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.

RoHS Compliant

Key Features & Benefits

- Compact size, standard enclosure shape
- 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 for high reliability
- Multiple parallel and series connection possibilities for voltage and/or current increase
- Reverse polarity and overcurrent protections
- Pluggable connectors
- Up to 85°C operating temperature
- Dimensions: 80.0 x 120.0 x 100.0 mm (3.15 x 4.72 x 3.94 in)

1. TECHNICAL SPECIFICATIONS

PARAMETER		DESCRIPTION / CONDITION	SPECIFICATION
Input DC Rated Voltage		Nominal: Range:	12 VDC 0 – 16 VDC
Absolute Maximum Voltage			17 VDC
Energy Storage Capacity			7.6 kJ (2.1 Wh)
Input Current for Capacitor Charging			20 A max
Charging Time		See Figure 1	
Output Current for Capacitor Discharging		30 A for 5 sec (see Figures 2, 3, 4)	20 A
Protections		Reverse polarity connection Short circuit through 30A/32V ATO blade, user replaceable Overvoltage protection	
Operating Temperature		Overtemperature protection	- 40 to + 85°C
Voltage Derating			- 120 mV / °C over 65°C
Storage Temperature			- 40 to + 80°C
Humidity		Non-condensing	5 - 95% RH
Cooling		Natural convection	
Charging / Discharging Cycles		At 25°C ambient	500 000
Life Time Expectancy		At 25°C ambient	10 years
MTBF		MIL-HDBK-217F at 25°C ambient full load	> 500 000 h
DC Bus / Ground Isolation			0.75 kVDC
Safety Standards		UL508 (reference) EN60950 (reference)	
EMC Standards	Emission	EN55022 (CISPR11) EN55011 (CISPR22)	Class B Class B
	Immunity	EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5	Level 3 Level 3 Level 3 Level 1
Protection Degree		EN60529	IP20
Vibration Sinusoidal		IEC 60068-2-6	5-17.8 Hz: ±1.6 mm; 17.8-500 Hz: 2 g 2Hours / axis (X,Y,Z)
Shock		IEC 60068-2-27	30 g 6 ms, 20 g 11 ms; 3 bumps / direction, 18 bumps total
Weight			750 g
Dimensions			80 x 120 x 110 mm
Connection Terminals		Screw type pluggable (24 - 12 AWG)	2.5 mm²
Case Material		Aluminum	

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

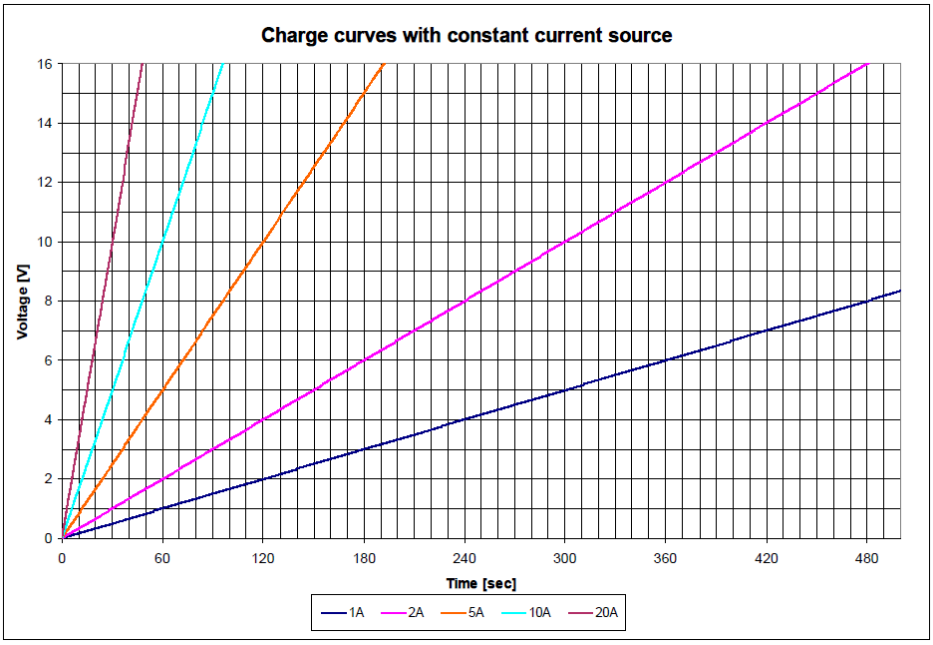

Figure 1.

