

**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-S12	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 <sup>1</sup>	single/dual output	±0.5% max
load regulation <sup>2</sup>	single/dual output	±0.5% max

**GENERAL SPECIFICATIONS**

efficiency		see table
isolation voltage		1500VDC min.
isolation resistance		10 <sup>8</sup> 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

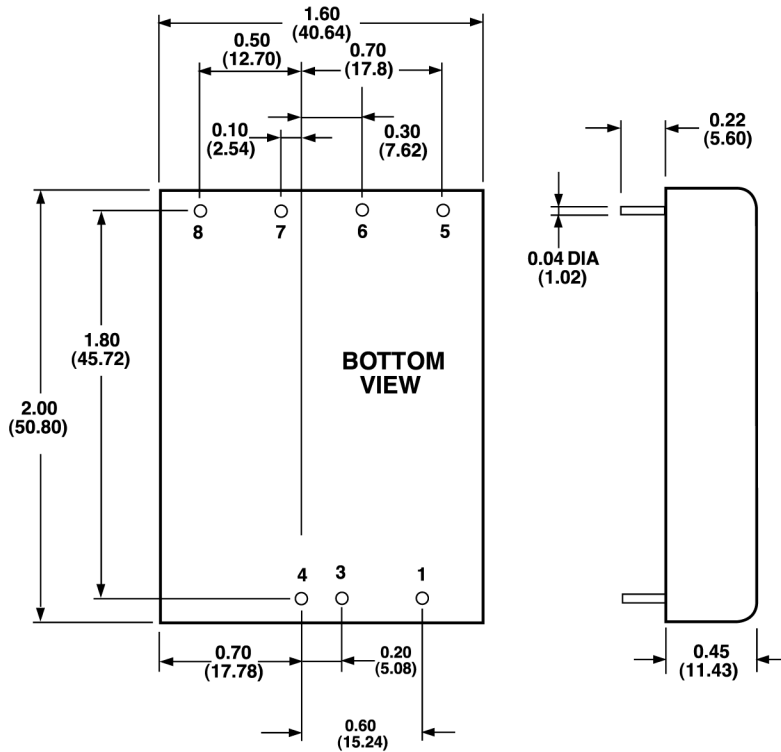
EC-ON	>+5.5VDC or open circuit
EC-OFF	<1.8VDC
control common	referenced to input minus

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## 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.

