

# 2V67C Software

## Multi Stage Voltage Relay

relay monitoring systems pty ltd

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### **Advanced Protection Devices**



User Guide



Test Manual



Relay Software



µMATRIXwin



# 2V67C Relay Software

## Links to Other Documents

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User Guide: [http://www.rmspl.com.au/userguide/2V67\\_user\\_guide.pdf](http://www.rmspl.com.au/userguide/2V67_user_guide.pdf)

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

## Version Control

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Issue	Date	Summary of changes
A	23/10/2002	Initial issue.
B	29/08/2003	New format
C	25/01/2007	63.5V tap removed (QCR686)
D	25/03/2008	63.5V tap reinstated. UMX update

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ARF	DG	DG	



### 3.0 DESCRIPTION – UMX2V067C.UMX

#### 3.1 Standard Features

The 2V67 provides a range of standard features as described in the RMS Technical Bulletin that may be downloaded from:

<http://www.rmspl.com.au/handbook/2v67.pdf>

#### 3.2 Special Features of this Software UMX Version

The C UMX supports the three pole 2V67 hardware.

Each phase is independently set to trip a common group of output relays when the monitored voltage falls outside the OV/UV window, and the delays have been exceeded.

##### 3.2.1 Voltage Set Points

Inputs:	3 phase 110V AC
Setting stages:	Each phase voltage independently settable
Setting window OV	115 to 132VAC
Setting window UV	88 to 110VAC
Hysteresis:	0.2 to 5V
Overvoltage function:	PU at set point
DO at set point – hysteresis	
Undervoltage function:	PU at set point
DO at set point + hysteresis	
Measurement resolution:	0.05V (0.1V displayed)
Measurement accuracy:	+/-0.1V

##### 3.2.2 Delay Timers

Overvoltage Time delay	0.2 - 320 seconds 100ms steps
Undervoltage Time delay	0.2 - 320 seconds 100ms steps
Overvoltage Alarm delay	0.2 - 320 seconds 100ms steps
Undervoltage Alarm delay	0.2 - 320 seconds 100ms steps

##### 3.2.3 Voltage Setting Window

The 2V67 relay provides each phase a Voltage Setting Window as follows:

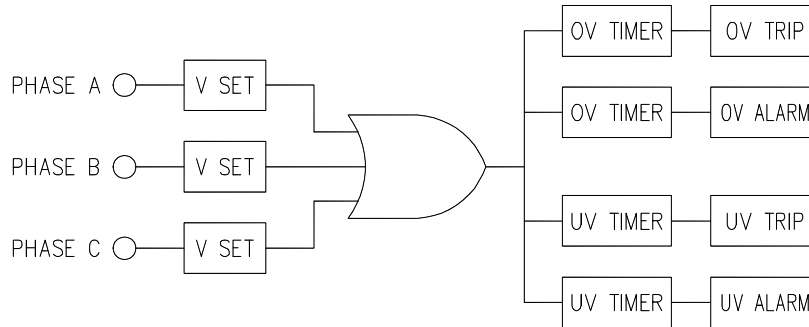
- Overvoltage Set Point
- Undervoltage Set Point
- Voltage Reset Hysteresis

##### 3.2.4 Relay Enable

The status input function factory default is set to enable the relay on removal of the control voltage.

The front panel LED is on when the relay is enabled.

### 3.2.4 Logic Diagram Voltage Setting And Timers



### 3.2.5 Voltage Monitoring Functionality

#### Timers Start

When an OV or UV set point is reached, both the corresponding Trip and Alarm timers start.

#### Trip Time Out

Provided the start condition is maintained for the duration of the trip time delay, the UV or OV output contact will pick up and the corresponding front panel LED indicator latches on. If the OV/UV condition is removed, the output contact will reset.

#### Alarm Time Out

If however, the OV/UV condition continues, the UV or OV alarm output contact will pick up. If the OV/UV condition is removed, the output contacts will reset.

#### Relay Reset

Reset of the relay is determined by the hysteresis and the reset time settings. For under voltage detection, reset will occur at the set point plus the hysteresis setting if the condition is maintained for the duration of the reset delay. (see 3.4)

#### Flag Reset

The Trip and Alarm LEDs are latched and may be reset at the front panel, remotely via the reset flag status input, via the programming port using  $\mu$ MATRIXwin or via the SCADA port.



