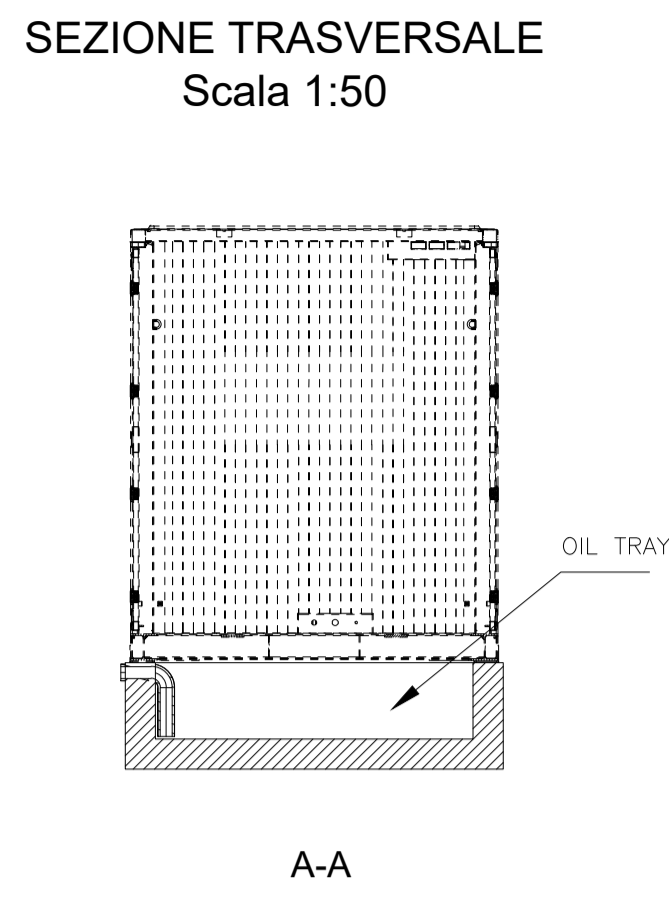
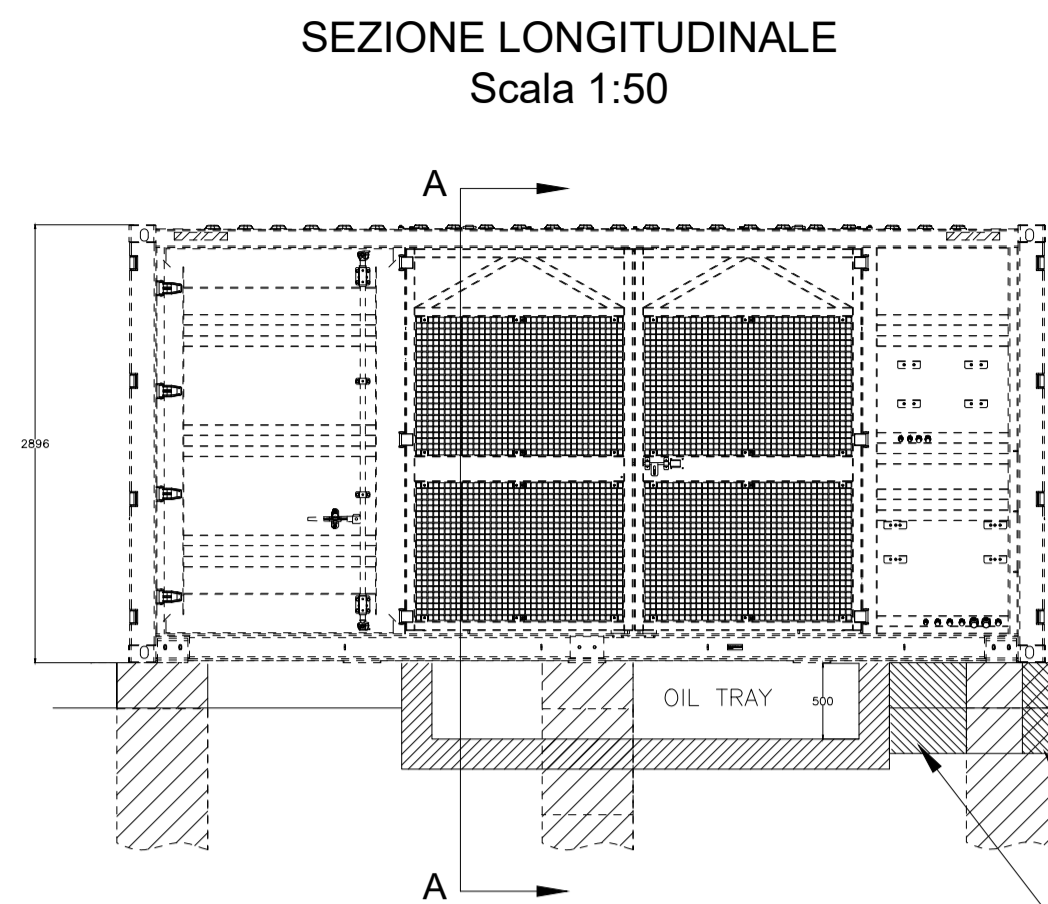
