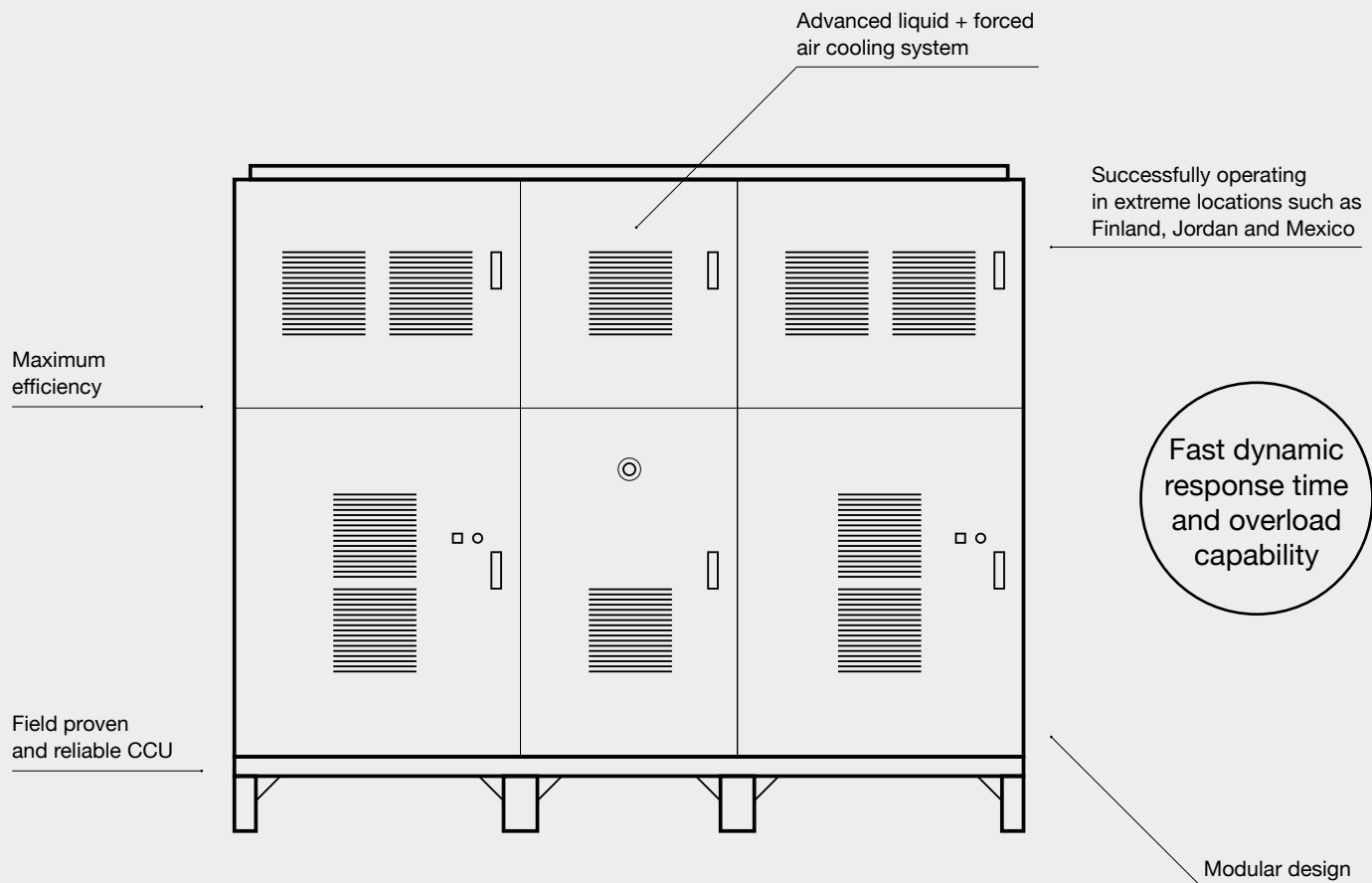




# Gamesa Electric Statcom




Fast dynamic reactive  
power compensation system





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## Fast dynamic reactive power compensation system

 <b>Efficient</b>	3.0 MVAR module with easy scalability up to 4.2 MVAR	Up to 50°C and 2000 m with no power derating	High efficiency and high power density that allows LCoE reduction
 <b>Reliability</b>	Gamesa Electric's CCU is a control system highly robust and reliable backed by over 6500 units installed worldwide	Liquid cooling system that ensure best performance in harsh environments	Redundant design for better availability
 <b>Smooth response</b>	Fast dynamic reactive power compensation for full grid compliance	Allows renewable power plant integration and productivity	Facilitates smooth network connection and compliance with most demanding grid codes

