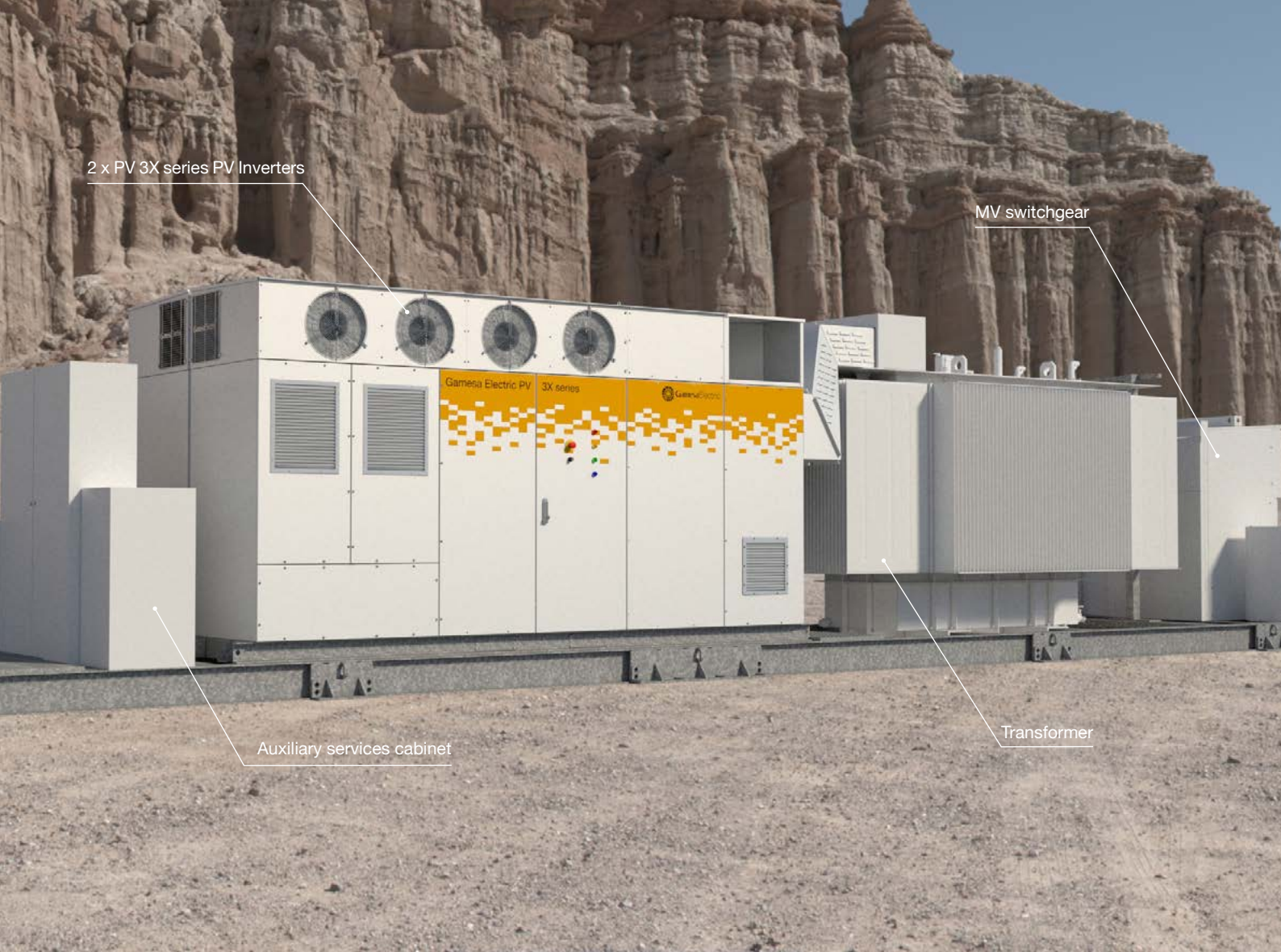




Gamesa Electric PV 3X series PV Stations

Larger MV solution for LCoE reduction





Gamesa Electric PV 3X series PV Station



Better LCoE

Largest single inverter power block in the market with 4,700 KVA

Fewer inverters per project thus lower Capex and Opex

DC/AC ratio of up to 200%



Higher yield

Market-leading efficiency with 99.45%

THDi < 1% which reduces losses

Enhanced temperature derating: keeping full power up to 40°C [104°F]



