

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 environmental conditions (hot, humid or dusty areas)
- Low self-discharge
- Operating and storage temperature: $-40^{\circ}/+85^{\circ}\text{C}^{1)}$
- Suitable for wave soldering
- Free of heavy metals
- Gold-plated plug-in pins for best contact reliability

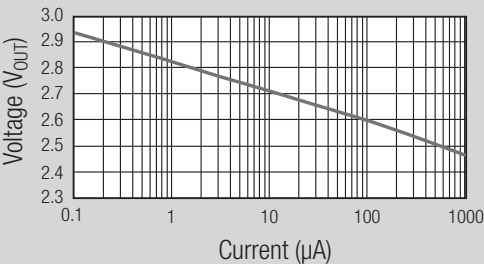
Specifications

- Power Module case: Polyamide
- Soldering contacts: Isotan²⁾ (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)

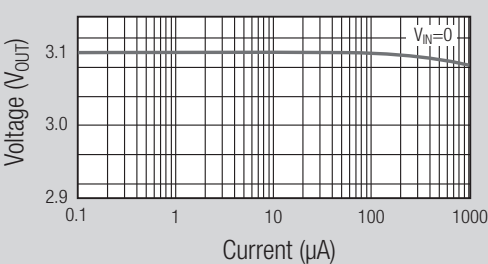
with decoupling diodes

Output Voltage vs. Output Current



without decoupling diodes

Output Voltage vs. Output Current



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

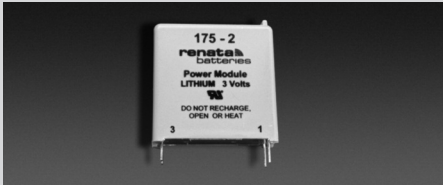
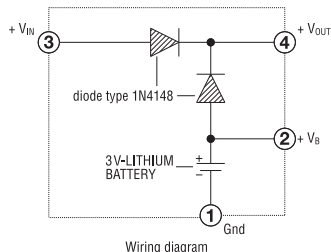
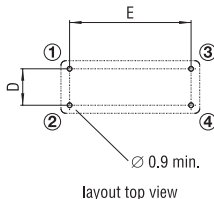
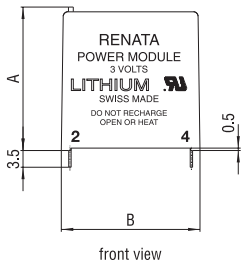
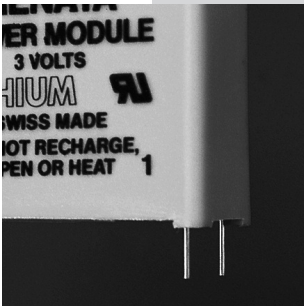
2) Isotan® is a registered trademark of Isabellenhütte Heusler GmbH & Co. KG.

Encapsulated Batteries (Power Modules)

For soldering



Versions for vertical mounting, with decoupling diodes



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

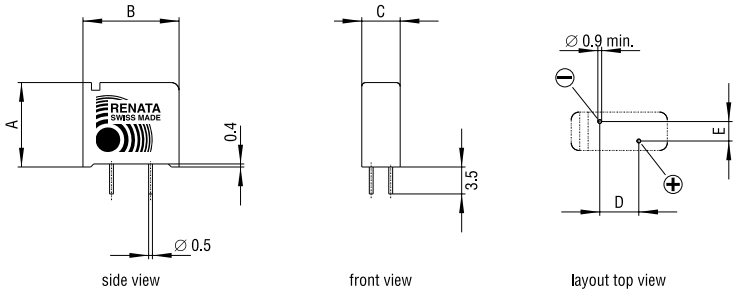
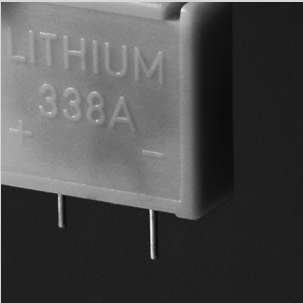
*Packaging: Industrial Bulk (IB-Trays)

Encapsulated Batteries (Power Modules)

For soldering



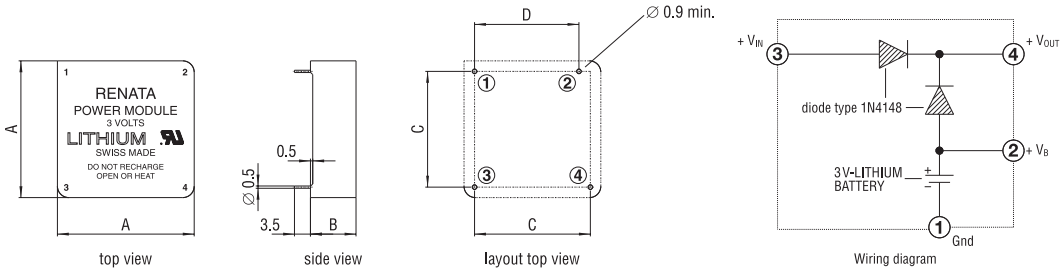
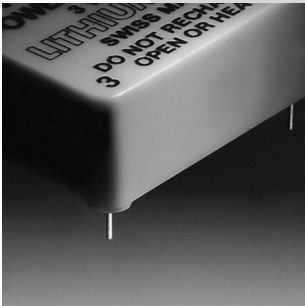
Versions for vertical mounting, without decoupling diodes.



