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

Input Reflected Ripple Current

- Nominal ±10%
- 20 mA pk-pk through 12 µH inductor 5Hz to 20 MHz

Input Reverse Voltage • None Protection

 See table • None⁽⁵⁾

Output

Output Voltage

Minimum Load

Load Regulation

Line Regulation • 1.2%/1% ∆ Vin

• 10% for a 20-100% load change(5) (3.3 V models ±20%)

Setpoint Accuracy

Ripple & Noise • 100 mV pk-pk max, 20 MHz bandwidth

Temperature Coefficient • 0.02%/°C Maximum Capacitive • 220 µF

Load

General

Efficiency Isolation Voltage · See table

1000 VDC minimum (3000 VDC -H option)

Isolation Resistance

10° Ω

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

- 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 VDC input models dimension is 0.29 (7.5).
- 5. Operation at no load will not damage unit but it may not meet all specifications.
- 6. All dimensions in inches (mm).
- 7. Pin pitch tolerance: ± 0.014 (± 0.35)
- 8. Case tolerance: ±0.02 (±0.5)
- 9. 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†^

- † Available from Farnell & element14. See pages 284-290.
- ^ Available from Newark. See pages 291-296.

Mechanical Details



