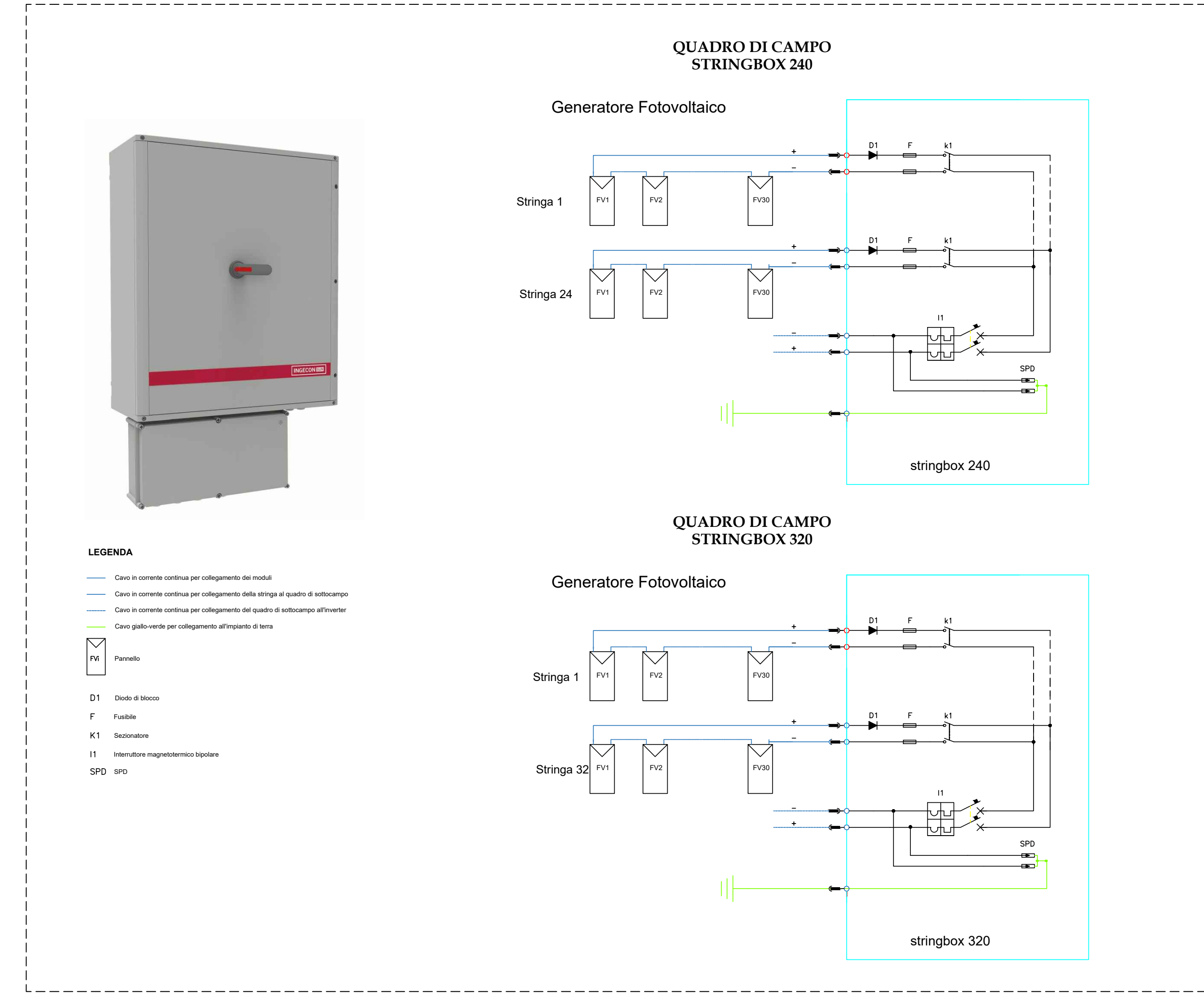
