

**COSEL**
**Power module type**

# CBS450



MODEL	CBS4504824	CBS4504828
MAX OUTPUT WATTAGE[W]	456	448
DC OUTPUT	24V 19A	28V 16A

## SPECIFICATIONS

	MODEL	CBS4504824	CBS4504828	
INPUT	VOLTAGE[V]	DC38~60	DC36~76	
	CURRENT[A]	※1 10.6 typ	10.5 typ	
	EFFICIENCY[%]	※1 90 typ	89 typ	
OUTPUT	VOLTAGE[V]	24	28	
	CURRENT[A]	19	16	
	LINE REGULATION[mV]	48max	56max	
	LOAD REGULATION[mV]	48max	56max	
	RIPPLE[mVp-p]	-20 to 100°C	※2 180max	210max
		-40 to -20°C	※2 220max	260max
		0 to 15%Load	※2 360max	430max
	RIPPLE NOISE[mVp-p]	-20 to 100°C	※2 220max	260max
		-40 to -20°C	※2 280max	330max
		0 to 15%Load	※2 440max	520max
	TEMPERATURE REGULATION[mV]	0 to 65°C	240max	280max
		-40 to 100°C	480max	560max
	DRIFT[mV]	※3 90max	90max	
START-UP TIME[ms]	200max (DCIN 48V, Io=100%)			
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	※4	Fixed (TRM pin open)		
		19.2 - 26.0	16.8 - 32.2	
OUTPUT VOLTAGE SETTING[V]	※1	23.52 - 24.48	27.44 - 28.56	
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION[A]	20.0 min	16.8 min	
	OVERVOLTAGE PROTECTION[V]	27.60 - 33.60	34.44 - 39.20	
	REMOTE SENSING	Provided		
	REMOTE ON/OFF	Provided (Negative logic L:ON, H:OFF)		
ISOLATION	INPUT-OUTPUT	DC1,500 or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)		
	INPUT-BASE PLATE	DC1,500 or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)		
	OUTPUT-BASE PLATE	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15°C)		
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-40 to +100°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 +100°C, 20 - 95%RH(Non condensing), 9,000m(30,000feet)max		
	VIBRATION	10 - 55Hz, 49.0m/s <sup>2</sup> (5G), 3minutes period, 60 minutes each along X,Y and Z axis		
	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms once each along X,Y and Z axis		
SAFETY	AGENCY APPROVALS	UL1950-1, C-UL, EN60950-1		
OTHERS	CASE SIZE/WEIGHT	57.9×12.7×61.0mm (WXHXD) / 83g max		
	COOLING METHOD	Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)		

※1 At rated input(DC48V) and rated load, and aluminum base plate temperature 25°C.

※2 Ripple and ripple noise is measured by using measuring board with the recommended capacitor Co & the film capacitor 0.1μF. Refer to the manual.

※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.

※4 Refer to the manual for the input range.