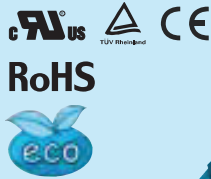
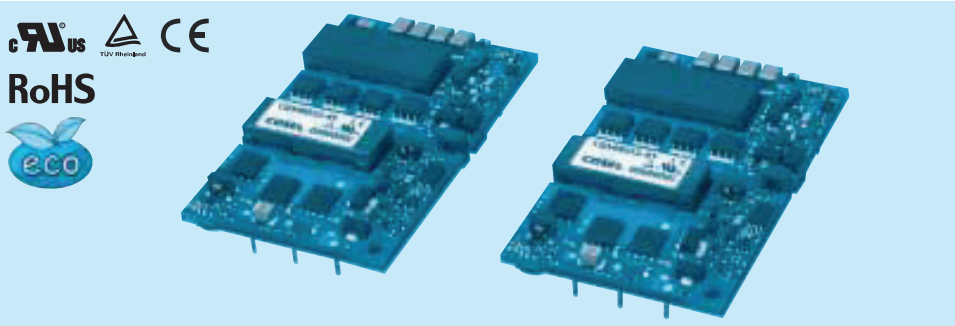


COSEL DC-DC Converters Power Module type

CQS

Ordering information
CQ S 48 018 -50 -□

① ② ③ ④ ⑤ ⑥



- ① Series name
- ② Single output
- ③ Input voltage
24:DC18 - 36V
48:DC36 - 76V
- ④ Output voltage
015:1.5V
018:1.8V
025:2.5V
033:3.3V
050:5V
120:12V
150:15V
- ⑤ Output current
- ⑥ Optional
R :with Remote ON/OFF
Positive logic control
V :Output voltage setting ±1%
N :Auto restart from thermal
protection

MODEL	CQS24033-40	CQS24050-28	CQS24120-12	CQS24150-8
MAX OUTPUT WATTAGE[W]	132.0	140.0	144.0	120.0
DC OUTPUT	3.3V 40A	5V 28A	12V 12A	15V 8A

SPECIFICATIONS

	MODEL	CQS24033-40	CQS24050-28	CQS24120-12	CQS24150-8	
INPUT	VOLTAGE[V]	DC18 - 36				
	CURRENT[A]	*1 6.05typ	6.45typ	6.59typ	5.44typ	
	EFFICIENCY[%]	*1 91typ	91typ	92typ	92typ	
	START-UP VOLTAGE[V]	DC16 - 18				
	HYSTERESIS VOLTAGE[V]	DC1 min				
OUTPUT	VOLTAGE[V]	3.3	5	12	15	
	CURRENT[A]	40	28	12	8	
	LINE REGULATION[mV]	±5max	±5max	±12max	±15max	
	LOAD REGULATION[mV]	±5max	±5max	±12max	±15max	
	RIPPLE	[mVrms]	*2 20max	25max	40max	40max
		[mVp-p]	*2 60max	80max	120max	120max
	RIPPLE NOISE[mVp-p]	*2 100max	120max	150max	150max	
	TEMPERATURE REGULATION[mV]	66max	100max	240max	300max	
	DRIFT[mV]	*3 16max	20max	40max	50max	
	START-UP TIME[ms]	200max (DCIN 24V, Io=100%)				
OUTPUT VOLTAGE ADJUSTMENT RANGE	Fixed (TRM pin open), adjustable by external resistor					
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating, low voltage protection (shut down) function is built-in.				
	OVERVOLTAGE PROTECTION	125% - 135%	125% - 135%	117% - 127%		
	REMOTE SENSING	Provided				
	REMOTE ON/OFF	Provided (Negative logic L : ON, H : OFF)				

MODEL	CQS48015-50	CQS48018-50	CQS48025-45	CQS48033-45	CQS48050-28	CQS48120-14	CQS48150-8
MAX OUTPUT WATTAGE[W]	75.0	90.0	112.5	148.5	140.0	168.0	120.0
DC OUTPUT	1.5V 50A	1.8V 50A	2.5V 45A	3.3V 45A	5V 28A	12V 14A	15V 8A

SPECIFICATIONS

	MODEL	CQS48015-50	CQS48018-50	CQS48025-45	CQS48033-45	CQS48050-28	CQS48120-14	CQS48150-8	
INPUT	VOLTAGE[V]	DC36 - 76							
	CURRENT[A]	*1 1.80typ	2.13typ	2.58typ	3.36typ	3.17typ	3.80typ	2.72typ	
	EFFICIENCY[%]	*1 87typ	88typ	91typ	92typ	92typ	92typ	92typ	
	START-UP VOLTAGE[V]	DC32 - 36							
	HYSTERESIS VOLTAGE[V]	DC2 min							
OUTPUT	VOLTAGE[V]	1.5	1.8	2.5	3.3	5	12	15	
	CURRENT[A]	50	50	45	45	28	14	8	
	LINE REGULATION[mV]	±5max	±5max	±5max	±5max	±5max	±12max	±15max	
	LOAD REGULATION[mV]	±5max	±5max	±5max	±5max	±5max	±12max	±15max	
	RIPPLE	[mVrms]	*2 20max	20max	20max	20max	25max	40max	40max
		[mVp-p]	*2 60max	60max	60max	60max	80max	120max	120max
	RIPPLE NOISE[mVp-p]	*2 100max	100max	100max	100max	120max	150max	150max	
	TEMPERATURE REGULATION[mV]	66max	66max	66max	66max	100max	240max	300max	
	DRIFT[mV]	*3 16max	16max	16max	16max	20max	40max	50max	
	START-UP TIME[ms]	200max (DCIN 48V, Io=100%)							
OUTPUT VOLTAGE ADJUSTMENT RANGE	Fixed (TRM pin open), adjustable by external resistor				-20% / +10%	-20% / +10%	-20% / +5%		
OUTPUT VOLTAGE SETTING	±1.6%								
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating, low voltage protection (shut down) function is built-in.							
	OVERVOLTAGE PROTECTION	117% - 127%			125% - 135%	117% - 127%			
	REMOTE SENSING	Provided							
	REMOTE ON/OFF	Provided (Negative logic L : ON, H : OFF)							

Specifications are subject to change without notice. It is responsibility of each customer to thoroughly test each product and part number under their unique parameters and environments to ensure a product will work properly and reliably.

