

Resource  
Data Management

# Intuitive Power Store Data Sheet

Revision 1.9



PR0627/PR0627-DIN

## Contents

RDM Intuitive Power Store .....	3
(Part Number: PR0627/PR0627-DIN) .....	3
Typical Wiring (Intuitive Mercury 24v PHX) .....	3
Typical Wiring (Intuitive Mercury 24v Stepper, Set to Case Types 3&4) .....	4
Typical Wiring (Mercury 3, Set to Coldroom Types 5&6) .....	4
Typical Wiring (Intuitive Mercury Mains Stepper, Set to Coldroom Types 5&6).....	5
Controller Compatibility .....	5
Power Connections for all Mains Powered Controllers.....	6
Power Connections for all 24v Powered Controllers .....	6
Valve Shut Input Connections Current Hardware (Additional Input/Output connector fitted) .....	6
Valve Shut Input Connections Earlier Hardware ( <b>No</b> Additional Input/Output connector fitted).....	6
Specification .....	7
Revision History .....	7



Please ensure all power is switched off before installing or maintaining this product.

# RDM Intuitive Power Store

(Part Number: PR0627/PR0627-DIN)

The Intuitive power store is designed to be used with the Intuitive Mercury and Mercury 3 Stepper Case/Coldroom controller and the Intuitive Mercury and Mercury 3 Plate Heat Exchanger controller.

In the event of a power failure to the controller and stepper valve, the Power Store sends a fail signal to the stepper controller and provides a backup power supply to enable the controller to fully close the valve.

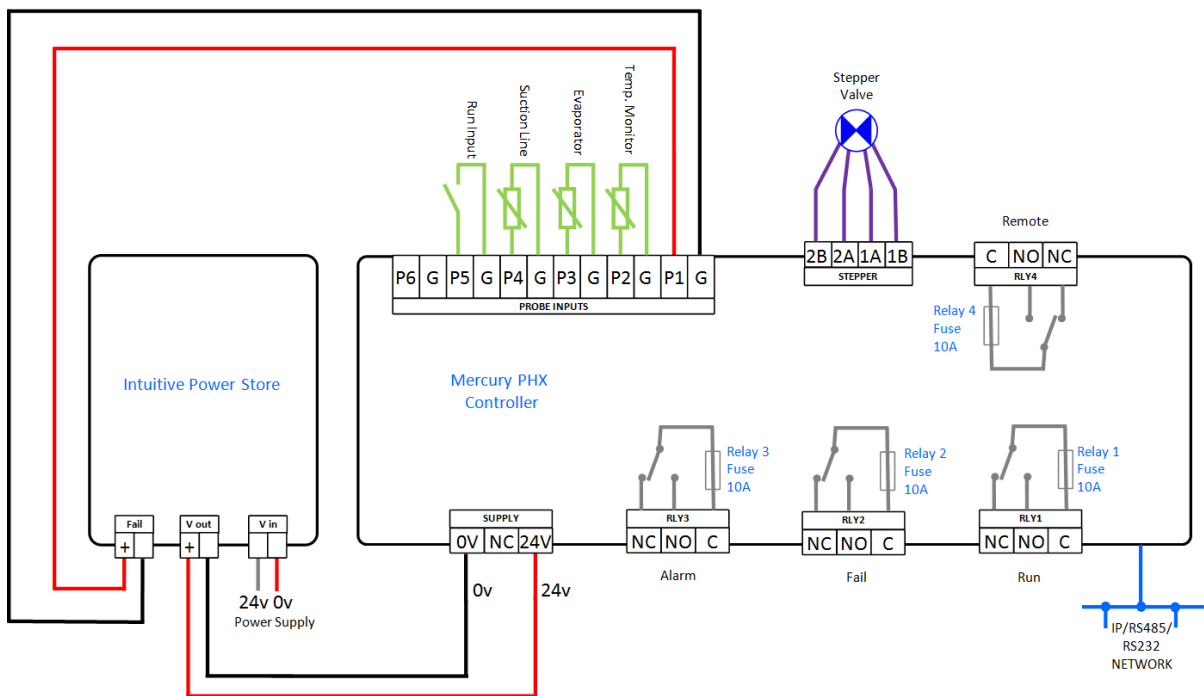
The Intuitive Power Store is compatible with Mercury Stepper software version 1.9 or later, Mains Stepper 1.0 or later, PHX 2.0 or later and all versions of the Mercury 3 Stepper.

