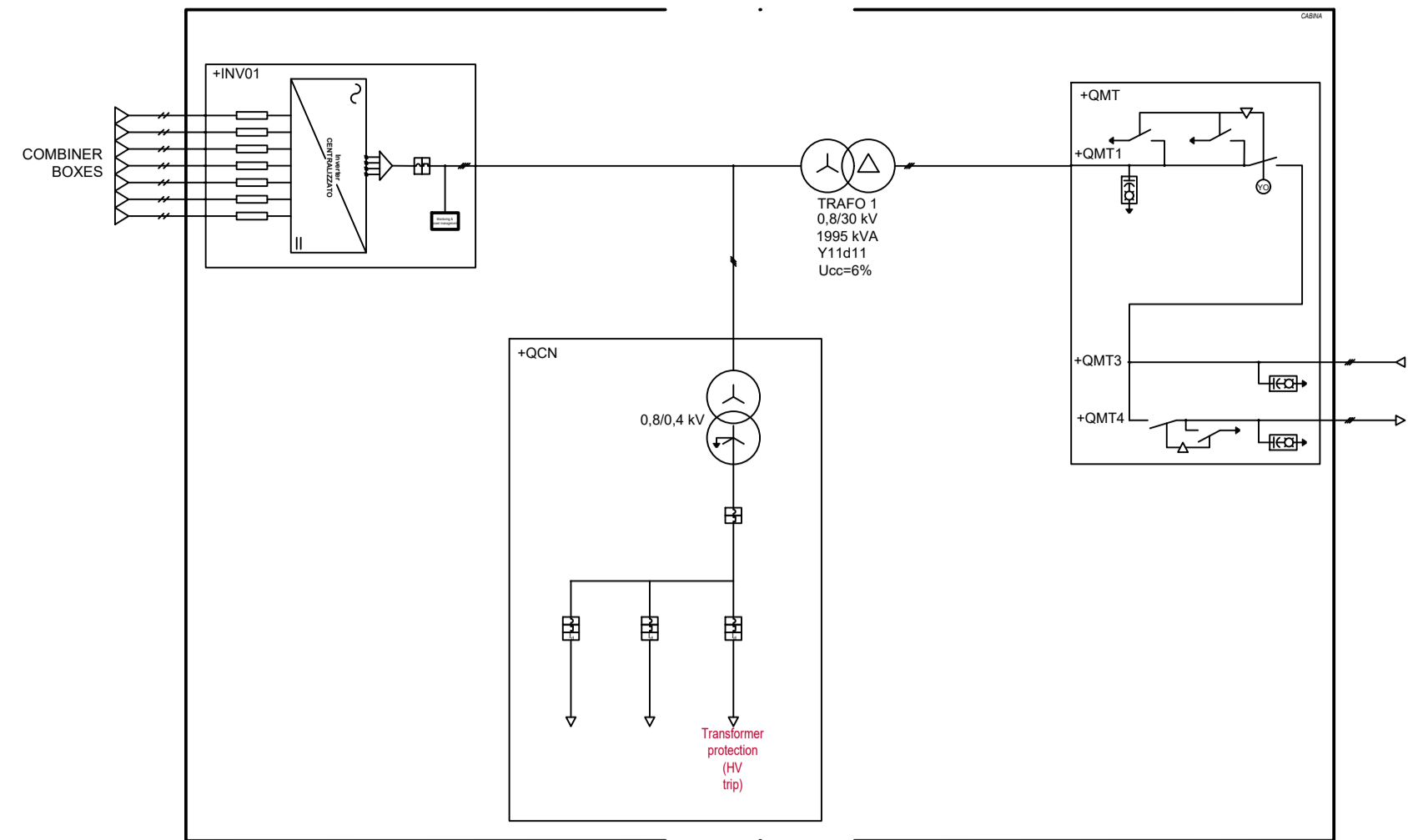


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