

# MVAA 16

## High Speed Auxiliary Relay

The MVAA 16 is a voltage operated, attracted armature unit of compact design with a positive action and a high degree of mechanical stability. Voltage is applied to the relay coil via an internal diode bridge which enables the relay to be energised from ac or dc power supplies.

### Contacts

The contacts are an alloy of copper and silver, shaped and positioned to ensure reliable, low resistance make or break functions.

### Application

The type MVAA 16 is an auxiliary relay which can be used where a scheme demands high speed operation. The MVAA 16 may be typically used as a carrier send/carrier receive interface for distance protection schemes.



## Features

- Compact design
- Mechanically stable
- Self reset
- Wide voltage range



## Operative Range

### Ratings

#### Standard coil ratings

24/27V, 30/34V, 48/54V,  
110/125V, 220/250V, ac or dc

### Operative Range

Voltage rating (V)	Operating voltage range (V)
24/27	19.2 - 32.4
30/34	24.0 - 40.8
48/54	38.4 - 64.8
110/125	88.0 - 150.0
220/250	176.0 - 300.0

### Frequency

50/60 Hz

### Withstand Rating

The standard relay will withstand 110% of its maximum voltage rating continuously.

### Burdens

Initially nominally 20W at the maximum voltage rating but reducing to 5W within 4ms.

### Operating Times

Less than 4ms for voltages within the voltage rating.

### Contact Disengagement Time

Typically 10-15 ms.

## Contact Ratings

Current	Make and carry continuously	Make and carry for 3 seconds	Break
AC	1250VA with maxima of 5A or 300V	7500VA with maxima of 30A or 300V	1250VA with maxima of 5A or 300V
DC	1250W with maxima of 5A or 300V	1250W with maxima of 30A or 300V	100W(resistive) 50W(inductive) with maxima of 5A or 300V

Maximum rate of operation, 600 per hour



### Durability

Loaded contact	10,000 operations minimum
Unloaded contact	100,000 operations minimum
Minimum operating current	Greater than 25mA dc (14mA dc for the 220/250V version)

## High Voltage Withstand

Dielectric withstand IEC60255-27: 2013	2kV rms for 1 minute between all terminals and case earth. 2kV rms for 1 minute between all terminals of independent circuits with terminals on each independent circuit connected together. 1kV rms for 1 minute across normally open contacts.
High voltage impulse IEC60255-27: 2013	Three positive and three negative impulses of 5kV peak, 1.2/50 $\mu$ s, 0.5J between all terminals of the same circuit (except output contacts), between independent circuits, and between all terminals connected together and case earth.

## Electrical Environment

<b>EMC Compliance</b>	
2014/30/EU Electromagnetic compatibility regulations 2016	European commission directive on EMC UK Directive on EMC
2004/35/EU Electrical equipment (safety) regulations 2016	European commission low voltage directive UK Low voltage Directive
<b>Product Safety</b>	
IEC 60255-27: 2013	Product specific standards
	Compliance with the European Commission Directive on EMC and LVD is demonstrated using a technical file
	Compliance with the UK Directive on EMC and Safety is demonstrated using a technical file