Built to last

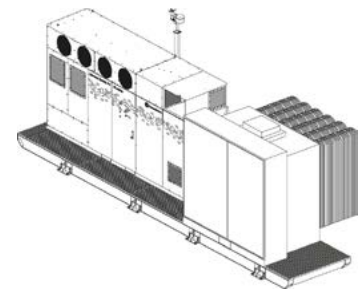
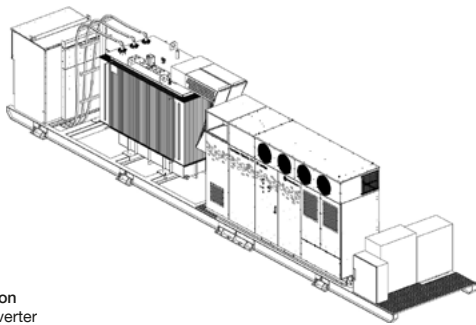
Designed and manufactured for a 30 year life span

CoolBrid: Smart hybrid cooling system that allows critical components to work far below the temperature limit

Lowest THDi in the market helps to extend power transformers lifespan

1 x PV Inverters Configurations

	Gamesa Electric PV 3X series PV Station			
	1 x PV 4100	1 x PV 4300	1 x PV 4500	1 x PV 4700
DC Connection				
Max. DC Current @40°C [104°F]	2 x 2500 A			
Max. DC Current @50°C [122°F]	2 x 2313 A			
Max. DC Current @55°C [131°F]	2 x 2220 A			
Max. DC Current @60°C [140°F]	2 x 1110 A			
DC Voltage Range*	835 - 1500 V	875 - 1500 V	915 - 1500 V	955 - 1500 V
DC Voltage Range MPPT	835 - 1300 V	875 - 1300 V	915 - 1300 V	955 - 1300 V
Nr of DC Ports	max 24 fuse +/- monitored max 36 fuse + monitored			
MPPT	1			
AC Connection				
Nominal AC Power Total @40°C [104°F]	4095 kVA	4299 kVA	4504 kVA	4709 kVA
Nominal AC Power Total @50°C [122°F]	3790 kVA	3979 kVA	4169 kVA	4358 kVA
Nominal AC Power Total @55°C [131°F]	3637 kVA	3819 kVA	4001 kVA	4183 kVA
Nominal AC Power Total @60°C [140°F]	1819 kVA	1910 kVA	2001 kVA	2091 kVA
Nominal AC Voltage*	< 34.5 kV			
Nominal Voltage Allowance Range*	+/-10%			
Frequency Range*	47.5 - 53 / 57 - 63 Hz			
Power Factor Range	0 (reactive) - 1 - 0 (capacitive)			
Protection Devices				
DC Connection	Motorized disconnectors, Overvoltage protection (Type 1 + 2 SPD), reverse polarity detection, DC ground fault and insulation detection			
AC Connection	Motorized AC circuit breakers, Overvoltage protection (Type 1 + 2 SPD), Anti-islanding, Voltage failure, Frequency failure			
Components PV Station				
Inverter	1 x PV 4100	1 x PV 4300	1 x PV 4500	1 x PV 4700
Transformer* ⁽¹⁾	Dyn KNAN / ONAN			
Switchgear* ⁽¹⁾	0L1V / 1L1V / 2L1V up to 36 kV			
Custom Auxiliary Transformer	Optional			
Others	Auxilliary cabinet			
Communications				
Control*	Modbus TCP / IP (Profinet, CAN upon request)			
Monitoring*	Modbus TCP / IP			
Websriver	Included			



Other Features				
LVRT	Yes			
HVRT	Yes			
Working Ambient Temperature**	-20°C / +60°C [-4°F / +140°F], Option -40°C [-40°F]			
Relative Humidity	100% (without condensation)			
Maximum Altitude (without derating)***	2,000 m [6,561 ft]			
Dimensions W x H x D (IEC / UL version) ⁽²⁾	11800 x 2600 x 2100 mm / 30 x 8,5 x 8,6 ft			
Protection	IP54			
Cooling System	Liquid & forced air			
Main Standards	Optionals			
IEC62109	-40°C Low Temperature Kit			Custom Auxiliary Transformer
UL1741-SA	UPS for supplying trackers			Seismic Reinforcement
UL62109	Motorized MV Switchgear			High Corrosion Protection Kit
NEC	DC Ready: Up to 6 DC-DC converters per PV Station			

