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## AD960



### Features

- User-selectable input voltage(AC85 - 132V/AC170 - 264V) (AD240, 480)
- Built-in Inrush Current Protection
- Small size and light
- Parallel and Master-Slave operation
- Built-in Over Current Protection
- Built-in Over Voltage Protection
- RoHS Compliant

### Safety Agency Approvals

UL-60950-1, CSA22.2 No 234, EN60950-1, VD0160 Complies with IEC950

### EMI Compliance

FCC-A (AD960)

**2 year warranty(refer to Instruction Manual)**

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
AD960-24	DC 240 - 370 AC 170 - 264	960	24V 20 - 40A (peak 40A)
AD960-30	DC 240 - 370 AC 170 - 264	960	30V 16 - 32A (peak 32A)



RoHS



RoHS : Please consult us for details

Please refer to derating curve, because the rated load current depends on cooling method that is convention cooling or forced air.

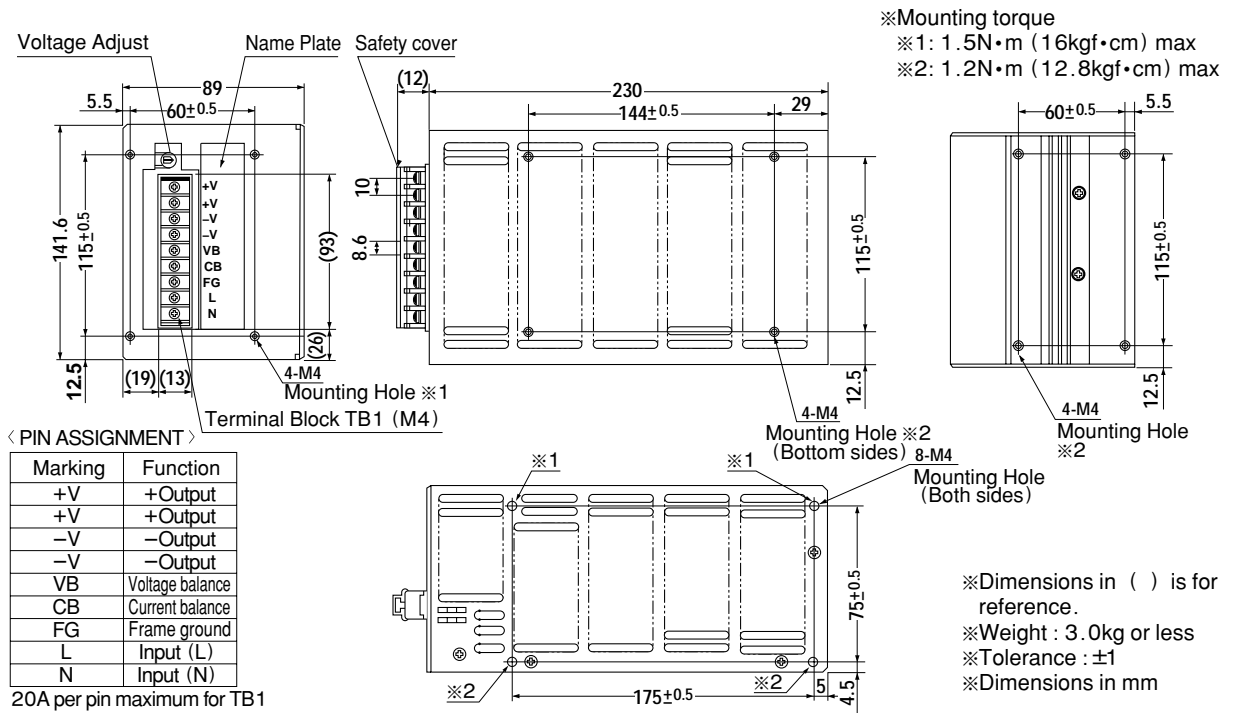
MODEL	AD960-24	AD960-30
MAX OUTPUT WATTAGE[W]	960	960
DC OUTPUT	Forced air	24V 40A
	Convection	24V 20(Peak 40)A
		30V 32A
		30V 16(Peak 32)A