## Atmospheric Environment

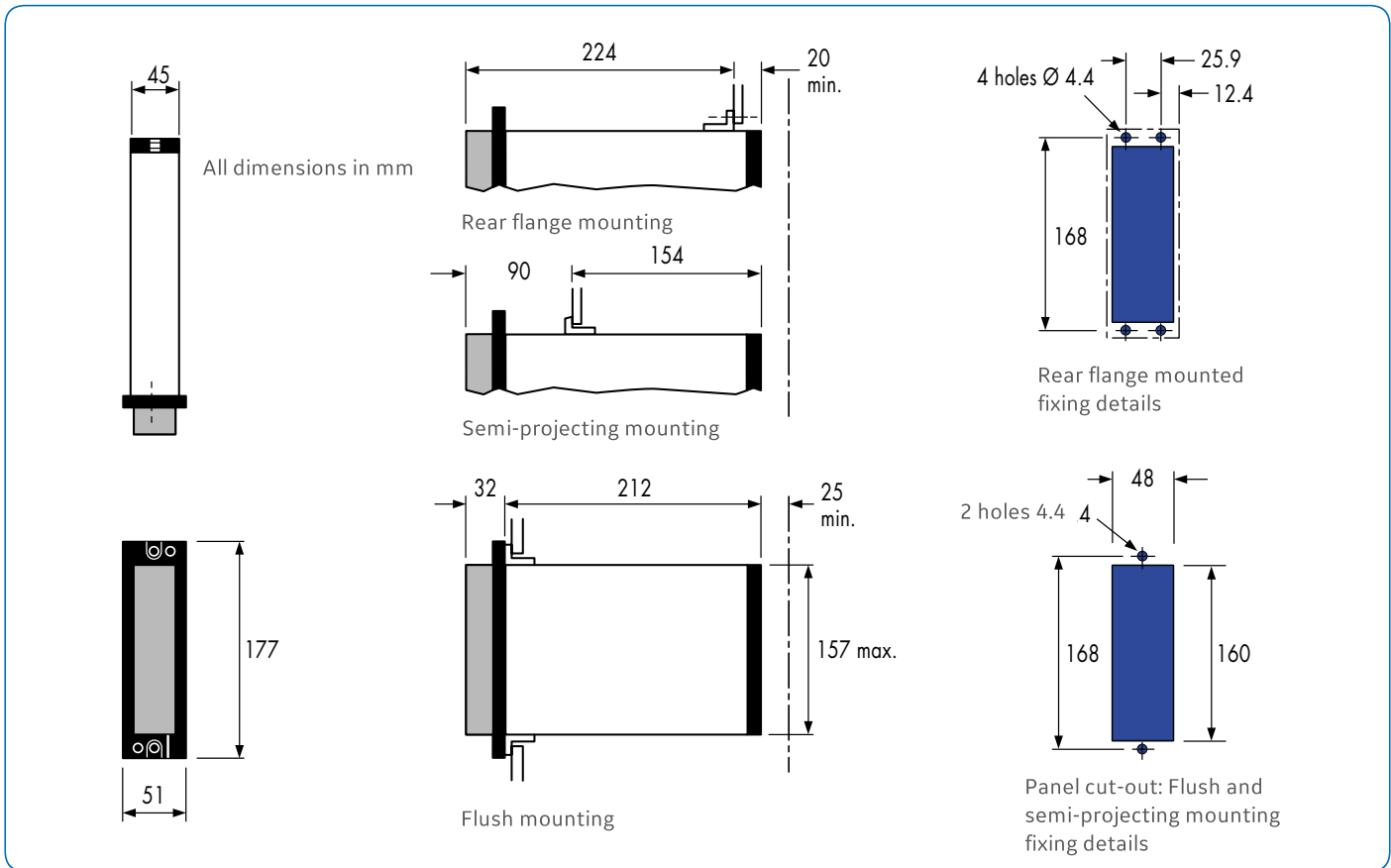
<b>Temperature</b>	
IEC 60255-1: 2009	Storage and transit -25°C to +70°C Operating -25°C to +55°C
IEC 60068-2-1: 2007	Cold
IEC 60068-2-2: 2007	Dry heat
<b>Humidity</b>	
IEC 60068-2-78: 2012	56 days at 93% RH and +40°C
<b>Enclosure Protection</b>	
IEC 60529: 1989	IP50 (dust protected)

## Mechanical Environment

<b>Vibration</b>	
IEC 60255-21-1: 1988	Response Class 1
<b>Shock and Bump</b>	
IEC 60255-21: 1988	Shock response Class 1 Shock withstand Class 1 Bump Class 1
<b>Seismic</b>	
IEC 60255-21-3: 1993	Class 1

## Case Dimensions

Relays are supplied in a size 2 case. Outline dimensions are shown below



## Information required with order

- Coil rating
- Combination of output contacts  
(make and break)

For more information please contact  
 GE  
 Grid Solutions

### Worldwide Contact Center

Web: [www.GEGridSolutions.com/contact](http://www.GEGridSolutions.com/contact)  
 Phone: +44 (0) 1785 250 070

## GEGridSolutions.com

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