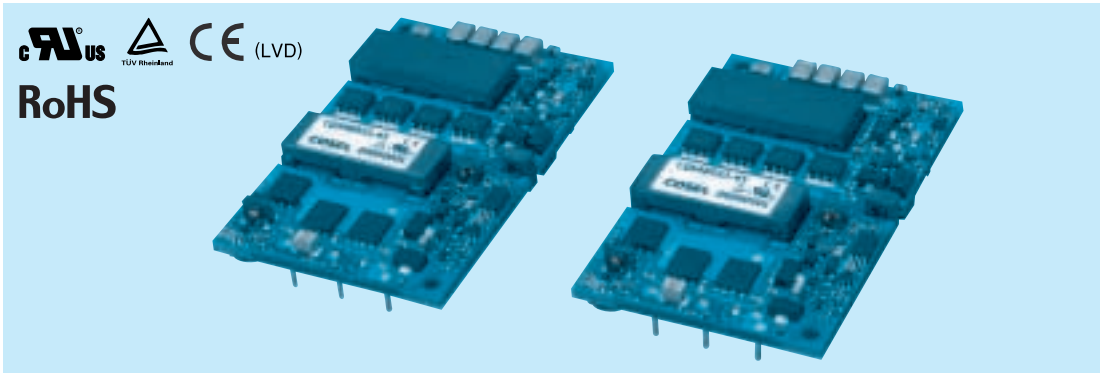
COSEL **Power module type**

CQS

Ordering information

CQ ① S ② 48 ③ 018 ④ -50 ⑤ -□ ⑥



①Series name
②Single output
③Input voltage
24:DC18 - 36V
48:DC36 - 76V
④Output voltage
015:1.5V
018:1.8V
025:2.5V
033:3.3V
050:5V
120:12V
150:15V
⑤Output current
⑥Optional
R :with Remote ON/OFF Positive logic control
V :Ouput 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			DC20 - 33
	CURRENT[A]	*1	6.05typ	6.45typ	6.59typ	5.44typ
	EFFICIENCY[%]	*1	91typ	91typ	92typ	92typ
	START-UP VOLTAGE[V]		DC16 - 18			DC18 - 20
	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	*4	Fixed (TRM pin open), adjustable by external resistor			
			-15% / +15%	-20% / +20%	-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		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

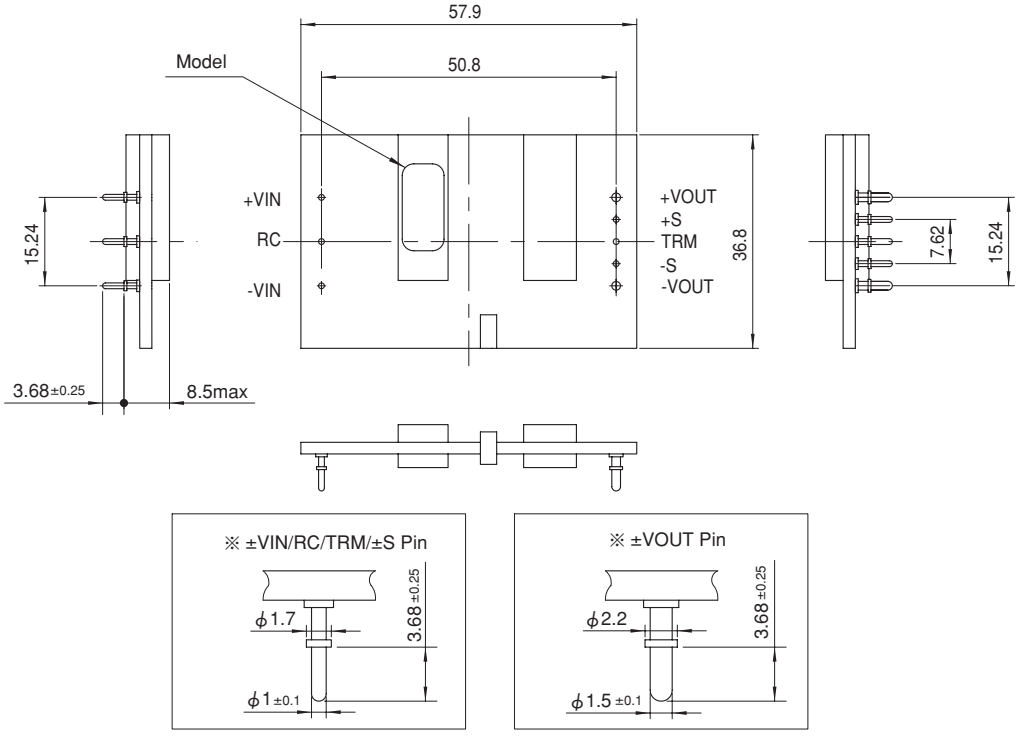
	MODEL		CQS48015-50	CQS48018-50	CQS48025-45	CQS48033-45	CQS48050-28	CQS48120-14	CQS48150-8
INPUT	VOLTAGE[V]		DC36 - 76						DC40 - 60
	CURRENT[A]	*1	1.80typ	2.13typ	2.58typ	3.36typ	3.17typ	3.80typ	2.72typ
	EFFICIENCY[%]	*1	87typ	88typ	91typ	92typ	92typ	92typ	92typ
	START-UP VOLTAGE[V]		DC32 - 36						DC36 - 40
	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%			-15% / +15%	-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)						