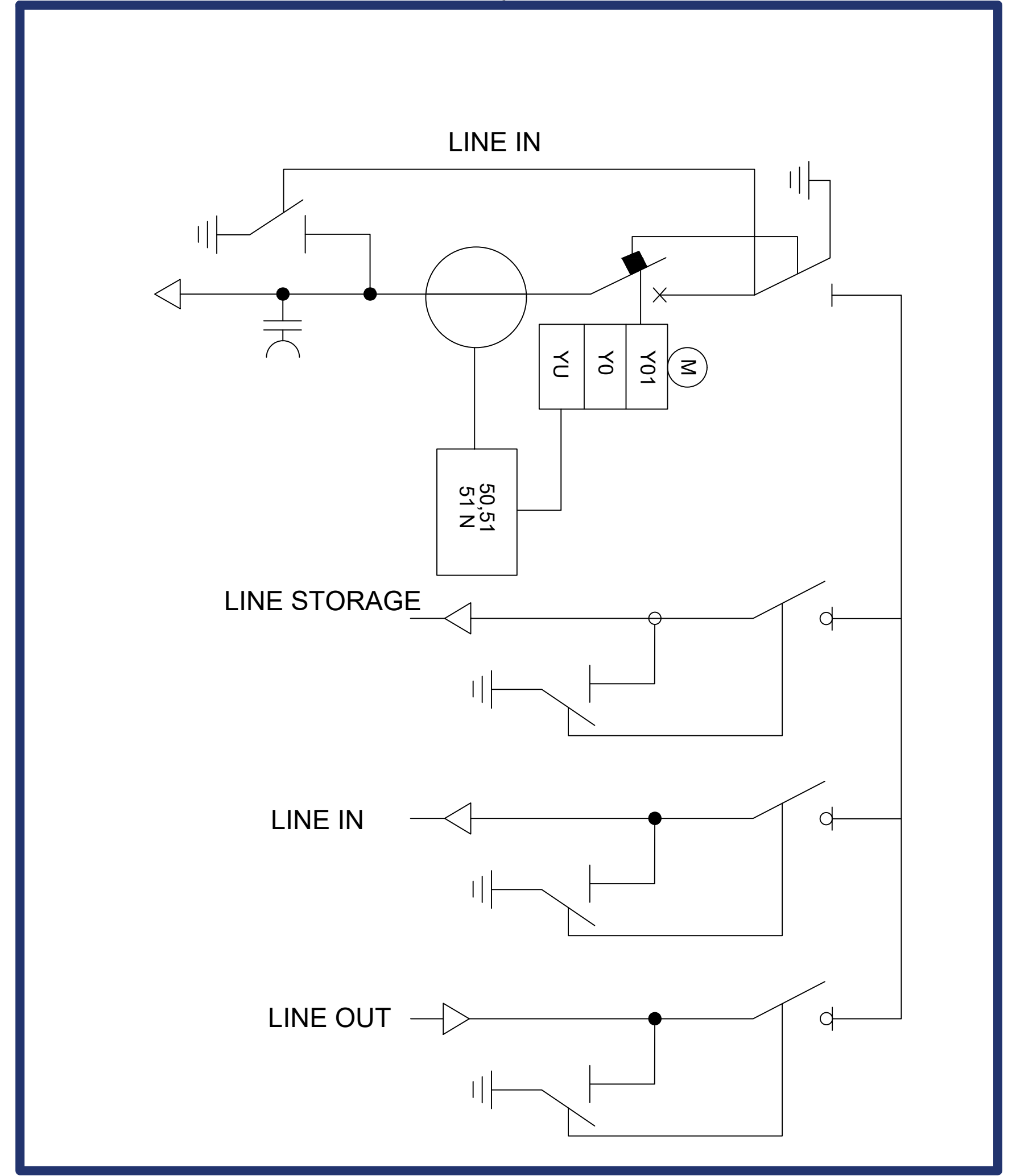


