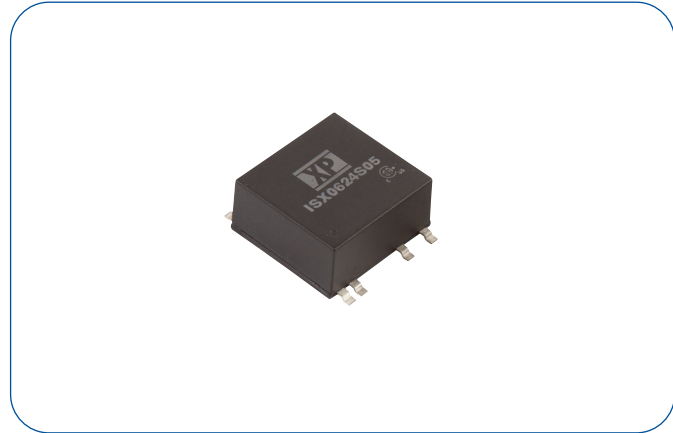


### 6 Watt

- Regulated Single & Dual Output
- Wide 4:1 Input Range
- Compact SMD Package
- 1500 VDC Isolation
- Operating Temperature -40 °C to +100 °C
- Remote On/Off
- Tape & Reel Package Available
- Optional Water Washable Versions
- 3 Year Warranty



#### Dimensions:

##### ISX06:

1.0 x 0.87 x 0.4" (25.4 x 22.0 x 10.2 mm)

