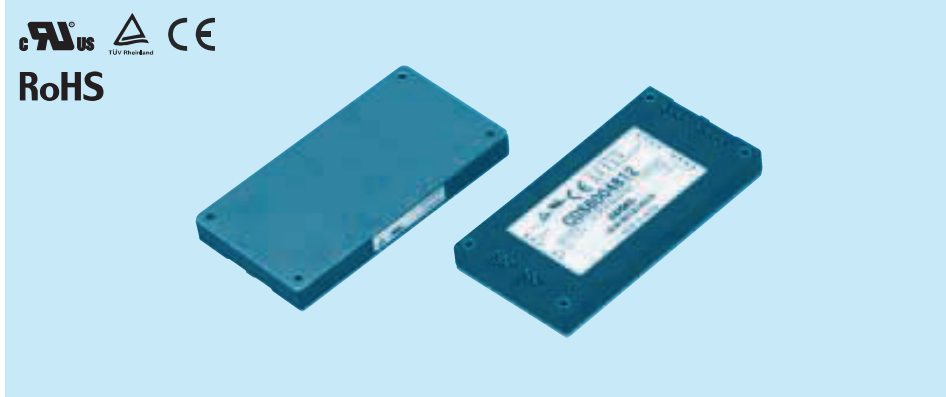


COSEL DC-DC Converters Power Module type
CDS500/600

Ordering information
CD S 600 48 12 □ - □



RoHS
UL, CE, RoHS

- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
24:DC18 - 36V
48:DC36 - 76V
- ⑤ Output voltage
- ⑥ H: HighEfficiency (24VIN Model only)
- ⑦ Optional
M: with Mounting hole
M3 tapped

MODEL	CDS5002428H	CDS6002412	CDS6002412H	CDS6002428	CDS6002428H	CDS6004812	CDS6004828
MAX OUTPUT WATTAGE[W]	504	600	600	616	616	700	700
DC OUTPUT	28V 18A	12.5V 48A	12.5V 48A	28V 22A	28V 22A	12.5V 56A	28V 25A

