

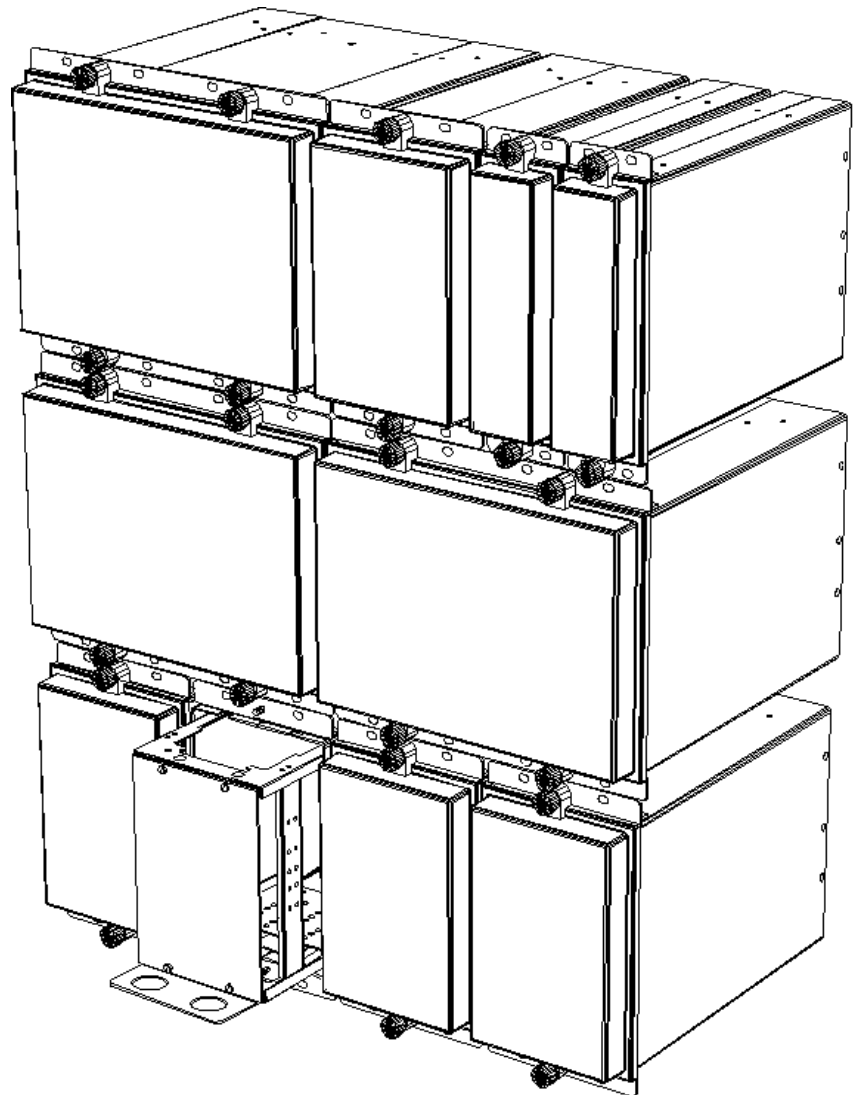
## Features

- 19 inch, 4U high rack mounting
- Modular format
- Simple screw (M4) mounting from front of panel (Supplied)
- May be flush mounted (Refer D Series technical bulletin)
- May be projection mounted or semi-projection mounted
- Optional 4U high 19" rack mounting frame
- Draw out & non-draw out case formats
- Optional "short" non draw out size 4 version available
- Stud or screw termination
- Phoenix plug-in terminals
- Size 2, 4 & 8 cases
- Size 2, 4 & 8 blanking plates
- CT shorting switches available for draw out cases
- Sealable front cover
- IP51 rating
- Rugged metal construction
- Made in Australia

## Application

The E Series has been specifically designed to meet the demanding & varied requirements for protection relay applications in power utility sub-station environments. The standard 4U high 19 inch rack mounting modular configuration simplifies panel design & installation. Mounting points & overall panel dimensions meet international standards such that the cases may be interchanged with other similar types available on the market.

Optional panel mounting clamps, blanking plates & 19" rack mount frames are also available. Blanking plates may be specially fabricated with cut outs & labelling to suit control switches, fuses, pilot lamps etc.



