

PART NUMBER: VSCQ20 series

DESCRIPTION: DC/DC converter

features

- 20W isolated output
- efficiency to 84%
- 4:1 input range
- continuous short circuit protection
- remote on/off control
- Pi input filter



| model number | input voltage | output voltage | output current | input current | | efficiency |
|-----------------|---------------|----------------|----------------|---------------|-----------|------------|
| | | | | no load | full load | |
| VSCQ20-Q24-S5 | 9-36VDC | 5VDC | 4000mA | 15mA | 1029mA | 81% |
| VSCQ20-Q24-S12 | 9-36VDC | 12VDC | 1670mA | 15mA | 1006mA | 83% |
| VSCQ20-Q24-S15 | 9-36VDC | 15VDC | 1330mA | 15mA | 1004mA | 83% |
| VSCQ20-Q24-D12 | 9-36VDC | ±12VDC | ±833mA | 20mA | 1004mA | 83% |
| VSCQ20-Q24-D15 | 9-36VDC | ±15VDC | ±666mA | 20mA | 1004mA | 83% |
| VSCQ20-Q24-D5 | 9-36VDC | ±5VDC | ±2000mA | 20mA | 1004mA | 83% |
| VSCQ20-Q24-S3R3 | 9-36VDC | 3.3VDC | 4000mA | 15mA | 705mA | 78% |
| VSCQ20-Q48-S5 | 18-72VDC | 5VDC | 4000mA | 10mA | 508mA | 82% |
| VSCQ20-Q48-S12 | 18-72VDC | 12VDC | 1670mA | 10mA | 497mA | 84% |
| VSCQ20-Q48-S15 | 18-72VDC | 15VDC | 1330mA | 10mA | 496mA | 84% |
| VSCQ20-Q48-D12 | 18-72VDC | ±12VDC | ±833mA | 15mA | 496mA | 84% |
| VSCQ20-Q48-D15 | 18-72VDC | ±15VDC | ±666mA | 15mA | 496mA | 84% |
| VSCQ20-Q48-D5 | 18-72VDC | ±5VDC | ±2000mA | 15mA | 496mA | 84% |
| VSCQ20-Q48-S3R3 | 18-72VDC | 3.3VDC | 4000mA | 10mA | 353mA | 78% |

**PART NUMBER:** VSCQ20 series**DESCRIPTION:** DC/DC converter**INPUT**

| | | |
|--------------------------------------|------------|-----------------|
| input voltage range | 24V 48V | 9-36V 18-72V |
| input filter type | | PI type |
| positive logic remote on/off control | | see note 3 |

OUTPUT

| | | |
|---|-----------------------------|---------------------------------|
| voltage accuracy single output | | ±1.0% max. |
| voltage accuracy dual+output | | ±1.0% max. |
| voltage accuracy dual-output | | ±2.0% max. |
| voltage balance, dual output at full load | | ±1.0% max. |
| transient response | | |
| | single 25% step load change | <500μ sec. |
| | dual-FL 1/2L±1% error band | <500μ sec. |
| ripple & noise | 20MHz BW, | 20mV RMS., max 75mV p-p, max |
| temperature coefficient | | ±0.02%/°C |
| short circuit protection | | continuous |
| Safety | | approved to UL60950-1 (E222736) |
| line regulation ¹ | single/dual output | ±0.5% max |
| load regulation ² | single/dual output | ±0.5% max |

GENERAL SPECIFICATIONS

| | | |
|-----------------------------|--|--|
| efficiency | | see table |
| isolation voltage | | 1500VDC min. |
| isolation resistance | | 10 ⁸ ohms min |
| switching frequency | | 300KHz, type |
| operating temperature range | | -25°C to +71°C |
| derating, above 60°C | | linearly to zero power at +100°C |
| case temperature | | 100°C max. |
| storage temperature | | -55°C to +105°C |
| EMI/RFI | | six sided continuous shield |
| dimensions | | 2.0x1.6x0.45 inches (50.8x40.64x11.43mm) |
| case material | | black coated copper with non-conductive base |

NOTES:

1. measured from high line to low line
2. measured from full load to 1/4 load
3. remote on/off control:
logic compatibility CMOS or open collector TTL

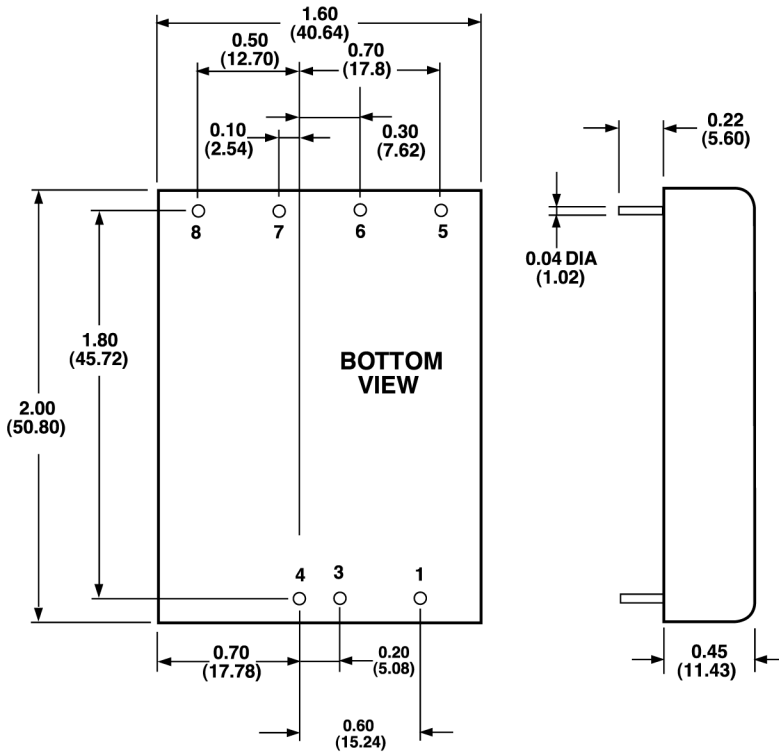
| | |
|----------------|---------------------------|
| EC-ON | >+5.5VDC or open circuit |
| EC-OFF | <1.8VDC |
| control common | referenced to input minus |

PART NUMBER: VSCQ20 series

DESCRIPTION: DC/DC converter

DIMENSIONS- (mm)

All Dimensions In Inches(mm)
Tolerance .xx= ±0.04, .xxx= ±0.010



| PIN CONNECTION | | |
|----------------|----------------|----------------|
| Pin | Single Output | Dual Output |
| 1 | On/Off Control | On/Off Control |
| 3 | -Vin | -Vin |
| 4 | +Vin | +Vin |
| 5 | Trim | Trim |
| 6 | -Vout | -Vout |
| 7 | +Vout | Common |
| 8 | No Pin | +Vout |

EXTERNAL OUTPUT TRIMMING

Output may optionally be externally trimmed (±10%) with a fixed resistor or an external trimpot as shown.

