



Input voltage range up to 72 V DC  
 1, 2 or 3 outputs up to 30 V DC  
 1500 V DC I/O electric strength test voltage

- Low cost
- Short circuit protection
- Efficiency up to 82%

## Selection chart

| Output 1     |              | Output 2     |              | Output 3     |              | Type               | Type               | Type               |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------------|--------------------|--------------------|
| $U_{o\ nom}$ | $I_{o\ nom}$ | $U_{o\ nom}$ | $I_{o\ nom}$ | $U_{o\ nom}$ | $I_{o\ nom}$ | Input voltage      | Input voltage      | Input voltage      |
| [V DC]       | [A]          | [V DC]       | [A]          | [V DC]       | [A]          | 9...18 V DC        | 18...36 V DC       | 36...72 V DC       |
| 3.3          | 6.5          | -            | -            | -            | -            | 12 IMR 25-03-2     | 24 IMR 25-03-2     | 48 IMR 25-03-2     |
| 3.3          | 10           | -            | -            | -            | -            | 12 IMR 40-03-2     | 24 IMR 40-03-2     | 48 IMR 40-03-2     |
| 5            | 5            | -            | -            | -            | -            | 12 IMR 25-05-2     | 24 IMR 25-05-2     | 48 IMR 25-05-2     |
| 5            | 8            | -            | -            | -            | -            | 12 IMR 40-05-2     | 24 IMR 40-05-2     | 48 IMR 40-05-2     |
| 12           | 2.1          | -            | -            | -            | -            | 12 IMR 25-12-2     | 24 IMR 25-12-2     | 48 IMR 25-12-2     |
| 12           | 3.5          | -            | -            | -            | -            | 12 IMR 40-12-2     | 24 IMR 40-12-2     | 48 IMR 40-12-2     |
| 15           | 1.7          | -            | -            | -            | -            | 12 IMR 25-15-2     | 24 IMR 25-15-2     | 48 IMR 25-15-2     |
| 15           | 3            | -            | -            | -            | -            | 12 IMR 40-15-2     | 24 IMR 40-15-2     | 48 IMR 40-15-2     |
| 24           | 2            | -            | -            | -            | -            | 12 IMR 40-24-2     | 24 IMR 40-24-2     | 48 IMR 40-24-2     |
| +5           | 4.7          | -5           | 0.3          | -            | -            | 12 IMR 25-0505-2   | 24 IMR 25-0505-2   | 48 IMR 25-0505-2   |
| +5           | 8            | -5           | 0.5          | -            | -            | 12 IMR 40-0505-2   | 24 IMR 40-0505-2   | 48 IMR 40-0505-2   |
| +12          | 1.8          | -12          | 0.3          | -            | -            | 12 IMR 25-1212-2   | 24 IMR 25-1212-2   | 48 IMR 25-1212-2   |
| +12          | 3            | -12          | 0.5          | -            | -            | 12 IMR 40-1212-2   | 24 IMR 40-1212-2   | 48 IMR 40-1212-2   |
| +15          | 1.4          | -15          | 0.3          | -            | -            | 12 IMR 25-1515-2   | 24 IMR 25-1515-2   | 48 IMR 25-1515-2   |
| +15          | 2            | -15          | 0.5          | -            | -            | 12 IMR 40-1515-2   | 24 IMR 40-1515-2   | 48 IMR 40-1515-2   |
| +5           | 4            | +12          | 0.3          | -12          | 0.3          | 12 IMR 25-051212-2 | 24 IMR 25-051212-2 | 48 IMR 25-051212-2 |
| +5           | 6            | +12          | 0.5          | -12          | 0.5          | 12 IMR 40-051212-2 | 24 IMR 40-051212-2 | 48 IMR 40-051212-2 |
| +5           | 3.5          | +15          | 0.3          | -15          | 0.3          | 12 IMR 25-051515-2 | 24 IMR 25-051515-2 | 48 IMR 25-051515-2 |
| +5           | 6            | +15          | 0.5          | -15          | 0.5          | 12 IMR 40-051515-2 | 24 IMR 40-051515-2 | 48 IMR 40-051515-2 |
| +5           | 12           | -5           | 0.5          | +12          | 0.5          | -                  | 24 IMR 40-050512-2 | 48 IMR 40-050512-2 |

**Input**

|                            |                        |              |
|----------------------------|------------------------|--------------|
| Input voltage              | continuous range, 12 V | 9...18 V DC  |
|                            | continuous range, 24 V | 18...36 V DC |
|                            | continuous range, 48 V | 36...72 V DC |
| Reverse voltage protection | shunt diode            |              |

