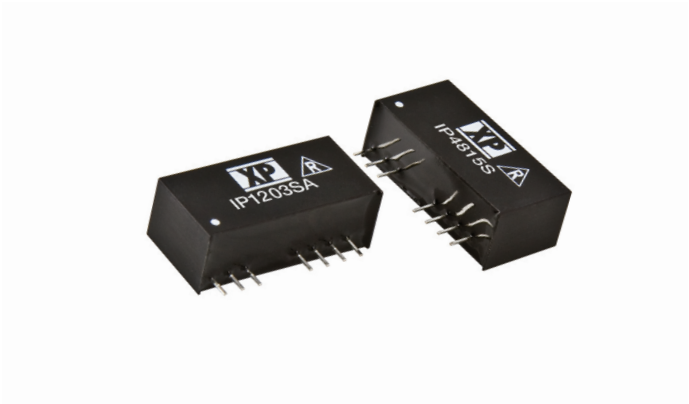
3 Watts
IP Series



- Regulated Single & Dual Output
- Wide 4:1 Input Range
- SIP Package
- 1600 VDC Isolation
- –40 °C to 85 °C Operation
- Remote On/Off
- 3 Year Warranty

Specification

Input

Input Voltage Range	• See table
Input Reflected Ripple Current	• 20 mA pk-pk through 12 µH inductor and 47 µF capacitor, 5 Hz to 20 MHz
Input Filter	• Capacitor
Input Surge	• 12 V models: 25 VDC for 100 ms 24 V models: 50 VDC for 100 ms 48 V models: 100 VDC for 100 ms

Output

Output Voltage	• See table
Minimum Load	• None[1]
Line Regulation	• ±0.2% max
Load Regulation	• ±1.0% max for a 10-100% load change[1]
Setpoint Accuracy	• ±1% max
Ripple & Noise	• 30 mV pk-pk max, 20 MHz bandwidth
Temperature Coefficient	• 0.02%/°C
Short Circuit Protection	• Continuous with auto recovery (foldback)
Cross Regulation	• ±5% on dual output models[2]
Remote On/Off	• Apply 2 to 4 mA to pin 3 to turn off output

General

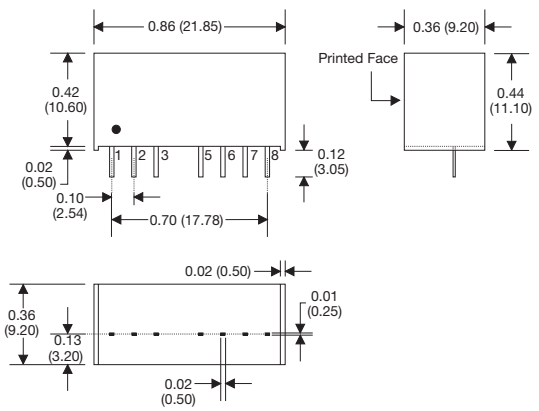
Efficiency	• See table
Isolation Voltage	• 1600 VDC
Isolation Resistance	• $10^9\Omega$
Isolation Capacitance	• 200 pF
Switching Frequency	• 100-600 kHz variable
MTBF	• >1.7 MHrs to MIL-HDBK-217F at 25 °C, GB

Environmental

Operating Temperature	• -40 °C to +85 °C, derate from 100% load at 70 °C to 30% load at 85 °C
Storage Temperature	• -40 °C to +125 °C
Case Temperature	• 100 °C max
Cooling	• Convection cooled

Input Voltage	Output Voltage	Output Current	No Load Input Current	Max Capacitive Load	Efficiency	Model Number
4.5-18.0 V	3.3 V	700 mA	40 mA	1760 µF	72%	IP1203SA
	5.0 V	600 mA	40 mA	1000 µF	77%	IP1205SA
	12.0 V	250 mA	40 mA	170 µF	81%	IP1212SA
	15.0 V	200 mA	40 mA	110 µF	81%	IP1215SA
	±5.0 V	±300 mA	40 mA	±470 µF	77%	IP1205S
	±12.0 V	±125 mA	40 mA	±100 µF	80%	IP1212S
	±15.0 V	±100 mA	40 mA	±47 µF	80%	IP1215S
9.0-36.0 V	3.3 V	700 mA	25 mA	1760 µF	75%	IP2403SA
	5.0 V	600 mA	25 mA	1000 µF	79%	IP2405SA
	12.0 V	250 mA	25 mA	170 µF	82%	IP2412SA
	15.0 V	200 mA	25 mA	110 µF	82%	IP2415SA
	±5.0 V	±300 mA	25 mA	±470 µF	79%	IP2405S
	±12.0 V	±125 mA	25 mA	±100 µF	79%	IP2412S
	±15.0 V	±100 mA	25 mA	±47 µF	80%	IP2415S
18.0-75.0 V	3.3 V	700 mA	15 mA	1760 µF	74%	IP4803SA
	5.0 V	600 mA	15 mA	1000 µF	78%	IP4805SA
	12.0 V	250 mA	15 mA	170 µF	80%	IP4812SA
	15.0 V	200 mA	15 mA	110 µF	81%	IP4815SA
	±5.0 V	±300 mA	15 mA	±470 µF	79%	IP4805S
	±12.0 V	±125 mA	15 mA	±100 µF	79%	IP4812S
	±15.0 V	±100 mA	15 mA	±47 µF	79%	IP4815S

Mechanical Details



PIN CONNECTIONS					
Pin	Single	Dual	Pin	Single	Dual
1	-V Input	-V Input	5	N.C.	N.C.
2	+V Input	+V Input	6	+V Output	+V Output
3	Remote On/Off	Remote On/Off	7	-V Output	Common
4	No Pin	No Pin	8	N.C.	-V Output

Notes

1. Operation at no load will not damage the converter but may not meet all specifications.
2. When one output is set to 100% load and the other varies between 25%-100% load.
3. Pin pitch tolerance ±0.014 (±0.35)
4. Case tolerance ±0.02 (0.5)
5. Weight: 0.014 lbs (6.5 g)
6. All dimensions in inches (mm)