

3 Watt

- 2:1 Input Range
- DIP24 Plastic Case
- Operating Temperature -40 °C to +100 °C
- Single & Dual Outputs
- 1500 VDC Isolation, 3000 VDC Option
- Fully Regulated Output
- No Minimum Load Required
- 3 Year Warranty



Dimensions:

JCE:
1.25 x 0.80 x 0.40" (31.75 x 20.32 x 10.16 mm)

Models & Ratings

| Input Voltage | Output Voltage | Output Current | Input Current ⁽¹⁾ | | Maximum Capacitive Load ⁽²⁾ | Efficiency | Model Number ⁽³⁾ |
|---------------|----------------|----------------|------------------------------|-----------|--|------------|-----------------------------|
| | | | No Load | Full Load | | | |
| 9-18 V | 3.3 V | 900 mA | 7 mA | 339 mA | 470 µF | 74% | JCE0312S3V3 |
| | 5.0 V | 600 mA | 7 mA | 325 mA | 470 µF | 78% | JCE0312S05 |
| | 12.0 V | 250 mA | 10 mA | 313 mA | 100 µF | 81% | JCE0312S12 |
| | 15.0 V | 200 mA | 10 mA | 313 mA | 100 µF | 81% | JCE0312S15 |
| | 24.0 V | 125 mA | 20 mA | 316 mA | 47 µF | 80% | JCE0312S24 |
| | ±3.3 V | ±450 mA | 10 mA | 339 mA | ±220 µF | 74% | JCE0312D03 |
| | ±5.0 V | ±300 mA | 10 mA | 325 mA | ±220 µF | 78% | JCE0312D05 |
| | ±12.0 V | ±125 mA | 15 mA | 313 mA | ±100 µF | 81% | JCE0312D12 |
| | ±15.0 V | ±100 mA | 20 mA | 313 mA | ±100 µF | 81% | JCE0312D15 |
| ±24.0 V | ±63 mA | 35 mA | 319 mA | ±47 µF | 80% | JCE0312D24 | |
| 18-36 V | 3.3 V | 900 mA | 7 mA | 172 mA | 470 µF | 73% | JCE0324S3V3 |
| | 5.0 V | 600 mA | 7 mA | 164 mA | 470 µF | 77% | JCE0324S05 |
| | 12.0 V | 250 mA | 7 mA | 156 mA | 100 µF | 81% | JCE0324S12 |
| | 15.0 V | 200 mA | 7 mA | 156 mA | 100 µF | 81% | JCE0324S15 |
| | 24.0 V | 125 mA | 10 mA | 156 mA | 47 µF | 81% | JCE0324S24 |
| | ±3.3 V | ±450 mA | 7 mA | 167 mA | ±220 µF | 75% | JCE0324D03 |
| | ±5.0 V | ±300 mA | 7 mA | 160 mA | ±220 µF | 79% | JCE0324D05 |
| | ±12.0 V | ±125 mA | 10 mA | 156 mA | ±100 µF | 81% | JCE0324D12 |
| | ±15.0 V | ±100 mA | 15 mA | 156 mA | ±100 µF | 81% | JCE0324D15 |
| ±24.0 V | ±63 mA | 20 mA | 158 mA | ±47 µF | 81% | JCE0324D24 | |
| 36-75 V | 3.3 V | 900 mA | 7 mA | 84 mA | 470 µF | 75% | JCE0348S3V3 |
| | 5.0 V | 600 mA | 7 mA | 80 mA | 470 µF | 79% | JCE0348S05 |
| | 12.0 V | 250 mA | 7 mA | 78 mA | 100 µF | 81% | JCE0348S12 |
| | 15.0 V | 200 mA | 7 mA | 78 mA | 100 µF | 81% | JCE0348S15 |
| | 24.0 V | 125 mA | 7 mA | 78 mA | 47 µF | 81% | JCE0348S24 |
| | ±3.3 V | ±450 mA | 7 mA | 81 mA | ±220 µF | 77% | JCE0348D03 |
| | ±5.0 V | ±300 mA | 7 mA | 78 mA | ±220 µF | 81% | JCE0348D05 |
| | ±12.0 V | ±125 mA | 7 mA | 78 mA | ±100 µF | 81% | JCE0348D12 |
| | ±15.0 V | ±100 mA | 7 mA | 78 mA | ±100 µF | 81% | JCE0348D15 |
| ±24.0 V | ±63 mA | 15 mA | 81 mA | ±47 µF | 79% | JCE0348D24 | |

Notes

1. Input currents measured at nominal input voltage.
2. Maximum capacitive load is per output.
3. For optional 3000 VDC isolation add suffix '-H' to model number.

