

MEINS SPS-4250

Meins SPS is a Power Station, Plug & Play philosophy, designed for photovoltaic installation with String Inverter.

It consists of a precast Concrete Platform equipped with LV Panel and MV Switchgear, as well as a Power Transformer equipped with oil collection tank and perimeter fence.



- Tailored design based on customer requirements
- Wide sizing range (power, voltage and current)
- Concrete Skid with oil retention tank embedded
- High quality materials
- Internal Arc Fault compliance
- Full test on factory previous to departure
- Easy transportation by standard truck or OT container
- High manufacturing capacity and competitive leadtime
- Optimized €(\$) / W Ratio

MEINS SPS-4250

Technical Specifications	
Transformer	
Transformer Type / Cooling / Winding	Hermetically sealed Corrugated Tank / ONAN / Aluminum MV & LV winding
AC Power	3840 kVA (40°C) / 4250 kVA (30°C)
Vector Group	Dy11
Voltage ratio / (U m / U AC / U LI)	Primary: 10,5kV (24-50-125kV) / Secondary: 800V (3,6-10-20kV)
Frequency / Tap changer	50Hz / OLTC $\pm 2 \times 2.5\%$
Maximum No-load/Load Losses	No Load: UE548/2014 TIER 2 / Load: UE548/2014 TIER 2
Ucc % (HV/V1-LV2 / HV-LV1 / HV-LV2)	-% / 8% / -%
Other features	DGPT2+PT100, MV bushing type C, filling and drainage valve, lifting lugs, grounding terminal, LV terminal cover
Optional	None
MV Switchgear (Outdoor)	
Insulation Type / Rated Voltage / (U m / U AC / U LI)	SF6 / 10,5kV / (24-50-125kV)
Rated Current / Short circuit / IAC	630A / 20kA/1s / IAC AFLR 20 kA/1s
Configuration	2L1P with NO Motorized CB
Transformer protection device	Self powered relay 7SR46 (50,51,50N,51N)
Other features	Voltage presence device CAPDIS S1, 1 st and 2 nd trip coil, manometer, bushing type C, grounding terminals, C1 interlocking at Transformer Switchgear, MV Surge arrester, External painting upgrading 6009
Optional	Cascade control, double cable/phase kit, P1 cross interlocking at Line switchgear, Short circuit indicator SICAM FCM,
LV Panel (Outdoor)	
ACB Specification	1x 3200A / LSI / 800 Vac / 55kA / 3P / Trip Coil / Motor + Closing coil / Undervoltage coil
MCCB / Fuse / MCB / RCCB Specification	MCCB: 12x 320A + 2x 63A / LSI / 800Vac / 50kA / 3P Fuse: 1x 125A + 1x 25A Fuse / 800Vac / 50kA / 3P MCB-RCCB: As per SLD
Auxiliary Transformer	Single phase, 10kVA, 800 V / 230 V
Other features	UPS AC/AC 1KVA 400Wh, PLC for signal monitoring, SPD I+II, lighting and socket system, Datalogger PLC and power supply cabling, U/F relay UFR1002IP, Grid Analyzer at 800Vac Janitza, Pre Installation of customer communication devices and terminals, IMD analogic, IMD lighting
Optional	Emergency Trip Button
Miscellaneous	
Other features	Transformer Oil retention tank, Carbon Filter, Perimeter Fence with key lock and roof, Security Tools, Fire & Anti-intrusion detecting system, earthing system, LV Cabling & MV Cabling with KOZ clamps
Optional	Seismic Anchorage pieces
General	
Structure Material	Concrete Skid
Dimensions (L x W x H)	6,385 x 2,050 x 2,700 mm
Weight	<20 Tn
Operation Temperature / Humidity Range	-15 °C ~ 60°C (-13 °F ~ 140 °F) / 0% ~ 95%
Protection Rating / Painting Colour	Transformer: IP54 / C5M / RAL 6009 LV Panel: IP54 / C4H / RAL 6009 MV Switchgear: IP54 / C5M / RAL 6009 Perimeter Fence: IPX2 / C4H / RAL 7035 Concrete Skid: RAL 6009
Max. Operating Altitude	1000 m (higher altitude available as optional)
Standards	VDE, IEC 60076, EN 61439-1-2, IEC 62271-200, IEC 62271-202, EN 50588-1

MEINS SPS-7040

Meins SPS is a Power Station, Plug & Play philosophy, designed for photovoltaic installation with String Inverter.

