

# 2H34B Relay Software

## Links to Other Documents

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User Guide: [http://www.rmspl.com.au/userguide/2h34\\_user\\_guide.pdf](http://www.rmspl.com.au/userguide/2h34_user_guide.pdf)

Software Downloads: <http://www.rmspl.com.au/digital/umatrix.htm>

## Version Control

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Issue	Date	Summary of changes
F	25/01/2007	63.5V tap removed (QCR686).
G	04/03/2009	UMX update
H	03/03/2016	Connection diagrams updated
D	24/03/2004	Major upgrade
E	06/05/2004	UMX update

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## 1.0 OVERVIEW

The 2H34 Series relay is a frequency monitoring relay with four stages of adjustable frequency pick up & drop out points. Each frequency set point can be set for under or over frequency operation & has an independent time delay driving an output relay. An undervoltage lockout is used to disable the four frequency outputs when the voltage falls below a preset level. A single status input is used to enable the four frequency sensing stages.

The 2H34 relay is built on the ~MATRIX digital platform. The standard Micro MATRIX human machine interface (HMI) is combined with fully solid state voltage sensing & measuring circuitry to provide high accuracy, simple set up & flexible operation. Self-monitoring is carried out by hardware & software watchdogs. A CPU software watchdog records abnormal events & performs automatic periodic checks High speed, high contact rating output relays are used.

The input transformer, output relays & opto isolated status input form the essential barriers against high voltage line transients while a switchmode auxiliary supply provides a wide operating range.

An RS232 programming port is provided for ease of establishing relay settings using a PC & ~MATRIXwin.

## 2.0 SOFTWARE VERSION CONTROL REGISTER

The following table is a register of the changes for the **UMX2H034B.umx** file.

DATE	SOFTWARE	CHANGES	BIOS	FIRST HARDWARE
09/05/2002	02.30	Initial issue.	03.11, 03.14+	2H34K1
22/03/2004	55.00	Feature upgrade	55.xx	2H34K1
06/05/2004	56.00	2 <sup>nd</sup> dF/dt engine added	56.xx	2H34K81
24/09/2004	56.01	Move User parameters to Static registers	56.xx	
13/02/2009	56.02	Remove digital filtering from Phase A voltage Adjust timer state machine for Def Time Reset	56.xx	

## 3.0 DESCRIPTION – UMX2H034B.UMX

### 3.1 AND Logic

The stage time delay is initiated when the frequency set point and the df/dt set point is reached

The 2H34 provides a range of standard features as described in the RMS Technical Bulletin that may be downloaded from:

<http://www.rmspl.com.au/handbook/2h34.pdf>



#### 4.0 USER INTERFACE

Refer to the ~MATRIX Users Guide for detailed instructions on the operation of the user interface.

To download a PDF version of the guide:  
[www.rmspl.com.au/digital/umatrixInfo.pdf](http://www.rmspl.com.au/digital/umatrixInfo.pdf)

To download further ~MATRIX software & documentation:  
[www.rmspl.com.au/umatrix.htm](http://www.rmspl.com.au/umatrix.htm)

#### 5.0 LOAD SOFTWARE

Loading a UMX requires at least the following:  
A PC with Windows 98 or later and at least one COM port.  
UMatrixWin software.  
The correct serial cable.  
A general understanding of how UMX and UMP files work with the relay.

*Settable parameters will be overwritten by loading a new UMX file. They can however, be saved to a UMP file and then returned to the relay later. To learn how to do this, refer to the uMatrix Userguide.*

##### 5.1 Loading the UMX

Before loading the UMX2H034B software, ensure that it is compatible with your hardware. Download the compatibility list from the RMS website at:

[www.rmspl.com.au/digital/compatibility.pdf](http://www.rmspl.com.au/digital/compatibility.pdf)

Ensure that the bios version in the relay matches the table in section 2.0 of this document. (If the bios version is different, you may not be able to load this UMX. Contact RMS for support.)

Load the UMX via the front panel COM port using the 'uMatrixWin' software.  
Ensure that the UMX version matches the table in section 2.0.

*To interrogate for versions, press 'SET' and 'DATA' buttons simultaneously, then select 'Version Page'. Alternatively, use uMatrixWin – Options – Utilities.*

Check versions

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##### 5.2 Customer Default UMP

Load customer UMP file as per the Job Card. If no UMP file is requested, write N/A in check box.

UMP file name

The Relay is now ready for field use.

SOFTWARE INSTALLED BY

DATE :

## 6.0 CONNECTION DIAGRAM