The 24v power supply (DC only) is connected to the Vin and GND connections on the Intuitive Power Store, and the Vout and GND connections are connected to the 24v and 0v power connections on the Mercury Stepper or PHX controller. On the mains version where there is no 24v power supply, there are three additional connections on the controller next to the stepper connection, Out is connected to Vin on the Power Store, In is connected to Vout on the Power store and Common is connected to any of the GND connections on the Power Store. The Fail Signal and GND connections on the Intuitive Power Store are a pair of volt free contacts which will open in the event of a power fail, this is used to send a shutdown signal to the Mercury controller. When the Mercury controller sees this signal it will immediately start closing the valve.

When power is restored, the controller and valve will start operating again normally (after a settable shut delay period).

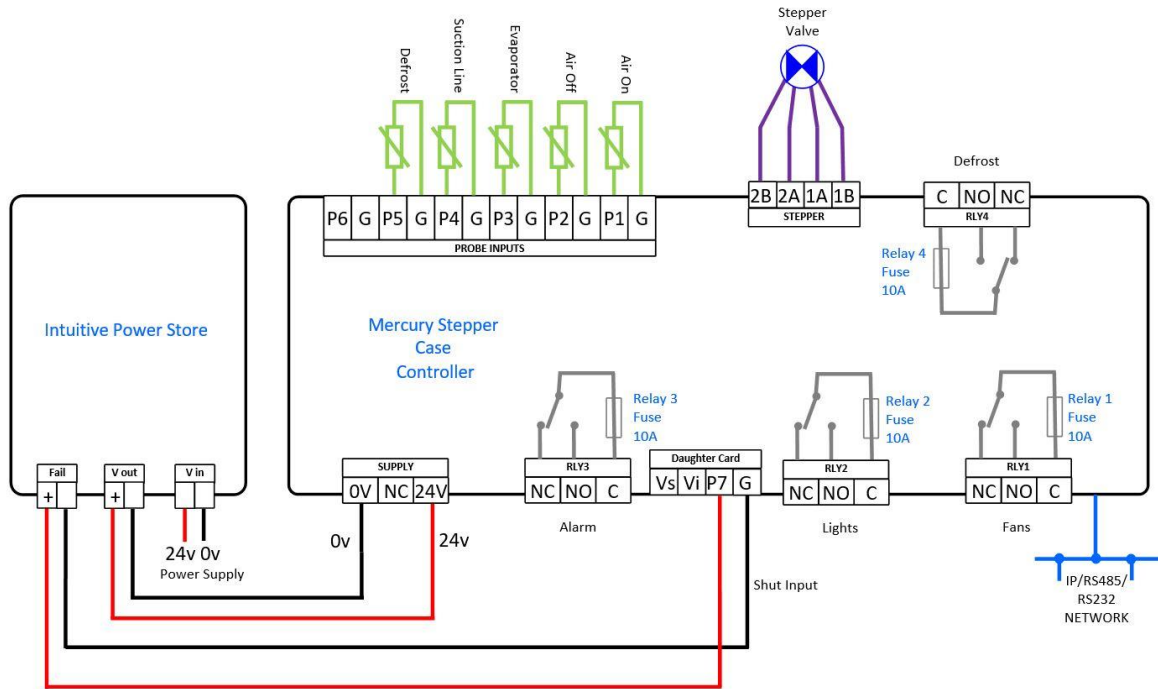
Note: The Intuitive power store is designed to cope with occasional power failures and requires a minimum of 10 minutes to recharge between power fail conditions. For this reason, the Intuitive power store should not be used if frequent power failures at less than 10 minute intervals are expected.