## Description

Made in Australia

The E Series range of protection relay enclosures consist of three sizes suitable for 19 inch, 4U high rack mounting. The design utilises the proven draw out chassis and terminal arrangement from the D Series model & offers considerable flexibility in terms of mounting arrangements, terminal options & draw out or non-draw out formats.

The E Series cases are of metal construction for durability & screening from radiated electrical noise as follows:

- **Size 2** 1/8 width 4U high (Use D Series H size for flush mounting equivalent case)
- **Size 4** 1/4 width 4U high (Use D Series S size for flush mounting equivalent case)
- **Size 8** 1/2 width 4U high (Use D Series D size for flush mounting equivalent case)

Cases of different sizes may be mixed on the same rack up to the full width (19 inch) maximum. eg. 2 X size 2 + 1 X size 4 + 1 X size 8 would fill one 4U high 19 inch rack row.

The size 4 case is also available in a non draw out short version.

Alternatively the cases may be flush or projection mounted in either orientation (Vertical or horizontal) as necessitated by the panel design.

## D Series Flush Mount Cases

Where flush mounting of the relay case is preferred the D Series case range may be specified. Refer technical bulletin "D Series" & refer above for equivalent listing.



## Technical Data

### NUMBER OF OUTPUT TERMINATIONS

The number of contacts & their configuration may be specified as required with maximums as per the selection chart below.

### INSULATION WITHSTAND

In accordance with AS2481-1981 (clause 5-4), IEC 255-5:  
 2KV RMS between all terminals & all terminals & frame.  
 1.2/50 5KV impulse between all terminals & all terminals & frame.

### TERMINAL RATINGS

Stud & screw type		Phoenix compression type	
30A	continuous	20A	continuous
200A	3s	180A	3s

## E Series Case Selection

### CURRENT TRANSFORMER (CT) SHORTING SWITCHES

Available for draw out cases with stud or screw terminals only.  
 Up to 10 CT shorting switches per 20 terminals. Select from below:

- |                                 |                                  |
|---------------------------------|----------------------------------|
| <input type="checkbox"/> 1 & 2  | <input type="checkbox"/> 11 & 12 |
| <input type="checkbox"/> 3 & 4  | <input type="checkbox"/> 13 & 14 |
| <input type="checkbox"/> 5 & 6  | <input type="checkbox"/> 15 & 16 |
| <input type="checkbox"/> 7 & 8  | <input type="checkbox"/> 17 & 18 |
| <input type="checkbox"/> 9 & 10 | <input type="checkbox"/> 19 & 20 |
- 4U High rack mount frame required P/N **4M800K1 F**

Will mount up to 16 units wide.  
 ie. 2x size 2 + 1 x size 4 + 1 x size 8 = 16 units



### Terminals

Refer to terminal drawings provided in D Series data sheet for reference to option numbers.

#### 2BA Studs

<b>1T</b>	12 2BA studs	Size 2 non draw out only
<b>2T</b>	20 2BA studs	Size 4, 8 draw out only
<b>2T</b>	24 2BA studs	Size 4, 8 non draw out only
<b>4T</b>	40 2BA studs	Size 8 only

#### 2BA Screws

<b>1S</b>	12 2BA screws	Size 2 non draw out only
<b>2S</b>	20 2BA screws	Size 4, 8 draw out only
<b>2S</b>	24 2BA screws	Size 4, 8 non draw out only
<b>4S</b>	40 2BA screws	Size 8 only

#### Phoenix plug-in terminal blocks

<b>61</b>	12 Terminals	Size 2, 4 & 8
<b>62</b>	24 Terminals	Size 2, 4 & 8
<b>63</b>	36 Terminals	Size 4 & 8 non draw out only
<b>64</b>	48 Terminals	Size 4 & 8 non draw out only

### Function

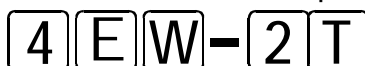
- W** Draw out module
- N** Non draw out
- S** Non draw out short version    Size 4 case only

### Series E Case

### Case Size

- 2** 1/8 Rack width 4 units high
- 4** 1/4 Rack width 4 units high
- 8** 1/2 Rack width 4 units high

