

LDX-SC12

12 V Super Capacitors Module

The LDX-SC12 Super Capacitors Module is used to replace 12 V batteries for short term backup applications.

Multiple parallel and series connection are possible for voltage and/or current increase.

Simple but elegant look and ease of installation make it ideal for various industrial applications and is designed to be mounted on DIN rail and installed inside a protective enclosure.



FEATURES

- Reliable topology, based on new technology of Electric Double Layer Capacitors
- > 7.6 kJ (2.1 Wh) energy storage
- Replaces 12 V batteries for short term backup applications
- Extended operating temperature (up to 85°C) for high reliability
- Multiple parallel and series connection possibilities for voltage and/or current increase
- Reverse polarity and overcurrent protections
- Pluggable connectors
- Compact size in aluminum enclosure
- Dimensions: 80 x 120 x 100 mm



1. GENERAL SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITIONS	SPECIFICATION
Input DC Rated Voltage	Nominal	12 VDC
	Range	0 - 16 VDC
	Absolute maximum voltage	17 VDC
Energy Storage Capacity		7.6 kJ (2.1Wh)
Input Current for Capacitor Charging	Maximum	20 A
Charging Time	See charging chart 1	
Output Current for Capacitor Discharging		20 A
	See discharging charts 2, 3, 4	30 A for 5 s
Protections	Reverse polarity connection	
	Short circuit through ATO blade, user replaceable	30 A / 32 V
	Overvoltage protection	
Operating Temperature		-40 to +85 °C
Storage Temperature		-40 to +80 °C
Voltage Derating	Over 65°C	- 120 mV
Humidity	Non-condensing	5 - 95 % RH
Cooling	Natural convection	
Charging / Discharging Cycles	Ta = 25°C	500 000
Life Time Expectancy	Ta = 25°C, full load	10 years
MTBF	MIL-HDBK-217F at Ta = 25°C, full load	> 500 000 hrs
Isolation	DC Bus to Ground	0.75 kVDC
Safety Standards & Approvals	UL 508 (certified)	
	IEC/EN 61010-1	
	IEC/EN 61010-2-201	
	IEC/EN 60950	
EMC Emissions	EN 55011 / CISPR 11	Class B
	EN 55022 / CISPR 22	Class B
EMC Immunity	EN 61000-4-2	Level 3
	EN 61000-4-3	Level 3
	EN 61000-4-4	Level 3
	EN 61000-4-5	Level 1
Protection Degree	EN 60529	IP20
Vibration Sinusoidal	IEC 60068-2-6	5-17.8 Hz: ±1.6 mm; 17.8-500 Hz: 2 g 2 Hours / axis (X,Y,Z)
Shock	IEC 60068-2-27	30 g 6 ms, 20 g 11 ms; 3 bumps / direction, 18 bumps total

2. MECHANICAL SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITIONS	SPECIFICATION
Dimensions		80 x 120 x 100 mm
		3.15 x 4.72 x 3.94 in
Weight		750 g
Connection Terminals	Screw type pluggable (24 - 12 AWG)	2.5 mm ²
Case Material	Aluminum	