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- Tailored design based on customer requirements
- Wide sizing range (power, voltage and current)
- Concrete Skid with oil retention tank embedded
- High quality materials
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Technical Specifications	
Transformer	
Transformer Type / Cooling / Winding	Hermetically sealed Corrugated Tank / ONAN / Aluminum MV & LV winding
AC Power	6400 kVA (40°C) / 7040 kVA (30°C)
Vector Group	Dy11y11
Voltage ratio / (U m / U AC / U LI)	Primary: 21-10,5kV (24-50-125kV) / Secondary: 800V - 800V (3,6-10-20kV)
Frequency / Tap changer	50Hz / OLTC $\pm 2 \times 2.5\%$
Maximum No-load/Load Losses	No Load: UE548/2014 TIER 2 / Load: UE548/2014 TIER 2
Ucc % (HV/V1-LV2 / HV-LV1 / HV-LV2)	8% / 7,5% / 7,5%
Other features	DGPT2+PT100, MV bushing type C, filling and drainage valve, lifting lugs, grounding terminal, LV terminal cover
Optional	None
MV Switchgear (Outdoor)	
Insulation Type / Rated Voltage / (U m / U AC / U LI)	SF6 / 21kV / (24-50-125kV)
Rated Current / Short circuit / IAC	630A / 20kA/1s / IAC AFLR 20 kA/1s
Configuration	2L1P with NO Motorized CB
Transformer protection device	Self powered relay 7SR46 (50,51,50N,51N)
Other features	Voltage presence device CAPDIS S1, 1 st and 2 nd trip coil, manometer, bushing type C, grounding terminals, C1 interlocking at Transformer Switchgear, MV Surge arrester, External painting upgrading 6009
Optional	Cascade control, double cable/phase kit, P1 cross interlocking at Line switchgear, Short circuit indicator SICAM FCM,
LV Panel (Outdoor)	
ACB Specification	2x 3200A / LSI / 800 Vac / 55kA / 3P / Trip Coil / Motor + Closing coil / Undervoltage coil
MCCB / Fuse / MCB / RCCB Specification	MCCB: 20x 320A + 2x 63A / LSI / 800Vac / 50kA / 3P Fuse: 2x 125A + 1x 25A Fuse / 800Vac / 50kA / 3P MCB-RCCB: As per SLD
Auxiliary Transformer	Single phase, 10kVA, 800 V / 230 V
Other features	UPS AC/AC 1KVA 400Wh, PLC for signal monitoring, SPD I+II, lighting and socket system, Datalogger PLC and power supply cabling, U/F relay UFR1002IP, Grid Analyzer at 800Vac Janitza, Pre Installation of customer communication devices and terminals, IMD analogic, IMD lighting
Optional	Emergency Trip Button
Miscellaneous	
Other features	Transformer Oil retention tank, Carbon Filter, Perimeter Fence with key lock and roof, Security Tools, Fire & Anti-intrusion detecting system, earthing system, LV Cabling & MV Cabling with KOZ clamps
Optional	Seismic Anchorage pieces
General	
Structure Material	Concrete Skid
Dimensions (L x W x H)	6,385 x 2,050 x 2,700 mm
Weight	<25 Tn
Operation Temperature / Humidity Range	-15 °C ~ 60°C (-13 °F ~ 140 °F) / 0% ~ 95%
Protection Rating / Painting Colour	Transformer: IP54 / C5M / RAL 6009 LV Panel: IP54 / C4H / RAL 6009 MV Switchgear: IP54 / C5M / RAL 6009 Perimeter Fence: IPX2 / C4H / RAL 7035 Concrete Skid: RAL 6009
Max. Operating Altitude	1000 m (higher altitude available as optional)
Standards	VDE, IEC 60076, EN 61439-1-2, IEC 62271-200, IEC 62271-202, EN 50588-1



