



MV SKID

UTILITY SCALE SOLAR STATION



TURN-KEY SOLUTION



HIGH RELIABILITY



EASY TO INSTALL



OUTDOOR DURABILITY

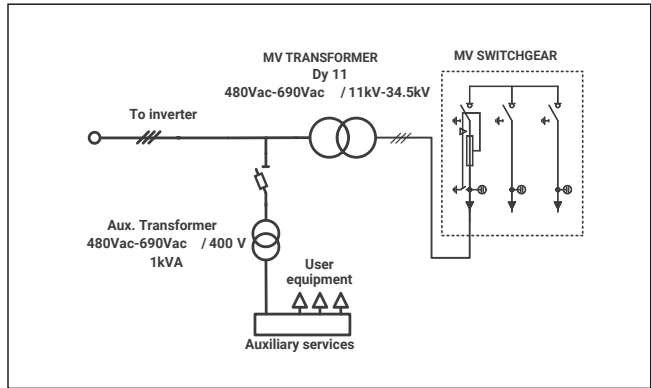
SIMPLIFY YOUR COMMISSIONING WITH THE MOST COMPETITIVE SOLUTION INTEGRATED WITH ALL THE MEDIUM VOLTAGE EQUIPMENT

The MV Skid is a compact turnkey outdoor platform made from high resistance galvanized steel with all the medium voltage equipment integrated, including an outdoor power transformer, MV switchgear, oil tank, filter and built in fast power connection to any HEMK solar inverter. With between 480 V - 690 V in the low voltage range and 12 kV to 36 kV in the high voltage range, this compact platform achieves power outputs between 1050 kVA and 3800 kVA.

This compact solution also allows the installation of a low voltage cabinet that is fully configurable to the customer needs as well as different types of cells and even an enclosure fence among other options. The MV SKID simplifies the project design of the PV plant, reducing installation costs and the amount of resources needed. The benefits of the MV Skid and the fact that it is also easier to transport and deliver into remote sites makes it the optimal solution for EPC's (engineering, procurement and construction).

MODEL NUMBERS AND OPERATIONAL DIAGRAM

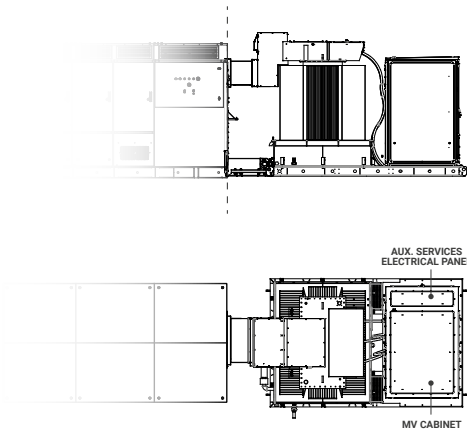
	REFERENCE	RATED POWER (kVA)
FRAME 1 AND 2 ^[1]	MVS1050[]	1050
	MVS1100[]	1110
	MVS1220[]	1220
	MVS1335[]	1335
	MVS1440[]	1440
	MVS1550[]	1550
	MVS1630[]	1630
	MVS1710[]	1710
	MVS1800[]	1800
	MVS1900[]	1900
	MVS2000[]	2000
	MVS2110[]	2110
	FRAME 2	MVS2225[L]
MVS2330[L]		2330
MVS2440[L]		2440
MVS2550[L]		2550
MVS2660[L]		2660
MVS2860[L]		2860
MVS3000[L]		3000
MVS3110[L]		3110
MVS3345[L]		3345
MVS3500[L]		3500
MVS3630[L]		3630
MVS3800[L]		3800



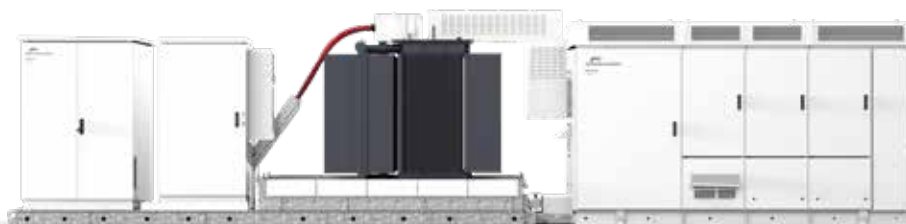
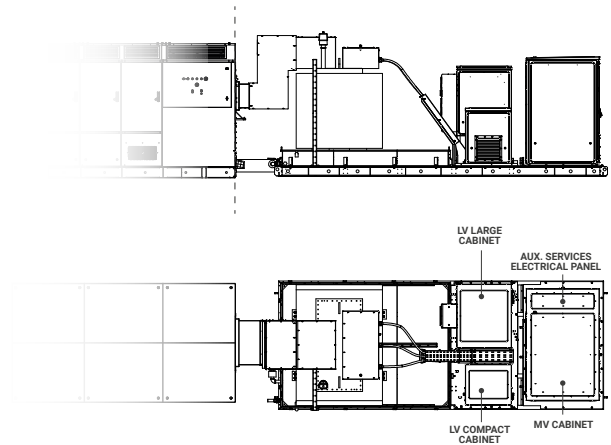
[1] Example: MVS1050S for Frame 1 / MVS10050L for Frame 2.

