



Committente:

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PROCEDIMENTO VIA NAZIONALE

ai sensi dell'art. 23 bis del D.Lgs. 152/06 e s.m.i.

Denominazione progetto:

IMPIANTO FOTOVOLTAICO "LA COMUNA" di potenza 20,2176 MWp

Sito in:

COMUNE DI ARGENTA (FE)

Titolo elaborato:

Stima di producibilità dell'impianto



Elaborato n. **EL10**

Scala -

TIMBRI E FIRME:

Responsabile coordinamento e revisione progetto: **Dott.ssa Eliana Santoro**

Progettisti: **Ing. Nicodemo Agostino - Ordine degli Ingegneri di Vercelli - n° 1265A**

Collaboratori: **Ing. Marco Pignolo**



REV.:	REDAZIONE:	CONTROLLO:	DATA:
00	Ing. Nicodemo Agostino	Dott.ssa Eliana Santoro	20/10/2021
01			
02			
03			
04			

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PVsyst - Simulation report

Grid-Connected System

Project: ARGENTA LA COMUNA

Variant: Nuova variante di simulazione

Trackers single array, with backtracking

System power: 20.22 MWp

Celletta - Italy

Author

AENNE INGEGNERIA di AGOSTINO Ing. NICODEMO (Italy)



Project: ARGENTA LA COMUNA

Variant: Nuova variante di simulazione

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Project summary

Geographical Site		Situation		Project settings	
Celletta		Latitude	44.60 °N	Albedo	0.20
Italy		Longitude	11.87 °E		
		Altitude	11 m		
		Time zone	UTC+1		
Meteo data					
Celletta					
Meteonorm 8.0 (1991-2013), Sat=100% - Sintetico					

System summary

Grid-Connected System		Trackers single array, with backtracking			
PV Field Orientation		Near Shadings		User's needs	
Tracking plane, horizontal N-S axis		Linear shadings		Unlimited load (grid)	
Axis azimuth		0 °			
System information					
PV Array					
Nb. of modules	31104 units	Inverters		87 units	
Pnom total	20.22 MWp	Nb. of units		17.40 MWac	
		Pnom total		1.162	
		Pnom ratio			

Results summary

Produced Energy	30756 MWh/year	Specific production	1521 kWh/kWp/year	Perf. Ratio PR	89.80 %
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General parameters

Grid-Connected System		Trackers single array, with backtracking	
PV Field Orientation		Backtracking strategy	
Orientation		Nb. of trackers	486 units
Tracking plane, horizontal N-S axis		Single array	
Axis azimuth	0 °	Sizes	
		Tracker Spacing	10.00 m
		Collector width	4.79 m
		Ground Cov. Ratio (GCR)	47.9 %
		Phi min / max.	-/+ 60.0 °
		Backtracking limit angle	
		Phi limits	+/- 61.2 °
Horizon		Near Shadings	
Free Horizon		Linear shadings	
		Models used	
		Transposition	Perez
		Diffuse	Perez, Meteonorm
		Circumsolar	separate
		User's needs	
		Unlimited load (grid)	

PV Array Characteristics

PV module		Inverter	
Manufacturer	CSI Solar Co., Ltd.	Manufacturer	Huawei Technologies
Model	CS7N-650MB-AG 1500V	Model	SUN 2000-215KTL-H3
	(Original PVsyst database)		(Custom parameters definition)
Unit Nom. Power	650 Wp	Unit Nom. Power	200 kWac
Number of PV modules	31104 units	Number of inverters	87 units
Nominal (STC)	20.22 MWp	Total power	17400 kWac
Array #1 - Campo FV		Array #2 - Sottocampo #2	
Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series	Operating voltage	500-1500 V
At operating cond. (50°C)		Pnom ratio (DC:AC)	1.14
Pmpp	210 kWp		
U mpp	1085 V		
I mpp	194 A		
Array #3 - Sottocampo #3		Array #2 - Sottocampo #2	
Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series	Operating voltage	500-1500 V
At operating cond. (50°C)		Pnom ratio (DC:AC)	1.14
Pmpp	210 kWp		
U mpp	1085 V		
I mpp	194 A		
Array #3 - Sottocampo #3		Array #3 - Sottocampo #3	
Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series	Operating voltage	500-1500 V
At operating cond. (50°C)		Pnom ratio (DC:AC)	1.14
Pmpp	210 kWp		
U mpp	1085 V		
I mpp	194 A		



