

- 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
060:6V
120:12V
- ⑤ Output current
- ⑧ Optional
S :SMD
R :with Remote ON/OFF
Positive logic control
V :Output voltage setting ±1%
N :Auto restart from thermal protection

MODEL	CES24033-25	CES24050-16	CES24120-6
MAX OUTPUT WATTAGE[W]	82.5	80.0	72.0
DC OUTPUT	3.3V 25A	5V 16A	12V 6A

SPECIFICATIONS

	MODEL	CES24033-25	CES24050-16	CES24120-6	
INPUT	VOLTAGE[V]	DC18 - 36			
	CURRENT[A]	3.78typ	3.67typ	3.30typ	
	EFFICIENCY[%]	91typ	91typ	91typ	
	START-UP VOLTAGE[V]	DC16 - 18			
	HYSTERESIS VOLTAGE[V]	DC1 min			
OUTPUT	VOLTAGE[V]	3.3	5	12	
	CURRENT[A]	25	16	6	
	LINE REGULATION[mV]	±5max	±5max	±12max	
	LOAD REGULATION[mV]	±5max	±5max	±12max	
	RIPPLE	[mVrms]	20max	20max	40max
		[mVp-p]	60max	80max	120max
	RIPPLE NOISE[mVp-p]	100max	120max	150max	
	TEMPERATURE REGULATION[mV]	66max	100max	240max	
	DRIFT[mV]	16max	20max	40max	
	START-UP TIME[ms]	200max (DCIN 24V, I _o =100%)			
OUTPUT VOLTAGE ADJUSTMENT RANGE	Fixed (TRM pin open), adjustable by external resistor -15% / +15%				
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)			

	Standard type						High wattage type		
MODEL	CES48015-30	CES48018-30	CES48025-25	CES48033-25	CES48050-16	CES48120-6	CES48033-30	CES48050-20	CES48060-17
MAX OUTPUT WATTAGE[W]	45.0	54.0	62.5	82.5	80.0	72.0	99.0	100.0	102.0
DC OUTPUT	1.5V 30A	1.8V 30A	2.5V 25A	3.3V 25A	5V 16A	12V 6A	3.3V 30A	5V 20A	6V 17A

SPECIFICATIONS

	MODEL	CES48015-30	CES48018-30	CES48025-25	CES48033-25	CES48050-16	CES48120-6	CES48033-30	CES48050-20	CES48060-17	
INPUT	VOLTAGE[V]	DC36 - 76									
	CURRENT[A]	1.1typ	1.3typ	1.45typ	1.89typ	1.84typ	1.65typ	2.29typ	2.32typ	2.36typ	
	EFFICIENCY[%]	86typ	87typ	90typ	91typ	91typ	91typ	90typ	90typ	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	3.3	5	6	
	CURRENT[A]	30	30	25	25	16	6	30	20	17	
	LINE REGULATION[mV]	±5max	±5max	±5max	±5max	±5max	±12max	±5max	±5max	±5max	
	LOAD REGULATION[mV]	±5max	±5max	±5max	±5max	±5max	±12max	±5max	±5max	±5max	
	RIPPLE	[mVrms]	20max	20max	20max	20max	25max	40max	20max	25max	25max
		[mVp-p]	60max	60max	60max	60max	80max	120max	60max	100max	100max
	RIPPLE NOISE[mVp-p]	100max	100max	100max	100max	120max	150max	100max	150max	150max	
	TEMPERATURE REGULATION[mV]	66max	66max	66max	66max	100max	240max	66max	100max	100max	
	DRIFT[mV]	16max	16max	16max	16max	20max	40max	16max	20max	20max	
	START-UP TIME[ms]	200max (DCIN 48V, I _o =100%)									
OUTPUT VOLTAGE ADJUSTMENT RANGE	Fixed (TRM pin open), adjustable by external resistor -20% / +10%										
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%		125% - 135%	117% - 127%			
	REMOTE SENSING	Provided									
	REMOTE ON/OFF	Provided (Negative logic L : ON, H : OFF)									

CE/CQ

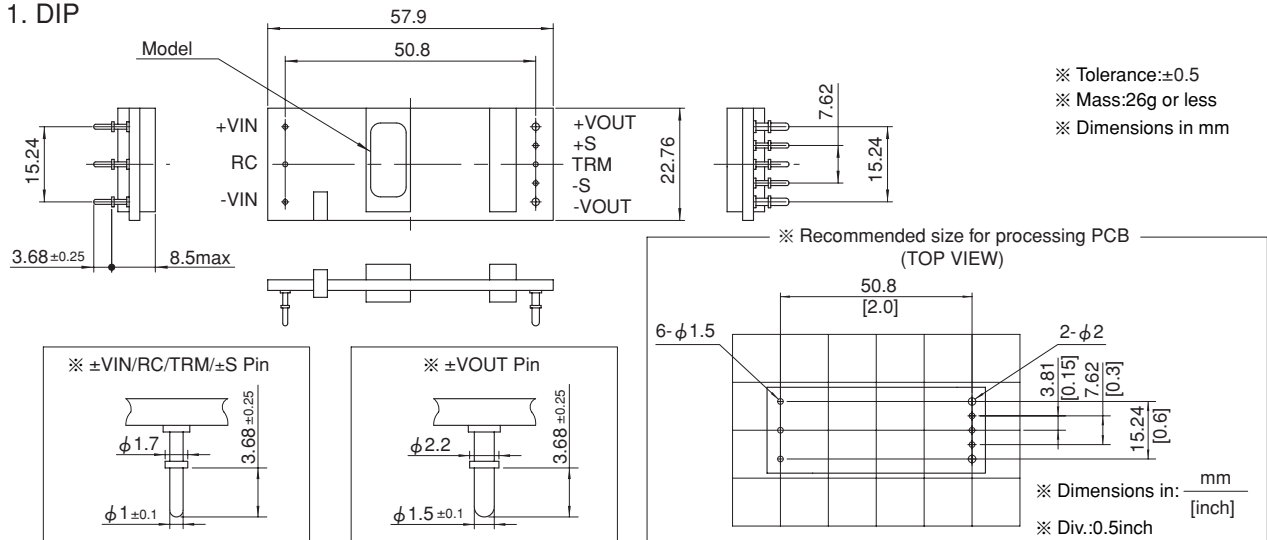
GENERAL SPECIFICATIONS

ISOLATION	INPUT-OUTPUT	DC1,500V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20 ± 15°C)
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-40 to +85°C, 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 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
	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1
OTHERS	CASE SIZE/WEIGHT	57.9 × 8.5 × 22.76mm (W × H × D) / 26g max
	COOLING METHOD	Convection / Forced air

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

External view

1. DIP



2. SMD(options)

