

## DATA SHEET

# RESTORE DC Block - US

Compact, modular, and scalable energy storage system for multi-megawatt hour utility-scale energy storage projects.

The RESTORE DC Block - US meets the IRA domestic content requirements and is a core component of the GE VERNOVA FLEXRESERVOIR solution. This integrated battery energy storage, power electronics, and control system supports multiple configurations and market applications. RESTORE deploys 5MWhr of liquid cooled energy storage in a convenient 20ft containerized solution.



SPECIFICATION		2Hr/4Hr
<b>PERFORMANCE</b>		
Electrical configuration	12P416S/314 Ah LFP (6P Strings/8S Modules)	
Nameplate energy <sup>1</sup>	5016 kWh	
Discharge power <sup>1</sup>	2508 kW (at CP/2) / 1254 (at CP/4)	
Auxiliary power	3-phase + Neutral, 60Hz @ 480V +/- 10%	
Low Voltage & Zero Voltage Ride Through (LVRT / ZVRT)	Included	
Maximum DC voltage <sup>1</sup>	1500 V DC	
Maximum DC current <sup>1</sup>	2340 Amp	
<b>EFFICIENCY AND AUXILIARY POWER</b>		
Container RTE without aux <sup>2</sup>	93% (CP/2) / 95% (CP/4)	
System RTE with aux <sup>3</sup>	88% (CP/2) / 90% (CP/4)	
Auxiliary power consumption <sup>2,4</sup>	34 KVA Peak / 18.6 kW Average (CP/2)/ 9.3 kW Average (CP/4)	
Idle Auxiliary power consumption <sup>5</sup>	1.9 kW	
<b>MECHANICAL</b>		
Dimensions (L x W x H)	6058 mm x 2438 mm x 2896 mm (ISO 20' high-cube container)	
Weight – Batteries Only / Total with Container	Approx. 32,400 kg / Approx. 43,000 kg	
Installation	Pad / Pile	
Cable entry location	Bottom (DC, AC aux, Communications)	
Power cables per DC terminal	Up to 6 x 240 mm <sup>2</sup> Copper	
Cooling type	Liquid cooled (50/50 Water/glycol)	
Chiller capacity / heating capacity (35C/<1000m)	60 kW / 24 kW	
Noise	≤75 dBA at 1m	
Grounding	2 pads (1 front long side, 1 rear long side) / 4 x M12 tapped holes per pad	
Paint color	RAL 6036 (Dark Teal)	
<b>ENVIRONMENT</b>		
External ambient operating temperature range up to 1000 m	-30 °C to +50 °C (-35 °C with cold weather option)	
Maximum ambient operating temperature at 1000 m	+45 C°	
Maximum ambient operating temperature at 3000m	+35 C°	
Storage temperature range <sup>6</sup>	-40 °C to 60 °C without battery module -35 °C to 60 °C with battery module	
External Relative Humidity	100% Operating / 80% Storage	
Seismic rating	IBC 2018 / ASCE 7-10 Ss=2g for 0.2 seconds	
Ingress Protection	IP55 (IEC 60259) / TYPE 3R	
Corrosion rating	Standard: C3 / Option: C4	
Snow load	150 psf as per ASCE 7-10	
<b>SAFETY</b>		
Pad-Lockable DC Switch for LOTO	Motorized DC Switch	
Fire Alarm Control Panel (FACP)	Included Standard	
Smoke and Heat Detectors	6	
Additional Fire Safety System Equipment	1 internal Horn/Strobe, 1 external Horn/Strobe, 2 manual pull stations	
Explosion prevention system	Automatic Purge Ventilation Standard	
Explosion protection system	Deflagration Panels Optional	
Emergency Shutdown Input	Standard and Configurable on Low Voltage Panel	
Low voltage electrical panel separate from DC power high voltage section	Standard	

CERTIFICATIONS & COMPLIANCE	
Certifications	UL 9540, UL9540A, UL1973, IEC 62933, IEC 61000-6-2/-4 (EMC)
Compliance	CE, NFPA 68, NFPA 69, NFPA 70, NFPA 855
COMMUNICATIONS	
BMS to rack BMS	isoSPI / TPL (Copper)
Rack BMS to Unit Controller	MODBUS (Copper)
Chiller	MODBUS (Copper)
Industrial PC (Data acquisition & analytics)	Ethernet

- 1) At DC container terminals, BOL, STC
- 2) @STC, BOL, charge-no rest-discharge cycle at rated power
- 3) When paired with GE Vernova FlexInverter. @STC, BOL, charge-no rest-discharge cycle at rated power. LV Transformer Terminals
- 4) Peak aux value may increase up to 44 KVA for sites that experience extreme cold weather conditions
- 5) AT STC, BOL, 24-hr idle state
- 6) With aux power. Storage limited to < 48hr for Ambient <-20°C and > 30°C without auxiliary power

[www.gevernova.com/solar-storage](http://www.gevernova.com/solar-storage)

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Datasheet FR RESTORE US DC Block  
X88055-R004  
251002