



INQUADRAMENTO IN PIANTA - POWER STATION

OGGETTO

PROGETTO IMPIANTO AGRIVOLTAICO DA 5,53 MW, SU TRACKER DI TIPO AD INSEGUIMENTO MONOASSIALE DENOMINATO "TRUNCU REALE PV01" - COMUNE DI SASSARI

PROGETTO DEFINITIVO

ELABORATO

DETTAGLI COSTRUTTIVI - POWER STATION

NUMERO ELABORATO

OS\_15

SCALA: VARIE

DATA: DICEMBRE 2023

3		Terza emissione			
2		Seconda emissione			
1		Prima emissione			
REV.	DATA	DESCRIZIONE	REDATTO	CONTROLLATO	APPROVATO
CODICE COMMESSA	NOME FILE		FASE PROGETTUALE	CATEGORIA	REV.

STS-(3000K, 6000K)-H1 Smart Transformer Station  
User Manual

2 Products

2.2 Appearance

Figure 2-2 Appearance

(1) Low-voltage room (LV) (2) Transformer room (TR) (3) Medium-voltage room (MV)

(4) Position for the distributed power system (uninterruptible power supply, UPS) (5) Position for the smart array controller (SACU) (6) Double-swing door of the MV room

(7) Ring main unit (8) Auxiliary transformer (9) Double-swing screen door for the transformer room

(10) AC input cable hole (LV PANEL B) (11) Manhole entrance (12) AC input cable hole (LV PANEL A)

(13) Single-swing door for the LV room (14) Double-swing door for the LV room

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NOTE

The STS-3000K-H1 does not have LV PANEL B configurations.

Figure 2-3 Container dimensions

Figure 2-4 Dimensions of the anchor pad

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2.4.1 STS

Figure 2-5 STS components

(1) LV PANEL A (2) Heat exchanger (3) Smoke sensor

(4) LV PANEL B (5) Transformer (6) Ring main unit

(7) Power distribution box (PDB) (8) Auxiliary transformer

2.4.2 LV Room

This section shows only the components. The actual product appearance prevails.

2.4.2.1 STS-3000K-H1 Single-sided Cabinet

The LV room is a single-side cabinet structure. To perform any operation, you only need to open the door of the LV cabinet without entering the STS.

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Input	
Available Inverters	SUN2000-200KTL / SUN2000-215KTL
AC Power	3,250 kVA @40°C / 2,960 kVA @50°C <sup>[1]</sup>
Max. Inverters Quantity	16
Rated Input Voltage	800 V
Max. Input Current at Nominal Voltage	2482.7 A
LV Main Switches	ACB (2900 A / 800 V / 3P, 1*1 pcs), MCCB (250 A / 800 V / 3P, 1*16 pcs)
Output	
Rated Output Voltage	33 kV
Frequency	50 Hz
Transformer Type	Oil-immersed, Conservator Type
Tappings	± 2 x 2.5%
Transformer Oil Type	Mineral Oil (PCB Free)
Transformer Vector Group	Dy11
Minimum Peak Efficiency Index	99.465%, in accordance with EN 50588-1
Transformer Load Losses	30.1 kW
Transformer No-load Losses	2.51 kW
Impedance	7% (0 ~ +10%) @3,250 kVA
MV Switchgear Type	SF6 Gas Insulated, 3 Units
Auxiliary Transformer	5 kVA, Dyn11, 0.8/0.4 kV
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 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 <sup>[2]</sup> (-13°F ~ 140°F)
Relative Humidity	0% ~ 95%

SUNWAY STATION 1500 - 1500V 640 LS

