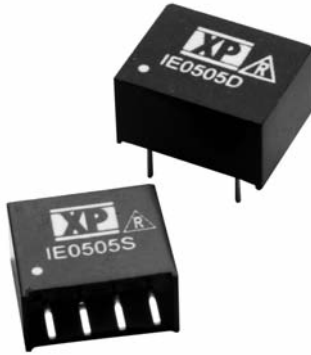


# 1 Watt IE Series



- Single Output
- SIP or DIP Package
- Industry Standard Pinout
- 1000 VDC Isolation
- Optional 3000 VDC Isolation
- Short Circuit Protection
- -40 °C to +85 °C Operation

## Specification

### Input

- Input Voltage Range • Nominal  $\pm 10\%$
- Input Reflected Ripple • 20 mA rms
- Input Reverse Voltage Protection • None

### Output

- Output Voltage • See table
- Minimum Load • None<sup>(6)</sup>
- Line Regulation • 1.2%/1%  $\Delta V_{in}$
- Load Regulation •  $\pm 10\%$  20-100% load change (3.3 V models  $\pm 20\%$ )
- Setpoint Accuracy •  $\pm 5\%$
- Ripple & Noise • 60 mV pk-pk, 20 MHz BW
- Temperature Coefficient • 0.02%/°C
- Short Circuit Protection • 1 s max
- Maximum Capacitive Load • 220  $\mu F$

### General

- Efficiency • See table
- Isolation Voltage • 1000 VDC minimum (3000 VDC -H option)
- Isolation Capacitance • 60 pF typical
- Switching Frequency • Variable
- MTBF • >2 Mhrs

### Environmental

- Operating Temperature • -40 °C to +85 °C
- Storage Temperature • -40 °C to +125 °C
- Case Temperature • 100 °C max
- Cooling • Convection-cooled

### Notes

1. For DIP package, replace 'S' in model number with 'D'.
2. Add suffix 'H' to model number for 3000 VDC isolation.
3. For 48 VDC in, specify model number as IE48XXS (not available in DIP package).
4. 48 V models dimension is 0.29 (7.50).
5. All dimensions in inches (mm).
6. Operation at no load will not damage unit but it may not meet all specifications.

| Input Voltage <sup>(3)</sup> | No Load Input Current | Output Voltage | Output Current | Efficiency | Model Number <sup>(1,2)</sup> |
|------------------------------|-----------------------|----------------|----------------|------------|-------------------------------|
| 3.3 VDC                      | 25 mA                 | 3.3 V          | 300 mA         | 75%        | IE0303S                       |
|                              | 25 mA                 | 5.0 V          | 200 mA         | 78%        | IE0305S                       |
|                              | 30 mA                 | 9.0 V          | 111 mA         | 78%        | IE0309S                       |
|                              | 45 mA                 | 12.0 V         | 84 mA          | 78%        | IE0312S                       |
|                              | 40 mA                 | 15.0 V         | 66 mA          | 78%        | IE0315S                       |
| 5 VDC                        | 40 mA                 | 24.0 V         | 42 mA          | 78%        | IE0324S                       |
|                              | 25 mA                 | 3.3 V          | 300 mA         | 72%        | IE0503S                       |
|                              | 25 mA                 | 5.0 V          | 200 mA         | 75%        | IE0505S†                      |
|                              | 25 mA                 | 9.0 V          | 111 mA         | 77%        | IE0509S                       |
|                              | 25 mA                 | 12.0 V         | 84 mA          | 78%        | IE0512S†                      |
| 12 VDC                       | 25 mA                 | 15.0 V         | 66 mA          | 78%        | IE0515S†                      |
|                              | 25 mA                 | 24.0 V         | 42 mA          | 78%        | IE0524S                       |
|                              | 16 mA                 | 3.3 V          | 300 mA         | 72%        | IE1203S                       |
|                              | 16 mA                 | 5.0 V          | 200 mA         | 75%        | IE1205S†                      |
|                              | 16 mA                 | 9.0 V          | 111 mA         | 77%        | IE1209S                       |
| 24 VDC                       | 16 mA                 | 12.0 V         | 84 mA          | 78%        | IE1212S†                      |
|                              | 16 mA                 | 15.0 V         | 66 mA          | 78%        | IE1215S†                      |
|                              | 16 mA                 | 24.0 V         | 42 mA          | 78%        | IE1224S                       |
|                              | 10 mA                 | 3.3 V          | 300 mA         | 72%        | IE2403S                       |
|                              | 10 mA                 | 5.0 V          | 200 mA         | 75%        | IE2405S†                      |
| 24 VDC                       | 10 mA                 | 9.0 V          | 111 mA         | 77%        | IE2409S                       |
|                              | 10 mA                 | 12.0 V         | 84 mA          | 78%        | IE2412S†                      |
|                              | 10 mA                 | 15.0 V         | 66 mA          | 78%        | IE2415S†                      |
|                              | 10 mA                 | 24.0 V         | 42 mA          | 78%        | IE2424S                       |

† Available from Farnell. See pages 204-206.

### Mechanical Details