## Typical Wiring (Intuitive Mercury 24v PHX)

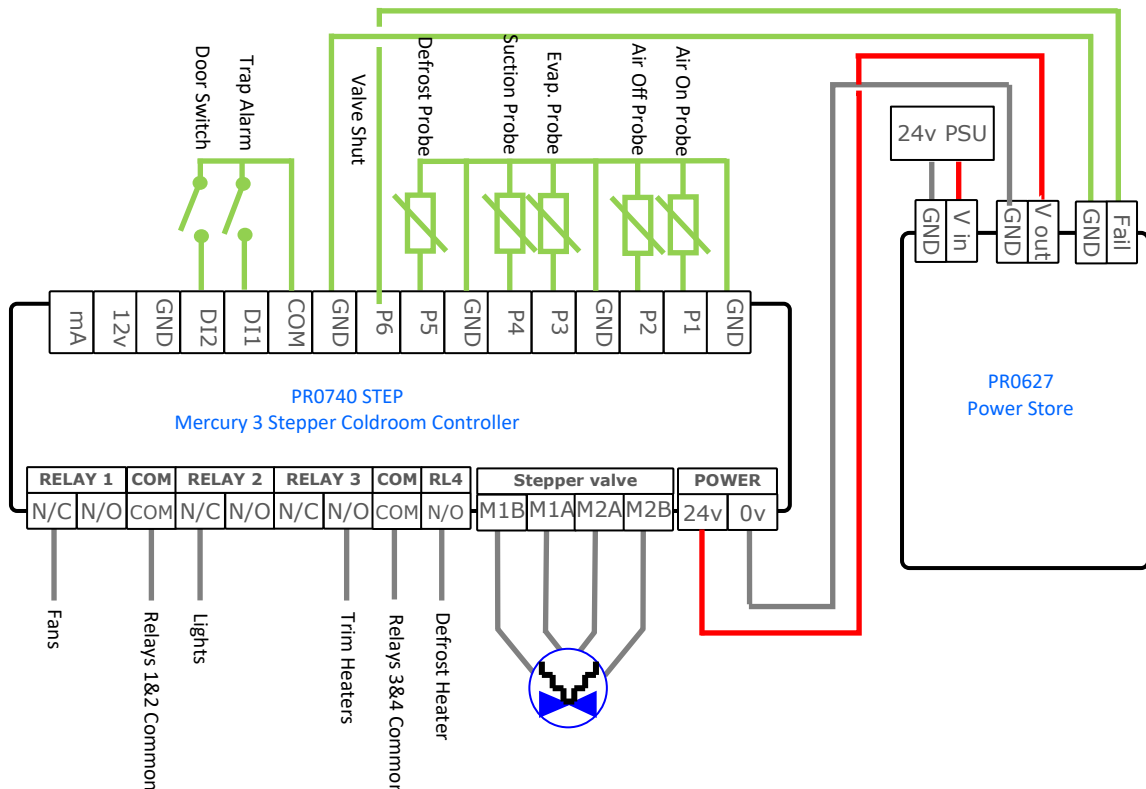


Please ensure all power is switched off before installing or maintaining this product.

Typical Wiring (Intuitive Mercury 24v Stepper, Set to Case Types 3&4, with no 8-way analogue and digital input connector fitted, (See controller compatibility below))

