



Wide input voltage ranges up to 150 V DC
 1 or 2 outputs up to 48 V DC
 1500...4000 V DC I/O electric strength test



- Reinforced isolation for IMY-models
- Magnetic feedback
- Synchronous rectifier for 2.5, 3.3 and 5 V outputs
- Short circuit protection

Selection chart

| Output 1 | | Output 2 | | Input voltage U_i [V DC] | Type | Options (for availability consult sales point) |
|------------------------|----------------------|------------------------|----------------------|----------------------------------|--------------------|--|
| $U_{o\ nom}$ [V DC] | $I_{o\ nom}$ [mA] | $U_{o\ nom}$ [V DC] | $I_{o\ nom}$ [mA] | | | |
| 2.5 | 4500 | - | - | 8.4...36 | 20 IMX 15-2.5-9RG | -8, i, L, C, Z |
| 2.5 | 4500 | - | - | 16.8...75 | 40 IMX 15-2.5-9RG | -8, i, L, C, Z |
| 3.3 | 4500 | - | - | 8.4...36 | 20 IMX 15-03-9RG | -8, i, L, C, Z |
| 3.3 | 4500 | - | - | 16.8...75 | 40 IMX 15-03-9RG | -8, i, L, C, Z |
| 3.3 | 4500 | - | - | 50...150 | 110 IMY 15-03-9RG | -8, i, L, C, Z |
| 5 | 3500 | - | - | 8.4...36 | 20 IMX 15-05-9RG | -8, i, L, C, Z |
| 5 | 3500 | - | - | 16.8...75 | 40 IMX 15-05-9RG | -8, i, L, C, Z |
| 5 | 3500 | - | - | 50...150 | 110 IMY 15-05-9RG | -8, i, L, C, Z |
| 5.1 | 2300 | - | - | 8.4...36 | 20 IMX 15-05-9R | -8, i, L, C, Z |
| 5.1 | 2500 | - | - | 16.8...75 | 40 IMX 15-05-9R | -8, i, L, C, Z |
| 5.1 | 2500 | - | - | 50...150 | 110 IMY 15-05-9R | -8, i, L, C, Z |
| +5.1 | 1350 | +3.3 | 1350 | 8.4...36 | 20 IMX 15-0503-9R | -8, i, L, C, Z |
| +5.1 | 1500 | +3.3 | 1500 | 16.8...75 | 40 IMX 15-0503-9R | -8, i, L, C, Z |
| +5.1 | 1500 | +3.3 | 1500 | 50...150 | 110 IMY 15-0503-9R | -8, i, L, C, Z |
| 5 | 1300 | 5 | 1300 | 8.4...36 | 20 IMX 15-05-05-9 | -8, R, K, i, L, C, Z |
| 5 | 1400 | 5 | 1400 | 16.8...75 | 40 IMX 15-05-05-9 | -8, R, K, i, L, C, Z |
| 5 | 1400 | 5 | 1400 | 50...150 | 110 IMY 15-05-05-9 | -8, R, i, L, C, Z |
| 12 | 650 | 12 | 650 | 8.4...36 | 20 IMX 15-12-12-9 | -8, R, K, i, L, C, Z |
| 12 | 700 | 12 | 700 | 16.8...75 | 40 IMX 15-12-12-9 | -8, R, K, i, L, C, Z |
| 12 | 700 | 12 | 700 | 50...150 | 110 IMY 15-12-12-9 | -8, R, i, L, C, Z |
| 15 | 500 | 15 | 500 | 8.4...36 | 20 IMX 15-15-15-9 | -8, R, K, i, L, C, Z |
| 15 | 560 | 15 | 560 | 16.8...75 | 40 IMX 15-15-15-9 | -8, R, K, i, L, C, Z |
| 15 | 560 | 15 | 560 | 50...150 | 110 IMY 15-15-15-9 | -8, R, i, L, C, Z |
| 24 | 320 | 24 | 320 | 8.4...36 | 20 IMX 15-24-24-9 | -8, R, i, L, C, Z |
| 24 | 350 | 24 | 350 | 16.8...75 | 40 IMX 15-24-24-9 | -8, R, i, L, C, Z |
| 24 | 350 | 24 | 350 | 50...150 | 110 IMY 15-24-24-9 | -8, R, i, L, C, Z |

Input

| | | |
|---------------------|------------|----------------|
| Input voltage range | 20 IMX 15 | 8.4...36 V DC |
| | 40 IMX 15 | 16.8...75 V DC |
| | 110 IMY 15 | 50...150 V DC |