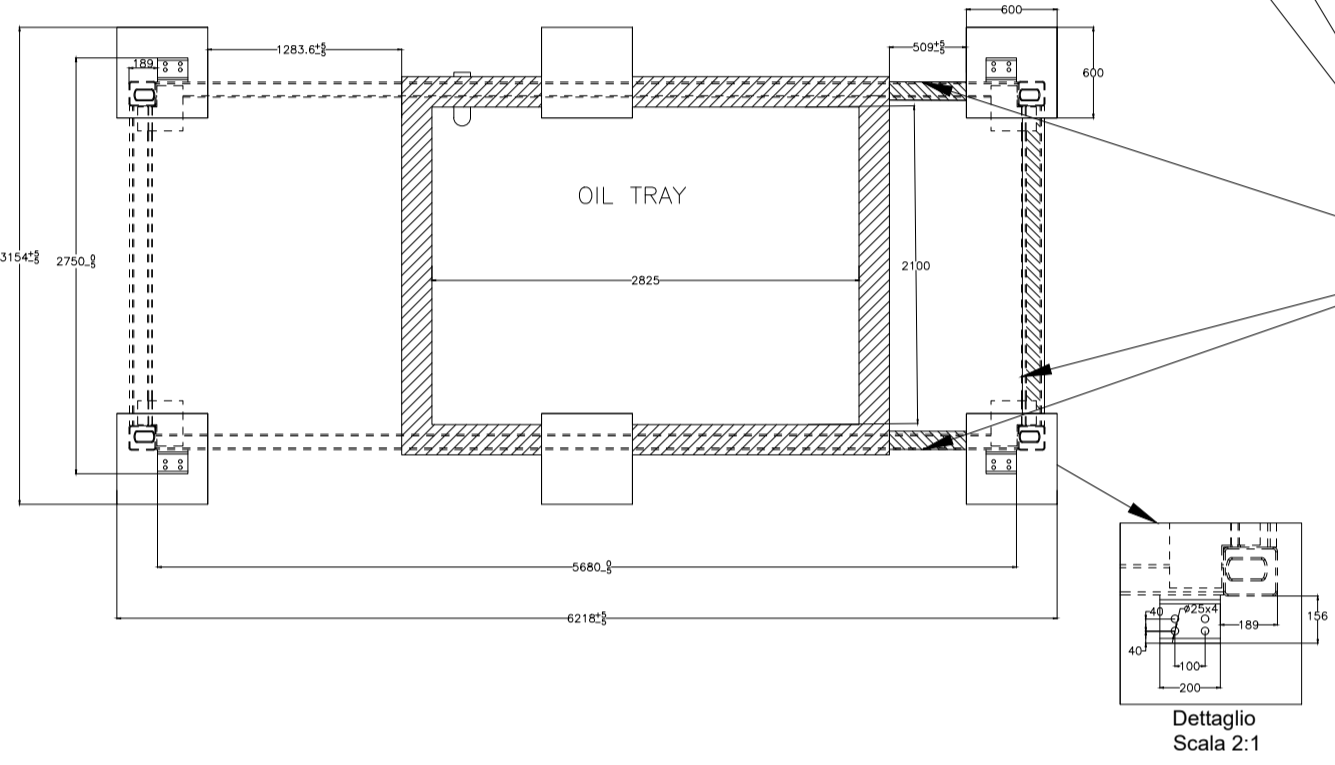