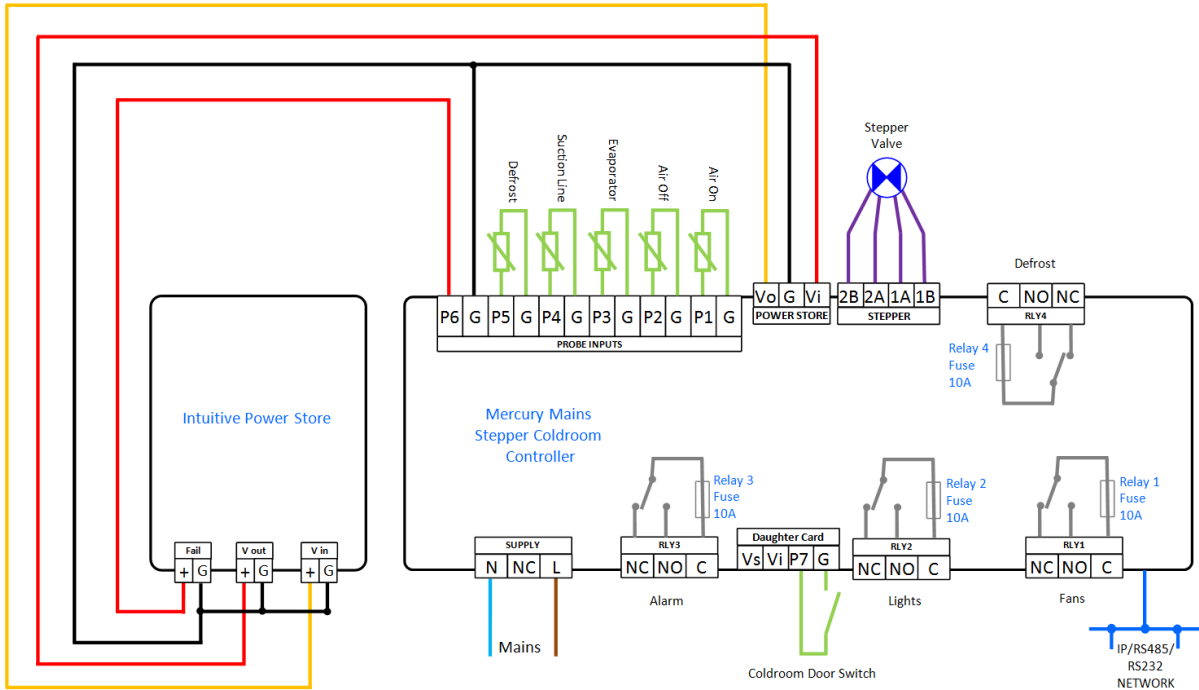


Typical Wiring (Mercury 3, Set to Coldroom Types 5&6, current version with 8-way analogue and digital input connector fitted, (See controller compatibility below))



Please ensure all power is switched off before installing or maintaining this product.

Typical Wiring (Intuitive Mercury Mains Stepper, Set to Coldroom Types 5&6, with no 8-way analogue and digital input connector fitted, (See controller compatibility below))

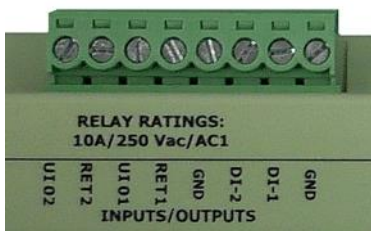


Controller Compatibility

The Power store can be used with any Mercury controller to provide a short term back up power supply in the event of a power supply loss. The Mercury and Intuitive Mercury Stepper Case/Coldroom controller range and the Mercury and Intuitive PHX controller range have the addition of a stepper valve shut input which is present in Mercury Stepper software version 1.9 or later, Mains Stepper 1.0 or later, PHX 2.0 or later and all versions of the Mercury 3 Stepper (approximately 2015 onwards).

The valve shut input connection varies depending on the type of Mercury controller hardware in use, this is shown in the table below. The Mercury Mk2 and Mk3 can be identified by their part numbers and descriptions (PR0712 PHX Mercury Mk2 and PR0740 PHX Mercury Mk3 for example).

The current and earlier Intuitive Mercury controllers share the same part numbers although the hardware is different. The current Intuitive Mercury can be identified by the inclusion of an 8-way analogue and digital input connector as shown below, the earlier hardware versions do not have this connector fitted.



Please ensure all power is switched off before installing or maintaining this product.