Output

| | | |
|---------------------------------|--|--|
| Output voltage setting accuracy | $U_{i\text{ nom}}, 50\% I_{o\text{ nom}}$ | $\pm 1\% U_{o\text{ nom}}$ |
| Minimum load | recommended for double output models | $10\% I_{o\text{ nom}}$ |
| Line/load regulation | $U_{i\text{ min}} \dots U_{i\text{ max}}, 50\% I_{o\text{ nom}},$ models R (magn. feedback) | $\pm 0.5\% U_{o\text{ nom}}$ |
| Line regulation | $U_{i\text{ min}} \dots U_{i\text{ max}}, 50\% I_{o\text{ nom}},$ models without R | $\pm 1\% U_{o\text{ nom}}$ |
| Load regulation | $U_{i\text{ nom}}, 10 \dots 100\% I_{o\text{ nom}},$ models without R, main outp. tracking output, models without R | $\pm 3\% U_{o\text{ nom}}$ $\pm 3\% U_{o\text{ nom}}$ |
| Output voltage switching noise | $U_{i\text{ nom}}, 0 \dots 100\% I_{o\text{ nom}},$ peak-peak, total | max. $1 \dots 2\% U_{o\text{ nom}}$ |
| Efficiency | $U_{i\text{ nom}}, I_{o\text{ nom}}$ | up to typ 88% |

Control and protection

| | | |
|-----------------------------|---|-----------------------------------|
| Remote shut down | TTL-compatible input | disabled with $\leq 0.7\text{ V}$ |
| Trim input for U_o | | 80...105% |
| Input undervoltage lock-out | | |
| Overload protection | $U_{i\text{ min}} \dots U_{i\text{ max}},$ fully protected, hiccup mode | |
| No-load protection | $U_{i\text{ min}} \dots U_{i\text{ max}}$ | |
| Temperature protection | | |

Safety and EMC

| | | |
|--------------------------------|---|----------------|
| Electric strength test voltage | I/O (20 and 40 IMX/110 IMY) | 1500/4000 V DC |
| Type of insulation | I/O (20 and 40 IMX supplementary/110 IMY re-inforced) | |
| Electromagnetic interference | conducted (with external filter) | class B |
| | radiated | class A |

Environmental

| | | |
|-------------------------------|--------------------------------------|---------------------------------------|
| Operating ambient temperature | $U_{i\text{ nom}}, I_{o\text{ nom}}$ | $-40 \dots 71\text{ }^\circ\text{C}$ |
| Storage temperature | non operational | $-40 \dots 100\text{ }^\circ\text{C}$ |
| Relative humidity | non condensing | 93% |

Options

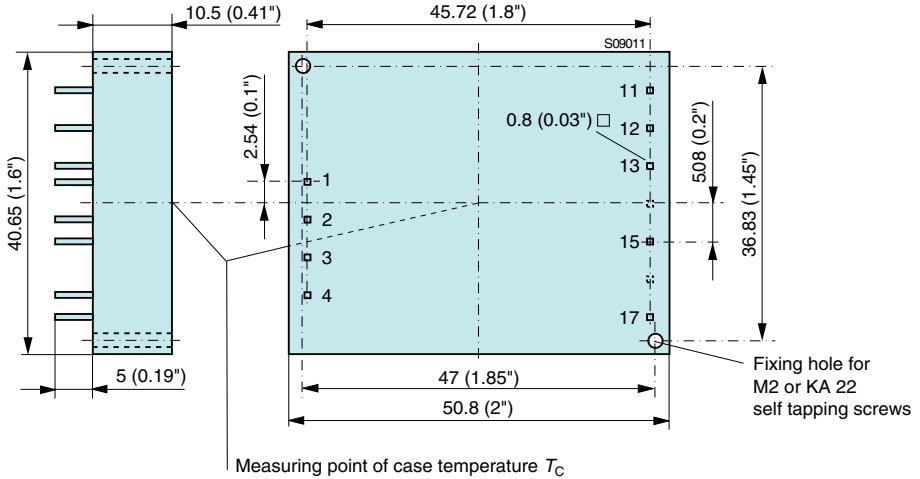
| | | |
|-------------------------------|---|----|
| Extended temperature range | $-40 \dots 85\text{ }^\circ\text{C}$ (derating above $71\text{ }^\circ\text{C}$), ambient, operating | -8 |
| Magnetic feedback | standard for all single output and -0503-models | R |
| Alternative pinout | connected outputs, for compatibility | K |
| Inhibit input (reverse logic) | TTL-compatible, disabled with $\geq 2.4\text{ V}$ or open-circuit | i |
| SMD version | with PCB lid | L |
| C-pinout | connected outputs, no options possible | C |
| Open version | no housing, not lacquered | Z |