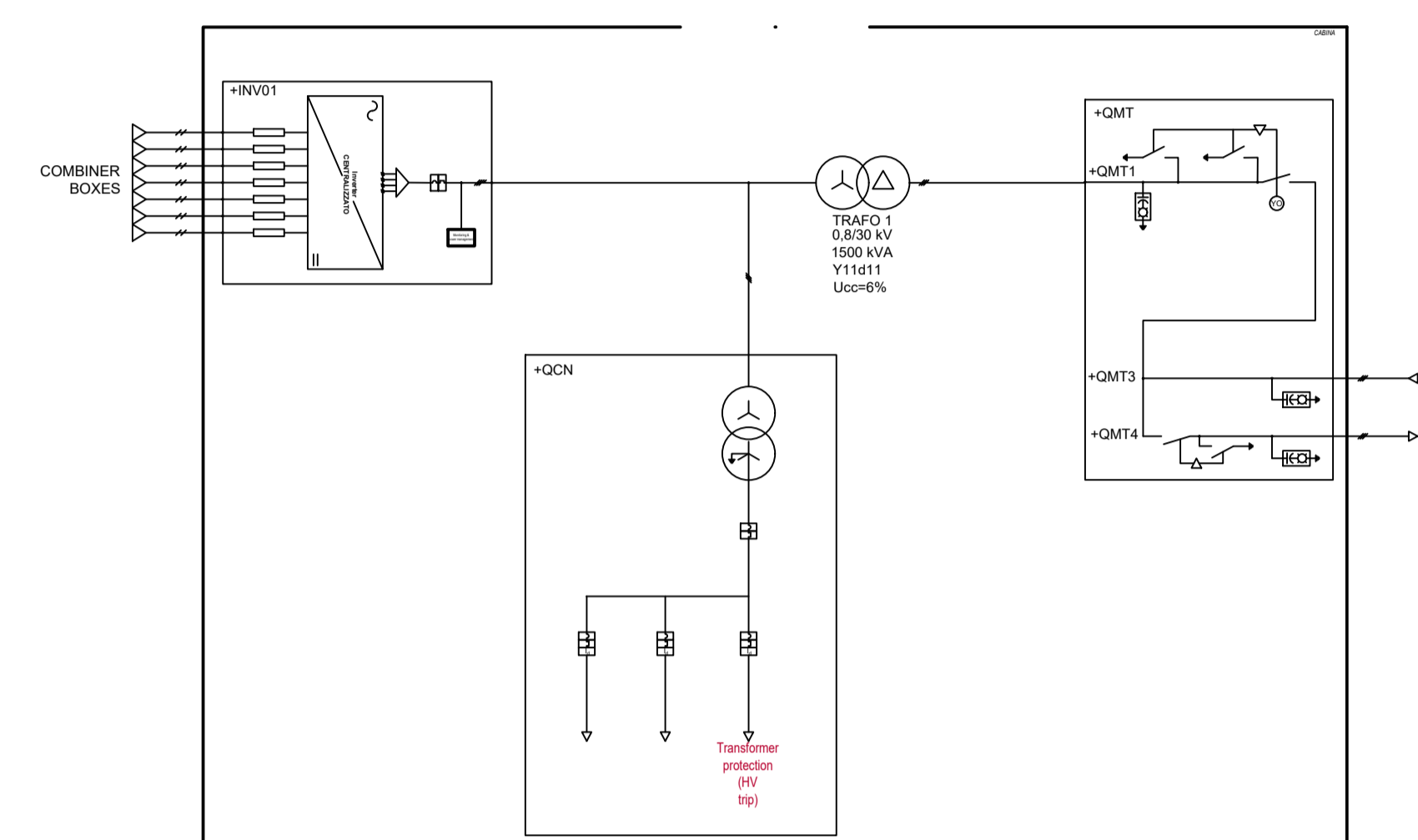
SCHEMA BLOCCHI INVERTER 2000 kVA