**TIPOLOGIA QUADRI DI CAMPO**



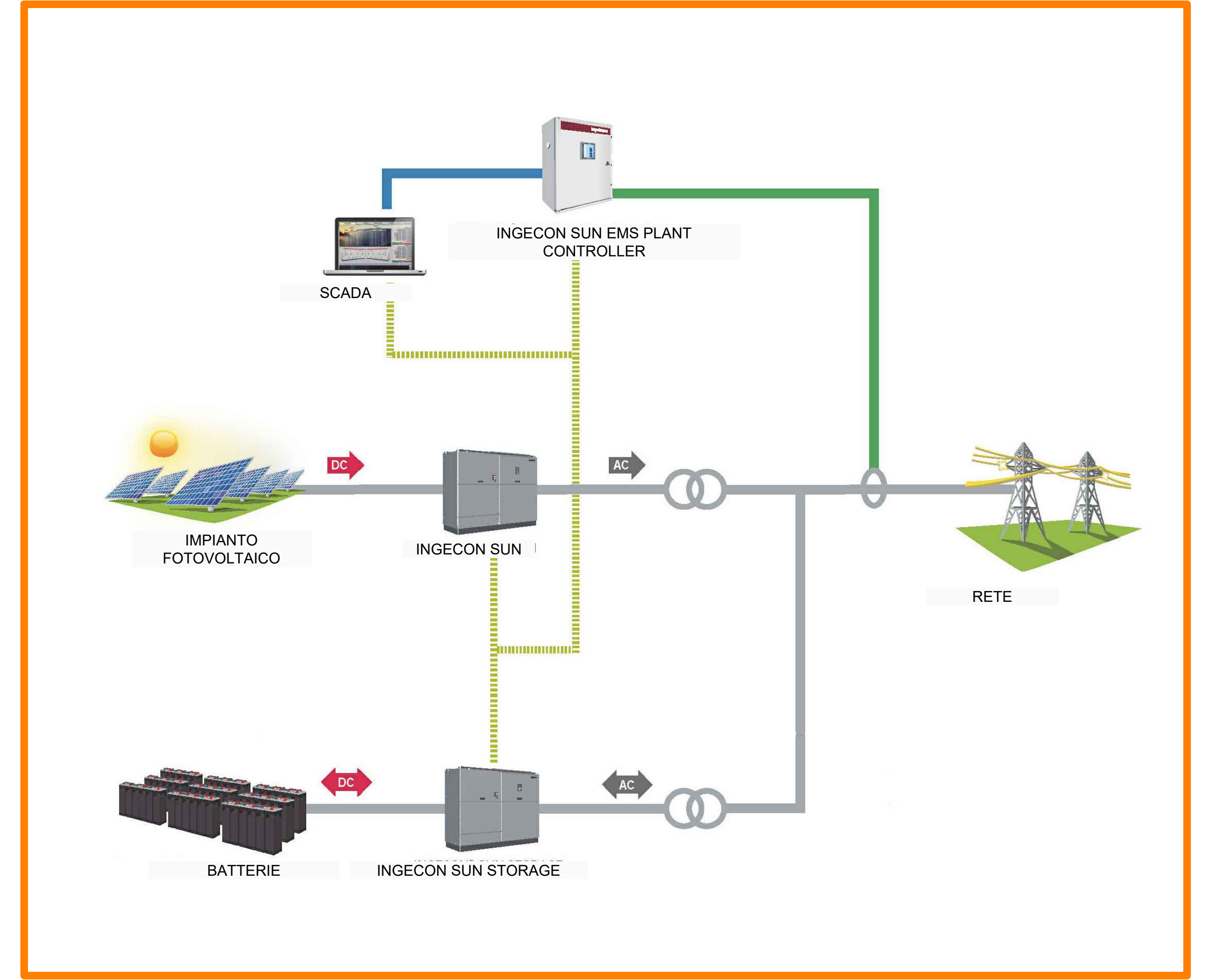
**LOCALE QUADRO MT**



**BATTERIE**

SYSTEM SPECIFICATIONS		PV INTERFACE	
RATED AC POWER (25°C / 50° C)	Up to 3.3 MVA/3.0 MVA	Max DC Voltage Open circuit	1500 Vdc
GRID VOLTAGE	11 kV, 13.8 kV, 34.5 kV (OTHER OPTIONS AVAILABLE)	MPPT Min DC Voltage	840Vdc
GRID FREQUENCY	50 Hz / 60 Hz	PV Inputs	Up to 36
REACTIVE POWER	FOUR-QUADRANT CONTROL, 0.9 LEADING TO 0.9 LAGGING AT RATED POWER	Max PV Short Circuit Current	28kA
INVERTER EFFICIENCY	98.5%	BATTERY SPECIFICATIONS	
OPERATING TEMPERATURE	-20°C to 50°C	BATTERY BLOCK POWER	500kW
ALTITUDE	De-rated over 2,000 meters	NUMBER OF BATTERY BLOCKS	Up to 6
SEISMIC RATING	Tested to Zone 4	BATTERY DURATION	2+ hours
DESIGN LIFETIME	Up to 25 years with battery augmentation, usage dependent	ROUND TRIP EFFICIENCY (DCDC)	Varies by configuration
OPERATIONAL CAPABILITIES	Dispatchable PV, Ramp Rate limiting, Frequency regulation, primary frequency response, Automatic Voltage regulation, Contingency Response	ENCLOSURE DIMENSIONS	Standard ISO container or customized to project requirements
SYSTEM RESPONSE TIME	Max capacity change in <1 second	COOLING	Air to air DX
CONTROL & MONITORING	Controls include: EMS, SCADA, Data Historian, Application Agents, and Advanced Performance Algorithms	FIRE SUPPRESSION	Non aqueous (i.e. inert gas or aerosol)
EXTERNAL CONTROL INTERFACE	SCADA and EMS integration available via common protocols including DNP3	BATTERY MONITORING	Including state of charge, state of health, max/min cell voltage, max/min cell temperature, power limits, current limits, component failures, ground fault
STANDARDS COMPLIANCE	NEC, UL1741, IEC 61851, IEC 61852, IEC 61853, IEC 61854, IEC 61855, IEC 61856, IEC 61857, IEC 61858, IEC 61859, IEC 61860, IEC 61861, IEC 61862, IEC 61863, IEC 61864, IEC 61865, IEC 61866, IEC 61867, IEC 61868, IEC 61869, IEC 61870, IEC 61871, IEC 61872, IEC 61873, IEC 61874, IEC 61875, IEC 61876, IEC 61877, IEC 61878, IEC 61879, IEC 61880, IEC 61881, IEC 61882, IEC 61883, IEC 61884, IEC 61885, IEC 61886, IEC 61887, IEC 61888, IEC 61889, IEC 61890, IEC 61891, IEC 61892, IEC 61893, IEC 61894, IEC 61895, IEC 61896, IEC 61897, IEC 61898, IEC 61899, IEC 61900, IEC 61901, IEC 61902, IEC 