Mechanical data

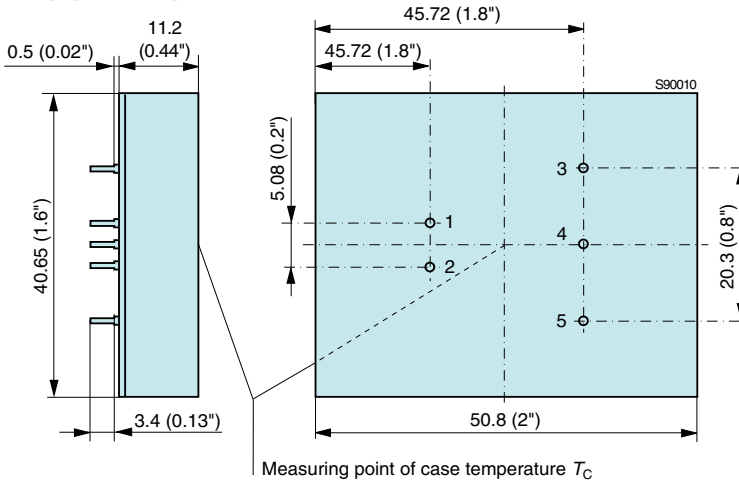
Tolerances ± 0.3 mm (0.012") unless otherwise indicated.



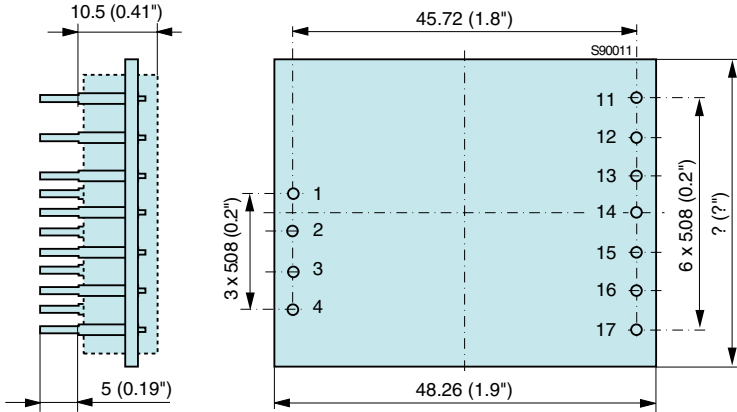
Standard and option K



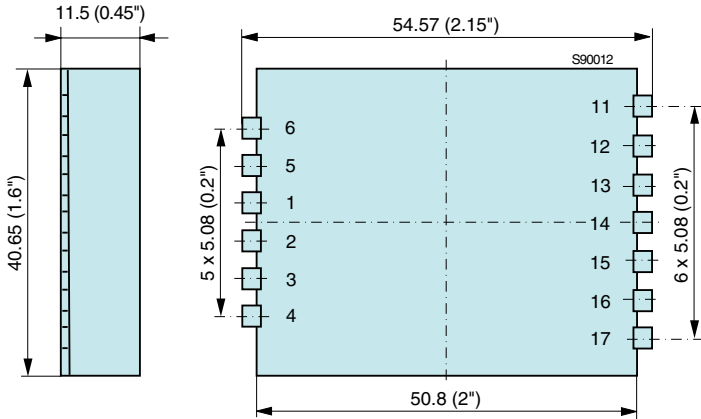
C pinout (option C)



Open frame version (option Z)



SMC version (option L)



Pin allocation

| Pin | single | Standard double | -0503- | Option K dual | Option C | | Option L and Z | |
|-----|--------|-----------------|--------|---------------|----------|------|----------------|--------|
| | | | | | single | dual | single | double |
| 1 | Vi+ | Vi+ | Vi+ | Vi+ | Vi+ | Vi+ | Vi+ | Vi+ |
| 2 | Vi- | Vi- | Vi- | Vi- | Vi- | Vi- | Vi- | Vi- |
| 3 | - | Trim | n.c. | - | Vo+ | Vo+ | n.c. | Trim |
| 4 | SD | SD | SD | SD | - | Go | SD | SD |
| 5 | - | - | - | - | Vo- | Vo- | n.c. | n.c. |
| 6 | - | - | - | - | - | - | n.c. | n.c. |
| 11 | - | Vo1+ | Vo2+ | Vo+ | - | - | - | Vo1- |
| 12 | - | Vo1- | Go | - | - | - | - | Vo2- |
| 13 | Vo+ | Vo2+ | Vo1+ | Go | - | - | Vo+ | Vo1+ |
| 15 | Vo- | Vo2- | Go | Vo- | - | - | Vo- | Vo2- |
| 17 | R | n.c./R | R | n.c. | - | - | R | n.c. |