Main features	
Model	SUNWAY TG1800 1500V TE - 640 STD
MPPT voltage range	940 - 1200 V
Extended MPPT voltage range	910 - 1500 V
Number of independent MPPTs	1 (Master-Slave) or 2 (Independent)
Static / Dynamic MPPT efficiency	99.8% / 99.7%
Maximum open-circuit voltage	1500 V
Rated AC voltage	640 V ± 10%
Rated output frequency	50 / 60 Hz (up to -3 / +2 Hz)
Power Factor range	Circular Capability
Operating temperature range	-25 + 62 °C
Application / Degree of protection	Indoor / IP54
Maximum operating altitude	4000 m
Maximum short circuit PV input current	1500 A each MPPT (double MPPT configuration) or 3000 A (single MPPT configuration)
PV voltage Ripple	< 1%
Output ratings (AC)	
Rated output power	25 °C 1995 kVA, 45 °C 1774 kVA, 50 °C 1663 kVA
Rated output current	1800 A, 1600 A, 1500 A
Power threshold	1% of Rated output power
Total AC current distortion	≤ 3%
Inverter efficiency	
Maximum / EU / CEC efficiency	98.7% / 98.4% / - %
Inverter dimensions and weight	
Dimensions (W x H x D)	3000 x 2100 x 800 mm
Weight	2700 kg
Auxiliary consumptions	
Stop mode losses / Night losses	90 W / 90 W
Auxiliary consumptions	1800 W

Additional information	
Protection against overvoltage (SPD)	DC Side: Yes - AC Side: Optional
Maximum value for relative humidity	95% non-condensing
Cooling system / Fresh air consumption	Forced air / 5650 m ³ /h
Thermal protection	Integrated, 5 sensors, both on cabinet and power stack
Environmental sensors	4 embedded inputs
Digital communications channels	2 x RS485 with Modbus + Ethernet with TCP/IP
Noise emission @ 1m / 10m	78 / 58 dBA
Connection phases	3Ø3W
Max DC inputs per pole / fuse protected	14 / 14
DC inputs current monitoring	Optional
DC side disconnection device	DC disconnect switch
AC side disconnection device	AC circuit breaker
Ground fault monitoring, DC side	Yes
Ground fault monitoring, AC side	Optional
Grid fault monitoring	Yes
Display	Alphanumeric display/keypad
Power modulation	Digital, via RS485 or Ethernet
RAL	RAL 7035
PV plant monitoring	Optional, via Sunway Portal