Input

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|------------------------|---------|---------|---------|----------------|--|
| Input Voltage Range | 9 | | 18 | VDC | 12 V nominal |
| | 18 | | 36 | VDC | 24 V nominal |
| | 36 | | 75 | VDC | 48 V nominal |
| Input Filter | Pi type | | | | |
| Input Reflected Ripple | | | 20 | mA pk-pk | Through 12 μ H inductor and 47 μ F capacitor |
| Input Surge | | | 25 | VDC for 100 ms | 12 V models |
| | | | 50 | VDC for 100 ms | 24 V models |
| | | | 100 | VDC for 100 ms | 48 V models |

Output

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|--------------------------|---------|---------|-----------|-----------------|---|
| Output Voltage | | | | | See Models and Ratings table |
| Initial Set Accuracy | | | ± 2 | % | |
| Minimum Load | 0 | | | A | No minimum load required |
| Line Regulation | | | ± 0.5 | % | |
| Load Regulation | | | ± 1.2 | % | |
| Cross Regulation | | | ± 5 | % | On dual output models when one load is varied between 25% and 100% and other is fixed at 100% |
| Transient Response | | | 3 | % deviation | Recovery within 2% in less than 2 ms for a 25% load change. S3V3 versions: 5% max |
| Ripple & Noise | | | 80 | mV pk-pk | 20 MHz bandwidth. Measured using 1 μ F ceramic capacitor D24 versions: 100 mV pk-pk |
| Short Circuit Protection | | | | | Continuous, with auto recovery |
| Maximum Capacitive Load | | | | | See Models and Ratings table |
| Temperature Coefficient | | | 0.02 | %/ $^{\circ}$ C | |

General

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|----------------------------|---------|-------------|---------|-------------------|---|
| Efficiency | | 81 | | % | See Models and Ratings table |
| Isolation: Input to Output | | | 1500 | VDC | 3000 VDC option, add '-H' to model number |
| Switching Frequency | | 330 | | kHz | |
| Isolation Resistance | 10^9 | | | Ω | |
| Isolation Capacitance | | 1000 | | pF | |
| Power Density | | | 7.5 | W/in ³ | |
| Mean Time Between Failure | 800 | | | kHrs | MIL-HDBK-217F, +25 $^{\circ}$ C GB |
| Weight | | 0.03 (13.0) | | lb (g) | |

Environmental

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|-----------------------|---------|---------|---------|--------------|---|
| Operating Temperature | -40 | | +100 | $^{\circ}$ C | Derate from 100% load at +85 $^{\circ}$ C to no load at +100 $^{\circ}$ C |
| Storage Temperature | -55 | | +125 | $^{\circ}$ C | |
| Case Temperature | | | +100 | $^{\circ}$ C | |
| Humidity | | | 95 | %RH | Non-condensing |
| Cooling | | | | | Natural convection |

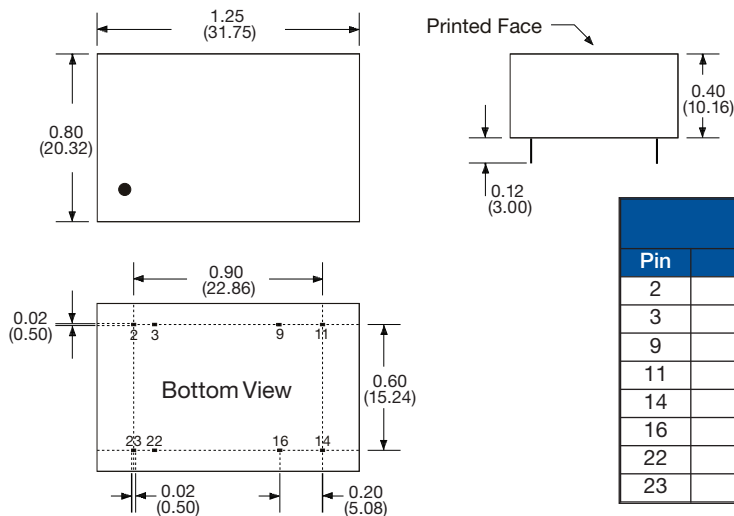
EMC: Emissions

| Phenomenon | Standard | Test Level | Notes & Conditions |
|------------|----------|------------|---|
| Conducted | EN55022 | Class A | Class B with external components, see application notes |
| Radiated | EN55022 | Class A | |