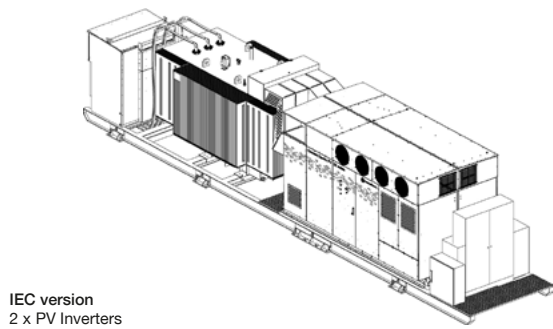
2 x PV Inverters Configurations

	Gamesa Electric PV 3X series PV Station			
	2 x PV 4100	2 x PV 4300	2 x PV 4500	2 x PV 4700
DC Connection				
Max. DC Current @40°C [104°F]	4 x 2500 A			
Max. DC Current @50°C [122°F]	4 x 2313 A			
Max. DC Current @55°C [131°F]	4 x 2220 A			
Max. DC Current @60°C [140°F]	4 x 1110 A			
DC Voltage Range*	835 - 1500 V	875 - 1500 V	915 - 1500 V	955 - 1500 V
DC Voltage Range MPPT	835 - 1300 V	875 - 1300 V	915 - 1300 V	955 - 1300 V
Nr of DC Ports	max 48 fuse +/- monitored max 72 fuse + monitored			
MPPT	2			
AC Connection				
Nominal AC Power Total @40°C [104°F]	8190 kVA	8598 kVA	9008 kVA	9418 kVA
Nominal AC Power Total @50°C [122°F]	7580 kVA	7958 kVA	8338 kVA	8178 kVA
Nominal AC Power Total @55°C [131°F]	7274 kVA	7638 kVA	8002 kVA	8366 kVA
Nominal AC Power Total @60°C [140°F]	3638 kVA	3820 kVA	4002 kVA	4182 kVA
Nominal AC Voltage*	< 34.5 kV			
Nominal Voltage Allowance Range*	+/-10%			
Frequency Range*	47.5 - 53 / 57 - 63 Hz			
Power Factor Range	0 (reactive) - 1 - 0 (capacitive)			

Protection Devices	
DC Connection	Motorized disconnectors, Overvoltage protection (Type 1 + 2 SPD), reverse polarity detection, DC ground fault and insulation detection
AC Connection	Motorized AC circuit breakers, Overvoltage protection (Type 1 + 2 SPD), Anti-islanding, Voltage failure, Frequency failure

Components PV Station	
Inverters	2 x PV 4100 2 x PV 4300 2 x PV 4500 2 x PV 4700
Transformer* (1)	Dynyn KNAN / ONAN
Switchgear* (1)	0L1V / 1L1V / 2L1V up to 36 kV
Custom Auxiliary Transformer	Optional
Others	Auxilliary cabinet

Communications	
Control*	Modbus TCP / IP (Profinet, CAN upon request)
Monitoring*	Modbus TCP / IP
Websserver	Included