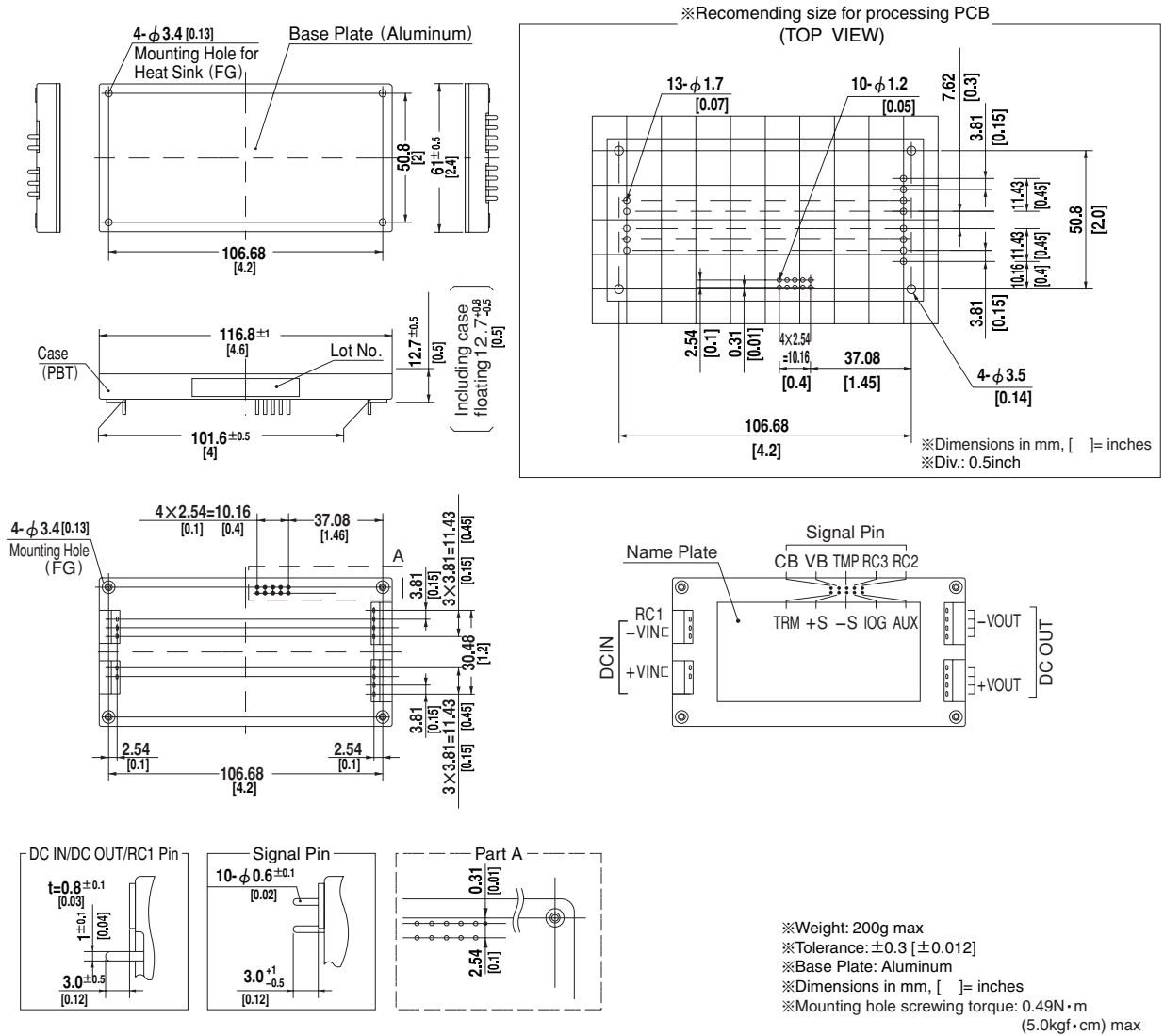
SPECIFICATIONS

	MODEL	CDS5002428H	CDS6002412	CDS6002412H	CDS6002428	CDS6002428H	CDS6004812	CDS6004828	
INPUT	VOLTAGE[V]	DC18 - 36		DC20.5 - 36	DC18 - 36	DC19 - 36	DC36 - 76		
	CURRENT[A]	*1 24typ	30typ	29typ	30typ	29typ	17typ	17typ	
	EFFICIENCY[%]	lo=100% 89typ(DCIN 24V)	83typ(DCIN 24V)	87typ(DCIN 24V)	86typ(DCIN 24V)	89typ(DCIN 24V)	89typ(DCIN 48V)	89typ(DCIN 48V)	
OUTPUT		lo=50% 90typ(DCIN 24V)	87typ(DCIN 24V)	90typ(DCIN 24V)	87typ(DCIN 24V)	90typ(DCIN 24V)	91typ(DCIN 48V)	90typ(DCIN 48V)	
	VOLTAGE[V]	28	12.5	12.5	28	28	12.5	28	
	CURRENT[A]	18	48	48	22	22	56	25	
	LINE REGULATION[mV]	95max	40max	40max	95max	95max	40max	95max	
	LOAD REGULATION[mV]	190max	100max	100max	190max	190max	100max	190max	
	RIPPLE[mVp-p]	0 to +85°C *2	120max	120max	120max	120max	120max	120max	120max
		-20 - 0°C *2	160max	160max	160max	160max	160max	160max	160max
	RIPPLE NOISE[mVp-p]	0 to +85°C *2	150max	150max	150max	150max	150max	150max	150max
		-20 - 0°C *2	180max	180max	180max	180max	180max	180max	180max
	TEMPERATURE REGULATION[mV]	0 to +65°C	280max	120max	120max	280max	280max	120max	280max
		-20 to +85°C	480max	200max	200max	480max	480max	200max	480max
DRIFT[mV]	*3 90max	40max	40max	90max	90max	40max	90max		
START-UP TIME[ms]	200max (DCIN 24V, lo=100%)						200max (DCIN 48V, lo=100%)		
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed (TRM pin open), 80 - 110% adjustable by external VR or external voltage								
	22.40 - 32.00 *4 *5	10.00 - 13.75	10.00 - 13.75 *5	22.40 - 30.80	22.40 - 32.00 *4 *5	10.00 - 13.75	22.40 - 32.00 *4		
OUTPUT VOLTAGE SETTING[V]	27.72 - 28.28 *6	12.00 - 13.00	12.00 - 13.00	26.88 - 29.12	26.88 - 29.12	12.00 - 13.00	26.88 - 29.12		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically							
	OVERVOLTAGE PROTECTION[V]	33.00 - 39.20	14.35 - 17.50		33.00 - 39.20		14.35 - 17.50	33.00 - 39.20	
	REMOTE SENSING	Provided							
ISOLATION	REMOTE ON/OFF	Provided (On both side of input and output)							
	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)							
ENVIRONMENT	INPUT-FG	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)							
	OUTPUT-FG	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15°C)							
	OUTPUT-RC2,RC3	AC100V 1minute, Cutoff current = 100mA, DC100V 10MΩ min (20±15°C)							
SAFETY	OPERATING TEMP.,HUMID.AND ALTITUDE *7	-20 to +85°C (On aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max							
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +85°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							
OTHERS	IMPACT	196.1m/s ² (20G), 11ms, once each X, Y and Z axis							
	AGENCY APPROVALS	UL60950-1, C-UL, EN60950-1							
OTHERS	CASE SIZE/WEIGHT	61 x 12.7 x 116.8mm [2.4 x 0.5 x 4.6 inches] (W x H x D) / 200g max							
	COOLING METHOD	Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)							

