

GENERAL	
Tracking Range	120° (-60° to +90°)
Tracking System	Single axis
Panel Orientation	Z-Landscape
ZL Benefits	Higher bifacial gains, optimized shading, rotation around center of gravity
Tracker Size	Tracker length ranges between 8-24 modules
Ground Coverage Ratio	GCR 30-65%
Modules Supported	All available modules
Energy Gain vs. Fixed Tilt	Up to 25%, site specific
Tracker Output	Up to 13 kW DC
Slope Tolerance	N-S: up to 30% E-W: any slope
String Voltage	Compatible with any string size

TRACKER CONTROL / HARDWARE AND INSTRUMENTATION	
Drive Unit	Three gear cascade - planetary, worm, chain
	Overall reduction ratio ~13,000:1
	Drive system - stepper motor
Tracker Control Unit (TCU)	Proprietary controller
	<b>Option 1:</b> Self-powered tracker 20-50V, Li-ion 11.1V 40Wh battery Battery protection <span style="margin-left: 100px;"><b>Option 2:</b> Grid version, 20-30V</span>
Tracker Power Consumption	Idle: 1.5W    Standard motion: 5W    Maximum: ~15W ~14kWh/year/tracker
Control Electronics	One MCU (Master Control Unit) per cluster and one TCU (Tracker Control Unit) per tracker
Drive Unit	Weight: 8 kg (17.6 lbs.)

TRACKER CONTROL / SOFTWARE AND ALGORITHMS	
Tracking and Algorithms	Backtracking Smart Backtracking Diffuse Optimization Intermittency Mitigation Dirt Minimization Algorithm
Tracking Accuracy	± 2°

TRACKER CONTROL / SOFTWARE AND ALGORITHMS (Continued)	
Agricultural Control Monitoring	SCADA integration with crop models
Stow	Nighttime stow: configurable, prevents dust accumulation Dynamic stowing based on weather conditions
Communication Architecture / SCADA	MODBUS over Ethernet or wired RS485 to third-party SCADA <b>SolarGik proprietary SCADA solution - optional</b>
Monitoring	Portal interface displaying tracker status and generation, performance, weather and irradiance data
Tracker Control Unit (TCU)	WiFi 2.4 GHz or WiFi Mesh 2.4 GHz

TRACKER CONTROL / SENSORS	
Agricultural Systems	Plant-level sensors
Weather System	Irradiance: GHI (default) GTI, RH, BM, temperature (optional)
	Wind speed (default) Wind direction (optional)
	Snow sensor (site dependent)
Camera System	Fish-eye cloud camera (optional) HD & IR camera (optional)