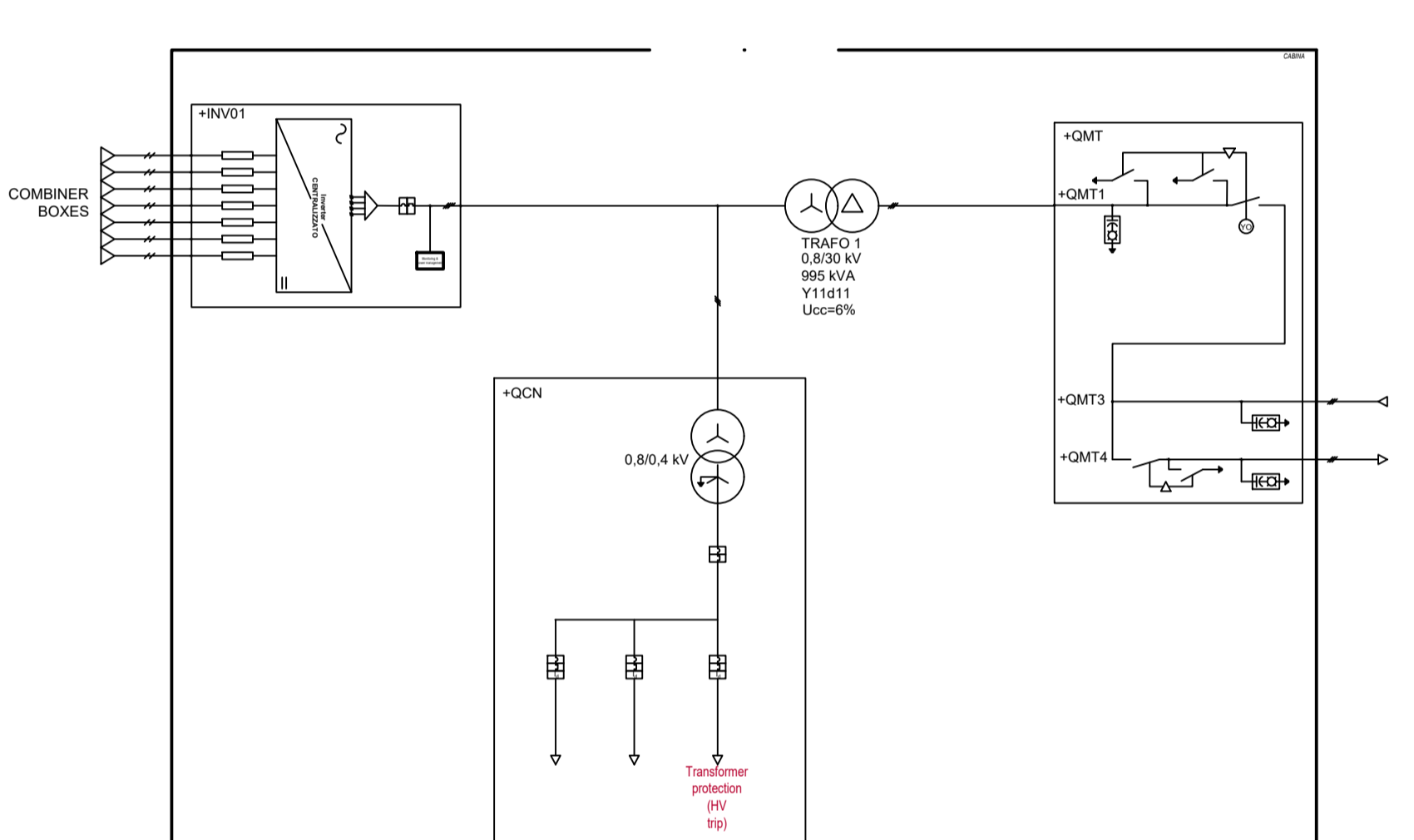
SCHEMA BLOCCHI INVERTER 1500 kVA



Main features	
Model Name	SUNWAY TG1800 1500V TE - 640 STD
Configuration	Custom Output Power 1500 kVA
MPPT voltage range	940 - 1200 V
Extended MPPT voltage range	910 - 1500 V
Number of independent MPPTs	1
Static / Dynamic MPPT efficiency	99.8% / 99.7%
Maximum open-circuit voltage	1500 V
Rated AC voltage	640 V ± 10%
Rated output frequency	50 / 60 Hz (up to -3 / +2 Hz)
Power Factor range	Circular Capability
Operating temperature range	-25 + 62 °C
Application / Degree of protection	Indoor / IP20
Maximum operating altitude	4000 m
Base Unit Converter Model	TG 900 1500V TE
Maximum short circuit PV input current	2 x 1500A
PV voltage Ripple	< 1%
Output ratings (AC)	
Output power	1500 kVA up to 50°C ambient temperature
Rated output current	1353 A
Power threshold	1% of Rated output power
Total AC current distortion	≤ 3%
MPPT and conversion efficiency	
Static / Dynamic MPPT efficiency	99.8% / 99.7%
Max / EU / CEC conversion efficiency	98.7% / 98.4% / - %
Inverter dimensions and weight	
Dimensions (W x H x D)	3000 x 2100 x 800 mm
Weight	2700 kg
Auxiliary consumptions	
Stop mode losses / Night losses	90 W / 90 W
Auxiliary consumptions	1800 W

Additional information	
Protection against overvoltage (SPD)	DC Side: Yes - AC Side: Optional
Maximum value for relative humidity	95% non-condensing
Cooling system / Fresh air consumption	Forced air / 5650 m ³ /h
Thermal protection	Integrated, 5 sensors, both on cabinet and power stack
Environmental sensors	4 embedded inputs
Digital communications channels	2 x RS485 with Modbus + Ethernet with TCP/IP
Noise emission @ 1m / 10m	78 / 58 dBA
Connection phases	3Ø3W
Max DC inputs per pole / fuse protected	14 / 14
DC inputs current monitoring	Optional
DC side disconnection device	DC disconnect switch
AC side disconnection device	AC circuit breaker
Ground fault monitoring, DC side	Yes
Ground fault monitoring, AC side	Optional
Grid fault monitoring	Yes
Display	Alphanumeric display/keypad
Power modulation	Digital, via RS485 or Ethernet
RAL	RAL 7035
PV plant monitoring	Optional, via Sunway Portal