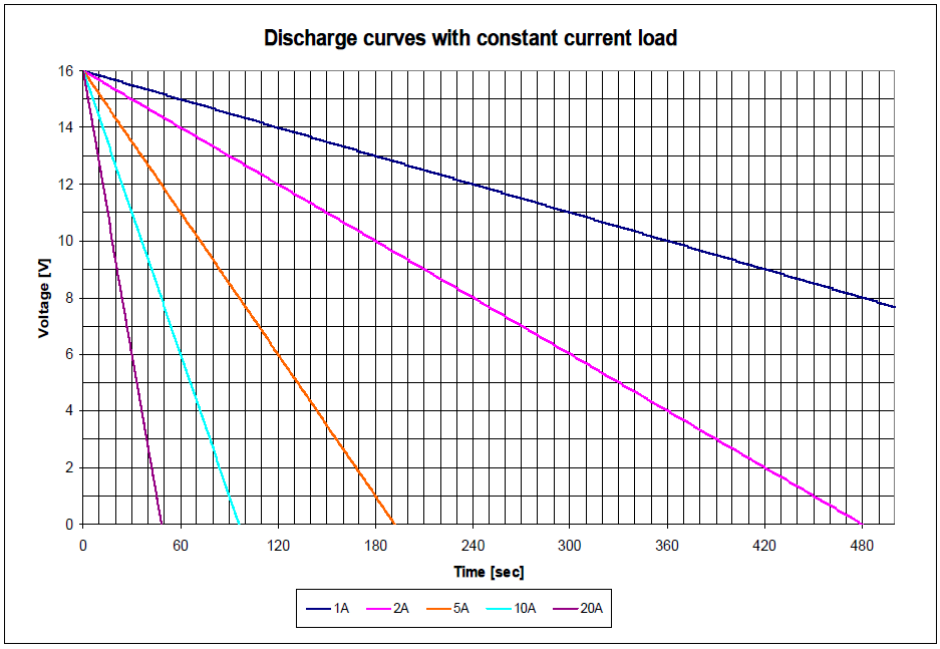

Figure 2.

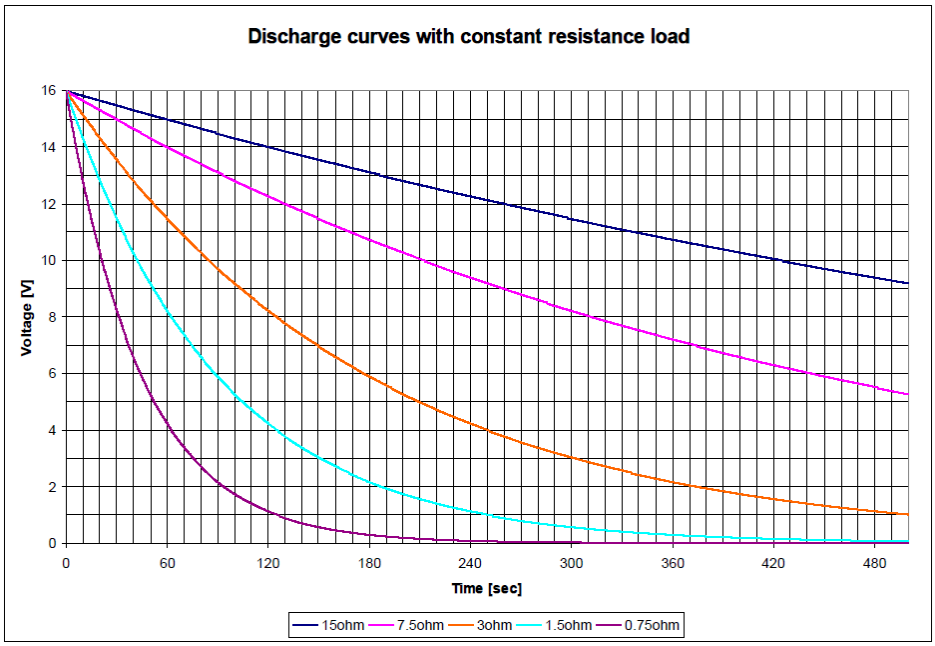

Figure 3.