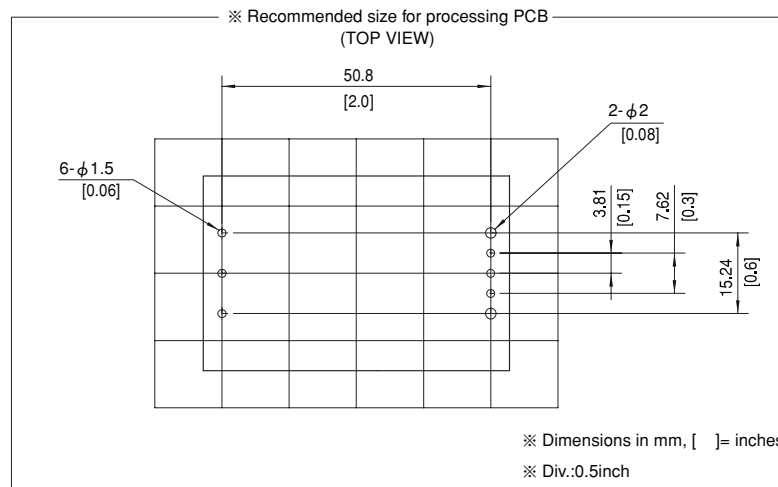
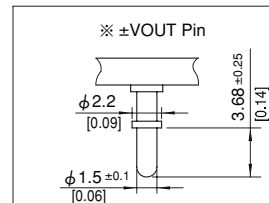
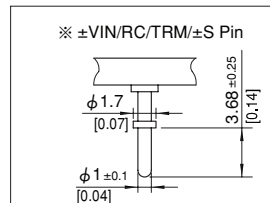
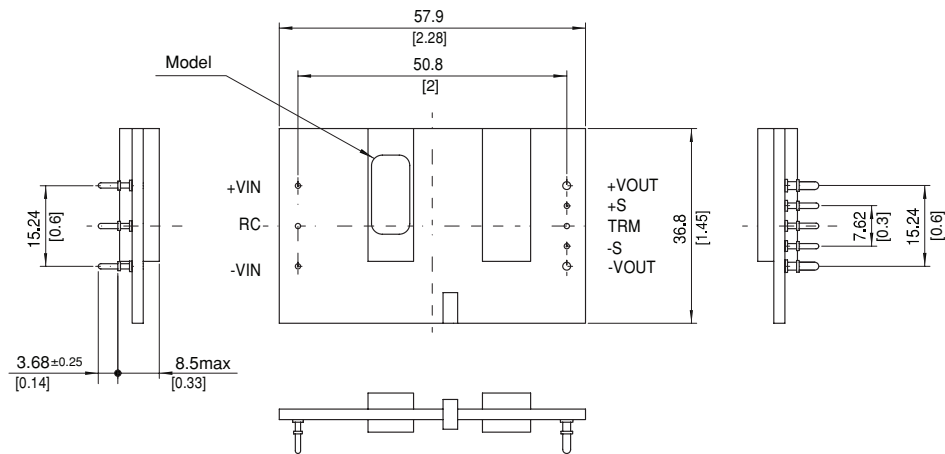
 Click below for more details, to buy on-line or request volume pricing:
<http://power.sager.com/cosel-CQS-dc-dc-converter.html>
(866) 588-1750
 power@sager.com
<http://power.sager.com>

GENERAL SPECIFICATIONS

ISOLATION	INPUT-OUTPUT	DC1.500V or AC1.000V 1minute. Cutoff current = 10mA. DC500V 50M Ω min (20 \pm 15 $^{\circ}$ C)
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-40 to +85 $^{\circ}$ C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +100 $^{\circ}$ C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max
	VIBRATION	10 - 55Hz, 49.0m/s 2 (5G), 3minutes period, 60minutes each along X, Y and Z axis
SAFETY	IMPACT	196.1m/s 2 (20G), 11ms, once each along X, Y and Z axis
SAFETY	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1
OTHERS	CASE SIZE/WEIGHT	57.9 \times 8.5 \times 36.8mm [2.28 \times 0.33 \times 1.45 inches] (W \times H \times D) / 40g max
	COOLING METHOD	Convection / Forced air

- *1 At rated input(DC24V,DC48V) and rated load and 25 $^{\circ}$ C, 2m/s.
- *2 Ripple and ripple noise is measured by using measuring board with ceramic capacitor 22 μ F. Refer to the Instruction Manual.
- *3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25 $^{\circ}$ C, with the input voltage held constant at the rated input/output.
- *4 Refer to the instruction manual for input voltage derating.

External view



※ Dimensions in mm, []= inches
※ Div.:0.5inch

※ Tolerance:±0.5 [±0.02]
※ Weight:40g max
※ Dimensions in mm, []= inches