Encapsulated Batteries (Power Modules)

Overview

Why use encapsulated batteries (Power Modules)?

RENATA Power Modules were specially designed for applications with long life expectations in a difficult environment, e.g. outdoors or under dusty or high humidity conditions. The cell is hermetically sealed in a plastic case which protects the sealing system of the cell itself against negative external influences. In addition, it reduces the evaporation of electrolyte from the battery as well as the diffusion of humidity from the environment into the cell through the polymeric plastic gasket. An ideal solution for use in off-shore property or tropical areas.

RENATA Power Modules are available as solder or plug-in versions, with or without incorporated decoupling diodes.

Features

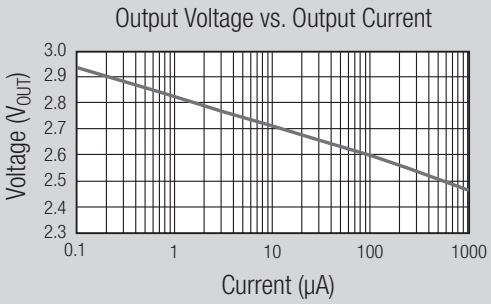
- Hermetically sealed
- Max. protection against harsh envrionmental conditions (hot, humid or dusty areas)
- Low self-discharge
- Operating and storage temperature: -40°/+85°C[1)]
- Suitable for wave soldering
- Free of heavy metals
- Gold-plated plug-in pins for best contact reliability

Specifications

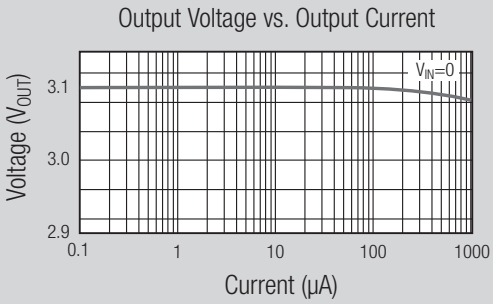
- Power Module case: Polyamide
- Soldering contacts: Isotan[2)] (55% CU, 44% Ni, Mn)

Model Matrix		With Decoupling Diodes	Without Decoupling Diodes
Horizontal mounting	For soldering	1000-1, (page 34)	175-0; 1000-0, (page 35)
	For plug-in	1000-1B, (page 36)	175-0B; 1000-0B, (page 37)
Vertical mounting	For soldering	175-2, (page 33)	338A, (page 34)

with decoupling diodes



without decoupling diodes



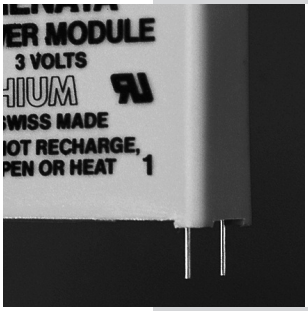
1) In applications where the Powere Modul is exposed to temperatures above 70°C, please contact Renata for consultancy.

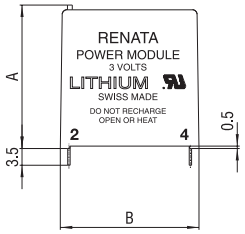
2) Isotan® is a registered trademark of Isabellenhütte Heusler GmbH & Co. KG.

Encapsulated Batteries (Power Modules)

For soldering

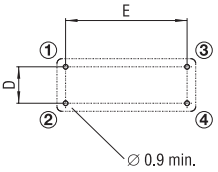
Versions for vertical mounting, with decoupling diodes



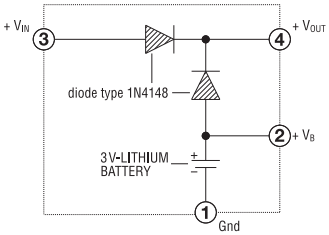


front view

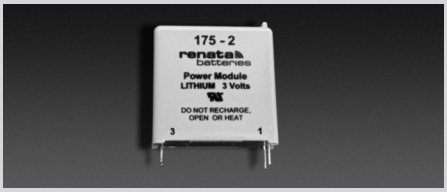
side view



layout top view



Wiring diagram



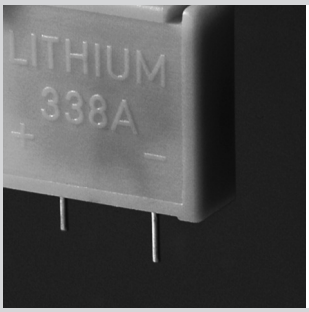
Model	Dimensions (mm)					Weight	Nominal Voltage	Nominal Capacity	Standard Current	Max. cont. Current	Part.No.*
	A	B	C	D	E	(g)	(V)	(mAh)	(mA)	(mA)	
175-2	25	24	8.5	5.08	20.32	6.5	3	235	0.4	3.0	700044