Case definition example:

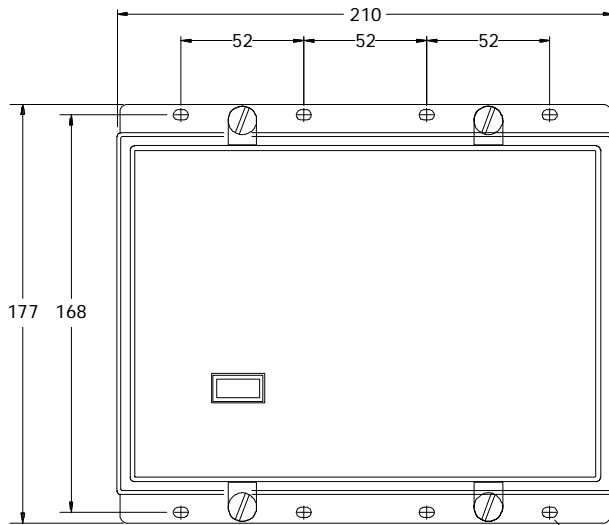


Size 4 withdrawable case with 20 stud terminals

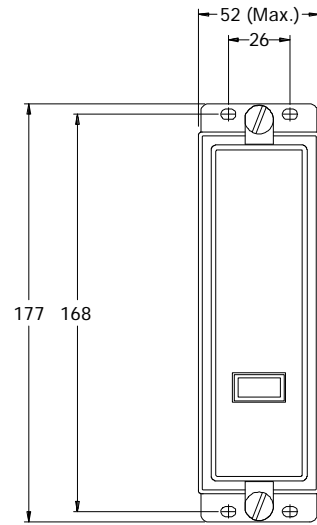


AS/NZS ISO9001-94  
 REGISTRATION  
 6869

## E Series Case Dimensions

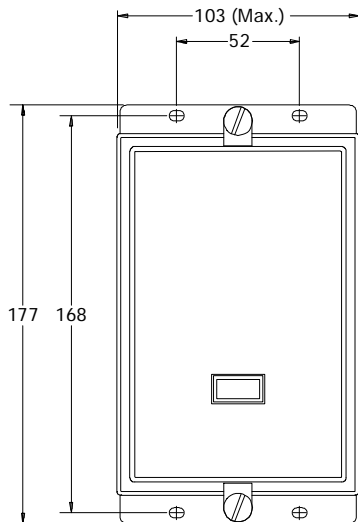


Size 8 case front view  
1/2 19" rack width

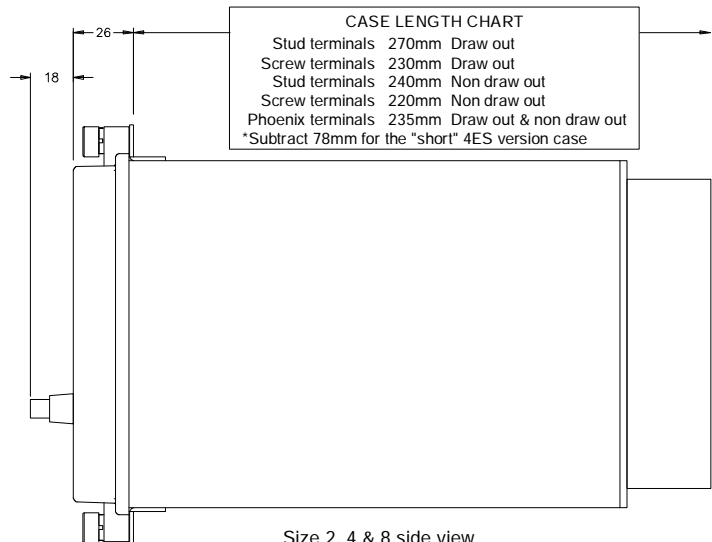


Size 2 case front view  
1/8 19" rack width

Mounting hole size  
8 x 4.5mm



Size 4 case front view  
1/4 19" rack width



Size 2, 4 & 8 side view

NOTE: Reset push button may be located as required on the front panel to suit specific application.

## E Series 4U High Rack Mount Frame