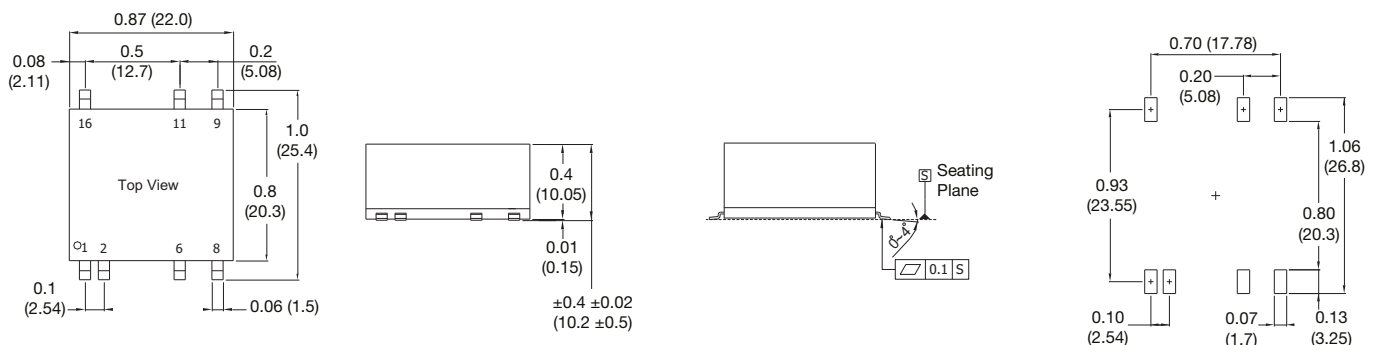
### Models & Ratings

| Input Voltage | Output Voltage | Output Current |         | Input Current <sup>(1,2)</sup> |           | Maximum Capacitive Load <sup>(3)</sup> | Efficiency | Model Number <sup>(4)</sup> |
|---------------|----------------|----------------|---------|--------------------------------|-----------|--|------------|-----------------------------|
|               |                | Min            | Max     | No Load                        | Full Load |  |            |                             |
| 9-36 V        | 3.3 V          | 218 mA         | 1450 mA | 30 mA                          | 262 mA    | 330 µF                                 | 76%        | ISX0624S3V3                 |
|               | 5.0 V          | 180 mA         | 1200 mA | 30 mA                          | 316 mA    | 330 µF                                 | 79%        | ISX0624S05                  |
|               | 12.0 V         | 75 mA          | 500 mA  | 30 mA                          | 300 mA    | 100 µF                                 | 83%        | ISX0624S12                  |
|               | 15.0 V         | 60 mA          | 400 mA  | 30 mA                          | 300 mA    | 100 µF                                 | 83%        | ISX0624S15                  |
|               | 24.0 V         | 38 mA          | 250 mA  | 30 mA                          | 300 mA    | 100 µF                                 | 83%        | ISX0624S24                  |
|               | ±5.0 V         | ±90 mA         | ±600 mA | 30 mA                          | 300 mA    | ±100 µF                                | 82%        | ISX0624D05                  |
|               | ±12.0 V        | ±38 mA         | ±250 mA | 30 mA                          | 300 mA    | ±100 µF                                | 83%        | ISX0624D12                  |
| 18-75 V       | 3.3 V          | 218 mA         | 1450 mA | 20 mA                          | 130 mA    | 330 µF                                 | 76%        | ISX0648S3V3                 |
|               | 5.0 V          | 180 mA         | 1200 mA | 20 mA                          | 160 mA    | 330 µF                                 | 79%        | ISX0648S05                  |
|               | 12.0 V         | 75 mA          | 500 mA  | 20 mA                          | 150 mA    | 100 µF                                 | 83%        | ISX0648S12                  |
|               | 15.0 V         | 60 mA          | 400 mA  | 20 mA                          | 150 mA    | 100 µF                                 | 83%        | ISX0648S15                  |
|               | 24.0 V         | 38 mA          | 250 mA  | 20 mA                          | 150 mA    | 100 µF                                 | 83%        | ISX0648S24                  |
|               | ±5.0 V         | ±90 mA         | ±600 mA | 20 mA                          | 150 mA    | ±100 µF                                | 82%        | ISX0648D05                  |
|               | ±12.0 V        | ±38 mA         | ±250 mA | 20 mA                          | 150 mA    | ±100 µF                                | 83%        | ISX0648D12                  |
|               | ±15.0 V        | ±30 mA         | ±200 mA | 20 mA                          | 150 mA    | ±100 µF                                | 83%        | ISX0648D15                  |

### Notes

1. Input currents measured at nominal input voltage.
2. Input current is typically 10 mA at nominal input voltage when output is remotely turned off.
3. Maximum capacitive load is per output.
4. For optional water washable version, add suffix '-P' e.g. ISX0624S12-P.

### Mechanical Details



### Input

| Characteristic         | Minimum  | Typical | Maximum | Units       | Notes & Conditions                                   |
|------------------------|--|---------|---------|-------------|--|
| Input Voltage Range    | 9  |         | 36      | VDC         | 24 V nominal   |
|                        | 18   |         | 75      | VDC         | 48 V nominal   |
| Input Filter           | Pi type  |         |         |             |  |
| Input Reflected Ripple |  | 20      |         | mA pk-pk    | Through 12 $\mu$ H inductor and 47 $\mu$ F capacitor |
| Input Surge            |  |         | 50      | VDC for 1 s | 24 V models  |
|                        |  |         | 100     | VDC for 1 s | 48 V models  |
| Undervoltage Lockout   | ON at >4.5 V, OFF at <8 V  |         |         |             | 24 V models  |
|                        | ON at >8.5 V, OFF at <17 V   |         |         |             | 48 V models  |
| Remote On/Off          | ON: Logic high (2.5 - 50 V) or open circuit<br>OFF: Logic low (<0.8 V) or short pin 1 to pin 2 |         |         |             |  |