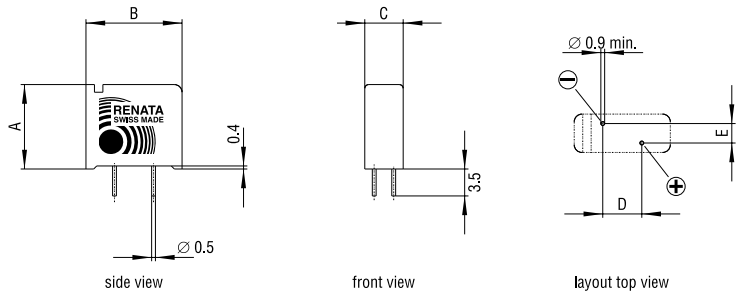
*Packaging: Industrial Bulk (IB-Trays)

Encapsulated Batteries (Power Modules)

For soldering

Versions for vertical mounting, without decoupling diodes.

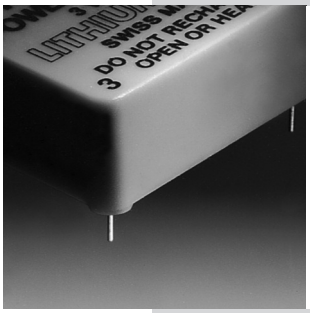


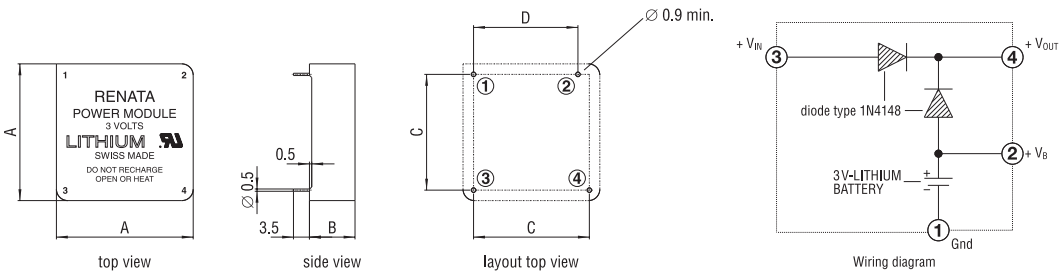


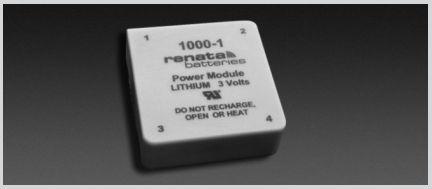
Model	Nominal Voltage (V)	Capacity (mAh)	Chemistry	Dimensions (mm) A	B	C	D	E	Weight (g)	Part.No.*
338A	3	48	MnO_2/Li	13.5	15.0	5.0	7.6	2.54	1.69	700101

*Packaging: Industrial Bulk (IB-Trays)

Versions for horzontal mounting, with decoupling diodes.







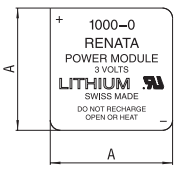
Model	Dimensions (mm) A	B	C	D	Weight (g)	Nominal Voltage (V)	Nominal Capacity (mAh)	Standard Current (mA)	Max. cont. Current (mA)	Part.No.*
1000-1	30	10	25.4	22.9	15	3	950	1.0	2.5	700035

*Packaging: Industrial Bulk (IB-Trays)

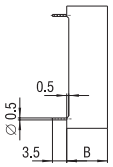
Encapsulated Batteries (Power Modules)

For soldering

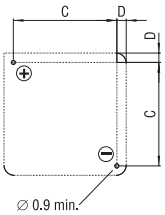
Versions for horzontal mounting, without decoupling diodes.