PV Array Characteristics

Array #4 - Sottocampo #4

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #5 - Sottocampo #5

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #6 - Sottocampo #6

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #7 - Sottocampo #7

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #8 - Sottocampo #8

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #9 - Sottocampo #9

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		



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PV Array Characteristics

Array #10 - Sottocampo #10

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #11 - Sottocampo #11

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #12 - Sottocampo #12

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #13 - Sottocampo #13

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #14 - Sottocampo #14

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #15 - Sottocampo #15

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		



PV Array Characteristics

Array #16 - Sottocampo #16

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #17 - Sottocampo #17

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #18 - Sottocampo #18

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #19 - Sottocampo #19

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #20 - Sottocampo #20

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #21 - Sottocampo #21

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		



PV Array Characteristics

Array #22 - Sottocampo #22

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #23 - Sottocampo #23

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #24 - Sottocampo #24

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #25 - Sottocampo #25

Number of PV modules 384 units
Nominal (STC) 250 kWp
Modules 12 Strings x 32 In series

At operating cond. (50°C)

Pmpp 229 kWp
U mpp 1085 V
I mpp 211 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.25

Array #26 - Sottocampo #26

Number of PV modules 384 units
Nominal (STC) 250 kWp
Modules 12 Strings x 32 In series

At operating cond. (50°C)

Pmpp 229 kWp
U mpp 1085 V
I mpp 211 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.25

Array #27 - Sottocampo #27

Number of PV modules 384 units
Nominal (STC) 250 kWp
Modules 12 Strings x 32 In series

At operating cond. (50°C)

Pmpp 229 kWp
U mpp 1085 V
I mpp 211 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.25



PV Array Characteristics

Array #28 - Sottocampo #28

Number of PV modules	384 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	250 kWp	Total power	200 kWac
Modules	12 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	229 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.25
I mpp	211 A		

Array #29 - Sottocampo #29

Number of PV modules	384 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	250 kWp	Total power	200 kWac
Modules	12 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	229 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.25
I mpp	211 A		

Array #30 - Sottocampo #30

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #31 - Sottocampo #31

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #32 - Sottocampo #32

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #33 - Sottocampo #33

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		



PV Array Characteristics

Array #34 - Sottocampo #34

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #35 - Sottocampo #35

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #36 - Sottocampo #36

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #37 - Sottocampo #37

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #38 - Sottocampo #38

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #39 - Sottocampo #39

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		



PV Array Characteristics

Array #40 - Sottocampo #40

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #41 - Sottocampo #41

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #42 - Sottocampo #42

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #43 - Sottocampo #43

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #44 - Sottocampo #44

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #45 - Sottocampo #45

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		



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PV Array Characteristics

Array #46 - Sottocampo #46

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #47 - Sottocampo #47

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #48 - Sottocampo #48

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #49 - Sottocampo #49

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #50 - Sottocampo #50

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #51 - Sottocampo #51

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14



PV Array Characteristics

Array #52 - Sottocampo #52

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #53 - Sottocampo #53

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #54 - Sottocampo #54

Number of PV modules 384 units
Nominal (STC) 250 kWp
Modules 12 Strings x 32 In series

At operating cond. (50°C)

Pmpp 229 kWp
U mpp 1085 V
I mpp 211 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.25

Array #55 - Sottocampo #55

Number of PV modules 384 units
Nominal (STC) 250 kWp
Modules 12 Strings x 32 In series

At operating cond. (50°C)

Pmpp 229 kWp
U mpp 1085 V
I mpp 211 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.25

Array #56 - Sottocampo #56

Number of PV modules 384 units
Nominal (STC) 250 kWp
Modules 12 Strings x 32 In series

At operating cond. (50°C)

Pmpp 229 kWp
U mpp 1085 V
I mpp 211 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.25

Array #57 - Sottocampo #57

Number of PV modules 384 units
Nominal (STC) 250 kWp
Modules 12 Strings x 32 In series