61903, IEC 61904, IEC 61905, IEC 61906, IEC 61907, IEC 61908, IEC 61909, IEC 61910, IEC 61911, IEC 61912, IEC 61913, IEC 61914, IEC 61915, IEC 61916, IEC 61917, IEC 61918, IEC 61919, IEC 61920, IEC 61921, IEC 61922, IEC 61923, IEC 61924, IEC 61925, IEC 61926, IEC 61927, IEC 61928, IEC 61929, IEC 61930, IEC 61931, IEC 61932, IEC 61933, IEC 61934, IEC 61935, IEC 61936, IEC 61937, IEC 61938, IEC 61939, IEC 61940, IEC 61941, IEC 61942, IEC 61943, IEC 61944, IEC 61945, IEC 61946, IEC 61947, IEC 61948, IEC 61949, IEC 61950, IEC 61951, IEC 61952, IEC 61953, IEC 61954, IEC 61955, IEC 61956, IEC 61957, IEC 61958, IEC 61959, IEC 61960, IEC 61961, IEC 61962, IEC 61963, IEC 61964, IEC 61965, IEC 61966, IEC 61967, IEC 61968, IEC 61969, IEC 61970, IEC 61971, IEC 61972, IEC 61973, IEC 61974, IEC 61975, IEC 61976, IEC 61977, IEC 61978, IEC 61979, IEC 61980, IEC 61981, IEC 61982, IEC 61983, IEC 61984, IEC 61985, IEC 61986, IEC 61987, IEC 61988, IEC 61989, IEC 61990, IEC 61991, IEC 61992, IEC 61993, IEC 61994, IEC 61995, IEC 61996, IEC 61997, IEC 61998, IEC 61999, IEC 62000, IEC 62001, IEC 62002, IEC 62003, IEC 62004, IEC 62005, IEC 62006, IEC 62007, IEC 62008, IEC 62009, IEC 62010, IEC 62011, IEC 62012, IEC 62013, IEC 62014, IEC 62015, IEC 62016, IEC 62017, IEC 62018, IEC 62019, IEC 62020, IEC 62021, IEC 62022, IEC 62023, IEC 62024, IEC 62025, IEC 62026, IEC 62027, IEC 62028, IEC 62029, IEC 62030, IEC 62031, IEC 62032, IEC 62033, IEC 62034, IEC 62035, IEC 62036, IEC 62037, IEC 62038, IEC 62039, IEC 62040, IEC 62041, IEC 62042, IEC 62043, IEC 62044, IEC 62045, IEC 62046, IEC 62047, IEC 62048, IEC 62049, IEC 62050, IEC 62051, IEC 62052, IEC 62053, IEC 62054, IEC 62055, IEC 62056, IEC 62057, IEC 62058, IEC 62059, IEC 62060, IEC 62061, IEC 62062, IEC 62063, IEC 62064, IEC 62065, IEC 62066, IEC 62067, IEC 62068, IEC 62069, IEC 62070, IEC 62071, IEC 62072, IEC 62073, IEC 62074, IEC 62075, IEC 62076, IEC 62077, IEC 62078, IEC 62079, IEC 62080, IEC 62081, IEC 62082, IEC 62083, IEC 62084, IEC 62085, IEC 62086, IEC 62087, IEC 62088, IEC 62089, IEC 62090, IEC 62091, IEC 62092, IEC 62093, IEC 62094, IEC 62095, IEC 62096, IEC 62097, IEC 62098, IEC 62099, IEC 62100	BATTERY CHEMISTRY	Advanced lithium ion sealed cells or similar