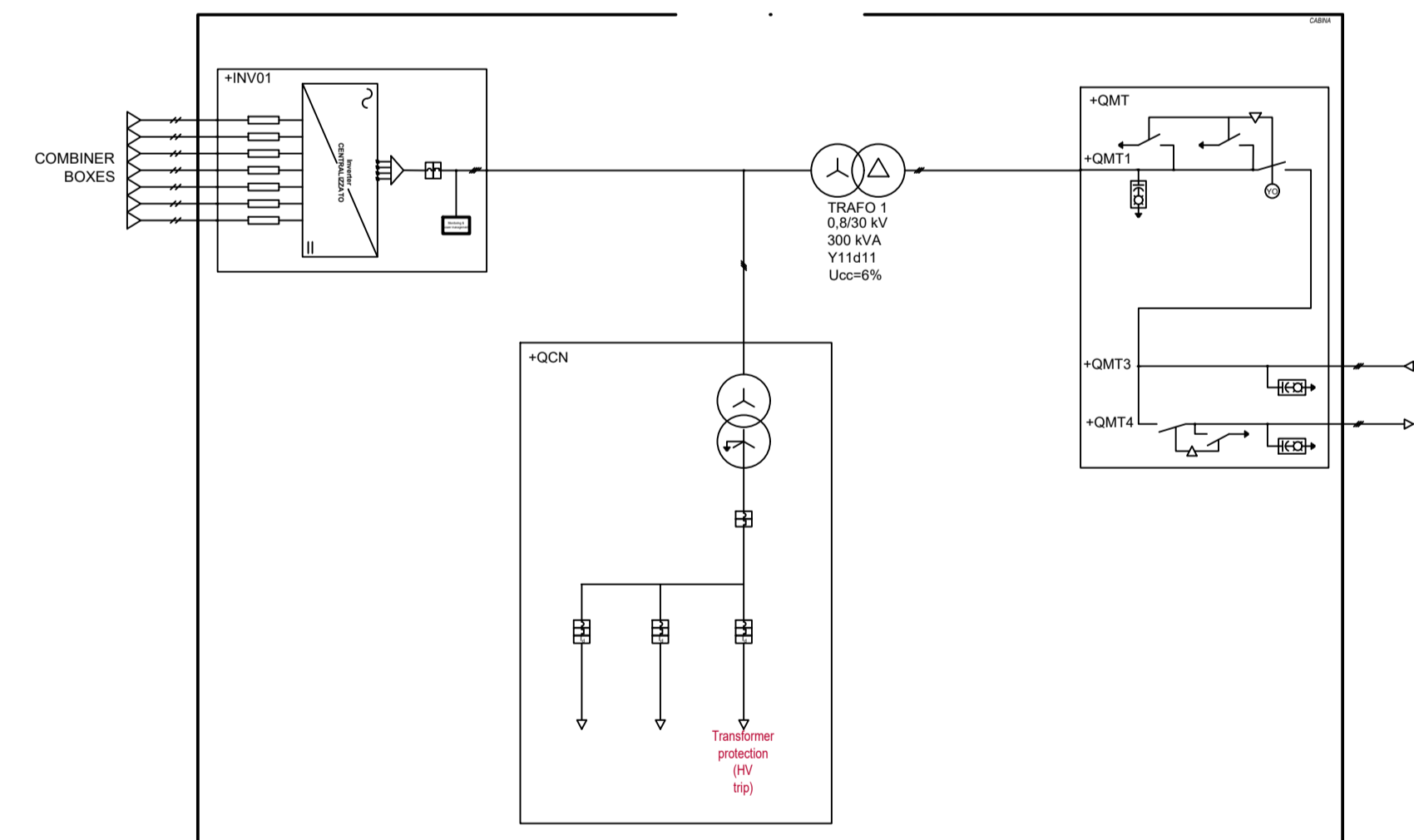
SCHEMA BLOCCHI INVERTER 1000 kVA



Main features	
Model	SUNWAY TG900 1500V TE - 640 STD
MPPT voltage range	940 - 1200 V
Extended MPPT voltage range	910 - 1500 V
Number of independent MPPTs	1
Static / Dynamic MPPT efficiency	99.8% / 99.7%
Maximum open-circuit voltage	1500 V
Rated AC voltage	640 V ± 10%
Rated output frequency	50 / 60 Hz (up to -3 / +2 Hz)
Power Factor range	Circular Capability
Operating temperature range	-25 + 62 °C
Application / Degree of protection	Indoor / IP54
Maximum operating altitude	4000 m
Maximum short circuit PV input current	1500
PV voltage Ripple	< 1%
Output ratings (AC)	
Rated output power	25 °C 998 kVA, 45 °C 887 kVA, 50 °C 832 kVA
Rated output current	900 A, 800 A, 750 A
Power threshold	1% of Rated output power
Total AC current distortion	≤ 3%
Inverter efficiency	
Maximum / EU / CEC efficiency	98.7% / 98.4% / - %
Inverter dimensions and weight	
Dimensions (W x H x D)	1800 x 2100 x 800 mm
Weight	1745 kg
Auxiliary consumptions	
Stop mode losses / Night losses	45 W / 45 W
Auxiliary consumptions	1250 W

Additional information	
Protection against overvoltage (SPD)	DC Side: Yes - AC Side: Optional
Maximum value for relative humidity	95% non-condensing
Cooling system / Fresh air consumption	Forced air / 3100 m ³ /h
Thermal protection	Integrated, 5 sensors, both on cabinet and power stack
Environmental sensors	4 embedded inputs
Digital communications channels	2 x RS485 with Modbus + Ethernet with TCP/IP
Noise emission @ 1m / 10m	78 / 58 dBA