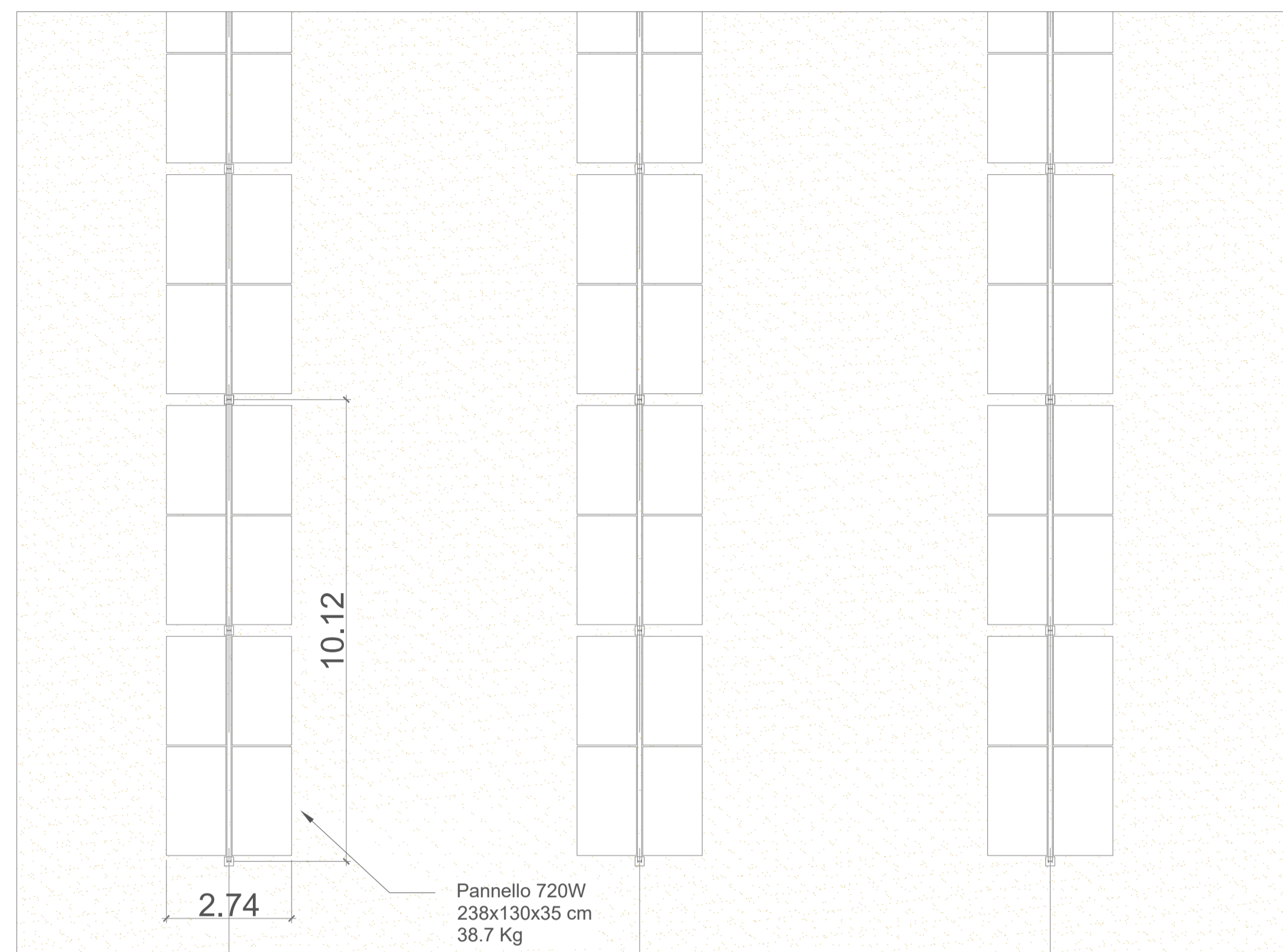
STRUCTURAL	
Total Length	Between 14.5-28.4m (47.5-93.2 ft)
Tracker Weight	25-30 kg/kW
Axis Height	Site specific
Tracker Body	Standard profile
	2 support beams per module
Tracker Mounting	I shape
	4-7 poles per tracker 300-450 poles per MW (typical)
Materials	Galvanized steel

ENVIRONMENTAL	
Design Wind Speed	ASCE 7-22 Standard operating wind load 145-185 kmh (90-115 mph) Special design 240 kmh (150 mph)

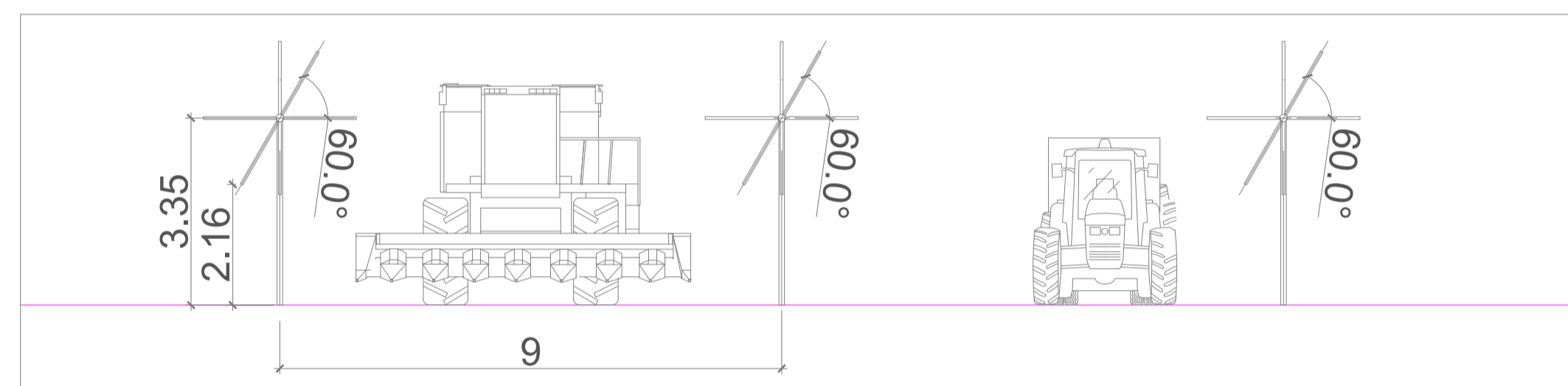
ENVIRONMENTAL (Continued)	
Temperature Range	Operation: -25°C to 50°C (-13°F to 122°F) Survival: -40°C to 60°C (-40°F to 140°F)
Snow Load	Tailored to site requirement