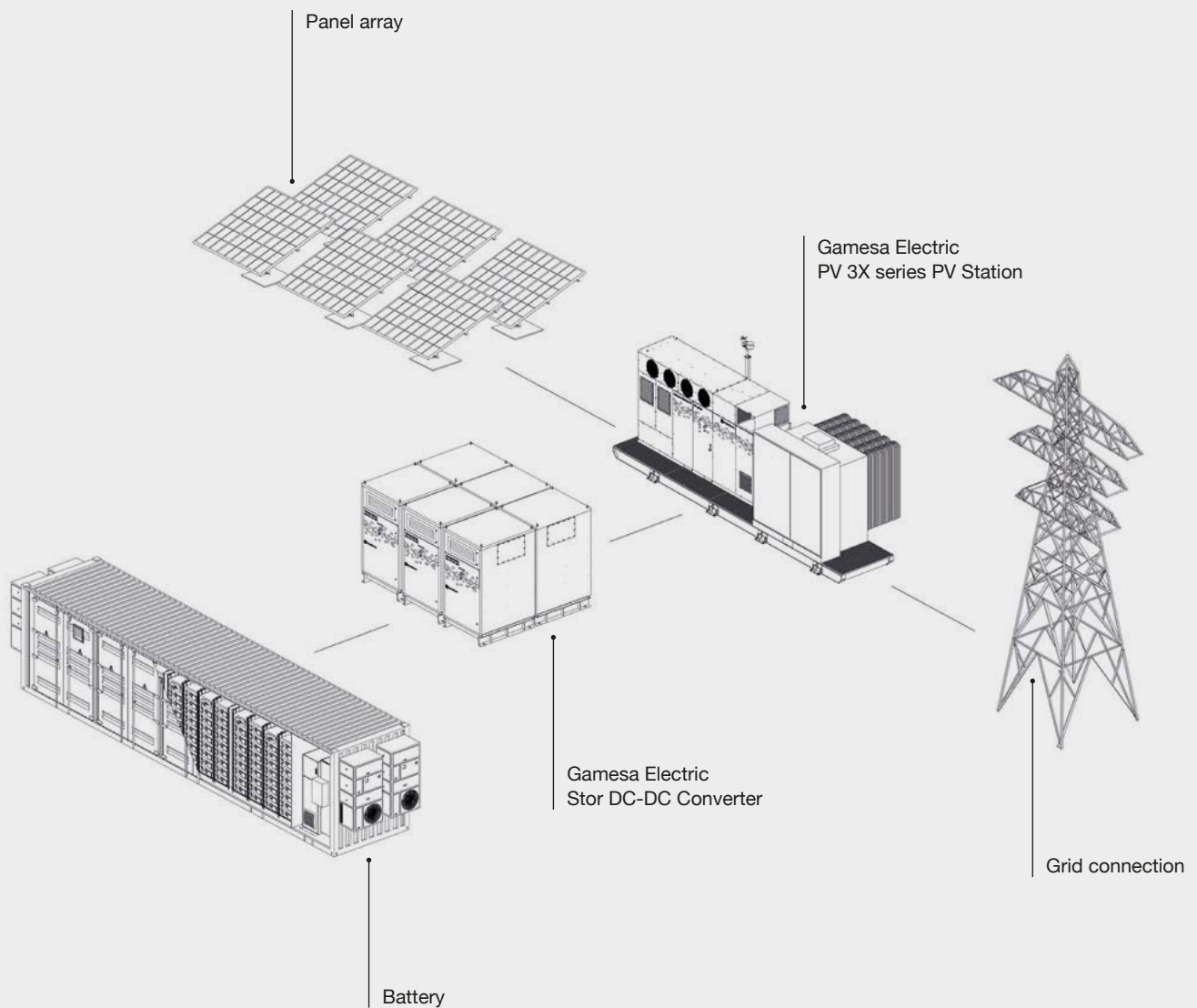
(1) UL version: Padmounted Dyn (without external switchgear)
 (2) UL variant only available for 1 Inverter based configuration
 * Consult Gamesa Electric for a specific configuration
 ** With derating from 40°C [104°F]
 *** Up to 4,000 m (13,123 ft) with derating as optional

Other Features	
LVRT	Yes
HVRT	Yes
Working Ambient Temperature**	-20°C / +60°C [-4°F / +140°F], Option -40°C [-40°F]
Relative Humidity	100% (without condensation)
Maximum Altitude (without derating)***	2,000 m [6,561 ft]
Dimensions W x H x D (IEC / UL version) ⁽²⁾	11800 x 2600 x 2100 mm / 30 x 8,5 x 8,6 ft
Protection	IP54
Cooling System	Liquid & forced air

Main Standards	Optionals	
IEC62109	-40°C Low Temperature Kit	Custom Auxiliary Transformer
UL1741-SA	UPS for supplying trackers	Seismic Reinforcement
UL62109	Motorized MV Switchgear	High Corrosion Protection Kit
NEC	DC Ready: Up to 12 DC-DC converters per PV station	

PV 3X Series DC Ready – Optional

For seamless integration of PV and storage



Suitable for PV plants requiring future battery installation

Easy and secure connection of batteries to achieve a fast integration of hybrid systems PV – BESS at any time