**SCHEMA DI BLOCCO CABINA INVERTER, TRASFORMAZIONE E STORAGE**



**CONFIGURAZIONE INGECON SUN**

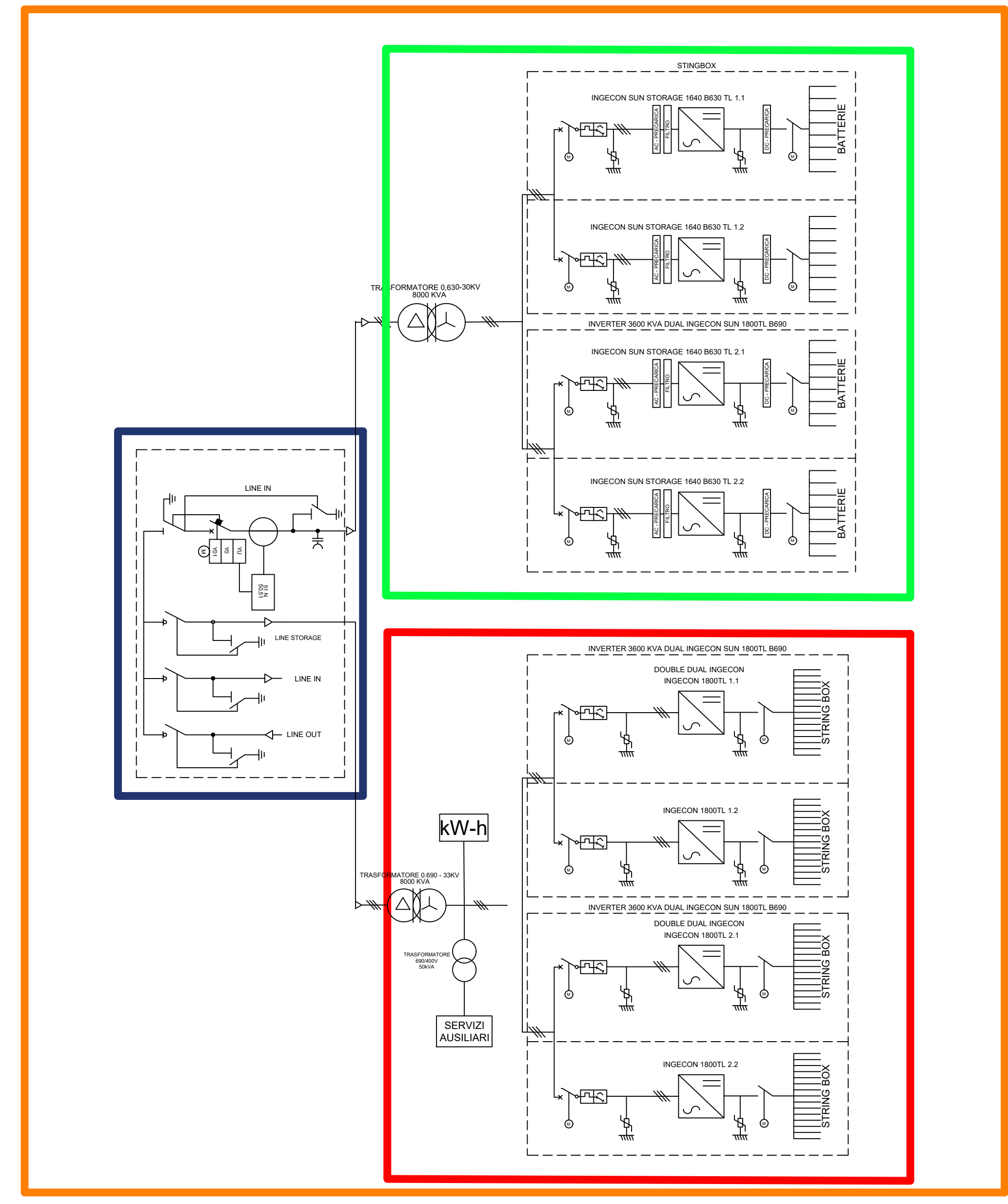
**DOUBLE + DUAL INVERTER**

**SINGLE + DUAL INVERTER**

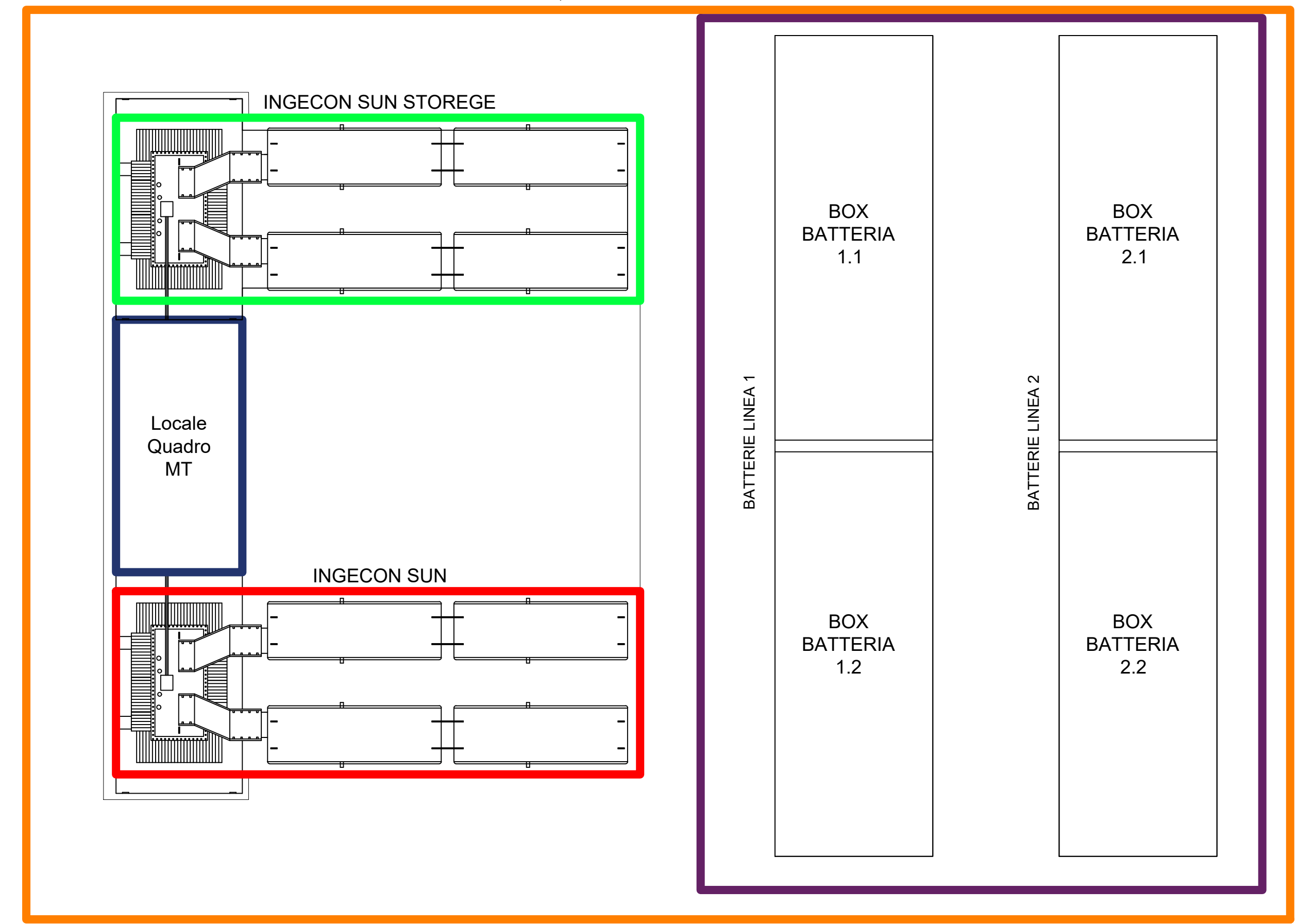
**DUAL INVERTER**

	INVERTER	DUAL INVERTER	DOUBLE + DUAL INVERTER
NUMBER OF INVERTERS	2	3	4
RATED POWER @50°C / 122 °F	3,227 kVA	4,840 kVA	6,454 kVA
RATED POWER @50°C / 122 °F	3,586 kVA	5,379 kVA	7,172 kVA
VOLTAGE CLASS	24 - 36 kV	24 - 36 kV	24 - 36 kV

**SCHEMA ELETTRICO UNIFILARE CABINA INVERTER, TRASFORMAZIONE E STORAGE**



**CONFIGURAZIONE CABINA INVERTER, TRASFORMAZIONE E STORAGE**



**SUN STORAGE INVERTER**

ASSONOMETRIA POWERMAX Dual B Series 1.500 Vdc 3600 kVA