### Output

| Characteristic           | Minimum | Typical   | Maximum   | Units       | Notes & Conditions  |
|--------------------------|---------|-----------|-----------|-------------|---|
| Output Voltage           | 3.3     |           | 30        | VDC         | See Models and Ratings table  |
| Initial Set Accuracy     |         | $\pm 1.0$ | $\pm 2.0$ | %           |   |
| Output Voltage Balance   |         | $\pm 1.0$ |           | %           | For dual output with balanced loads   |
| Minimum Load             |         |           |           | A           | See Models and Ratings table  |
| Line Regulation          |         | $\pm 0.5$ | $\pm 1.0$ | %           |   |
| Load Regulation          |         | $\pm 0.5$ | $\pm 1.2$ | %           | 15% to 100% load  |
| Cross Regulation         |         |           | $\pm 5$   | %           | 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 1% in less than 600 $\mu$ s for a 25% load change.                            |
| Ripple & Noise           |         |           | 100       | mV pk-pk    | 20 MHz bandwidth. Measured using 0.47 $\mu$ F ceramic capacitor.                              |
| Overload Protection      | 110     | 150       |           | %           | Foldback  |
| Short Circuit Protection |         |           |           |             | Continuous, with auto recovery  |
| Maximum Capacitive Load  |         |           |           |             | See Models and Ratings table  |
| Temperature Coefficient  |         |           | 0.02      | %/°C        |   |

### General

| Characteristic             | Minimum   | Typical     | Maximum | Units             | Notes & Conditions           |
|----------------------------|-----------|-------------|---------|-------------------|------------------------------|
| Efficiency                 |           | 80          |         | %                 | See Models and Ratings table |
| Isolation: Input to Output | 1500/1800 |             |         | VDC               | 60 s/1 s                     |
| Isolation Resistance       | $10^9$    |             |         | $\Omega$          | At 500 VDC                   |
| Isolation Capacitance      |           | 1200        | 1500    | pF                |                              |
| Switching Frequency        |           | 330         |         | kHz               |                              |
| Power Density              |           |             | 17.2    | W/in <sup>3</sup> |                              |
| Mean Time Between Failure  |           | 350         |         | kHrs              | MIL-HDBK-217F, +25 °C GB     |
| Weight                     |           | 0.017 (7.8) |         | lb (g)            |                              |
| Moisture Sensitivity Level | Level 2   |             |         |                   | IPC/JEDEC J-STD-020D.1       |

### Environmental

| Characteristic                  | Minimum        | Typical | Maximum | Units | Notes & Conditions           |
|---------------------------------|----------------|---------|---------|-------|------------------------------|
| Operating Temperature           | -40            |         | +100    | °C    | See Derating Curve.          |
| Storage Temperature             | -50            |         | +125    | °C    |                              |
| Case Temperature                |                |         | +105    | °C    |                              |
| Humidity                        |                |         | 95      | %RH   | Non-condensing               |
| Cooling                         |                |         |         |       | Natural convection           |
| Case Flammability               | UL 94V-0 Rated |         |         |       | Non conductive black plastic |
| Lead-Free Reflow Solder Process |                |         |         |       | IPC/JEDEC J-STD-020D.1       |

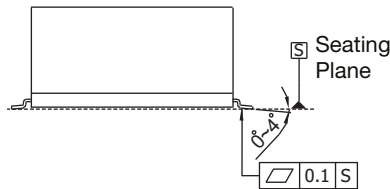
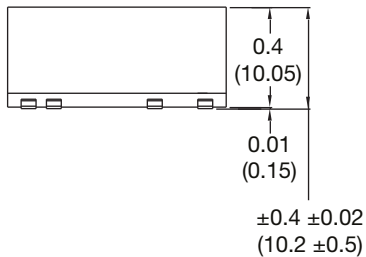
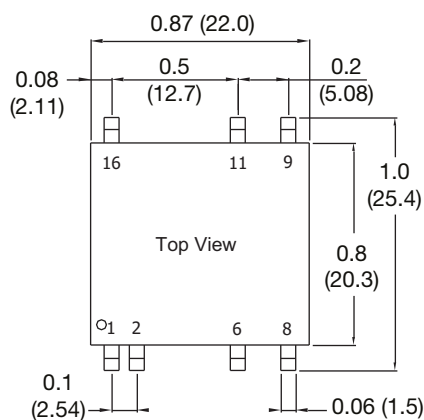
### Safety Approvals

| Safety Agency | Safety Standard                  | Notes & Conditions     |
|---------------|----------------------------------|------------------------|
| CB Report     | IEC60950-1                       | Information Technology |
| UL            | UL/cUL60950-1, UL/cUL62368-1     | Information Technology |
| CE            | Meets all applicable directives  |                        |
| UKCA          | Meets all applicable legislation |                        |