At operating cond. (50°C)

Pmpp 229 kWp
U mpp 1085 V
I mpp 211 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.25



PV Array Characteristics

Array #58 - Sottocampo #58

Number of PV modules	384 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	250 kWp	Total power	200 kWac
Modules	12 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	229 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.25
I mpp	211 A		

Array #59 - Sottocampo #59

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #60 - Sottocampo #60

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #61 - Sottocampo #61

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #62 - Sottocampo #62

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #63 - Sottocampo #63

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		



PV Array Characteristics

Array #64 - Sottocampo #64

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #65 - Sottocampo #65

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #66 - Sottocampo #66

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #67 - Sottocampo #67

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #68 - Sottocampo #68

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #69 - Sottocampo #69

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		



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PV Array Characteristics

Array #70 - Sottocampo #70

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #71 - Sottocampo #71

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #72 - Sottocampo #72

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #73 - Sottocampo #73

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #74 - Sottocampo #74

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14

Array #75 - Sottocampo #75

Number of PV modules 352 units
Nominal (STC) 229 kWp
Modules 11 Strings x 32 In series

At operating cond. (50°C)

Pmpp 210 kWp
U mpp 1085 V
I mpp 194 A

Number of inverters 3 * MPPT 33% 1 unit
Total power 200 kWac

Operating voltage 500-1500 V
Pnom ratio (DC:AC) 1.14



PV Array Characteristics

Array #76 - Sottocampo #76

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #77 - Sottocampo #77

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #78 - Sottocampo #78

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #79 - Sottocampo #79

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #80 - Sottocampo #80

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #81 - Sottocampo #81

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		



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PV Array Characteristics

Array #82 - Sottocampo #82

Number of PV modules	352 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	229 kWp	Total power	200 kWac
Modules	11 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	210 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.14
I mpp	194 A		

Array #83 - Sottocampo #83

Number of PV modules	384 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	250 kWp	Total power	200 kWac
Modules	12 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	229 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.25
I mpp	211 A		

Array #84 - Sottocampo #84

Number of PV modules	384 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	250 kWp	Total power	200 kWac
Modules	12 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	229 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.25
I mpp	211 A		

Array #85 - Sottocampo #85

Number of PV modules	384 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	250 kWp	Total power	200 kWac
Modules	12 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	229 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.25
I mpp	211 A		

Array #86 - Sottocampo #86

Number of PV modules	384 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	250 kWp	Total power	200 kWac
Modules	12 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	229 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.25
I mpp	211 A		

Array #87 - Sottocampo #87

Number of PV modules	384 units	Number of inverters	3 * MPPT 33% 1 unit
Nominal (STC)	250 kWp	Total power	200 kWac
Modules	12 Strings x 32 In series		
At operating cond. (50°C)			
Pmpp	229 kWp	Operating voltage	500-1500 V
U mpp	1085 V	Pnom ratio (DC:AC)	1.25
I mpp	211 A		



Project: ARGENTA LA COMUNA

Variant: Nuova variante di simulazione

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PV Array Characteristics

Total PV power		Total inverter power	
Nominal (STC)	20218 kWp	Total power	17400 kWac
Total	31104 modules	Nb. of inverters	87 units
Module area	96620 m ²	Pnom ratio	1.16



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Array losses

Thermal Loss factor

Module temperature according to irradiance
Uc (const) 29.0 W/m²K
Uv (wind) 0.0 W/m²K/m/s

Module Quality Loss

Loss Fraction -0.4 %

Module mismatch losses

Loss Fraction 2.0 % at MPP

Strings Mismatch loss

Loss Fraction 0.1 %

IAM loss factor

Incidence effect (IAM): User defined profile

20°	40°	60°	65°	70°	75°	80°	85°	90°
1.000	1.000	1.000	0.990	0.960	0.920	0.840	0.720	0.000