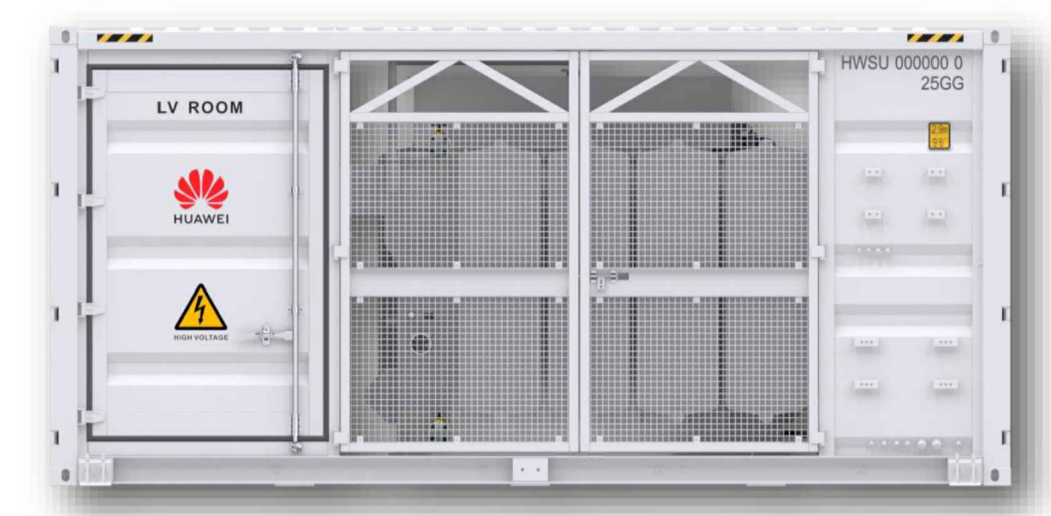
PARTICOLARE - PROSPETTI E SEZIONI



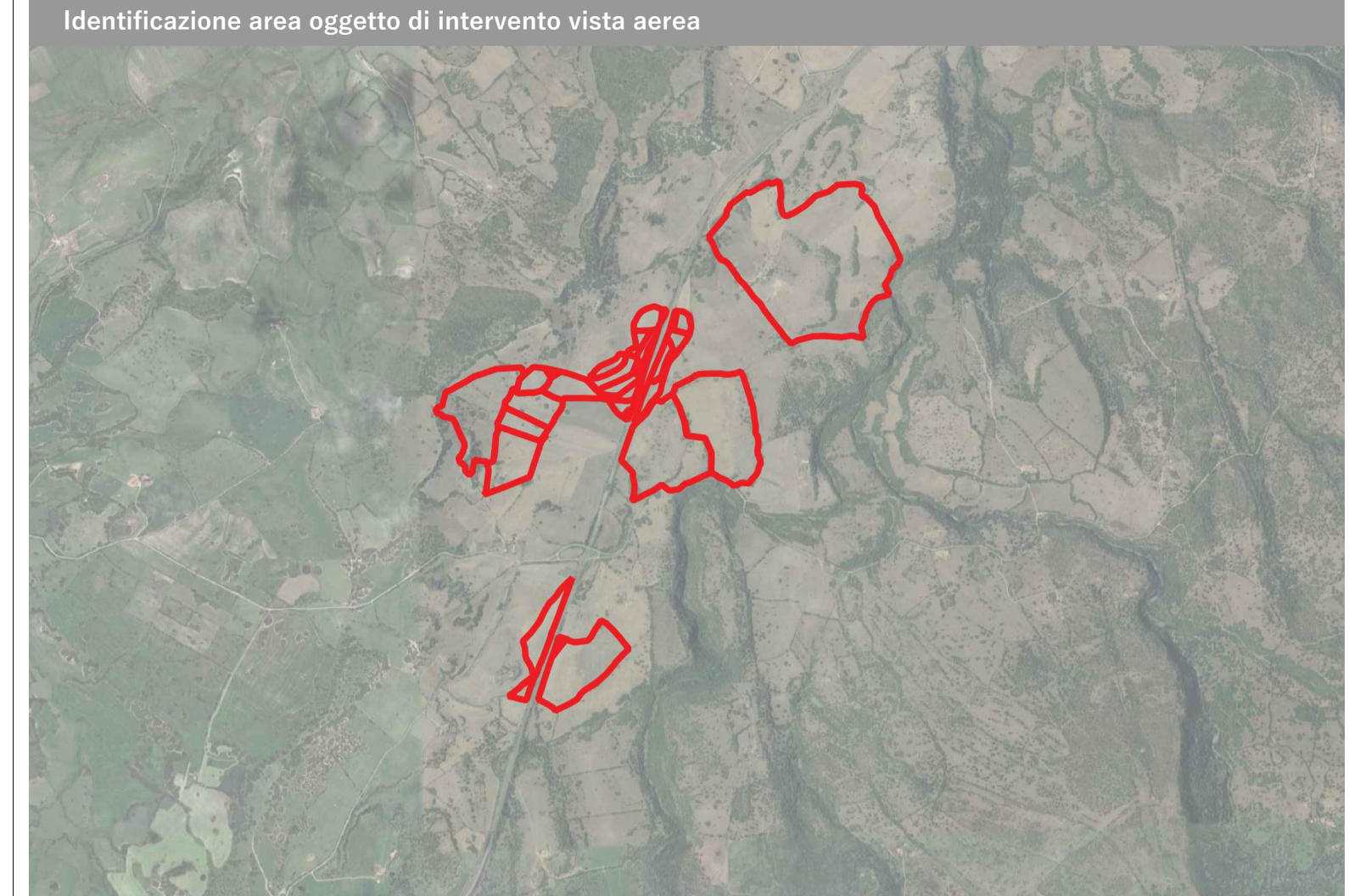
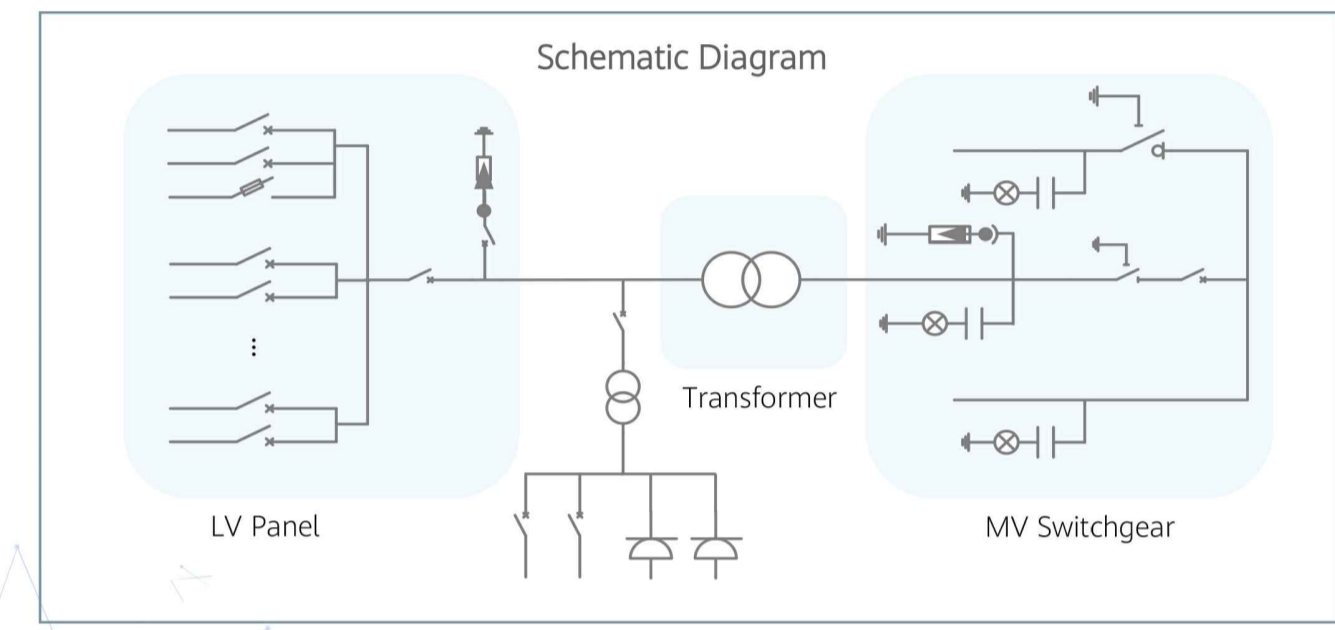
- The technical requirement:**
1. The size of each cement column is recommended to be no less than 600x600mm, and the container shall be placed in the center of the foundation. Height of the column shall be determined according to the actual situation on site.
 2. The outline of the smart transformer station is length*width:6058mm*2438mm.
 3. The ladder should not block the low voltage and MV cables in and out. The insulation ladder is recommended to be put in front of the door when maintenance.
 4. Weight of STS-3000K-H1 is no more than 15 t, and transformer oil is mineral oil, noncorrosive. And the Volume of transformer oil is about 1880L (about 1.65t).
 5. Unmarked sizes shall be determined according to onsite conditions.



