

DC/DC Converters

20 Watts JTA20 Series

XPiQ inc.

Intelligent Design Quality Product



Small Size 1.6" x 2.0" x 0.45"

Ultra Wide 4:1 Input

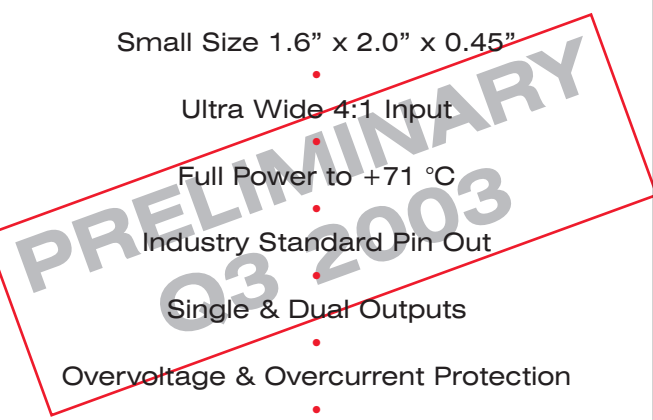
Full Power to +71 °C

Industry Standard Pin Out

Single & Dual Outputs

Overvoltage & Overcurrent Protection

UL Safety Approvals



Specification

Input

- Input Voltage**
- 9-36 VDC
 - 18-75 VDC
- Input Current**
- 2.9 A max at 9 VDC input, 20 W output
- Remote ON/OFF**
- ON = Logic High or Open,
 - OFF = Logic Low or shorted to -Vin

Output

- Output Voltage**
- See Table
- Output Power**
- 20 Watts
- Output Voltage Adjustment**
- ±10%
- Minimum Load**
- 0 minimum load required
- Line Regulation**
- ±1% maximum
- Load Regulation**
- ±1% maximum for single output
 - ±2% maximum for dual output
- Setpoint Accuracy**
- ±2%
- Ripple & Noise**
- 50 mV pk-pk for single output
 - 75 mV pk-pk for dual output
- Transient Response**
- 4% max deviation,
 - recovering to 1% of final value in less than 500 µs after a 25% load change
- Temperature Coefficient**
- ±0.02%/°C
- Overvoltage Protection**
- See table
- Overcurrent Protection**
- Continuous with auto recovery

General

- Efficiency**
- See table
- MTBF**
- 1,000,000 hrs minimum per MIL-HDBK-217F
- Isolation Voltage**
- 1500 VDC Input to Output
- Package Style**
- Copper case with non-conductive base
- Size**
- 2.00" x 1.60" x 0.45"
- Weight**
- 50 grams approx

Environmental

- Operating Temperature**
- -25 °C to +100 °C derate from 100% load at +71 °C to 0% load at +100 °C
- Cooling**
- Convection cooled
- Storage Temperature**
- -55 °C to +105 °C
- Humidity**
- 5-95% RH non-condensing