DC wiring losses

Global wiring resistance 1.0 mΩ
Loss Fraction 1.5 % at STC

Array #1 - Campo FV

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #3 - Sottocampo #3

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #5 - Sottocampo #5

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #7 - Sottocampo #7

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #9 - Sottocampo #9

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #11 - Sottocampo #11

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #13 - Sottocampo #13

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #15 - Sottocampo #15

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #17 - Sottocampo #17

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #19 - Sottocampo #19

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #21 - Sottocampo #21

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #23 - Sottocampo #23

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #2 - Sottocampo #2

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #4 - Sottocampo #4

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #6 - Sottocampo #6

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #8 - Sottocampo #8

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #10 - Sottocampo #10

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #12 - Sottocampo #12

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #14 - Sottocampo #14

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #16 - Sottocampo #16

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #18 - Sottocampo #18

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #20 - Sottocampo #20

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #22 - Sottocampo #22

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #24 - Sottocampo #24

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC



DC wiring losses

Array #25 - Sottocampo #25		Array #26 - Sottocampo #26	
Global array res.	85 mΩ	Global array res.	85 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #27 - Sottocampo #27		Array #28 - Sottocampo #28	
Global array res.	85 mΩ	Global array res.	85 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #29 - Sottocampo #29		Array #30 - Sottocampo #30	
Global array res.	85 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #31 - Sottocampo #31		Array #32 - Sottocampo #32	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #33 - Sottocampo #33		Array #34 - Sottocampo #34	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #35 - Sottocampo #35		Array #36 - Sottocampo #36	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #37 - Sottocampo #37		Array #38 - Sottocampo #38	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #39 - Sottocampo #39		Array #40 - Sottocampo #40	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #41 - Sottocampo #41		Array #42 - Sottocampo #42	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #43 - Sottocampo #43		Array #44 - Sottocampo #44	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #45 - Sottocampo #45		Array #46 - Sottocampo #46	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #47 - Sottocampo #47		Array #48 - Sottocampo #48	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #49 - Sottocampo #49		Array #50 - Sottocampo #50	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #51 - Sottocampo #51		Array #52 - Sottocampo #52	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #53 - Sottocampo #53		Array #54 - Sottocampo #54	
Global array res.	92 mΩ	Global array res.	85 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #55 - Sottocampo #55		Array #56 - Sottocampo #56	
Global array res.	85 mΩ	Global array res.	85 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #57 - Sottocampo #57		Array #58 - Sottocampo #58	
Global array res.	85 mΩ	Global array res.	85 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC
Array #59 - Sottocampo #59		Array #60 - Sottocampo #60	
Global array res.	92 mΩ	Global array res.	92 mΩ
Loss Fraction	1.5 % at STC	Loss Fraction	1.5 % at STC



