 - AREA 02
 - AREA 03
 - AREA 04
 - AREA 05
 - AREA 06
 - AREA 07
 - AREA 08
 - AREA 09
 - AREA 10
 - AREA 11
 - AREA 12
 - AREA 13
 - AREA 14
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 - AREA 31
 - AREA 32
 - AREA 33
 - AREA 34
 - AREA 35
 - AREA 36

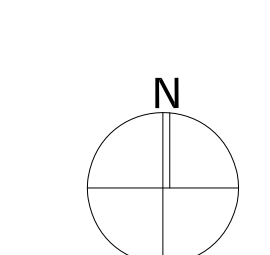


CABLING CALCULATION: "Cerignola"

QP - Inverter Electrical Characteristics

MODULE DATA SHEET		QP - Inverter Electrical Characteristics		Voltage drop from Strings to QPS			
MODULE TYPE	REC 56W / RECIPRO BPC	UP OUT	1161.42 V	Modules for each string	28.00		
Peak Power (Pm)	570.00 Wp	Vo OUT	1300.00 V	Line per QP	10		
Open Circuit Voltage (Voc)	(V) 53.20	Current at STC	128.80 A	Strings per QP	10.00		
Optimum Operating Voltage (Vmp)	(V) 44.67	Medium Length	4.45 m	Medium Reference	0.1710 Ω		
Current (Imp)	(A) 12.88	Section Line	10 mm²	Voltage Drop at STC	0.19 %		
Temperature Co-efficient Voltage (β)	-0.280 V/K°C	Voltage Drop at 65°C	0.17 %	Voltage Drop at 10°C	0.17 %		
Temperature Co-efficient Current (α)	0.048 A/K°C						
CHARACTERISTICS FOR ONE STRING							
Modules for each 1	N°	28.00					
Voltage	Vmp	1161.42					
Current	A	12.88					
Peak Power (Pm)	kWp	14.85					
FINAL DATA							
String to Inv	N°	312					
Power of all Strings (Peak)	kWp	4954.40					
Total Modules	N°	8112					
QP5 = short string 5m							
VALUES VERIFICATION FOR ONE QPS TO INVERTER		SMA - Sunny Central 4000-5V					
Estimation of the minimum voltage Vmp	1291.50V	MN MPPT VOLTAGE	840 V				
Estimation of the maximum current Imp	131.27 A	MAX MPPT VOLTAGE	1325 Vdc				
Estimation of the minimum current Imp	1161.42V	MAXIMUM VOLTAGE	1500 Vdc				
Estimation of the maximum voltage Voc	126.64 A						
Estimation of the maximum voltage Voc	1247.65V						
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
SC-01	9	A-01	111.00	50	0.83	1.00	1
SC-02	9	A-02	97.00	25	0.81	1.00	2
SC-03	9	A-03	81.00	35	0.82	1.00	3
SC-04	9	A-04	134.00	50	0.95	1.10	4
SC-05	9	A-05	165.00	70	0.84	1.00	5
SC-06	9	A-06	111.00	50	0.79	1.00	6
SC-07	9	A-07	88.00	35	0.90	1.10	7
SC-08	9	A-08	84.00	35	1.00	1.20	8
SC-09	9	A-09	171.00	70	0.87	1.10	9
SC-10	9	A-10	110.00	50	0.84	1.00	10
SC-11	9	A-11	142.00	70	0.72	0.90	11
SC-12	9	A-12	197.00	70	1.00	1.20	12
SC-13	9	A-13	226.00	60	0.85	1.00	13
SC-14	9	A-14	177.00	70	0.97	1.10	14
SC-15	9	A-15	146.00	70	0.76	1.00	15
SC-16	9	A-16	170.00	70	0.95	1.10	16
SC-17	9	A-17	232.00	60	0.87	1.10	17
SC-18	9	A-18	171.00	70	0.97	1.10	18
SC-19	9	A-19	202.00	60	0.76	1.00	19
SC-20	9	A-20	260.00	60	0.97	1.10	20
SC-21	9	A-21	291.00	120	0.86	1.10	21
SC-22	9	A-22	251.00	60	0.87	1.10	22
SC-23	9	A-23	209.00	60	0.78	1.00	23
SC-24	9	A-24	267.00	60	0.98	1.20	24
SC-25	9	A-25	293.00	120	0.87	1.10	24
SC-26	9	A-26	440.00	60	0.90	1.10	24
SC-27	9	A-27	283.00	60	0.99	1.20	24
SC-28	9	A-28	323.00	120	0.86	1.20	25
SC-29	7	A-29	354.00	120	0.82	1.00	25
SC-30	9	A-30	293.00	120	0.87	1.10	27
SC-31	9	A-31	353.00	120	0.90	1.20	28
SC-32	7	A-32	270.00	60	0.79	1.00	29
SC-33	7	A-33	270.00	60	0.81	1.00	30
SC-34	7	A-34	323.00	60	0.84	1.10	31
SC-35	7	A-35	386.00	120	0.89	1.10	32
SC-36	7	A-36	386.00	120	0.89	1.10	33

MEAN VALUE	1.927 %
MINIMUM VALUE	0.900 %
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 15 - 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 ingegnera@whgroup.eu

Spazio riservato agli Enti:

File: PE17Q0_ElaboratoGrafico_4.2.9_2.106 Cod. PE17Q06 Scab 1500

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

4.2.9_2.106

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