Connection phases	3Ø3W
Max DC inputs per pole / fuse protected	7 / 7
DC inputs current monitoring	Optional
DC side disconnection device	DC disconnect switch
AC side disconnection device	AC circuit breaker
Ground fault monitoring, DC side	Yes
Ground fault monitoring, AC side	Optional
Grid fault monitoring	Yes
Display	Alphanumeric display/keypad
Power modulation	Digital, via RS485 or Ethernet
RAL	RAL 7035
PV plant monitoring	Optional, via Sunway Portal

SCHEMA BLOCCHI INVERTER 300 kVA



Main features	
Model	SUNWAY TG300 1500V TE - 600 STD (w custom output power)
MPPT voltage range	880 - 1200 V
Extended MPPT voltage range	850 - 1500 V
Number of independent MPPTs	1
Maximum open-circuit voltage	1500 V
Rated AC voltage	600 V ± 10%
Rated output frequency	50 / 60 Hz (up to -3 / +2 Hz)
Power Factor range	Circular Capability
Operating temperature range	-25 + 62 °C
Application / Degree of protection	Indoor / IP20
Maximum operating altitude	4000 m
Maximum short circuit PV input current	1500
PV voltage Ripple	< 1%
Output ratings (AC)	
Rated output power (up to 50°C)	300 kVA
Rated output current	290 A
Power threshold	1% of Rated output power
Total AC current distortion	≤ 3%
MPPT and conversion efficiency	
Static / Dynamic MPPT efficiency	99.8% / 99.7%
Maximum / EU / CEC efficiency	98.7% / 98.4% / - %
Inverter dimensions and weight	
Dimensions (W x H x D)	1800 x 2100 x 800 mm
Weight	1745 kg
Auxiliary consumptions	
Stop mode losses / Night losses	45 W / 45 W
Maximum Auxiliary consumptions	1250 W