DC wiring losses

Array #61 - Sottocampo #61

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #63 - Sottocampo #63

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #65 - Sottocampo #65

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #67 - Sottocampo #67

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #69 - Sottocampo #69

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #71 - Sottocampo #71

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #73 - Sottocampo #73

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #75 - Sottocampo #75

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #77 - Sottocampo #77

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #79 - Sottocampo #79

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #81 - Sottocampo #81

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #83 - Sottocampo #83

Global array res. 85 mΩ
Loss Fraction 1.5 % at STC

Array #85 - Sottocampo #85

Global array res. 85 mΩ
Loss Fraction 1.5 % at STC

Array #87 - Sottocampo #87

Global array res. 85 mΩ
Loss Fraction 1.5 % at STC

Array #62 - Sottocampo #62

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #64 - Sottocampo #64

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #66 - Sottocampo #66

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #68 - Sottocampo #68

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #70 - Sottocampo #70

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #72 - Sottocampo #72

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #74 - Sottocampo #74

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #76 - Sottocampo #76

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #78 - Sottocampo #78

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #80 - Sottocampo #80

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #82 - Sottocampo #82

Global array res. 92 mΩ
Loss Fraction 1.5 % at STC

Array #84 - Sottocampo #84

Global array res. 85 mΩ
Loss Fraction 1.5 % at STC

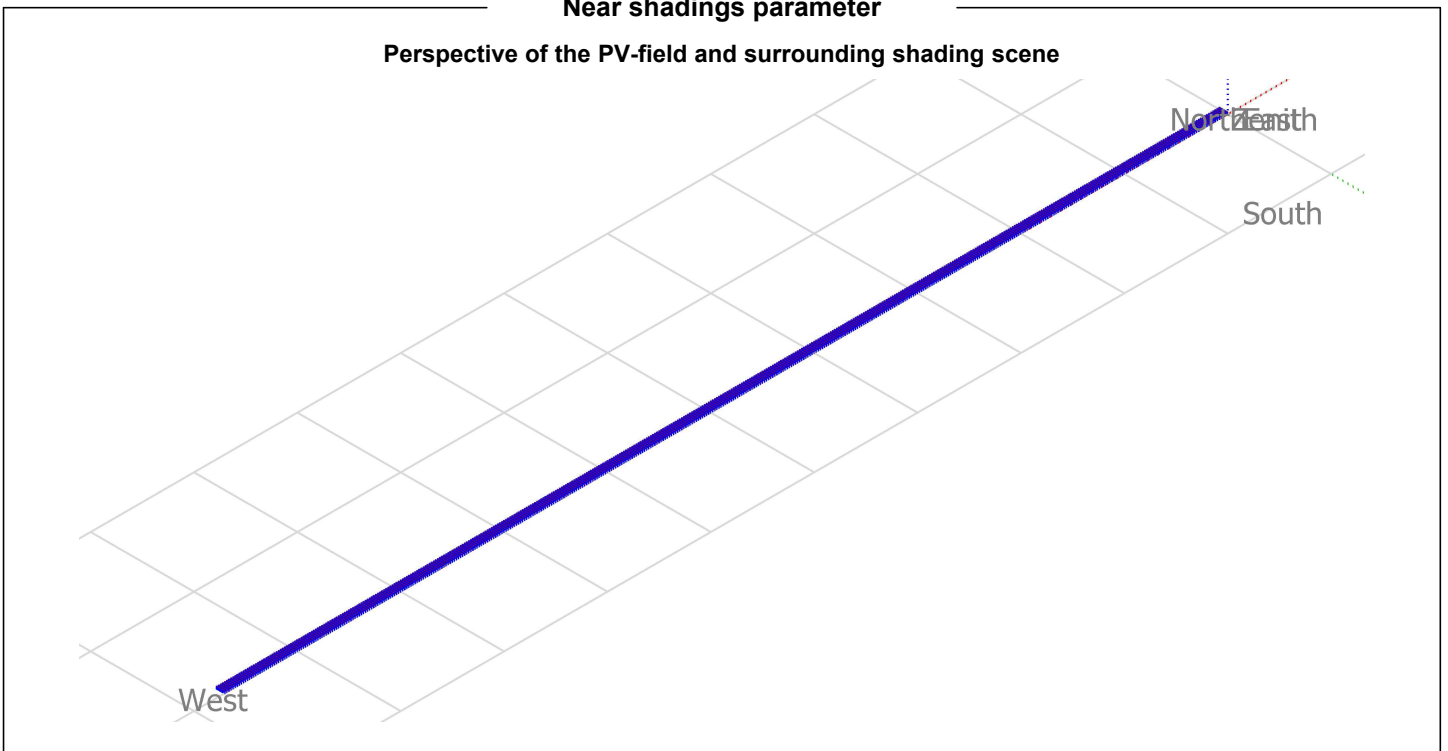
Array #86 - Sottocampo #86

Global array res. 85 mΩ
Loss Fraction 1.5 % at STC



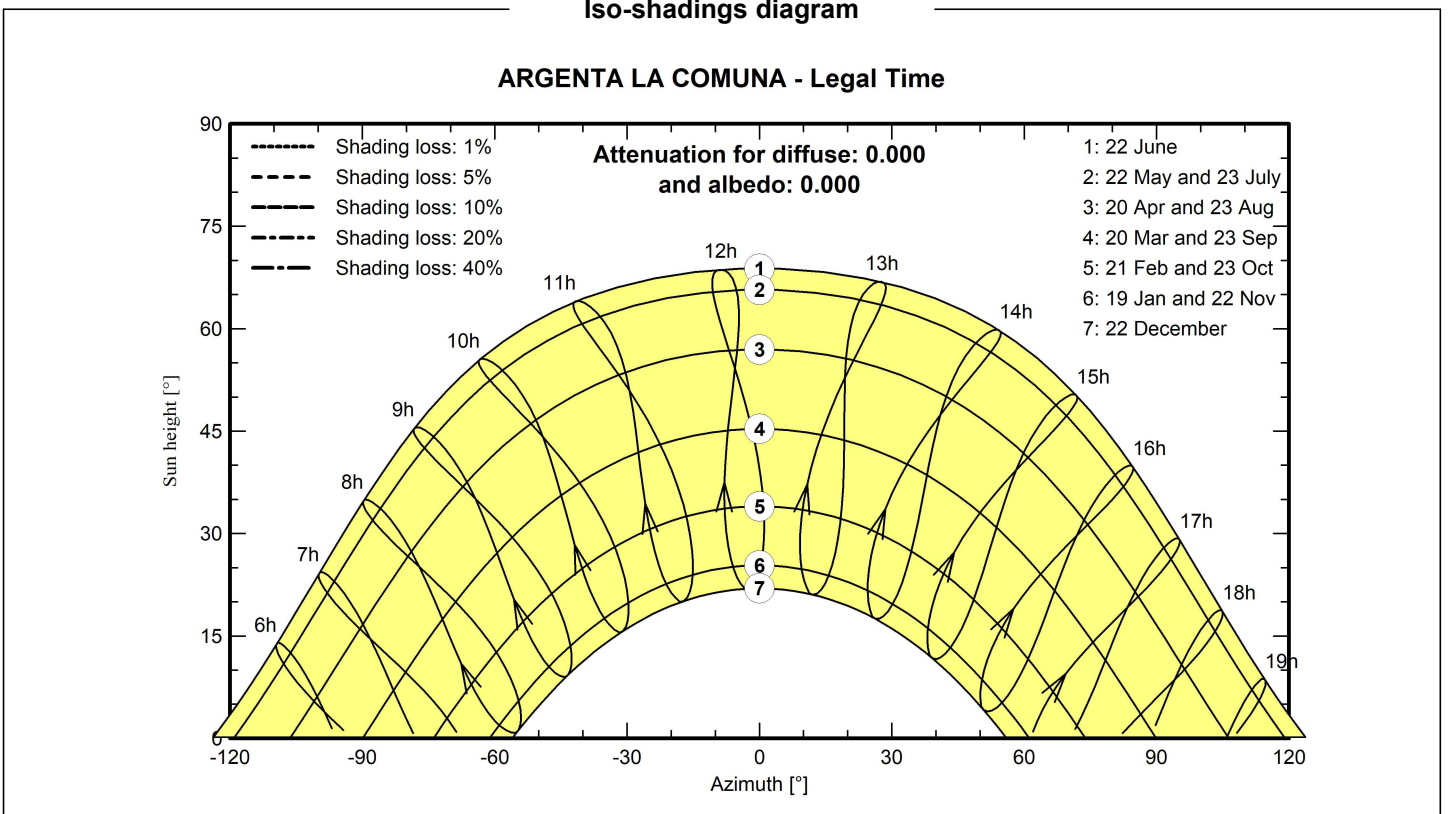
Near shadings parameter

Perspective of the PV-field and surrounding shading scene



Iso-shadings diagram

ARGENTA LA COMUNA - Legal Time





Project: ARGENTA LA COMUNA

Variant: Nuova variante di simulazione

PVsyst V7.2.7

VC0, Simulation date:
23/10/21 16:43
with v7.2.7

AENNE INGEGNERIA di AGOSTINO Ing. NICODEMO (Italy)