STS-3000K-H1 Smart Transformer Station



- Simple**
Prefabricated and Pre-tested, No Internal Cabling Needed Onsite
Compact 20' HC Container Design for Easy Transportation
- Efficient**
High Efficiency Transformer for Higher Yields
Lower Self-consumption for Higher Yields
- Smart**
Real-time Monitoring of Transformer, LV Panel and MV Switchgear
0.2% High Precision Sensor of LV Electricity Parameters
Remote Control of ACB and MV Circuit Breaker
- Reliable**
Robust Design against Harsh Environments
Optimal Cooling Design for High Availability and Easy O&M
Comprehensive Tests from Components, Device to Solution



LEGENDA

Cabina Smart Transformer Station tipo STS-3000K-H1 o equivalente

Configurazione 1 - 16 inverter - 7168 pannelli;
Cabine in configurazione 1:
PS1 - PS2 - PS5 - PS6 - PS7 - PS8 - PS13;

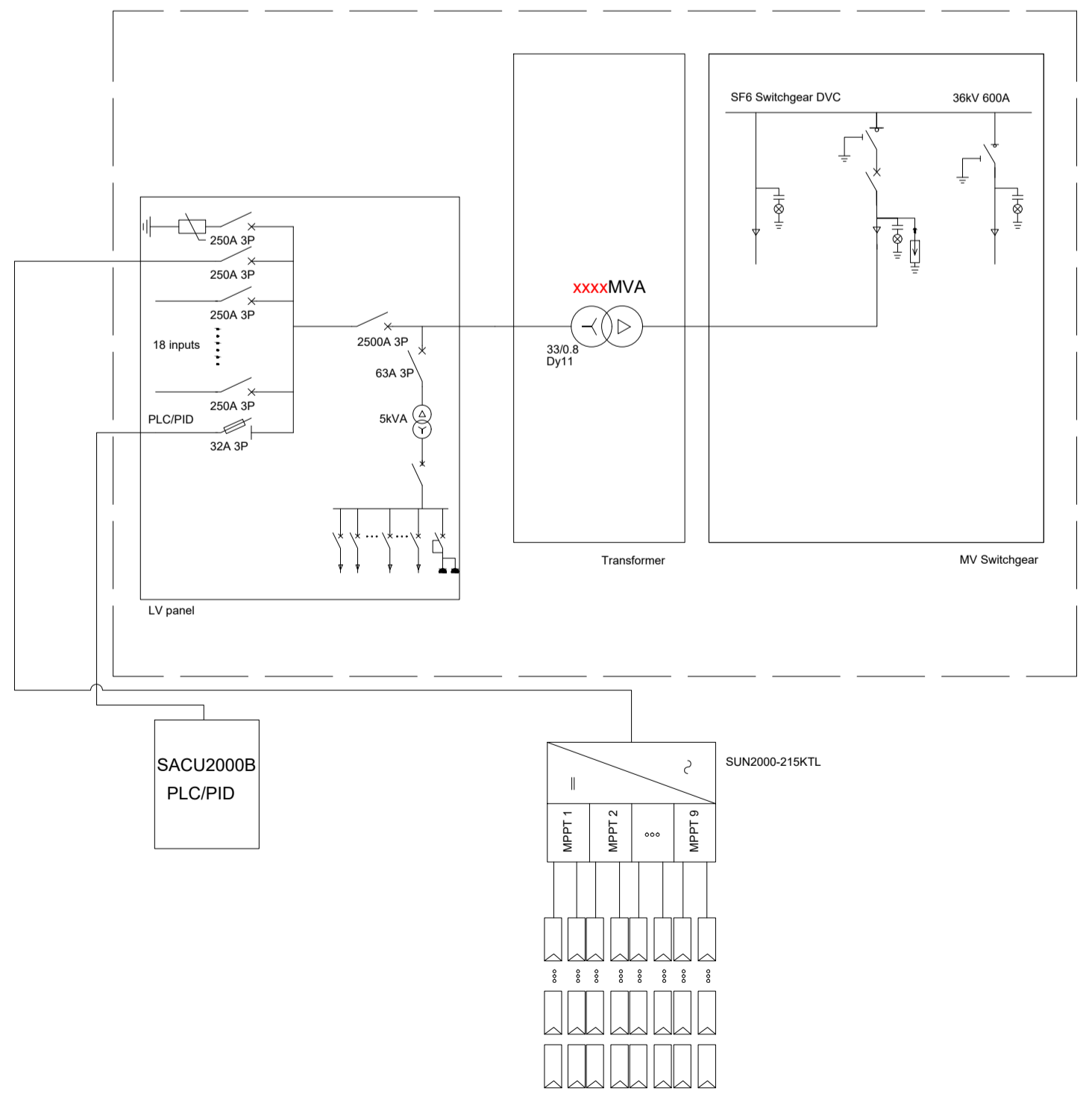
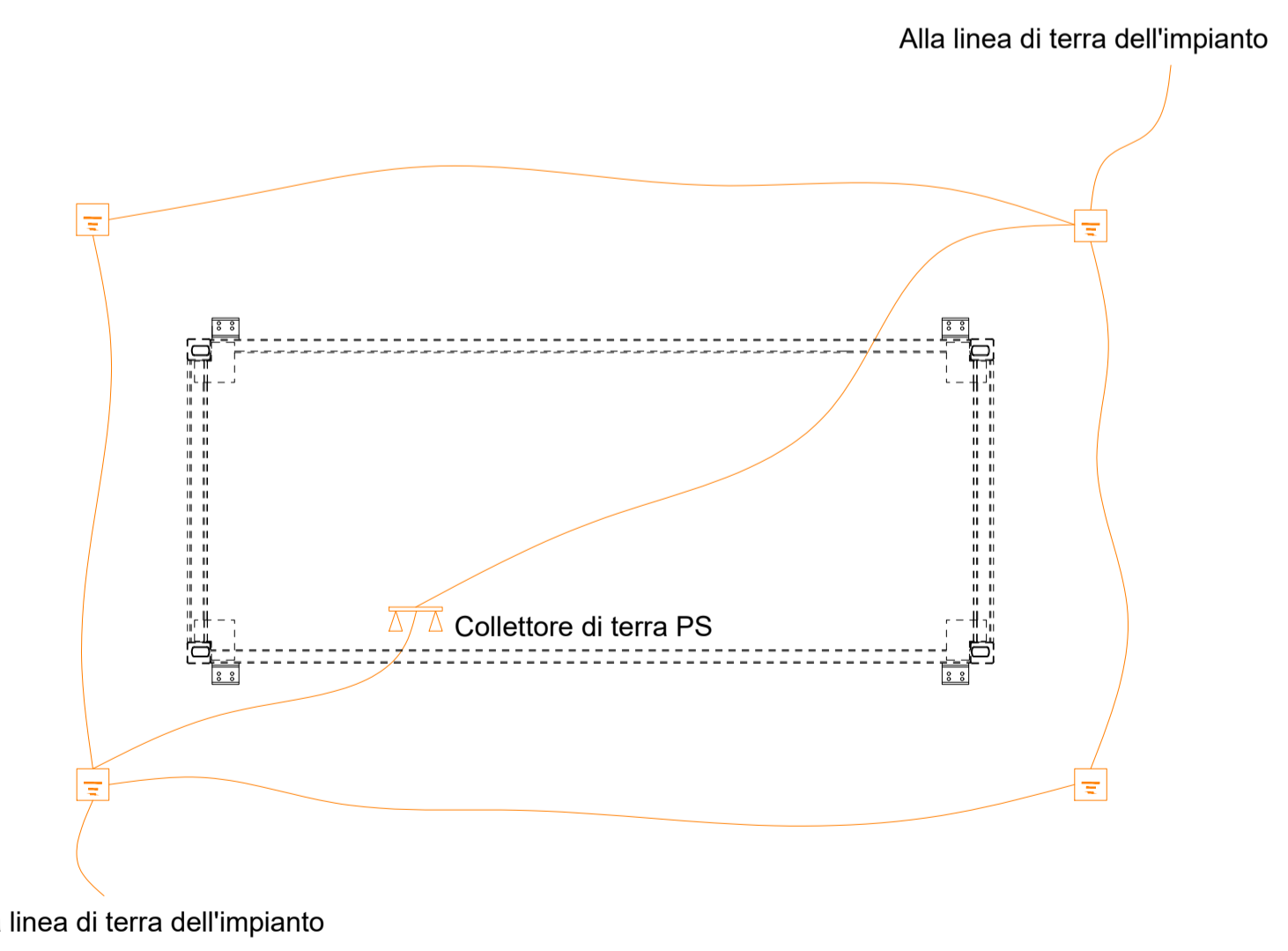
Configurazione 2 - 10 inverter - 4480 pannelli;
Cabine in configurazione 2:
PS3 - PS10 - PS11 - PS12 - PS15 - PS16 - PS17;

