

Comune di : ROTELLO  
Provincia di : CAMPOBASSO  
Regione : MOLISE



PROPONENTE

## PODINI S.P.A.

Via Lattuada, 30 - 20135 MILANO (MI)  
C.F. e P. IVA IT02246400218

OPERA

## PROGETTO DEFINITIVO

IMPIANTO DI PRODUZIONE DI ENERGIA ELETTRICA DA FONTE  
RINNOVABILE AGRIVOLTAICA DI POTENZA NOMINALE PARI A  
43.298,50 kWp CON SISTEMA DI ACCUMULO INTEGRATO E RELATIVE  
OPERE DI CONNESSIONE ALLA RETE RTN

### "SOLARE ROTELLO - PIANO DELLA FONTANA"

OGGETTO

TITOLO ELABORATO :

SCHEDA TECNICA INVERTER

DATA : 22 febbraio 2024

N°/CODICE ELABORATO :

SCALA : -----

Tipologia : EL (ELABORATI)

EL 017

I TECNICI

PROGETTISTI:



EDILSAP s.r.l.  
Via di Selva Candida, 452  
00166 ROMA  
Ing. Fernando Sonnino  
Project Manager

TIMBRI E FIRME:



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202202141

Emissione per Istanza VIA E A.U.

EDILSAP srl

Ing. Fernando Sonnino

Ing. Fernando Sonnino

N° REVISIONE

Cod. STMG

OGGETTO DELLA REVISIONE

ELABORAZIONE

VERIFICA

APPROVAZIONE

# SG350HX

Multi-MPPT String Inverter for 1500 Vdc System

Preliminary



## HIGH YIELD

- Up to 16 MPPTs with max. efficiency 99%
- 20A per string, compatible with 500Wp+ module
- Data exchange with tracker system, improving yield

## Low Cost

- Q at night function, save investment
- Power line communication (PLC)
- Smart IV Curve diagnosis\*, active O&M

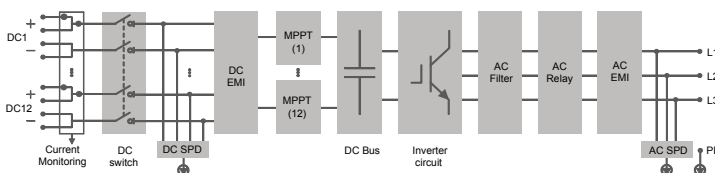
## Grid Support

- $SCR \geq 1.16$  stable operation in extremely weak grid
- Reactive power response time <30ms
- Compliant with global grid code

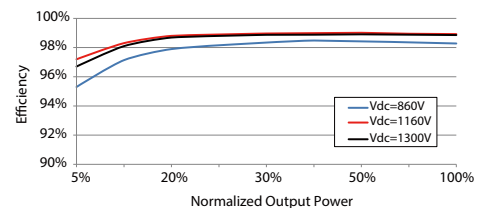
## PROVEN SAFETY

- 2 strings per MPPT, no fear of string reverse connection
- Integrated DC switch, automatically cut off the fault
- 24h real-time AC and DC insulation monitoring

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE



Type designation	SG350HX
<b>Input (DC)</b>	
Max. PV input voltage	1500 V
Min. PV input voltage / Startup input voltage	500 V / 550 V
Nominal PV input voltage	1080 V
MPP voltage range	500 V – 1500 V
MPP voltage range for nominal power	860 V – 1300 V
No. of independent MPP inputs	12 (Optional: 14 / 16)
Max. number of input connector per MPPT	2
Max. PV input current	12 * 40 A (Optional: 14 * 30 A / 16 * 30 A)
Max. DC short-circuit current per MPPT	60 A
<b>Output (AC)</b>	
AC output power	352 kVA @ 30 °C / 320 kVA @40 °C / 295 kVA @50 °C
Max. AC output current	254 A
Nominal AC voltage	3 / PE, 800 V
AC voltage range	640 – 920 V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
THD	< 3 % (at nominal power)
DC current injection	< 0.5 % In
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / Connection phases	3 / 3
<b>Efficiency</b>	
Max. efficiency / European efficiency / CEC	99.01 % / 98.8 % / 98.5 %
<b>Protection</b>	
DC reverse connection protection	Yes
AC short circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
Ground fault monitoring	Yes
DC switch/ AC switch	Yes / No
PV String current monitoring	Yes
Q at night function	Yes
Anti-PID and PID recovery function	Optional
Overvoltage protection	DC Type II / AC Type II
<b>General Data</b>	
Dimensions (W*H*D)	1136*870*361 mm (44.7" * 34.3" * 14.2")
Weight	≤110 kg (≤242.5 lbs)
Isolation method	Transformerless
Ingress protection rating	IP66 (NEMA 4X)
Night power consumption	< 6 W
Operating ambient temperature range	-30 to 60 °C (-22 to 140 °F)
Allowable relative humidity range (non-condensing)	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m (> 3000 m derating) / 13123 ft (> 9843 ft derating)
Display	LED, Bluetooth+APP
Communication	RS485 / PLC
DC connection type	MC4-Evo2 (Max. 6 mm <sup>2</sup> , optional 10mm <sup>2</sup> / Max. 10AWG, optional 8AWG )
AC connection type	Support OT/DT terminal (Max. 400 mm <sup>2</sup> / 789 Kcmil)
Compliance	IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4120:2018, EN 50549-1/2, UNE 206007-1:2013, P.O.12.3, UTE C15-712-1:2013, UL1741, UL1741SA, IEEEE1547, IEEEE1547.1, CSA C22.2 107.1-01-2001, California Rule 21, UL1699B
Grid support	Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control, Q-U control, P-f control

\*: Only compatible with Sungrow logger and iSolarCloud