**Output**

|                                 |   |                             |
|---------------------------------|---|-----------------------------|
| Output voltage setting accuracy | $U_{i\text{ nom}}, I_{o\text{ nom}}$                                      | $\pm 2\% U_{o\text{ nom}}$  |
| Minimum load                    | recommended   | $20\% I_{o\text{ nom}}$     |
| Line regulation                 | $U_{i\text{ min}} \dots U_{i\text{ max}}, I_{o\text{ nom}}$               | $\pm 1\% U_{o\text{ nom}}$  |
| Load regulation                 | $U_{i\text{ nom}}, 0 \dots 100\% I_{o\text{ nom}}$ , single output models | $\pm 2\% U_{o\text{ nom}}$  |
|                                 | dual and triple output models (tracking)                                  | $5\% U_{o\text{ nom}}$      |
| Output voltage switching noise  | $U_{i\text{ nom}}, 20 \dots 100 I_{o\text{ nom}}$ , peak-peak, total      | max. $2\% U_{o\text{ nom}}$ |

**Control and protection**

|                     |                                |                          |
|---------------------|--------------------------------|--------------------------|
| Overload protection | $U_{i\text{ min}}$ , full load | $125\% P_{i\text{ nom}}$ |
| No-load protection  |                                |                          |

**Safety and EMC**

|                                |                                |           |
|--------------------------------|--------------------------------|-----------|
| Electric strength test voltage | I/O                            | 1500 V DC |
| Electromagnetic interference   | conducted with external filter | class B   |

**Environmental**

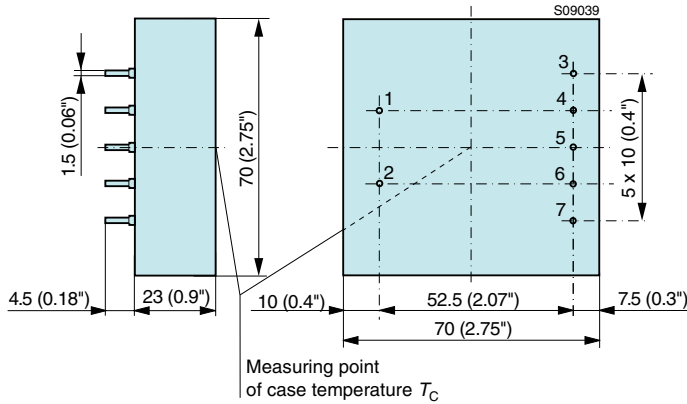
|                               |                                      |                              |
|-------------------------------|--------------------------------------|------------------------------|
| Operating ambient temperature | $U_{i\text{ nom}}, I_{o\text{ nom}}$ | $-10 \dots 50^\circ\text{C}$ |
| Storage temperature           | non operational                      | $-25 \dots 85^\circ\text{C}$ |
| Relative humidity             | non condensing                       | 95%                          |
| MTBF                          | MIL-HDBK-217F, N2                    | 2'000'000 h                  |

**Mechanical data**

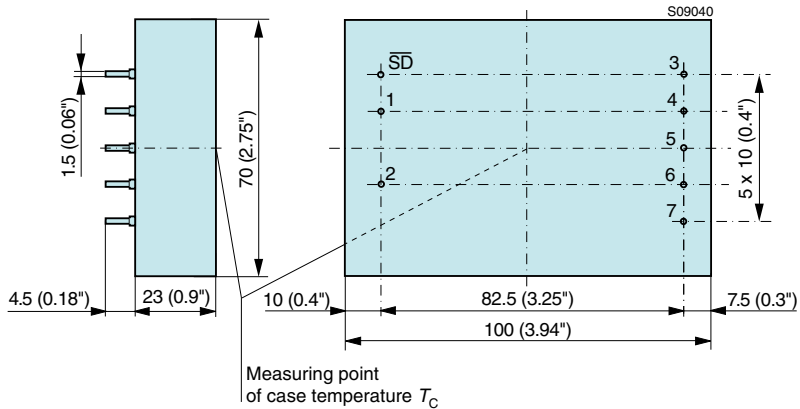
Tolerances  $\pm 0.3$  mm (0.012") unless otherwise indicated.



**IMR 25 single and dual outputs units**



**IMR 25 triple output units and IMR 40**



**Pin allocation**

| Pin | Single output | Dual output | Triple output |
|-----|---------------|-------------|---------------|
| 1   | Vi+           | Vi+         | Vi+           |
| 2   | Vi-           | Vi-         | Vi-           |
| 3   | Vo+           | Vo+         | Vo1+          |
| 4   | Vo+           | Vo+         | COM           |
| 5   | Vo-           | COM         | Vo2+          |
| 6   | Vo-           | COM         | COM           |
| 7   | n.c.          | Vo-         | Vo3-          |