Main results

System Production

Produced Energy 30756 MWh/year

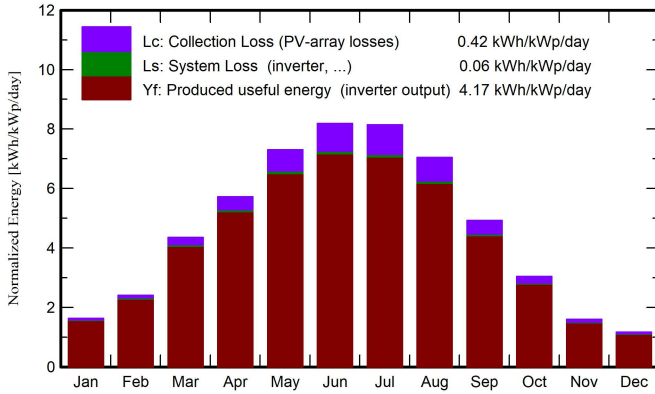
Specific production

1521 kWh/kWp/year

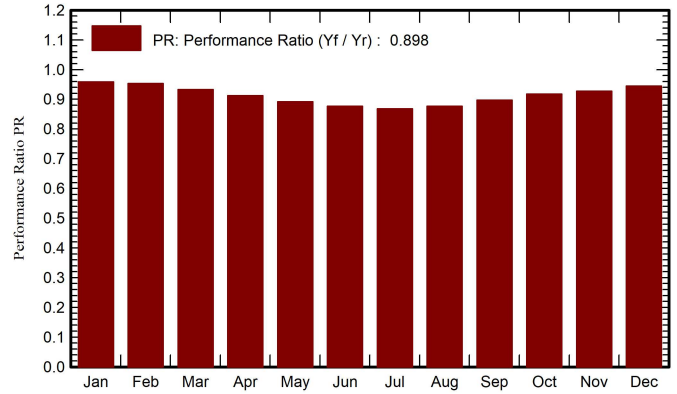
Performance Ratio PR

89.80 %

Normalized productions (per installed kWp)



Performance Ratio PR



Balances and main results

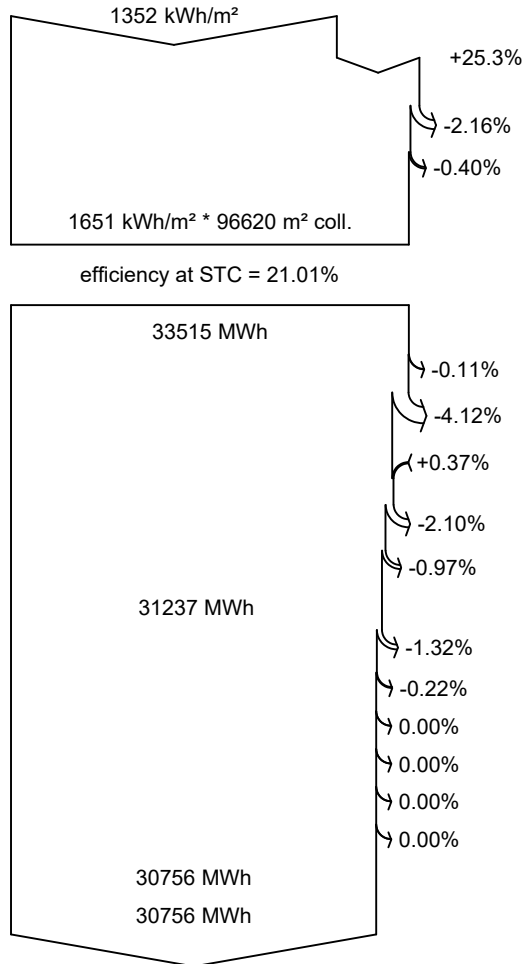
	GlobHor kWh/m ²	DiffHor kWh/m ²	T_Amb °C	GlobInc kWh/m ²	GlobEff kWh/m ²	EArray MWh	E_Grid MWh	PR ratio
January	40.9	23.81	2.95	50.7	48.8	998	981	0.958
February	54.4	29.09	5.15	67.3	65.3	1317	1297	0.953
March	107.6	51.57	9.97	135.0	131.4	2581	2548	0.933
April	136.4	63.01	14.20	171.7	167.6	3210	3168	0.912
May	180.7	83.50	19.46	226.3	220.9	4133	4081	0.892
June	195.7	88.43	24.06	245.6	240.0	4406	4352	0.876
July	198.5	80.72	26.50	252.4	247.2	4487	4430	0.868
August	171.6	72.70	25.90	218.5	213.7	3922	3873	0.877
September	118.5	60.53	20.27	147.8	143.8	2716	2682	0.897
October	76.4	43.94	15.69	94.3	91.4	1774	1750	0.918
November	41.0	26.25	9.85	48.1	46.2	918	902	0.928
December	30.4	21.14	4.41	36.2	34.6	706	691	0.945
Year	1352.1	644.68	14.92	1694.0	1650.7	31169	30756	0.898

