

SIRIUS ENERGY STORAGE MODULE TECHNICAL DATA SHEET

Part Number: 15000-384-A-1C-TM-SD-A-X-DC-G | Version Date: March 2021



PERFORMANCE SPECIFICATIONS	Voltage (Nominal)	384 V _{dc}	
	Maximum Charge Voltage	432 V _{dc}	
	Discharge Cut-Off Voltage	367 V _{dc}	
	Total Energy	15000 WH	
	Maximum Charge Rate	39 A	
	Maximum Discharge Rate	39 A	
ENVIRONMENTAL SPECIFICATIONS	Cell Operating Temperature ¹	-30 °C to 80 °C	
	Operating Humidity	Non-Condensing	
MECHANICAL SPECIFICATIONS	Dimensions (w × d × h) mm	580 x 744 x 1275	
	Weight (Kg)		
	Module Casing Material	GI	
	Terminal Type	HVIL 125A-S-1S	
SMART FEATURES	Monitoring Data	Total Cell Voltage, Current, Temperatures, SOC and Energy	
	Remote Monitoring	Via Sirius View App	
	Communication and Connectivity	Fanless PC	



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	Alarm		Audible alarm in the event of Over/under- Voltage, Over-Current, Over Temperature
SIRIUSVIEW SOFTWARE	Module Monitoring		Current, maximum and minimum Voltage, Temperature, Total Energy delivered, SOC, Graphs
	System Monitoring		Modules Monitoring (connected in parallel)
MODULE SERVICE LIFE	Projected Cycle Life ^{2,3}		1 million cycles
	Projected Calendar Life ^{3,4}		45 years
	Shelf Life ⁵		10 years
	Warehousing		Can be stored at any SOC without affecting cycle life
SAFETY PERFORMANCE	Over/under voltage		Hardware protection, Module Terminal Cut-off
	Over Current		Hardware protection, Module Terminal Cut-off
	Over temperature		Hardware protection, Module Terminal Cut-off
	Additional Safety		2× 2P 125A DC circuit breakers + 10A DC circuit breakers +2 DC contactors protection
COMPLIANCE ⁶ INFORMATION	EN55032:2015, EN55024:2010, EN61000-4-2:2009, EN61000 EN61000:2008+A2:2010		
PRECAUTIONS	Alarm	In case of alarm, immediately rectify/attend to the cause of the alarm.	
	Physical Damage	In case the Module is physically damaged due to any event, do not install and energize the Module under any circumstances and contact your Reseller.	
	Short Circuit	Ensure precautions to prevent short-circuit under all circumstances.	
	Galvanic isolation	When connecting to external devices ensure that galvanic isolation does not exceed 1000V.	
	Charge Current	Under no circumstances must the charge current exceed 39A.	
	Discharge Current	Under no circumstances must the discharge current exceed 39A.	
	Charging Voltage	Under no circumstances must the charging voltage exceed 432 V_{dc} for more than 60 seconds.	
	Charge Cycle	During charge cycle ensure never to exceed constant voltage of 432 V_{dc} and constant current of 39A.	



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	Series Connection	Series connection is not allowed.
	Parallel Connection	There is no limit on the number of Modules that can be connected in parallel.
	Series-Parallel Connection	Modules cannot be connected in Series-Parallel combination under any circumstance.

 1 The temperature range indicates the range in which the supercapacitor cells can operate. The performance of the cells may vary if they are continuously operated outside a temperature range of -10° C to 55° C, and/or at C-rates higher than the maximum charge/discharge rate specified in this spec sheet. The operating temperature range of the Module varies based on the application. If the Module is to be operated continuously outside a temperature range of -10° C to 55° C, and/or at C-rates higher than the maximum charge/discharge rate specified in the spec sheet, please consult Kilowatt Labs or its Reseller prior to deploying.

Product dimensions are for reference only unless otherwise identified and may change without notice.

For critical applications, please contact your Reseller.

²Projected life of supercapacitor cells. Cycle life will vary if cycled more than 4 times a day.

 $^{^3}$ Additional terms and conditions, including a limited warranty, will apply at the time of purchase.

⁴Projected Calendar life of supercapacitor cells from the date of first operation.

⁵Shelf life is the life of the Module (in years) from the date it is manufactured to the time it is first operated.

⁶CE certification is completed for supercapacitor cells.