INGECON SUN STORAGE 1640 B630 TL

BATTERIE

DC - PRECARICATA

FILTRO

AC - PRECARICATA

	1640LB630 DUAL INVERTER SUN STORAGE	1640LB630 SINGLE + DUAL INVERTER SUN STORAGE	1640LB630 DOUBLE + DUAL INVERTERS SUN STORAGE
NUMBER OF INVERTERS	2	3	4
POWER @30°C / @50°C	3,274 kVA / 2,946 kVA	4,911 kVA / 4,419 kVA	6,548 kVA / 5,892 kVA
POWER FACTOR ADJUSTABLE	3,274 kVA	4,911 kVA	6,548 kVA

**REGIONE SICILIA**  
**CITTA' METROPOLITANA DI PALERMO**  
**LIBERO CONSORZIO COMUNALE DI TRAPANI**

Località Impianto:  
COMUNE DI GIBELLINA (TP) CONTRADA MAGIONE  
COMUNE DI MONREALE (PA) CONTRADE SPIZZICA, PARRINO E TORRETTA  
COMUNI DI GIBELLINA (TP)-POGGIOREALE (TP) CONTRADA ARITA DI SOPRA  
Località Area di produzione Idrogeno:  
COMUNE DI GIBELLINA (TP) CONTRADA CASUZZE  
Località Area di produzione Idrogeno:  
COMUNI DI GIBELLINA (TP)-POGGIOREALE (TP) CONTRADA ARITA DI SOPRA

**PROGETTO DEFINITIVO**  
Realizzazione impianto agro-fotovoltaico denominato "S&P 9" con potenza di picco 110.271,00 kWp e potenza nominale 100.000,00 kW con annessa produzione di Idrogeno

CONCESSIONARIO: S&P S.R.L.  
PROGETTISTA: ING. SPAZZA ANGELO  
ELABORAZIONE: SP9EPD008\_00-SEP\_9-IMPIANTO-IT-CITIS- Particolare\_cabina\_inverter\_trasformazione\_storage

TAV: EPD008

PROGETTISTI: Ing. Spazza Angelo

SPAZIO RISERVATO PER LE APPROVAZIONI

SOCIETA': S&P 9 S.R.L. - SICILIA E PROGRESSO