



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%

### Model Selection

| Output 1<br>$V_{o\ nom}$ $I_{o\ nom}$<br>[V DC] [A] | Output 2<br>$V_{o\ nom}$ $I_{o\ nom}$<br>[V DC] [A] | Output 3<br>$V_{o\ nom}$ $I_{o\ nom}$<br>[V DC] [A] | Type<br>Input voltage<br>9 - 18 V DC | Type<br>Input voltage<br>18 - 36 V DC | Type<br>Input voltage<br>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                                             | - -                                                 | -                                    | 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                    |

Model numbers highlighted in yellow or shaded are not recommended for new designs.

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

### Control and protection

|                     |                               |                          |
|---------------------|-------------------------------|--------------------------|
| Overload protection | $V_{i\text{ min}},$ 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

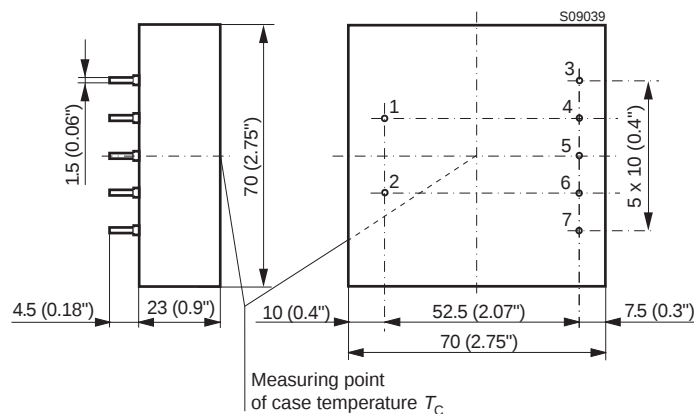
|                               |                                      |                               |
|-------------------------------|--------------------------------------|-------------------------------|
| Operating ambient temperature | $V_{i\text{ nom}}, I_{o\text{ nom}}$ | $-10$ to $50^{\circ}\text{C}$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

## Mechanical data

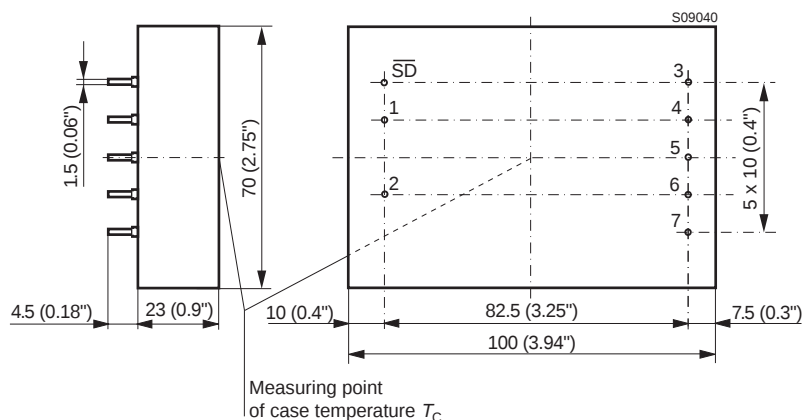
Tolerances  $\pm 0.3$  mm (0.012") unless otherwise indicated.



## 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-          |

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