Configurazione 3 - 8 inverter - 3584 pannelli;
Cabine in configurazione 3:
PS4;

Configurazione 4 - 3 inverter - 1344 pannelli;
Cabine in configurazione 4:
PS9 - PS14;

PARTICOLARE - RETE DI TERRA CABINA

PARTICOLARE - SMART TRANSFORMER STATION



STS-3000K-H1 Technical Specifications

Input	
Available Inverters	SUN2000-200KTL-H2 / SUN2000-215KTL-H0
AC Power	3,250 kVA @40°C / 2,960 kVA @50°C ¹
Max. Inverters Quantity	16
Rated Input Voltage	800 V
Max. Input Current at Nominal Voltage	2,482.7 A
LV Main Switches	ACB (2900 A / 800 V / 3P, 1 pcs), MCCB (250 A / 800 V / 3P, 16 pcs)
Output	
Rated Output Voltage	10 kV, 11 kV, 15 kV, 20 kV, 22 kV, 23 kV, 30 kV, 33 kV, 35 kV ² 13.8 kV, 34.5 kV ²
Frequency	50 Hz 60 Hz
Transformer Type	Oil-immersed, Conservator Type
Transformer Tappings	± 2 x 2.5%
Transformer Oil Type	Mineral Oil (PCB Free)
Transformer Vector Group	Dy11
Transformer Min. Peak Efficiency Index	In accordance with EN 50588-1
Transformer Load Losses	30.1 kW
Transformer No-load Losses	2.51 kW
Impedance (HV-LV1, LV2)	7% (0 ~ +10%) @3,250 kVA
MV Switchgear Type	SF6 Gas Insulated, 3 Units
MV Switchgear Configuration	1 Transformer Unit with Circuit Breaker 1 Cable Unit with Load Breaker Switch 1 Cable Direct Connection Unit
Auxiliary Transformer	Dry Type Transformer, 5 kVA, Dyn11
Output Voltage of Auxiliary Transformer	400 / 230 Vac 220 / 127 Vac
Protection	
Transformer Monitoring & Protection	Oil Level, Oil Temperature, Oil Pressure and Buchholz
Protection Degree of MV & LV Room	IP 54
Internal Arcing Fault MV Switchgear	IAC A 20 KA 1s
MV Relay Protection	50/51, 50N/51N
MV Surge Arrester for MV Circuit Breaker	Equipped
LV Overvoltage Protection	Type I-II
General	
Dimensions (W x H x D)	6,058 x 2,896 x 2,438 mm (20' HC Container)
Weight	< 15 t (33,069 lb.)
Operating Temperature Range	-25°C ~ 60°C ³ (-13°F ~ 140°F)
Relative Humidity	0% ~ 95%
Max. Operating Altitude	2,000 m (6,562 ft.) 2,500 m (8,202 ft.)
Enclosure Color	RAL 9003
Communication	Modbus-RTU, Preconfigured with Smartlogger3000B
Applicable Standards	IEC 62271-202, EN 50588-1, IEC 60076, IEC 62271-200, IEC 61439-1
Features	
Auxiliary Transformer (50 kVA, Dyn11)	Optional ⁴
1.5 kVA UPS	Optional ⁴
MV Switchgear Updated to:	
1 transformer unit with circuit breaker	Optional ⁴
2 cable units with load breaker switch	Optional ⁴
Updated to 25kA 1s MV Switchgear	Optional ⁴
IMD	Optional ⁴
STS Interlocking	Optional ⁴

¹ - More detailed AC power of STS, please refer to the de-rating curve.
² - Rated output voltage from 10 kV to 35 kV, more available upon request.
³ - When ambient temperature >55°C, evening shall be equipped for STS on site by customer.
⁴ - Extra expense needed for optional features which standard product doesn't contain.



PROGETTO DELL'IMPIANTO AGRIVOLTAICO E DELLE RELATIVE OPERE DI CONNESSIONE DA REALIZZARE NEL COMUNE DI MARTIS e CHIARAMONTI (SS) CON POTENZA IN IMMISSIONE PARI A 39,2MW. DENOMINAZIONE IMPIANTO "19185 - MARTIS"

Proponente
 LUCE MARTIS S.R.L.
 Via N. Sauro, 22
 42017 Novellara (RE)

Progettista
 RESPONSABILE DEL PROGETTO
 P.I. Luca Catellani
 Collegio Periti RE n. 1101

Firma

Procedura di Valutazione Impatto Ambientale ai sensi dell'art. 23 del D.Lgs 152 / 2006 e ss. mm. ii.

Autorità competente
 Ministero dell'Ambiente e della Sicurezza Energetica

Tabella revisioni		Fase di Progetto		Elaborato		Tavola N.	
03		DEFINITIVO	PARTICOLARE CABINE POWER STATION	PDD15	---	00_Par_Cabine_PS_Inverter_A1_T1	---
02							
01							
00	11/23	PRIMA EMISSIONE		FIORI F.	CASACCIO S.		
REV.	DATA	DESCRIZIONE		REDATTO	CONTROLLATO		