STANDARDS AND CERTIFICATIONS	
Standards and Certifications	ANSI, NEMA, NFPA, IEC, UL, CE

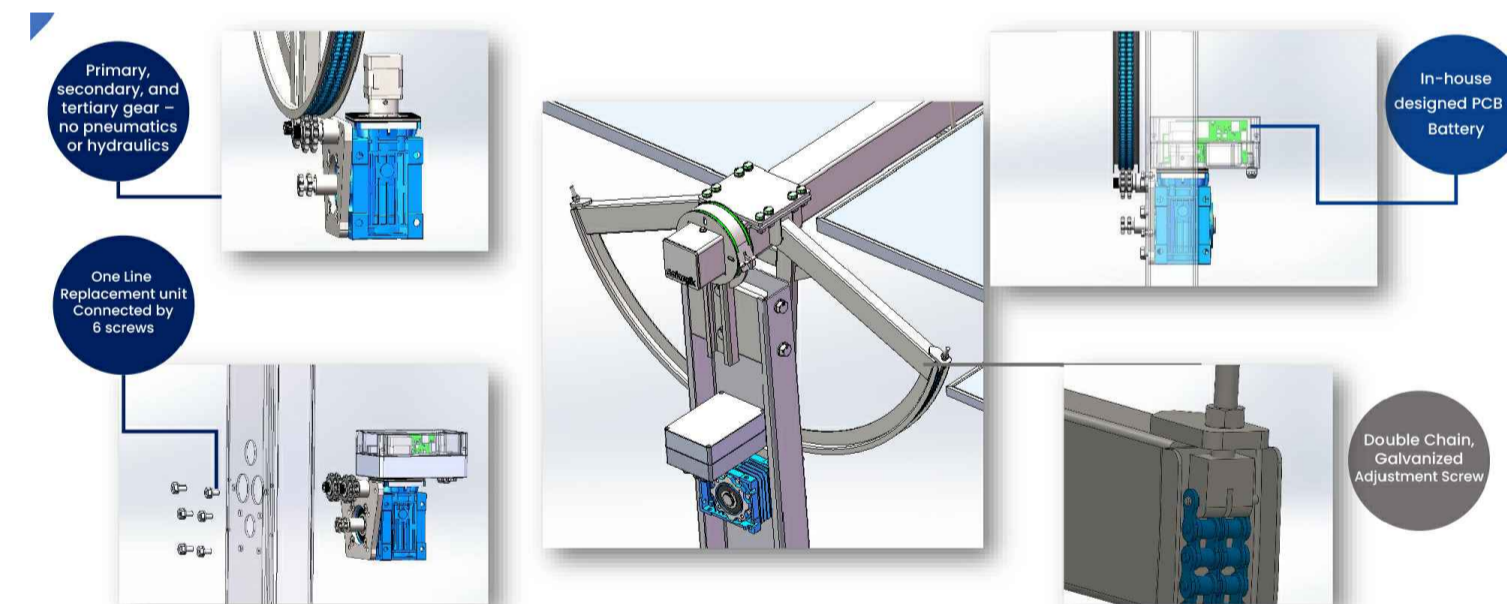
INSTALLATION, SERVICES, MAINTENANCE & WARRANTY	
Maintenance	Zero maintenance design (regular maintenance not required)
Installation Requirements	No fabrication required
Warranty	10-year Structural 5-year Drive Unit



Strutture a inseguimento monoassiale tipo SolarGik  
Scala 1:100



Sezione strutture a inseguimento monoassiale tipo SolarGik  
Scala 1:100



Dettagli strutture a inseguimento monoassiale tipo SolarGik



Immagine strutture a inseguimento monoassiale tipo SolarGik

**Himalaya G12 Series 700-720W**  
132-cell Bifacial HJT Solar Half Cell Module

• Bloomberg NEEF Tier 1 PV module manufacturer  
• Reinsurance underwritten by Ariel Re

