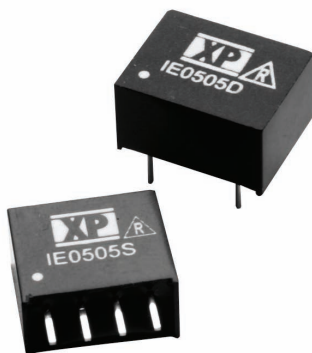


1 Watt

IE Series



- Single Output
- SIP or DIP Package
- 1000 VDC Isolation
- Optional 3000 VDC Isolation
- Small Package Sizes
- -40 °C to +85 °C Operation
- 3 Year Warranty

Specification

Input

- Input Voltage Range • Nominal $\pm 10\%$
- Input Reflected Ripple Current • 20 mA pk-pk through 12 μ H inductor 5Hz to 20 MHz
- Input Reverse Voltage Protection • None

Output

- Output Voltage • See table
- Minimum Load • None⁽⁵⁾
- Line Regulation • 1.2%/1% ΔV_{in}
- Load Regulation • 10% for a 20-100% load change⁽⁵⁾ (3.3 V models $\pm 20\%$)
- Setpoint Accuracy • $\pm 3\%$
- Ripple & Noise • 100 mV pk-pk max, 20 MHz bandwidth
- Temperature Coefficient • 0.02%/°C
- Maximum Capacitive Load • 220 μ F

General

- Efficiency • See table
- Isolation Voltage • 1000 VDC minimum (3000 VDC -H option)
- Isolation Resistance • $10^9 \Omega$
- Isolation Capacitance • 60 pF typical
- Switching Frequency • 40-150 KHz variable
- MTBF • >1.1 Mhrs to MIL-HDBK-217F at 25 °C, GB

Environmental

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

Notes

- For DIP package, replace 'S' in model number with 'D'.
- Add suffix '-H' to model number for 3000 VDC isolation.
- For 48 VDC in, specify model number as IE48XS (not available in DIP package).
- 48 VDC input models dimension is 0.29 (7.5).
- Operation at no load will not damage unit but it may not meet all specifications.
- All dimensions in inches (mm).
- Pin pitch tolerance: ± 0.014 (± 0.35)
- Case tolerance: ± 0.02 (± 0.5)
- Weight: SIP 0.003 lbs (1.4 g), DIP 0.004 lbs (1.8 g)

Input Voltage ⁽³⁾	No Load Input Current	Output Voltage	Output Current	Efficiency	Model Number ^(1,2)
3.3 VDC	25 mA	3.3 V	300 mA	71%	IE0303S
	25 mA	5.0 V	200 mA	75%	IE0305S
	30 mA	9.0 V	111 mA	74%	IE0309S
	45 mA	12.0 V	84 mA	74%	IE0312S
	40 mA	15.0 V	66 mA	77%	IE0315S
	40 mA	24.0 V	42 mA	77%	IE0324S
5 VDC	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
	25 mA	15.0 V	66 mA	78%	IE0515S
	25 mA	24.0 V	42 mA	80%	IE0524S
12 VDC	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
	16 mA	12.0 V	84 mA	80%	IE1212S
	16 mA	15.0 V	66 mA	78%	IE1215S
	16 mA	24.0 V	42 mA	78%	IE1224S
24 VDC	10 mA	3.3 V	300 mA	72%	IE2403S
	10 mA	5.0 V	200 mA	75%	IE2405S
	10 mA	9.0 V	111 mA	77%	IE2409S
	10 mA	12.0 V	84 mA	80%	IE2412S
	10 mA	15.0 V	66 mA	78%	IE2415S
	10 mA	24.0 V	42 mA	80%	IE2424S

Mechanical Details