Additional information	
Protection against overvoltage (SPD)	DC Side: Yes - AC Side: Optional
Maximum value for relative humidity	95% non-condensing
Cooling system / Fresh air consumption	Forced air / 3100 m ³ /h (max)
Thermal protection	Integrated, 5 sensors, both on cabinet and power stack
Environmental sensors	4 embedded inputs
Digital communications channels	2 x RS485 with Modbus + Ethernet with TCP/IP
Noise emission @ 1m / 10m	78 / 58 dBA
Connection phases	3Ø3W
Max DC inputs per pole / fuse protected	7 / 7
DC inputs current monitoring	Optional
DC side disconnection device	DC disconnect switch
AC side disconnection device	AC circuit breaker
Ground fault monitoring, DC side	Yes
Ground fault monitoring, AC side	Optional
Grid fault monitoring	Yes
Display	Alphanumeric display/keypad
Power modulation	Digital, via RS485 or Ethernet
RAL	RAL 7035
PV plant monitoring	Optional, via Sunway Portal

Trasformatore bT/MT 2000kVA

LV/MV Distribution Transformer	
Model	2000
Rated Power	2000 kVA
Rated Voltage	10 / 10.5 kV
Rated Current	115 A
Primary Voltage	10 kV
Primary Voltage Range	9.5 - 10.5 kV
Primary Taps Voltage Range	10.2 - 10.8 kV
Secondary Voltage	400 V
Secondary Voltage Range	380 - 420 V
Secondary Connections	Y
Rated Output Frequency	50 / 60 Hz
Rated Output Power	2000 kVA
Rated Output Current	4750 A
Power Factor	0.95
Operating Temperature Range	-25 + 62 °C
Application / Degree of Protection	Indoor / IP20
Maximum Operating Altitude	4000 m
Maximum Short Circuit PV Input Current	1500 A
PV Voltage Ripple	< 1%
Output Ratings (AC)	
Rated Output Power	2000 kVA
Rated Output Current	4750 A
Power Threshold	1% of Rated Output Power
Total AC Current Distortion	≤ 3%
MPPT and Conversion Efficiency	
Static / Dynamic MPPT Efficiency	99.8% / 99.7%
Max / EU / CEC Conversion Efficiency	98.7% / 98.4% / - %
Inverter Dimensions and Weight	
Dimensions (W x H x D)	3000 x 2100 x 800 mm
Weight	2700 kg
Auxiliary Consumptions	
Stop Mode Losses / Night Losses	90 W / 90 W
Auxiliary Consumptions	1800 W

Trasformatore bT/MT 1500kVA

LV/MV Distribution Transformer	
Model	1500
Rated Power	1500 kVA
Rated Voltage	10 / 10.5 kV
Rated Current	115 A
Primary Voltage	10 kV
Primary Voltage Range	9.5 - 10.5 kV
Primary Taps Voltage Range	10.2 - 10.8 kV
Secondary Voltage	400 V
Secondary Voltage Range	380 - 420 V
Secondary Connections	Y
Rated Output Frequency	50 / 60 Hz
Rated Output Power	1500 kVA
Rated Output Current	3570 A
Power Factor	0.95
Operating Temperature Range	-25 + 62 °C
Application / Degree of Protection	Indoor / IP20
Maximum Operating Altitude	4000 m
Maximum Short Circuit PV Input Current	1500 A
PV Voltage Ripple	< 1%
Output Ratings (AC)	
Rated Output Power	1500 kVA
Rated Output Current	3570 A
Power Threshold	1% of Rated Output Power
Total AC Current Distortion	≤ 3%
MPPT and Conversion Efficiency	
Static / Dynamic MPPT Efficiency	99.8% / 99.7%
Max / EU / CEC Conversion Efficiency	98.7% / 98.4% / - %
Inverter Dimensions and Weight	
Dimensions (W x H x D)	3000 x 2100 x 800 mm
Weight	2700 kg
Auxiliary Consumptions	
Stop Mode Losses / Night Losses	90 W / 90 W
Auxiliary Consumptions	1800 W