## Power Connections for all Mains Powered Controllers

Power Store Terminal		Mercury Controller Terminals Marked "Power Store"
GND	Connects to	GND
V in	Connects to	V Out
GND	Connects to	GND
V Out	Connects to	V In

## Power Connections for all 24v Powered Controllers

Power Store Terminal		Mercury Controller Terminal or 24v Power Supply
GND	Connects to	24vdc Power Supply - V
V in	Connects to	24vdc Power Supply +V
GND	Connects to	Controller Terminal Supply 0v
V Out	Connects to	Controller Terminal Supply 24v

## Valve Shut Input Connections Current Hardware (Additional Input/Output connector fitted)

Part Number	Controller Variant	Valve Shut Input Connection
PR0740-STEP	Mercury 3 Case/Coldroom 24v supply	Probe 6
PR0740-PHX	Mercury 3 PHX 24v supply	Probe 1
PR0752/762-STEP	Intuitive Mercury Case/Coldroom 24v supply	Probe 6
PR0952/4/6/8-STEP	Intuitive Mercury Case/Coldroom Mains supply	Probe 6
PR0752/762-PHX	Intuitive Mercury PHX 24v supply	Probe 1
PR0952/4/6/8-PHX	Intuitive Mercury PHX Mains supply	Probe 1

## Valve Shut Input Connections Earlier Hardware (**No** Additional Input/Output connector fitted)

Part Number	Controller Variant	Valve Shut Input Connection
PR0712/713	Mercury 2 Case/Coldroom 24v Supply	Not Used
PR0712/713-PHX	Mercury 2 PHX, 24v supply	Probe 1
PR0752/762-1PAi-STEP PR0752/762-1PVi-STEP	Mercury Intuitive Case/Coldroom, 24v supply	Probe 7 on daughter card
PR0952/4/6/8-STEP	Mercury Intuitive Case/Coldroom, Mains supply	Probe 6
PR0752/762-PHX	Mercury Intuitive PHX, 24v supply	Probe 1
PR0952/4/6/8-STEP	Mercury Intuitive PHX, Mains supply	Probe 6



Please ensure all power is switched off before installing or maintaining this product.

## Specification

Storage Temperature	-20°C to +65°C (-4°F to 149°F)
Operating Temperature	+5°C to +50°C (41°F to 122°F)
Dimensions	130mm (6.2in) (H) x 67mm (2.6in) (D) x 52.5mm (4.9in) (W)
Weight	150g (0.33lbs)
Mounting	35mm (1.3in) x 7.5mm (0.29in) DIN Rail
Maximum Cable Size	2.5mm (14awg)
Supply Voltage	24v DC, 2.5A Maximum, <b>AC must not be used</b>

### Disclaimer

The specifications of the product detailed in this document may change without notice. RDM Ltd shall not be liable for errors or omissions, for incidental or consequential damages, directly or indirectly, in connection with the furnishing, performance or misuse of this product or document.

## Revision History

Revision	Date	Changes
1.7	21/09/2021	Document revised to include Mercury 3 typical wiring example. Connection tables added. Revision history table added.
1.8	27/09/2021	Connection table updated, DIN and non-DIN part numbers added.
1.9	02/03/2023	Clarification added to typical wiring diagrams to differential between hardware types with no 8 way analogue/digital input connector fitted.



Please ensure all power is switched off before installing or maintaining this product.

## Group Offices

RDM Group Head Office  
80 Johnstone Avenue  
Hillington Industrial Estate  
Glasgow  
G52 4NZ  
United Kingdom  
+44 (0)141 810 2828  
[support@resourcedm.com](mailto:support@resourcedm.com)

RDM USA  
9441 Science Center Drive  
New Hope  
Minneapolis  
MN 55428  
United States  
+1 612 354 3923  
[usasupport@resourcedm.com](mailto:usasupport@resourcedm.com)

RDM Asia  
Sky Park at One City  
Jalan USJ 25/1  
47650 Subang Jaya  
Selangor  
Malaysia  
+603 5022 3188  
[asiatech@resourcedm.com](mailto:asiatech@resourcedm.com)



Visit [www.resourcedm.com/support](http://www.resourcedm.com/support) for more information on RDM solutions, additional product documentation and software downloads.

While every effort is made to ensure the information given within this document is accurate, Resource Data Management Ltd shall not be liable for errors or omissions, for incidental or consequential damages, directly or indirectly, in connection with the furnishing, performance or misuse of this product or document. All specifications are subject to change without notice.

See [www.resourcedm.com](http://www.resourcedm.com) for terms and conditions of sales.

Copyright © Resource Data Management