EMC: Immunity

| Phenomenon | Standard | Test Level | Criteria | Notes & Conditions |
|--------------------|-------------|----------------------|----------|---|
| ESD Immunity | EN61000-4-2 | 3 | A | |
| Radiated Immunity | EN61000-4-3 | 20 Vrms | A | |
| EFT/Burst | EN61000-4-4 | 3 | A | External input capacitor required 330 μ F/100 V |
| Surges | EN61000-4-5 | Installation class 2 | A | External input capacitor required 330 μ F/100 V |
| Conducted Immunity | EN61000-4-6 | 3 V rms | A | |
| Magnetic Fields | EN61000-4-8 | 1 A/m | A | |

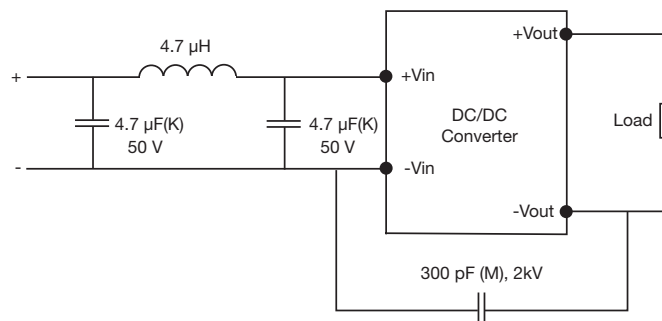
Mechanical Details



| Pin Connections | | |
|-----------------|--------|--------|
| Pin | Single | Dual |
| 2 | -Vin | -Vin |
| 3 | -Vin | -Vin |
| 9 | N.P. | Common |
| 11 | N.C. | -Vout |
| 14 | +Vout | +Vout |
| 16 | -Vout | Common |
| 22 | +Vin | +Vin |
| 23 | +Vin | +Vin |

Application Notes

Class B Conducted Emissions Filter



Notes

1. All dimensions are in inches (mm)
2. Weight: 0.03 lbs (13.0 g) approx.
3. Pin diameter: 0.02 \pm 0.002 (0.5 \pm 0.05)
4. Pin pitch tolerance: \pm 0.014 (\pm 0.35)
5. Case tolerance: \pm 0.02 (\pm 0.5)

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Isolated DC/DC Converters](#) category:

Click to view products by [XP Power](#) manufacturer:

Other Similar products are found below :

[ESM6D044440C05AAQ](#) [FMD15.24G](#) [PSL486-7LR](#) [PSR152.5-7IR](#) [Q48T30020-NBB0](#) [AVO240-48S12B-6L](#) [AVO250-48S28B-6L](#) [NAN-0505](#) [HW-L16D](#) [JAHW100Y1](#) [217-1617-001](#) [22827](#) [SPB05C-12](#) [SQ24S15033-PS0S](#) [18952](#) [19-130041](#) [CE-1003](#) [CE-1004](#) [GQ2541-7R](#) [PSE1000DCDC-12V](#) [RDS180245](#) [MAU228](#) [419-2065-201](#) [449-2075-101](#) [TME 0303S](#) [TME 0505S](#) [TME 1205S](#) [TME 1212S](#) [TME 2405S](#) [TME 2412S](#) [V300C24C150BG](#) [419-2062-200](#) [419-2063-401](#) [419-2067-101](#) [419-2067-501](#) [419-2068-001](#) [DCG40-5G](#) [DFC15U48D15](#) [449-2067-000](#) [XGS-0512](#) [XGS-1205](#) [XGS-1212](#) [XGS-2412](#) [XGS-2415](#) [XKS-1215](#) [033456](#) [NCT1000N040R050B](#) [SPB05B-15](#) [SPB05C-15](#) [TME 0509S](#)