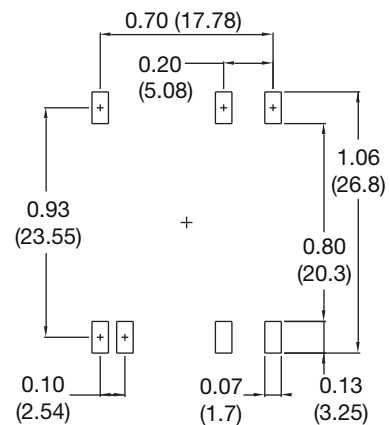
### EMC: Emissions

| Phenomenon | Standard | Test Level | Notes & Conditions |
|------------|----------|------------|--------------------|
| Conducted  | EN55032  | Class A    |                    |

### Mechanical Details



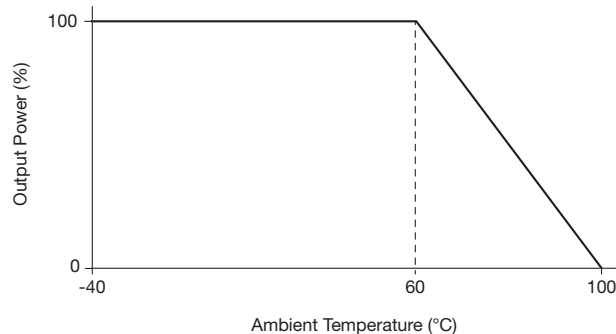
### Connecting Pin Pattern



| Pin | Pin Connections |               |
|-----|-----------------|---------------|
|     | Single          | Dual          |
| 1   | Remote On/Off   | Remote On/Off |
| 2   | -Vin            | -Vin          |
| 6   | No Connection   | Common        |
| 8   | No Connection   | -Vout         |
| 9   | +Vout           | +Vout         |
| 11  | -Vout           | Common        |
| 16  | +Vin            | +Vin          |

### Application Notes

#### Derating Curve



#### Notes

1. All dimensions are in inches (mm)
2. Weight: 0.017 lbs (7.8 g) approx.

3. Tolerance: X.XX±0.01 (X.X±0.25)  
X.XXX±0.005 (X.XX±0.13)
4. Pin Tolerance: ±0.002 (±0.05)

## 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](#) [Q48T30020-NBB0](#) [JAHW100Y1](#) [SPB05C-12](#) [SQ24S15033-PS0S](#) [18952](#) [19-130041](#)  
[CE-1003](#) [CE-1004](#) [GQ2541-7R](#) [RDS180245](#) [MAU228](#) [J80-0041NL](#) [DFC15U48D15](#) [XGS-0512](#) [XGS-1205](#) [XGS-1212](#) [XGS-2412](#) [XGS-2415](#) [XKS-1215](#) [06322](#) [NCT1000N040R050B](#) [SPB05B-15](#) [SPB05C-15](#) [L-DA20](#) [DCG40-5G](#) [QME48T40033-PGB0](#) [XKS-2415](#) [XKS-2412](#)  
[XKS-1212](#) [XKS-1205](#) [XKS-0515](#) [XKS-0505](#) [XGS-2405](#) [XGS-1215](#) [XGS-0515](#) [PS9Z-6RM4](#) [73-551-5038I](#) [AK1601-9RT](#) [VI-N61-CM](#) [VI-R5022-EXWW](#) [PSC128-7iR](#) [RPS8-350ATX-XE](#) [DAS1004812](#) [PQA30-D24-S24-DH](#) [VI-M5F-CQ](#) [VI-LN2-EW](#) [VI-PJW01-CZY](#)