#### 4.0 USER INTERFACE

Refer to the  $\mu$ 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  $\mu$ 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 UMX2V067C 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

#### 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.

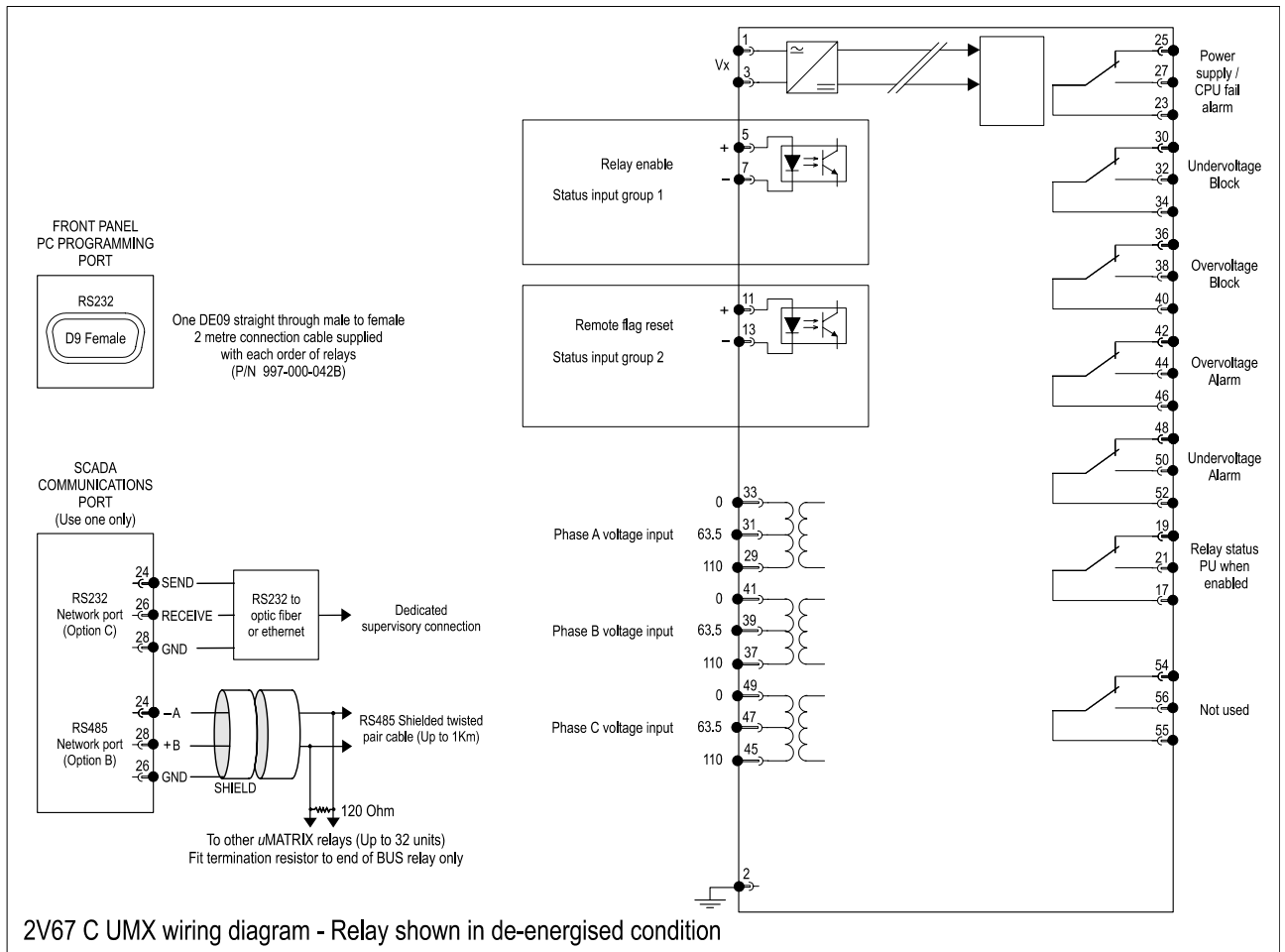
UMP file name

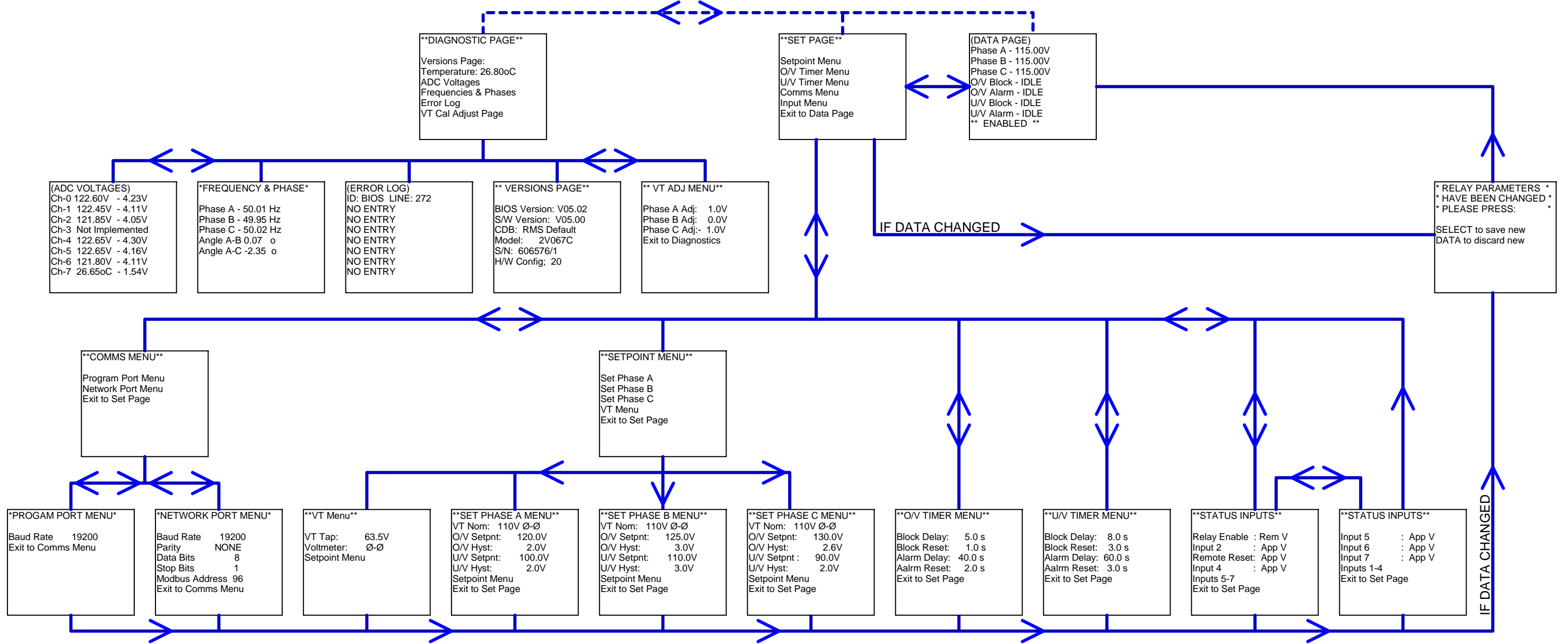
The Relay is now ready for field use.

SOFTWARE INSTALLED BY

DATE :

## 6.0 CONNECTION DIAGRAM





Amendments	

		<b>2V067C</b> MENU STRUCTURE		(3 PHASE, UNDER/OVER, BLOCK/ALARM)	
		DRAWN: D.W.B DATE: 17/03/2008	D/O CHECK: DATE:	APPV CHECK: DATE:	DRAWING NUMBER: <b>2V067_C_V501_MENU</b>
DATE: 17/03/2008 TIME: 1:40:42 PM FILE NAME: D:\THE_CHIP\IRMS\MATRIX\SPECS\2V067\2V067_C_V501_MENU.SchDoc			SHEET: SCALE: CURRENT CN	SHEET: 1 OF 1	ISSUE DATE: N.I.