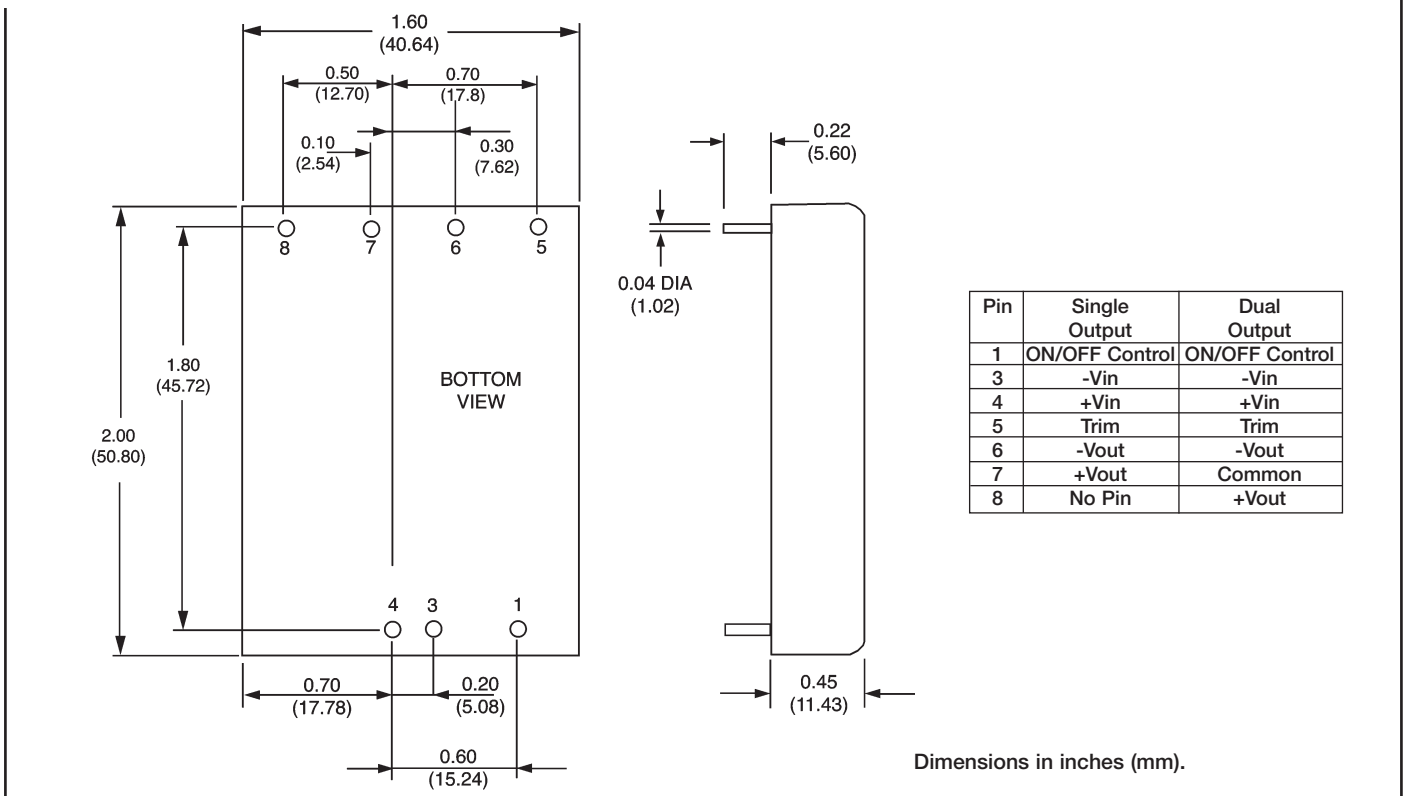
EMC & Safety

- Safety Approvals**
- UL/cUL 1950
- EMI/EMC**
- EN55022 Class B conducted

* Preliminary datasheet - see website for current specs

OUTPUT VOLTAGE & CURRENT RATINGS							JTA20	
Input Voltage	Maximum Power	Overvoltage Protection	Output 1		Output 2		Efficiency	Model Number
			V1nom	I _{max}	V2nom	I _{max}		
24 V (9-36)	13.2 W	3.9 V	3.3 V	4.00 A			78%	JTA2024S3V3
	20 W	6.8 V	5.0 V	4.00 A			81%	JTA2024S05
	20 W	15.0 V	12.0 V	1.67 A			83%	JTA2024S12
	20 W	18.0 V	15.0 V	1.33 A			83%	JTA2024S15
	20 W	6.8 V	5.0 V	2.00 A	-5.0 V	2.00 A	83%	JTA2024D01
	20 W	15.0 V	12.0 V	0.83 A	-12.0 V	0.83 A	83%	JTA2024D02
	20 W	18.0 V	15.0 V	0.67 A	-15.0 V	0.67 A	83%	JTA2024D03
48 V (18-75)	13.2 W	3.9 V	3.3 V	4.00 A			78%	JTA2048S3V3
	20 W	6.8 V	5.0 V	4.00 A			82%	JTA2048S05
	20 W	15.0 V	12.0 V	1.67 A			84%	JTA2048S12
	20 W	18.0 V	15.0 V	1.33 A			84%	JTA2048S15
	20 W	6.8 V	5.0 V	2.00 A	-5.0 V	2.00 A	84%	JTA2048D01
	20 W	15.0 V	12.0 V	0.83 A	-12.0 V	0.83 A	84%	JTA2048D02
	20 W	18.0 V	15.0 V	0.67 A	-15.0 V	0.67 A	84%	JTA2048D03

Mechanical Details



Derating Curve