Model	Nominal Voltage (V)	Capacity (mAh)	Chemistry	Dimensions (mm)					Weight (g)	Part.No.*
				A	B	C	D	E		
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 horizontal mounting, with decoupling diodes.



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

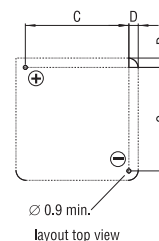
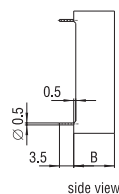
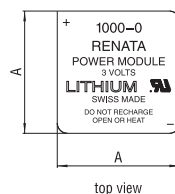
*Packaging: Industrial Bulk (IB-Trays)

Encapsulated Batteries (Power Modules)

For soldering

renata
batteries

Versions for horizontal mounting, without decoupling diodes. 



Model	Dimensions (mm)				Weight (g)	Nominal Voltage (V)	Nominal Capacity (mAh)	Standard Current (mA)	Max. cont. Current (mA)	Part.No.*
	A	B	C	D						
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

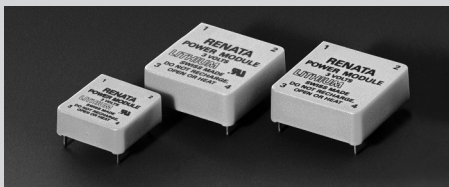
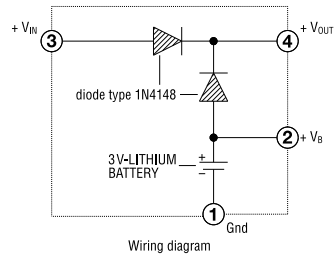
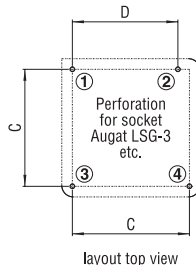
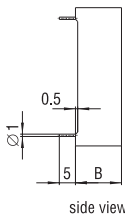
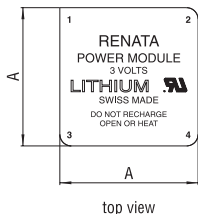
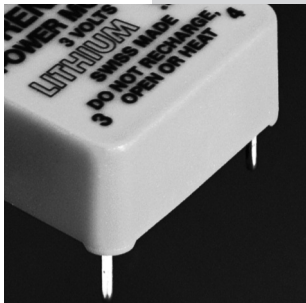
*Packaging: Industrial Bulk (IB-Trays)

Encapsulated Batteries (Power Modules)

For plug-in



Versions for horizontal mounting, with decoupling diodes. 



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

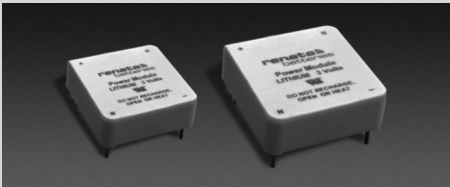
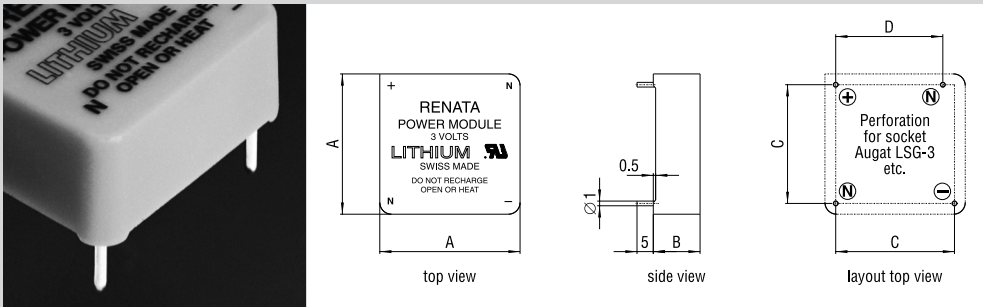
*Packaging: Industrial Bulk (IB-Trays)

Encapsulated Batteries (Power Modules)

For plug-in



Versions for horizontal mounting, without decoupling diodes. 



Model	Dimensions (mm)				Weight (g)	Nominal Voltage (V)	Nominal Capacity (mAh)	Standard Current (mA)	Max. cont. Current (mA)	Part.No.*
	A	B	C	D						
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



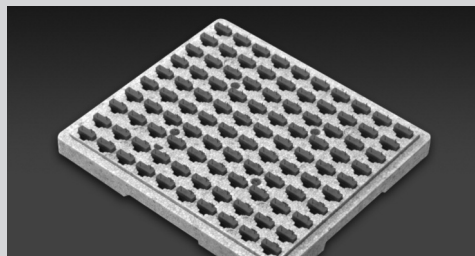
All encapsulated batteries (Power Modules) are supplied in the following packaging

Industrial Bulk multi-cell trays

Packaging Code: IB

Industrial Bulk 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.



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[1000-1B](#)