SECTIONS

FRAME 1



FRAME 2



TECHNICAL CHARACTERISTICS

MV SKID

	FRAME 1	FRAME 2
MEDIUM VOLTAGE EQUIPMENT	Rated Power range	1050kVA - 2110kVA
	MV Voltage range	11kV / 20kV / 22kV / 23kV / 33kV / 34.5kV
	LV Voltage range	480 / 500 / 530/ 600V / 615V / 630V / 645V / 660V / 690V
	Type of tank	Oil-sealed
	Cooling	ONAN (KNAN optional)
	Vector Group	Dy11
	Transformer protection	DGPT-2 (PT100 optional)
	Oil tank	Integrated with valve and filter
	Transformer protection rate	IP54
	Switchgear configuration	Single feeder (L) or Double feeder (2L)
	Switchgear protection ^[1]	Fuses (P) / Automatic circuit breaker (V)
CONNECTIONS	Inverter AC connection	Close couple solution (Plug & Play)
	LV protection	Circuit breaker included in the inverter
	HV AC wiring	MV Bridge between transformer and protection switchgear prewired
ENVIROMENT	Ambient Temperature	-20°C...+50°C (t>50°C power derating)
	Extended Temperature ^[2] ^[3]	-35°C...+50°C (t>50°C power derating)
	Max. Altitude (above sea level)	>2000m power derating
	Relative Humidity	4% to 95% Non condensing
MECHANICAL CHARACTERISTICS	Skid Dimensions (WxHxD) mm	3690x2340x2235
	Skid weight with MV equipmen ^t ^[1]	< 8 Tn
	Oil tank material	Galvanized Steel
	Skid Body material	Galvanized Steel
	Cabinet type	Outdoor
	Anti-rodent protection	✓
AUXILIARY SERVICES	Auxiliary supply	3x400V, 50/60Hz
ELECTRICAL PANEL	User power supply available	1kVA or 6kVA
	Additional auxiliary transformer ^[4]	10kVA / 15kVA / 25kVA
	Cooling	Air
	Auxiliary supply protection	✓
	Communication ^[4]	Ethernet (Fiber optic or RJ45)
	UPS system for monitoring ^[4]	1kVA / 3kVA, 10 minutes
AUXILIARY OUTDOOR TRANSFORMER	Rated Power (Voltage)	- / 30kVA / 40kVA / 50kVA (3x400V)
	Cooling	- / Air
	Protection	- / Circuit breaker
	Cabinet type	- / Outdoor
LV COMPACT CABINET	Additional indoor auxiliary transf. ^[4]	- / 10kVA / 25kVA / 40kVA / 50kVA (3x400V)
	UPS system for monitoring ^[4]	- / 1kVA / 3kVA, 10 minutes
	Cooling	- / Air forced
	Auxiliary supply protection	- / ✓
	Cabinet type	- / Outdoor
LV LARGE CABINET	Additional indoor auxiliary transf. ^[4]	- / 25kVA / 40kVA / 50kVA (3x400V)
	UPS for trackers ^[4]	- / 20kVA / 40kVA, 10 minutes
	Cooling	- / Air forced
	Auxiliary supply protection	- / ✓
	Cabinet type	- / Outdoor
OTHER EQUIPMENT	Safety mechanism	Trapped key safety interlock
	Safety perimeter	Transformer access protection fence
	Cabinet heating	Heating resistors
	Interior lighting	Fluorescent lamp
	Emergency lighting	Electronic supplier for emergency lighting (1h autonomy)
	Air conditioner	UPS batteries cooling
	Communication ^[4]	Splice box / MV Switchgear monitoring
STANDARDS	Medium Voltage	IEC 62271-212, IEC 62271-200, IEC 60076, IEC 61439-1

[1] Depending on customer configuration.

[2] Optional. For additional information or available configurations, please consult Power Electronics.

[3] Other temperature range, consult Power Electronics.

[4] By demand.