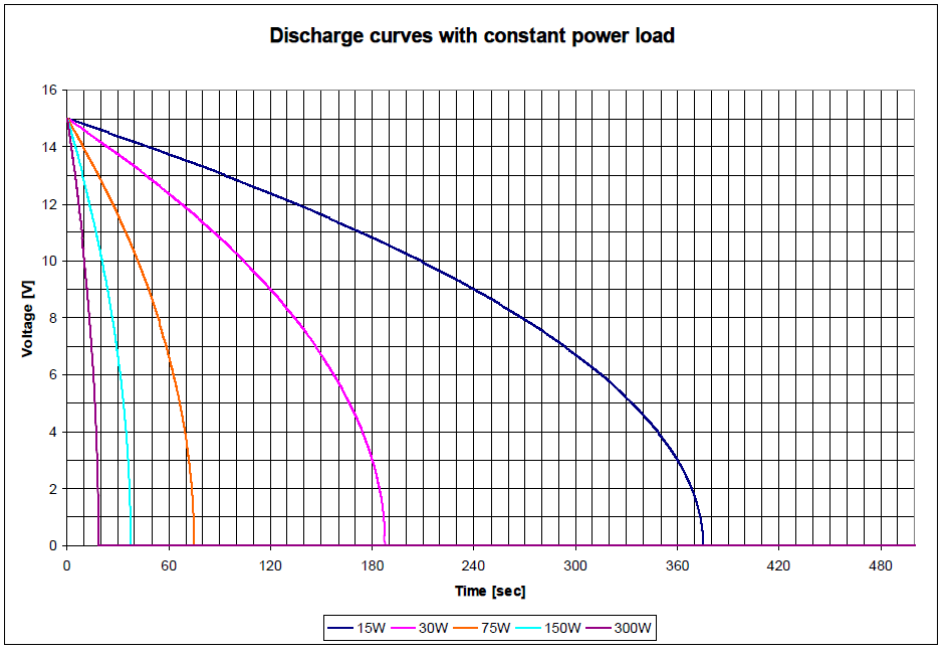

Figure 4.

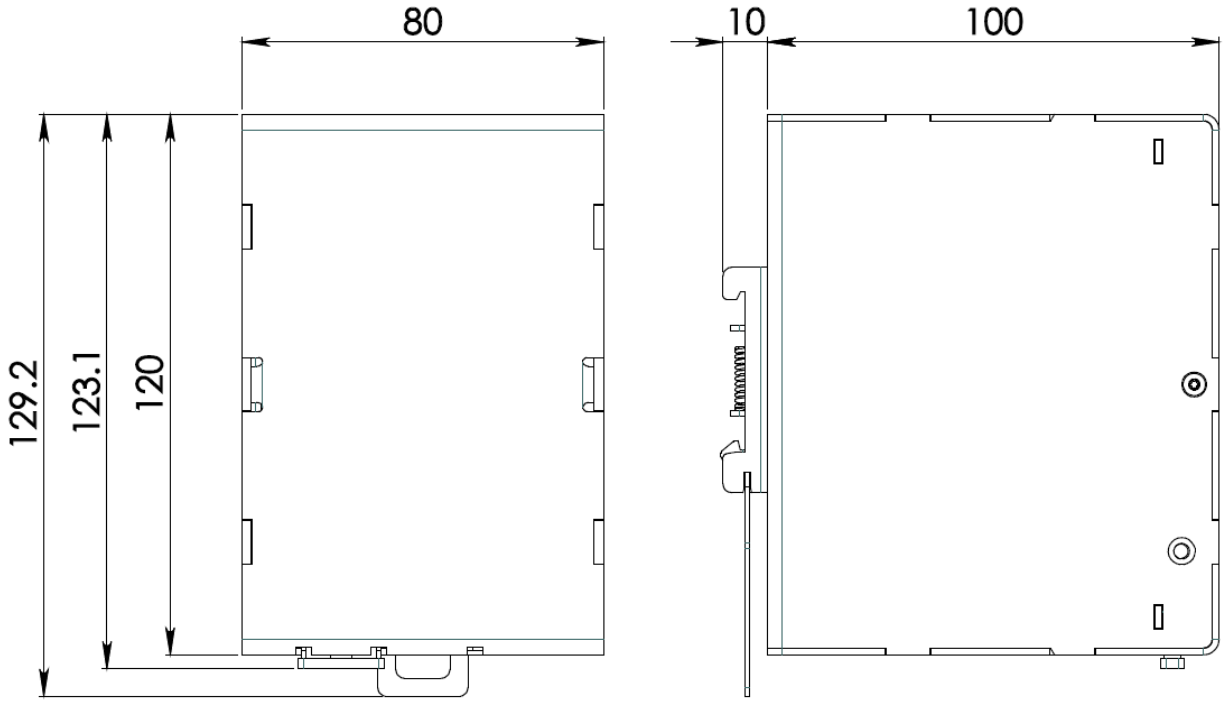

Figure 5. Mechanical Drawing

2. PIN LAYOUT & DESCRIPTION

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

For more information on these products consult: tech.support@psbel.com

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.

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