

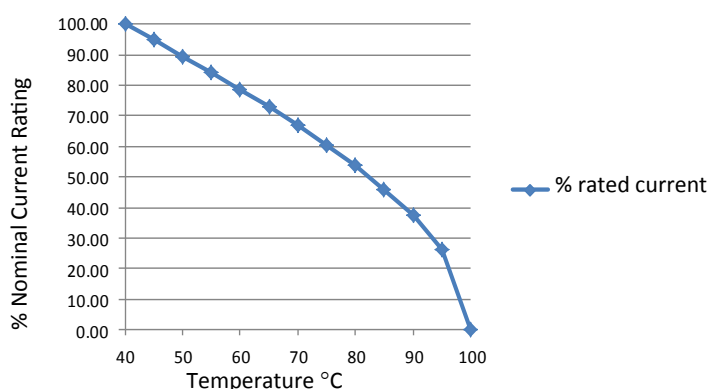
# RES60-M Multi-Stage Filter

## Medical Applications

Roxburgh EMC's RES60-M range are two-phase filters, designed specifically for the medical industry. They offer a high differential mode performance, with an operating frequency from DC to 400Hz. The series includes eight variations to select from with rated current between 1amp and 30amp.



Temperature Derating Curve for EMC Filters Rated at 40°C Ambient and 100°C Maximum



Call us on:

**+44 (0) 1724 273228**

### Features:

- Two-Phase Filter
- High Differential Mode Performance
- UL Approved E191581
- For use from DC to 400Hz

### Benefits:

- Compact size for rated current
- Fast-on, screw or wire terminations
- Quick and Easy Mounting

### Applications:

These filters are designed for applications within the **medical industry**.

**Full technical specification on page 2**

**Other options in this range on page 3**

### DEM Manufacturing

Deltron Emcon House  
Hargreaves Way  
Sawcliffe Industrial Park  
Scunthorpe, North Lincolnshire.  
DN15 8RF

**ROXBURGH** *EMC*

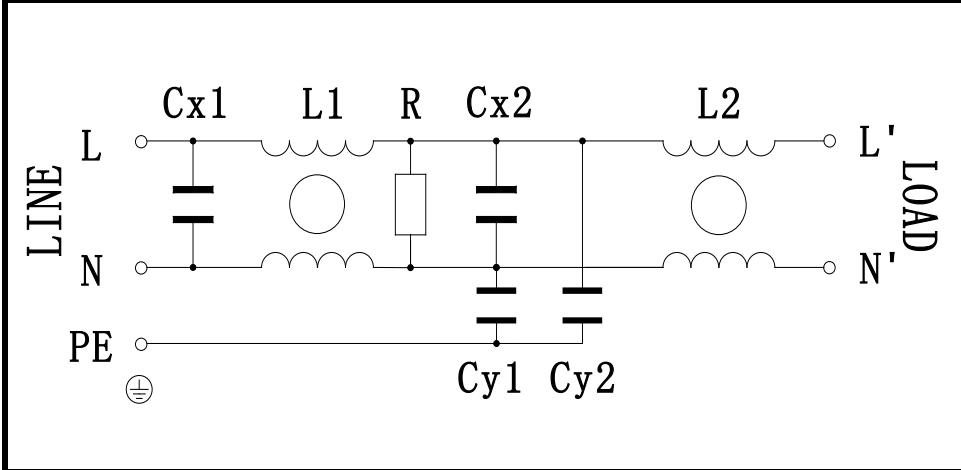


Tel: +44 (0) 1724 273200

Email: [sales@dem-uk.com](mailto:sales@dem-uk.com)

Web: [www.dem-uk.com/roxburgh](http://www.dem-uk.com/roxburgh)

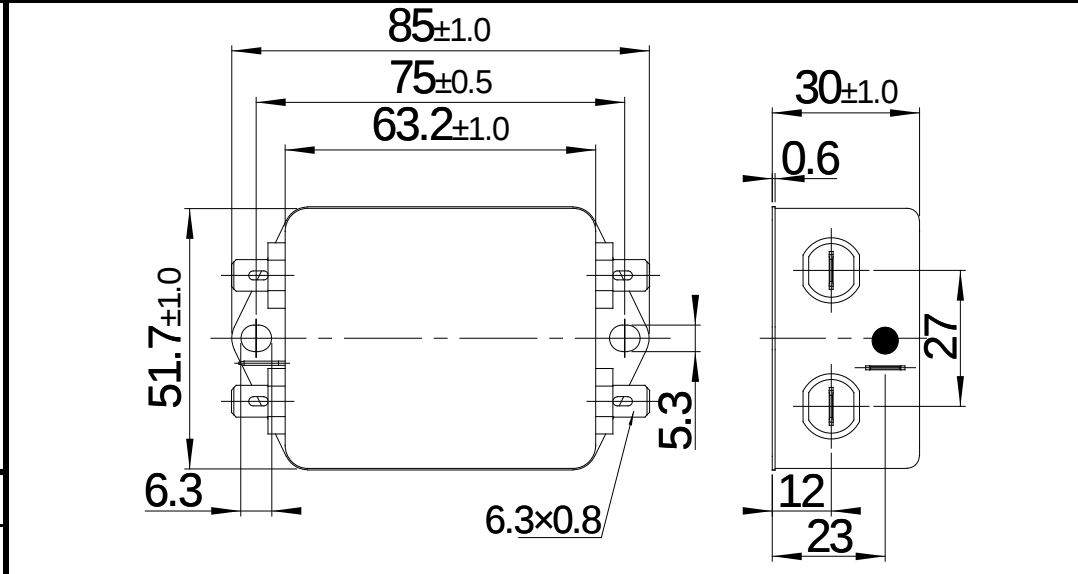
Circuit diagram:



|                        |
|------------------------|
| Electrical parameters: |
|------------------------|

|                                                                     |                                |
|---------------------------------------------------------------------|--------------------------------|
| Rated Voltage:                                                      | 120/250VAC                     |
| Rated Current at an ambient temp:                                   | 10A@40°C                       |
| Operating Frequency:                                                | 50/60Hz                        |
| Climatic Class(IEC60068-1):                                         | 25/100/21                      |
| Operational Leakage current:<br>(at 250VAC/50Hz and Total C +/-20%) | 0.8mA max<br>(RES60F10-M 0mA)  |
| Operational Leakage current:<br>(at 120VAC/60Hz and Total C +/-20%) | 0.46mA max<br>(RES60F10-M 0mA) |
| Test Voltage(100%)for 2 sec:<br><br>L-N:<br><br>L/N-PE:             |                                |
|                                                                     | 1100VDC/20mA                   |
|                                                                     | 2250VDC/20mA                   |

Dimensions(mm):



Filter parameters:

|                                         |                      |
|-----------------------------------------|----------------------|
| Total Inductance(L-L'/N-N'):            | 1.6mH +50%,-35%      |
| Total Capacitance(L-N/L'-N'):           | 0.94uF +/-20%        |
| Total Capacitance(L/N-PE) (RES60F10-M): | 9.4nF +/-20% (0nF)   |
| Total Resistance(L-N/L'-N'):            | 470K $\Omega$ +/-10% |
| Weight(Approximate):                    | 155g                 |

## Safety certification

|      |                                     |     |                                     |
|------|-------------------------------------|-----|-------------------------------------|
| UL   | <input checked="" type="checkbox"/> | CSA | <input checked="" type="checkbox"/> |
| ENEC | <input checked="" type="checkbox"/> | CQC | <input type="checkbox"/>            |
| CE   | <input checked="" type="checkbox"/> | VDE | <input type="checkbox"/>            |

## Technical Specification

|             |             |          |
|-------------|-------------|----------|
| compiled by | Jay Zhang   | 2020-8-5 |
| reviewed by | Pallas Wang | 2020-8-5 |
| approved by | Henry Huang | 2020-8-5 |



+44 (0)1724 273200  
sales@dem-uk.com  
www.dem-uk.com/roxburgh

Part **RES60F10**  
 Number (Alternate RES60F10-M - no Y caps)

Number (Alternate RES60F10-M - no Y caps)

|                         |       |
|-------------------------|-------|
| single-phase emc filter |       |
| stage marker            | V1.03 |

|              |       |
|--------------|-------|
| stage marker | V1.03 |
|--------------|-------|

# RES60-M Multi-Stage Filter

## Medical Applications

### Options Available:

| Part Number | Rated Current<br>@40°C<br>A | Leakage Current @<br>230V/50Hz<br>mA | Inductance<br>$\Sigma L$<br>mH | Capacitance<br>$\Sigma Cx$<br>uF | Resistance<br>$\Sigma R$<br>K $\Omega$ | Connection Type                                                                     |                                                                                     |                                                                                     |
|-------------|-----------------------------|--------------------------------------|--------------------------------|----------------------------------|----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|             |                             |                                      |                                |                                  |                                        |  |  |  |
| RES60F01-M  | 1                           | 0.002                                | 12                             | 0.22                             | 1000                                   | F                                                                                   | W                                                                                   |                                                                                     |
| RES60F03-M  | 3                           | 0.002                                | 2.5                            | 0.22                             | 1000                                   | F                                                                                   | W                                                                                   |                                                                                     |
| RES60F06-M  | 6                           | 0.002                                | 0.97                           | 0.22                             | 1000                                   | F                                                                                   | W                                                                                   |                                                                                     |
| RES60F10-M  | 10                          | 0.002                                | 0.8                            | 0.47                             | 470                                    | F                                                                                   | W                                                                                   |                                                                                     |
| RES60F12-M  | 12                          | 0.002                                | 0.58                           | 0.47                             | 470                                    | F                                                                                   | W                                                                                   |                                                                                     |
| RES60F16-M  | 16                          | 0.002                                | 0.65                           | 0.33                             | 1000                                   | F                                                                                   | W                                                                                   | S                                                                                   |
| RES60F20-M  | 20                          | 0.002                                | 0.6                            | 1                                | 220                                    | F                                                                                   |                                                                                     | S                                                                                   |
| RES60S30-M  | 30                          | 0.002                                | 0.6                            | 1                                | 220                                    |                                                                                     |                                                                                     | S                                                                                   |

Call us on:

**+44 (0) 1724 273200**



#### DEM Manufacturing

Deltron Emcon House, Hargreaves Way, Sawcliffe Industrial Park,  
Scunthorpe, North Lincolnshire, DN15 8RF

Tel: +44 (0) 1724 273200

Email: [sales@dem-uk.com](mailto:sales@dem-uk.com)

Web: [www.dem-uk.com/roxburgh](http://www.dem-uk.com/roxburgh)