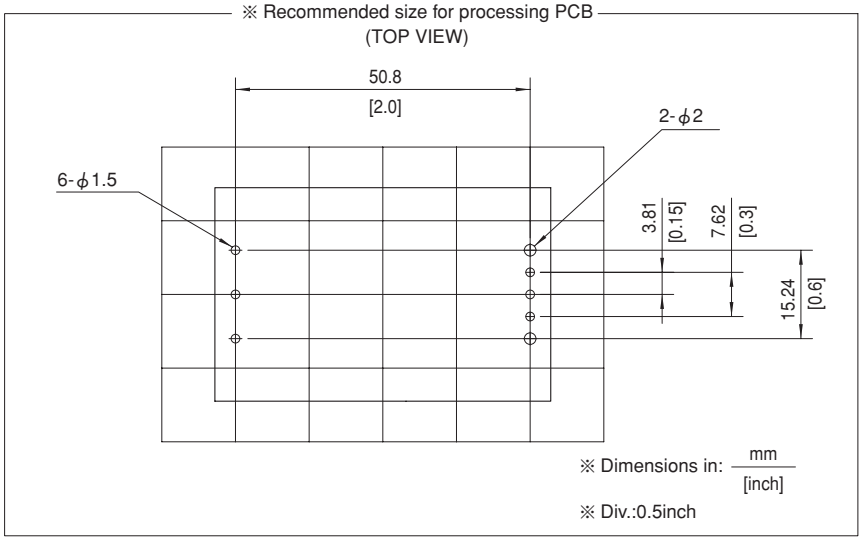
GENERAL SPECIFICATIONS

ISOLATION	INPUT-OUTPUT	DC1,500V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20～15℃)
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-40 to +85℃ , 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max
	VIBRATION	10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis
	IMPACT	196.1m/s² (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	57.9×8.5×36.8mm (W×H×D) / 40g max
	COOLING METHOD	Convection / Forced air

*1 At rated input(DC24V,DC48V) and rated load and 25℃, 2m/s.
*2 Ripple and ripple noise is measured by using measuring board with ceramic capacitor 22μF. 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℃, with the input voltage held constant at the rated input/output.
*4 Refer to the instruction manual for input voltage derating.

External view





※ Tolerance:±0.5
※ Mass:40g or less
※ Dimensions in mm

CE/CQ