top view



side view



layout top view

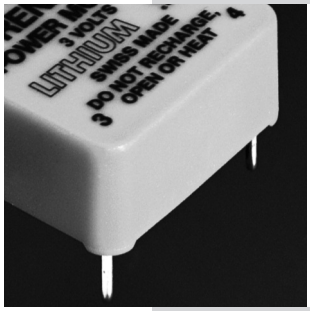
Model	Dimensions (mm)				Weight	Nominal Voltage	Nominal Capacity	Standard Current	Max. cont. Current	Part.No.*
	A	B	C	D	(g)	(V)	(mAh)	(mA)	(mA)	
175-0	22	8	17.8	2.1	6.5	3	235	0.4	3.0	700040
1000-0	30	10	25.4	2.3	15	3	950	1.0	2.5	700031

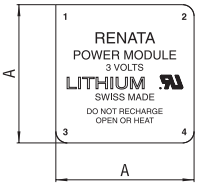
*Packaging: Industrial Bulk (IB-Trays)

Encapsulated Batteries (Power Modules)

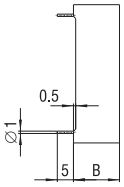
For plug-in

Versions for horizontal mounting, with decoupling diodes.

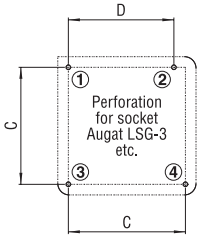




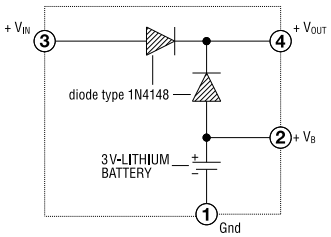
top view



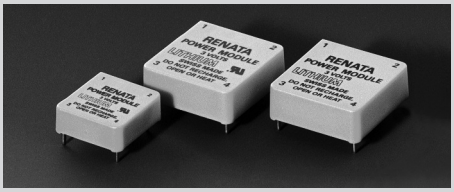
side view



layout top view



Wiring diagram



Model	Dimensions (mm) A	B	C	D	Weight (g)	Nominal Voltage (V)	Nominal Capacity (mAh)	Standard Current (mA)	Max. cont. Current (mA)	Part.No.*
1000-1B	30	10	25.4	22.9	15	3	950	1.0	2.5	700036

*Packaging: Industrial Bulk (IB-Trays)

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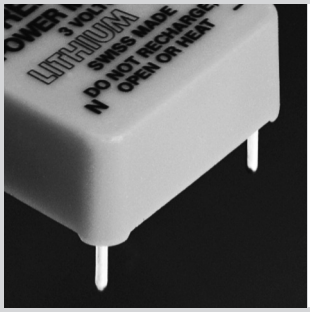
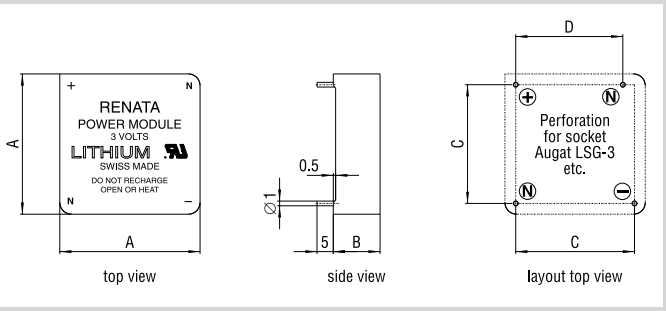
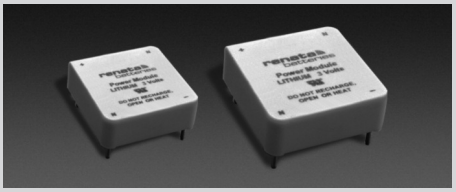
For plug-in

Versions for horizontal mounting, without decoupling diodes.







Model	Dimensions (mm)				Weight	Nominal Voltage	Nominal Capacity	Standard Current	Max. cont. Current	Part.No.*
	A	B	C	D	(g)	(V)	(mAh)	(mA)	(mA)	
175-0B	22	8	17.8	15.3	6.5	3	235	0.4	3.0	700041
1000-0B	30	10	25.4	22.9	15	3	950	1.0	2.5	700033

*Packaging: Industrial Bulk (IB-Trays)

Encapsulated Batteries (Power Modules)

Packaging options

All encapsulated batteries (Power Modules) are supplied in the following packaging

Industrial Bulk multi-cell trays

Packaging Code: **IB**

Industrial **B**ulk packaging is the standard packaging for manufacturers.

The number of encapsulated batteries per tray depends on the respective model. So does the number of trays per shrink pack.