Highly flexible design that allows to connect up to 6 Gamesa Electric Stor DC-DC converters per inverter

Modular concept to support different PV – BESS ratios and ease battery augmentations



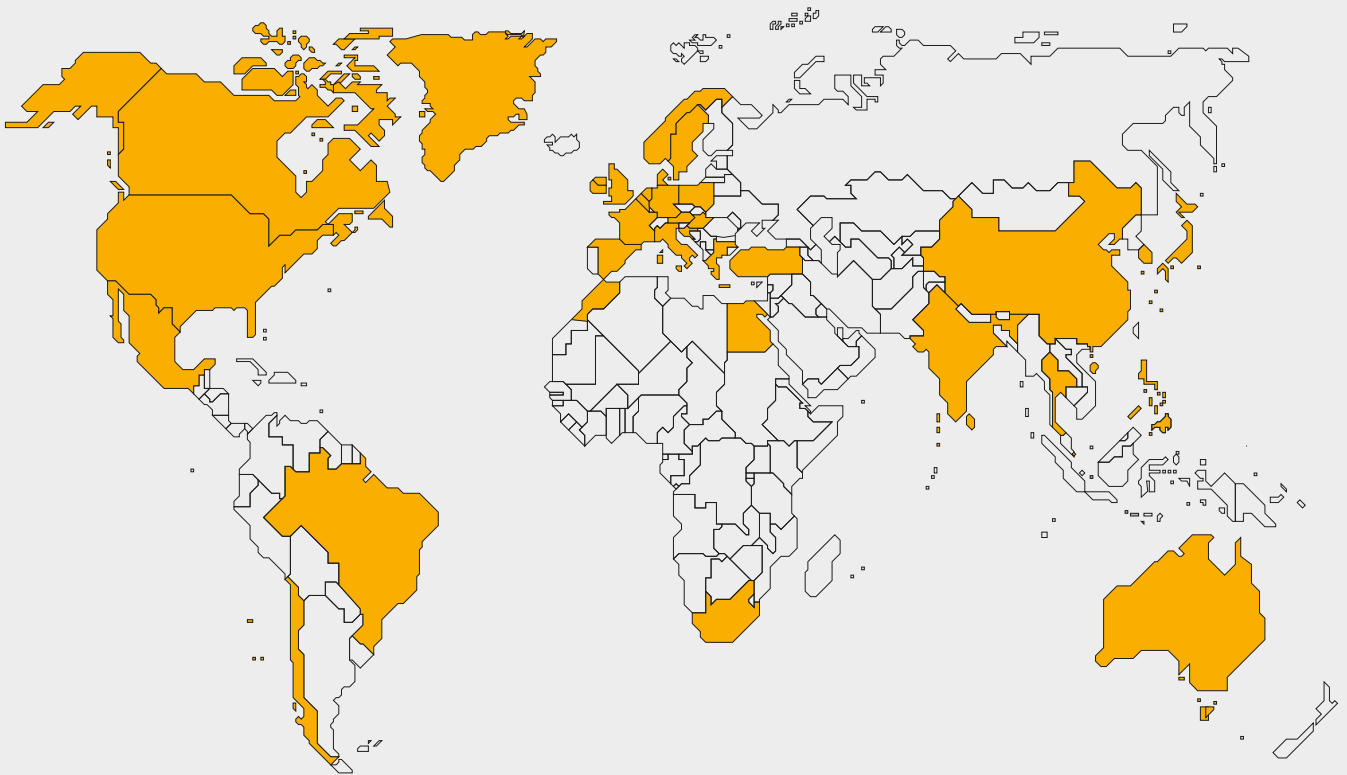
+3.7 GW
SOLAR ENERGY



+115 GW
WIND POWER



+90
COUNTRIES



Worldwide presence

Australia
Austria
Belgium
Brazil
Canada

Chile
China
Croatia
Denmark
Egypt

France
Germany
Greece
Hong Kong
Hungary

India
Ireland
Italy
Japan
Korea

Mexico
Morocco
Netherlands
Norway
Philippines

Poland
Singapore
South Africa
Sri Lanka
Sweden

Thailand
Turkey
UK
USA