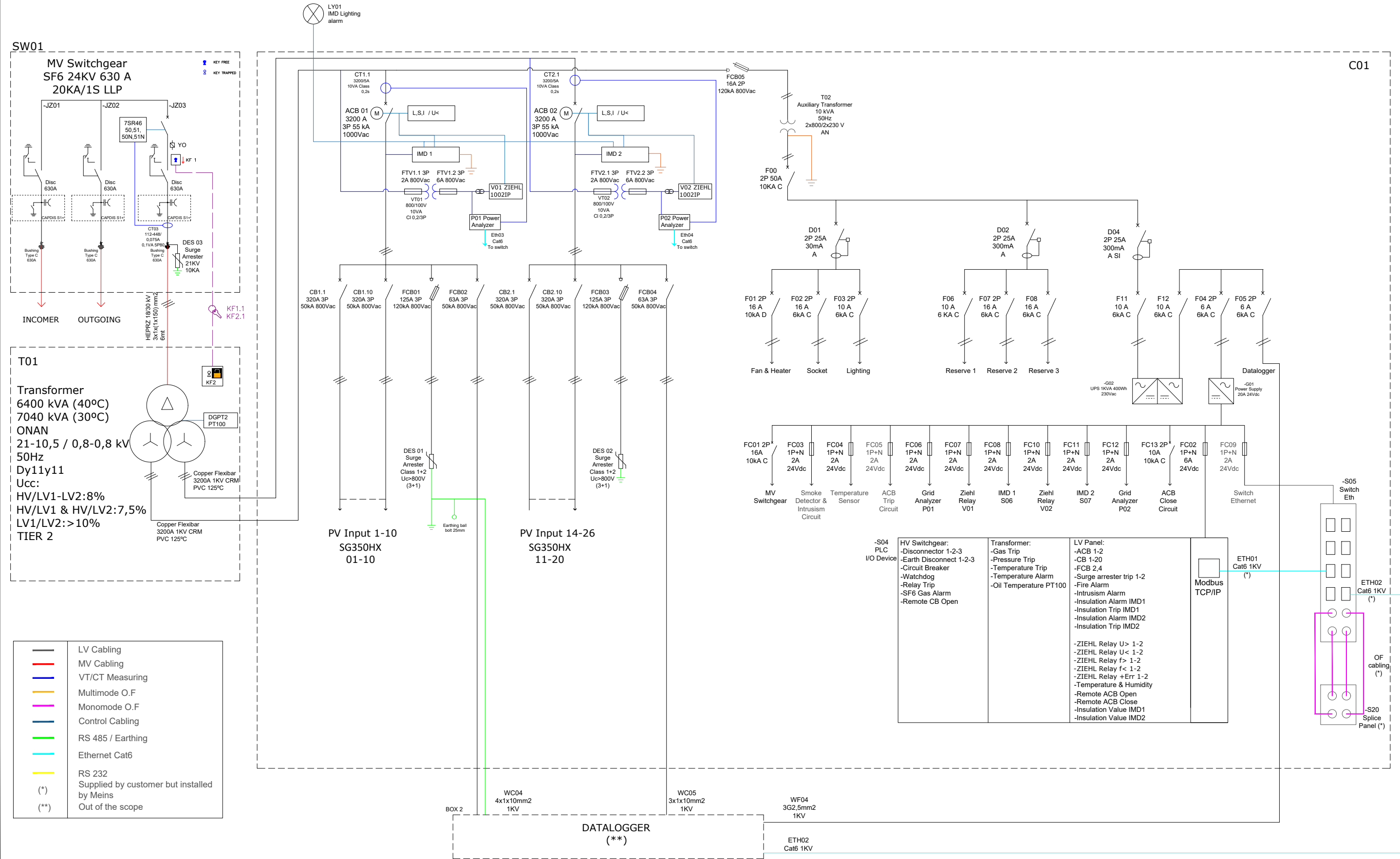
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	Name	Revision	Date	CUSTOMER: 	PLACE OF INSTALLATION: PV LOCHEM 3 (NETHERLANDS)	INSTALLATION: SPS-7040 & SPS-4250	DRAWING NAME: DRAWING INDEX		ORIGINAL FORMAT A-3	DRAWING NUMBER 000
Realised	BAM	00	27/02/2024							NEXT DRAWING 001
Revised	GAD	00	27/02/2024							WHOLE DRAWING 003
Aproved	AGG	00	27/02/2024							SCALE - - -

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SYMBOLOLOGY							
MULTIWIRE DIAGRAM	SLD	CODE	DESCRIPTION	MULTIWIRE DIAGRAM	SLD	CODE	DESCRIPTION
		T01	POWER TRANSFORMER			DES	SURGER ARRESTER PROTECTION
		Q1	VACUUM CIRCUIT BREAKER			T02	ANCILLARY SERVICES TRANSFORMER
		Q0	THREE-POSITION SWITCH-DISCONNECTOR			G01	UNINTERRUPTIBLE POWER SUPPLY
		A51	VOLTAGE INDICATOR			D0	DIFFERENTIAL RELAY
		TYPE C	HV MALE AND FEMALE CABLE CONNECTOR			V0	ZIEHL RELAY
		MCCB	MOULDED CASE CIRCUIT BREAKER			FCB	KNIFE TYPE FUSES
		CB00	LV AIR CIRCUIT BREAKER			D01-D05	RESIDUAL CURRENT DEVICE
		A21	PROTECTION SW RELAY IKI-35			F00-F18	MINIATURE CIRCUIT BREAKER
		P01	POWER ANALYZER			F19-F22	FUSE
		H71	FEEDER CONDITION MONITOR			G02	POWER SUPPLY
			EARTHING			E01	EMERGENCY TRIP BUTTON
		CT	CURRENT TRANSFORMER			KF1-KF6	INTERLOCKING KEYS
		VT	VOLTAGE TRANSFORMER				

	Name	Revision	Date	CUSTOMER: 	PLACE OF INSTALLATION: PV LOCHEM 3 (NETHERLANDS)	INSTALLATION: SPS-7040 & SPS-4250	DRAWING NAME: SYMBOLGY		ORIGINAL	DRAWING NUMBER
Realised	BAM	00	27/02/2024						FORMAT	001
Revised	GAD	00	27/02/2024							NEXT DRAWING
Aproved	AGG	00	27/02/2024							002
									WHOLE DRAWING	003
									SCALE	---



	Name	Revision	Date
Realised	BAM	00	27/02/2024
Revised	GAD	00	27/02/2024
Approved	AGG	00	27/02/2024

CUSTOMER:
BELECTRIC®

PLACE OF INSTALLATION:
PV LOCHEM 3 (NETHERLANDS)

INSTALLATION:
SPS-7040 & SPS-4250

DRAWING NAME:
GENERAL SLD SPS-7040



ORIGINAL	DRAWING NUMBER
FORMAT	002
A-3	NEXT DRAWING
	003
	WHOLE DRAWING
	003
	SCALE

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