3. CHARGING / DISCHARGING CHARTS

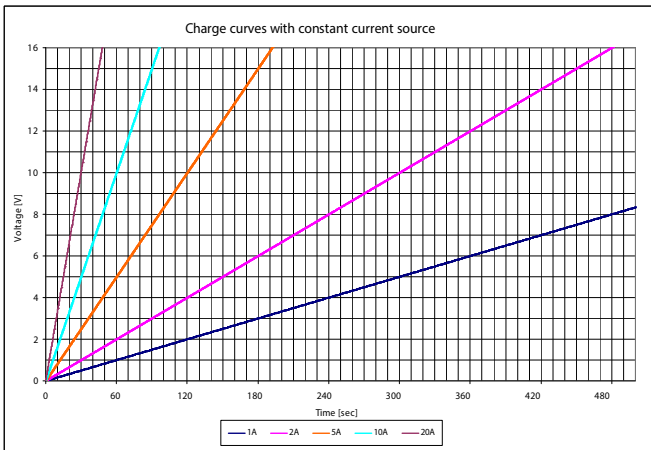


Chart 1

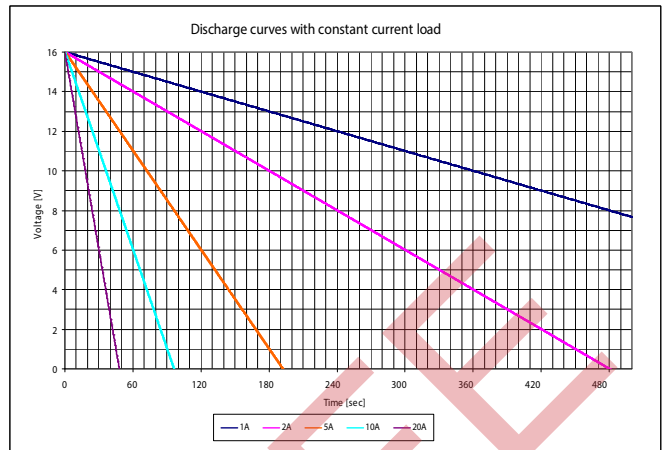


Chart 2



Chart 3



Chart 4

4. PIN LAYOUT & DESCRIPTION



INPUT / OUTPUT CONNECTION + = Positive DC
- = Negative DC

5. MECHANICAL DRAWING

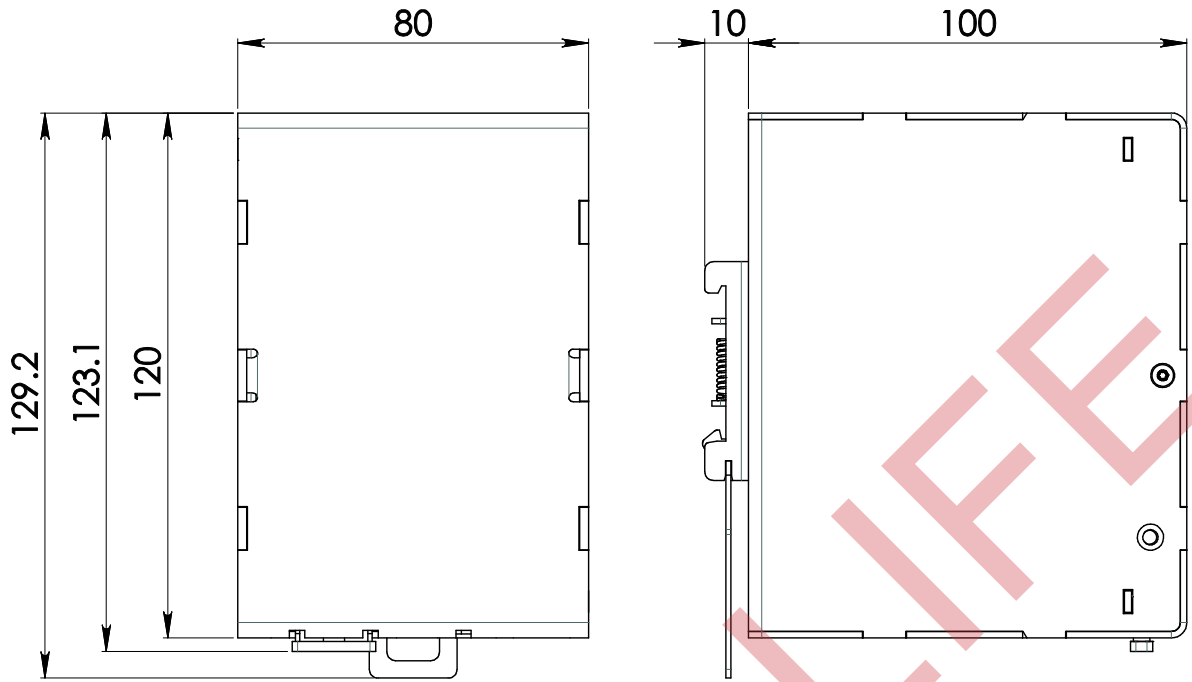


Figure 1. Mechanical Drawing

Notes:

Technical parameters are typical, measured in laboratory environment at 25°C and 16 VDC

END OFF

NUCLEAR AND MEDICAL APPLICATIONS - Products are not designed or intended for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems.

TECHNICAL REVISIONS - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.