Legends

GlobHor	Global horizontal irradiation	EArray	Effective energy at the output of the array
DiffHor	Horizontal diffuse irradiation	E_Grid	Energy injected into grid
T_Amb	Ambient Temperature	PR	Performance Ratio
GlobInc	Global incident in coll. plane		
GlobEff	Effective Global, corr. for IAM and shadings		



Loss diagram



Global horizontal irradiation

Global incident in coll. plane

Near Shadings: irradiance loss

IAM factor on global

Effective irradiation on collectors

PV conversion

Array nominal energy (at STC effic.)

PV loss due to irradiance level

PV loss due to temperature

Module quality loss

Mismatch loss, modules and strings

Ohmic wiring loss

Array virtual energy at MPP

Inverter Loss during operation (efficiency)

Inverter Loss over nominal inv. power

Inverter Loss due to max. input current

Inverter Loss over nominal inv. voltage

Inverter Loss due to power threshold

Inverter Loss due to voltage threshold

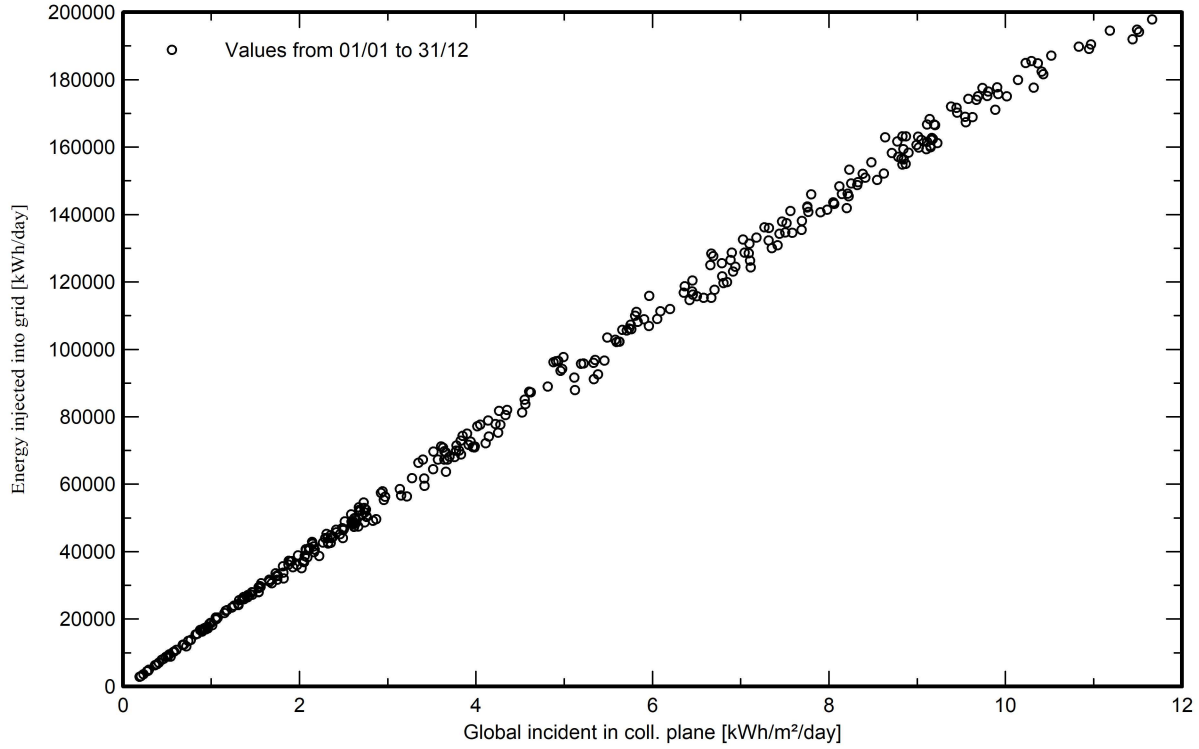
Available Energy at Inverter Output

Energy injected into grid



Special graphs

Diagramma giornaliero entrata/uscita



Distribuzione potenza in uscita sistema