Engineering Drawings	Unit: mm	Electrical Characteristics (STC*)
HS 210-8132	D5700 D5705 D5710 D5715 D5720	Maximum Power (P <sub>max</sub> ) 700W 705W 710W 715W 720W Module Efficiency (%) 22.53% 22.70% 22.86% 23.02% 23.18% Optimum Operating Voltage (V <sub>mp</sub> ) 42.10V 42.25V 42.39V 42.54V 42.68V Optimum Operating Current (I <sub>mp</sub> ) 16.63A 16.68A 16.75A 16.81A 16.87A Open Circuit Voltage (V <sub>oc</sub> ) 50.13V 50.29V 50.44V 50.59V 50.74V Short Circuit Current (I <sub>sc</sub> ) 17.43A 17.48A 17.55A 17.61A 17.67A Operating Module Temperature -40 to +85 °C Maximum System Voltage DC-1500V (IEC) Maximum Series Fuse 30A Power Tolerance 0 to +5W Bifaciality 85% ± 5% <small>*STC: Irradiance 1000 W/m², cell temperature 25 °C, AM=1.5, Tolerance of Panel is within ± 3%.</small>
		BSTC**
		Maximum Power (P <sub>max</sub> ) 770W 775W 780W 785W 790W Optimum Operating Voltage (V <sub>mp</sub> ) 42.10V 42.25V 42.39V 42.54V 42.68V Optimum Operating Current (I <sub>mp</sub> ) 18.29A 18.35A 18.41A 18.46A 18.51A Open Circuit Voltage (V <sub>oc</sub> ) 50.13V 50.29V 50.44V 50.59V 50.74V Short Circuit Current (I <sub>sc</sub> ) 19.57A 19.22A 19.28A 19.33A 19.38A <small>**STC: Front side irradiance 1000W/m², back side irradiance 1000W/m², AM=1.5, ambient temperature 25 °C.</small>
		Mechanical Characteristics
		Cell Type HJT Mono 210 × 105mm Cell Connection 132 (6) × 22 Module Dimension 2384 × 1303 × 35 mm Weight 38.7 kg Junction Box IP68 Output Cable 4mm², 300mm in length, can be customized / UV resistant Connectors Type MC4 original / MC4 compatible Frame Anodized aluminum alloy Front Load 5400 Pa Rear Load 2400 Pa Glass Thickness Double glass, 2.0mm
		Shipping Configurations
		Container Size HC Pallets Per Container 47 Modules Per Pallet (pcs) 18 Modules Per Container (pcs) 31 Modules Per Container (pcs) 558

**Temperature Characteristics**  
 Normal Operating Cell Temp. (NOCT) 44.0 ± 1.2 °C  
 Temperature Coefficient of P<sub>max</sub> -0.26%/°C  
 Temperature Coefficient of V<sub>oc</sub> -0.24%/°C  
 Temperature Coefficient of I<sub>sc</sub> 0.04%/°C

**Safety & Warranty**  
 Safety Class Class II  
 Product Warranty 15 yrs Workmanship  
 Performance Warranty 30 yrs Linear Warranty\*

\*Less than 1% attenuation in the 1st year, the annual attenuation from the 2nd year to 30 years shall not exceed 0.57%, and the power to be less than 80% after the 30th year.

**PERC Standard vs. HUSUN HJT Module**

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Scheda pannello HUSUN Himalaya G12 - 720W



PROGETTO PER LA REALIZZAZIONE DEL NUOVO PARCO AGRICOLA-NATURALISTICO-VOLTAICO DELL'ALTA MURGIA E DELLE RELATIVE OPERE DI CONNESSIONE ALLA RTN LOCALITA' MASSERIA CAPUTI COMUNE DI MINERVINO MURGE (BAT) DENOMINAZIONE IMPIANTO - PVA005 MINERVINO - MASSERIA CAPUTI POTENZA NOMINALE 55 MW

**PROGETTO DEFINITIVO - SIA**

<p>PROGETTAZIONE E SIA</p> <p><b>HOPE engineering</b> ing. Fabio PACCAPELO ing. Andrea ANGELINI arch. Gaetano FORNARELLI dott.ssa Anastasia AGNOU</p>	<p>AGRONOMIA E STUDI COLTURALI</p> <p>dott.ssa Lucia PESOLA</p> <p>STUDI SPECIALISTICI E AMBIENTALI</p> <p>MICROCLIMATICA dott.ssa Elisa GATTO</p> <p>ARCHEOLOGIA dott.ssa Domenica CARRASSO</p> <p>GEOLOGIA Apogeo Srl</p> <p>ACUSTICA dott.ssa Sabrina SCARAMUZZI</p> <p>FAUNISTICA dott. Fabio Mastropasqua</p>
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**EG.4 LAYOUT IMPIANTO**

**EG.4.7 Particolari tipologici : strutture a inseguimento monoassiale**

Scala 1:100

REV.	DATA	DESCRIZIONE
02-24		prima emissione

