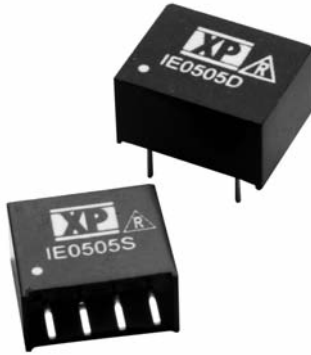


# 1 Watt IE Series



- 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