Trasformatore bT/MT 1000kVA

LV/MV Distribution Transformer	
Model	1000
Rated Power	1000 kVA
Rated Voltage	10 / 10.5 kV
Rated Current	115 A
Primary Voltage	10 kV
Primary Voltage Range	9.5 - 10.5 kV
Primary Taps Voltage Range	10.2 - 10.8 kV
Secondary Voltage	400 V
Secondary Voltage Range	380 - 420 V
Secondary Connections	Y
Rated Output Frequency	50 / 60 Hz
Rated Output Power	1000 kVA
Rated Output Current	2360 A
Power Factor	0.95
Operating Temperature Range	-25 + 62 °C
Application / Degree of Protection	Indoor / IP20
Maximum Operating Altitude	4000 m
Maximum Short Circuit PV Input Current	1500 A
PV Voltage Ripple	< 1%
Output Ratings (AC)	
Rated Output Power	1000 kVA
Rated Output Current	2360 A
Power Threshold	1% of Rated Output Power
Total AC Current Distortion	≤ 3%
MPPT and Conversion Efficiency	
Static / Dynamic MPPT Efficiency	99.8% / 99.7%
Max / EU / CEC Conversion Efficiency	98.7% / 98.4% / - %
Inverter Dimensions and Weight	
Dimensions (W x H x D)	1800 x 2100 x 800 mm
Weight	1745 kg
Auxiliary Consumptions	
Stop Mode Losses / Night Losses	45 W / 45 W
Maximum Auxiliary Consumptions	1250 W

Trasformatore bT/MT 300kVA

LV/MV Distribution Transformer	
Model	300
Rated Power	300 kVA
Rated Voltage	10 / 10.5 kV
Rated Current	115 A
Primary Voltage	10 kV
Primary Voltage Range	9.5 - 10.5 kV
Primary Taps Voltage Range	10.2 - 10.8 kV
Secondary Voltage	400 V
Secondary Voltage Range	380 - 420 V
Secondary Connections	Y
Rated Output Frequency	50 / 60 Hz
Rated Output Power	300 kVA
Rated Output Current	700 A
Power Factor	0.95
Operating Temperature Range	-25 + 62 °C
Application / Degree of Protection	Indoor / IP20
Maximum Operating Altitude	4000 m
Maximum Short Circuit PV Input Current	1500 A
PV Voltage Ripple	< 1%
Output Ratings (AC)	
Rated Output Power	300 kVA
Rated Output Current	700 A
Power Threshold	1% of Rated Output Power
Total AC Current Distortion	≤ 3%
MPPT and Conversion Efficiency	
Static / Dynamic MPPT Efficiency	99.8% / 99.7%
Max / EU / CEC Conversion Efficiency	98.7% / 98.4% / - %
Inverter Dimensions and Weight	
Dimensions (W x H x D)	1800 x 2100 x 800 mm
Weight	1745 kg
Auxiliary Consumptions	
Stop Mode Losses / Night Losses	45 W / 45 W
Maximum Auxiliary Consumptions	1250 W

REGIONE PUGLIA, PROVINCIA DI POGGIA, COMUNE DI APRICENA, COMUNE DI SAN SEVERO

AM ENERGY S.R.L. - STUDIO INGEGNERIA ELETTRICA - UNIVERSITÀ DI FOGGIA - DOT. BIOL. LEONARDO BECCARISI - DOT. BIOL. ELISA GATTO - DOT. ANTONIO FEOLA - NOSTOI S.R.L. - DOT. SA. MARIA GRAZIA LISANO - STUDIO FALCONE - DOT. NAZARIO DI LELLA

Progetto definitivo per la realizzazione di un impianto fotovoltaico denominato "Apricena Industriale" da realizzarsi su aree industriali e cave nelle località "Podere Camilli", "Tufara - San Giovanni - San Sabino", nel territorio comunale di Apricena (FG) per una potenza complessiva di 121,023 MWp e immissione di 96,300 MW, nonché delle opere connesse ed infrastrutture indispensabili alla costruzione e all'esercizio dell'impianto nei comuni di Apricena (FG) e San Severo (FG)

Autore: AM ENERGY S.R.L. - Ing. M. Di Stefano, Ing. A. Mazza

Scale: Formato: Codice Pratico: P7MNV25