# Shaping New Energy

Module	3.0 MVar	3.4 MVar	4.2 MVar
<b>Electrical Characteristic</b>			
Rated Power - Qnom (MVar in MV/LV)	±3.0/±3.2	±3.4/±3.7	±4.2/±4.6
AC Voltage Range (at MV Side)	±20% Un; Qnom	±10% Un; Qnom	±10% Un; Qnom
LVRT. Overload Capability (at MV Side)	20% < Un < 80% 200% Inom_cap 1.2 sec 150% Inom_cap 3.0 sec	20% < Un < 90% 200% Inom_cap 1.2 sec 150% Inom_cap 3.0 sec	20% < Un < 90% 150% Inom_cap 1.0 sec 125% Inom_cap 3.0 sec
HVRT	110% < Un < 120% Inom_ind permanent  120% < Un < 130% Inom_ind - 1 minute	110% < Un < 120% Inom_ind - 1 minute	110% < Un < 120% Inom_ind - 1 minute
40 ft Container (3 Modules)	±9.0 MVar in MV	±10.0 MVar in MV	±12.6 MVar in MV
Step-up Transformers	3 x 3.25 MVA 1 x 9.8 MVA	3 x 3.6 MVA or 1 x 10.9 MVA	3 x 4.6 MVA or 1 x 13.8 MVA
40 ft Container (4 Modules)	±12.0 MVar in MV	±13.6 MVar in MV	±16.8 MVar in MV
Step-up Transformers	4 x 3.25 MVA 1 x 13.1 MVA	4 x 3.6 MVA or 1 x 14.6 MVA	4 x 4.6 MVA or 1 x 18.4 MVA
AC Voltage (MV)	From 11.8 kV to 34.5 kV (Step-up Transformer)		
Grid Frequency	50/60 Hz		
Grid Frequency Variation	±6%		
Harmonic Current Distortion (THDI)	<3% @ full load		
Power Sections	1		
Cooling	Water/Glycol		
Reactive Power Accuracy	>99%		
Voltage Unbalance	<3%		
<b>Control Features</b>			
Regulation Control	Reactive Power Control Power Factor Control AC Voltage Control Active Harmonics Filter		
Low Voltage Ride Through (LVRT)	Yes		
Response Time	5 ms		
Communications	Ethernet		
Central Control Unit	Supplied when more than one module is used		
<b>Ambient Features</b>			
Temperature Operation Range	-20°C/+50°C, without derating		
Humidity	95%, no condensation		
Altitude	2000 m above sea level*		
<b>Mechanical Features</b>			
Dimensions (W/H/D)	850 x 1730 x 1000 mm		
Weight	1100 kg		
Protection Degree	IP20 (converter cabinet) IP43 (standard ISO container, 20 ft or 40 ft, under customer request)		
<b>Protections</b>			
Short-circuit and Overload	Circuit breaker protection		
Surge Protection	Varistor type class II, according to IEC 61643-1		
Power Blocks	Overcurrent protection		
Temperatures	Cabinet   Control unit   Power blocks   Grid inductor		
Alarm Record Historic Database	Available on remote and local controllers		
<b>Normative</b>			
Main Standards	CE marked as per EN 61000 IEEE 519; EN 50178		

\* For higher altitudes, consult Gamesa Electric



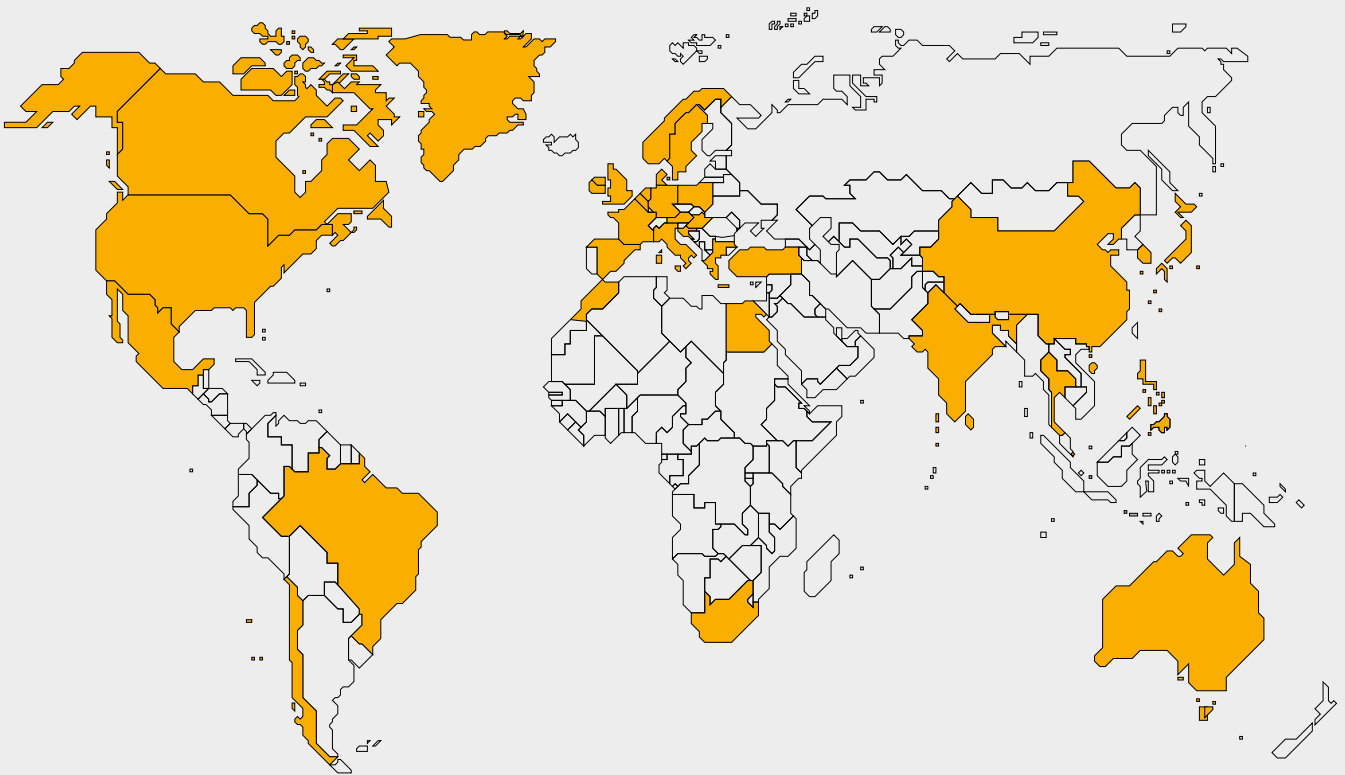
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PV INVERTERS



**+90 GW**  
Wind & Solar  
INSTALLED



**+90**  
COUNTRIES



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Denmark  
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Germany  
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India  
Ireland  
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