*1 At rated input(DC24,DC48V) and rated load. *4 CDS5002428H,CDS6002428H,CDS6004828:Output voltage adjustment range is 80 - 114.3%.
 *2 Ripple and ripple noise is measured by using measuring board with recommended capacitor Co & the film capacitor 0.1 μF. *5 CDS5002428H,CDS6002412H,CDS6002428H:When the output voltage adjustment range is 101% or more,the input voltage range is limited(Refer to Instruction Manual).
 Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN:RM101). *6 Aluminum baseplate temperature Tc=25°C
 *3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output. *7 Please consult us in regard to use from -40°C.

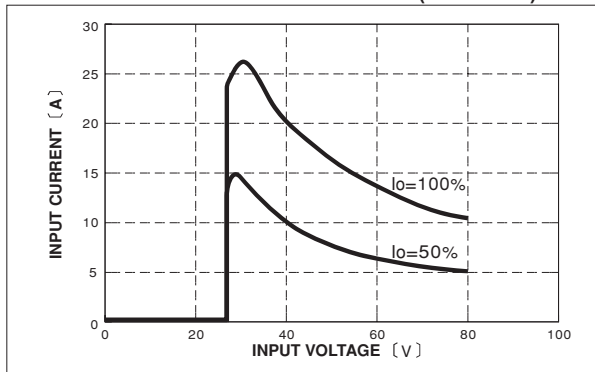
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External view

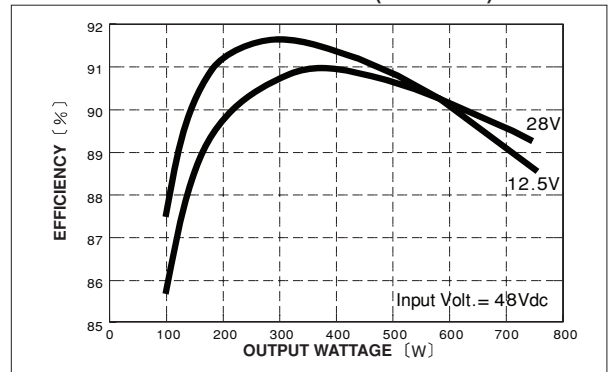


Performance data

■ INPUT CURRENT CHARACTERISTICS (CDS60048)



■ EFFICIENCY CHARACTERISTICS (CDS60048)



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