SPECIFICATIONS

	MODEL	AD960-24	AD960-30	
INPUT	VOLTAGE[V]	AC170 - 264 1 φ or DC240 - 370		
	FREQUENCY[Hz]	47 - 440 or DC		
	EFFICIENCY[%]	85typ	85typ	
	INRUSH CURRENT[A]	ACIN 200V	60typ (Io=100%)	
	LEAKAGE CURRENT[mA]	1.0max (60Hz, According to UL, CSA, VDE and DEN-AN)		
OUTPUT	VOLTAGE[V]	24	30	
	CURRENT[A]	Forced air	40	32
		Convection *1	20 (Peak 40)	16 (Peak 32)
	LINE REGULATION[mV]	200max	260max	
	LOAD REGULATION[mV]	340max	420max	
	RIPPLE[mVp-p]	-10 to +45°C *2	240max	240max
	RIPPLE NOISE[mVp-p]	-10 to +45°C *2	480max	480max
	TEMPERATURE REGULATION[mV]	-10 to +45°C	420max	520max
	DRIFT[mV]	*3	100max	120max
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	22.8 - 26.4	28.5 - 33.0	
START-UP TIME[ms]	600max (ACIN 200V, Io=100%)			
HOLD-UP TIME[ms]	15typ (ACIN 200V, Io=100%)			
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically		
	OVERVOLTAGE PROTECTION	Works at 115 - 140% of rating		
ISOLATION	INPUT-OUTPUT	AC3,000V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)		
	INPUT-FG	AC2,000V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)		
	OUTPUT-FG	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)		
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-10 to +65°C, 10 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max		
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 10 - 90%RH (Non condensing), 9,000m (30,000feet) max		
	VIBRATION	10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis		
	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis		
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, CSA C22.2 No.234, EN60950-1, VDE0160 Complies with IEC950		
	CONDUCTED NOISE	Complies with FCC-A		
OTHERS	CASE SIZE/WEIGHT	89 × 141.6 × 230mm (without terminal block) (W × H × D) /3.0kg max		
	COOLING METHOD	Forced air/Convection		

\*1 For convection cooling, peak current for 10 seconds or less is acceptable, and output current must be less than 20A on average.  
 \*2 Measured by 20MHz oscilloscope or Ripple-Noise meter (equivalent to KEISOKU-GIKEN: RM101).  
 \*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.  
 \* When operated at pulse load, attach external capacitor at output line which is complying with the peak value of pulse current.

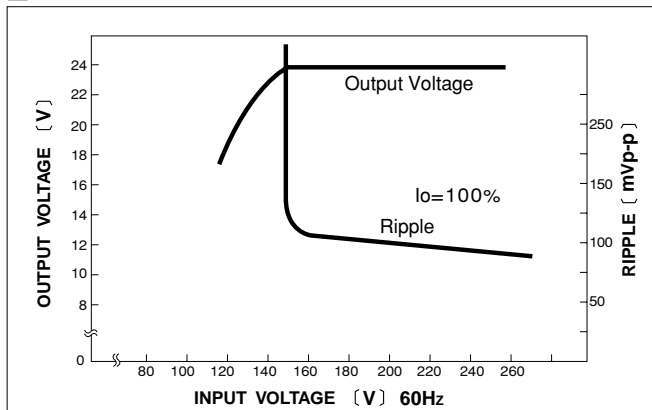
External view



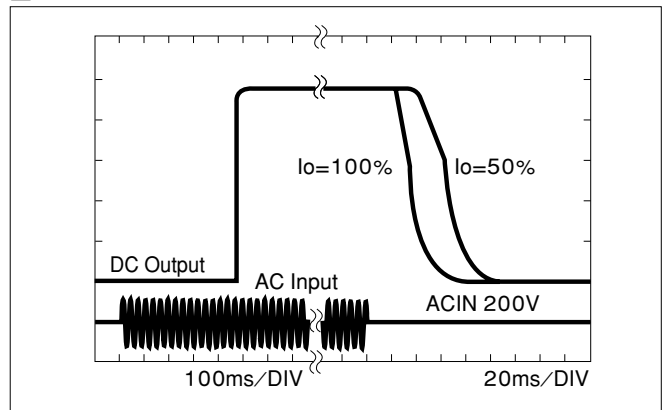
AD

Performance data

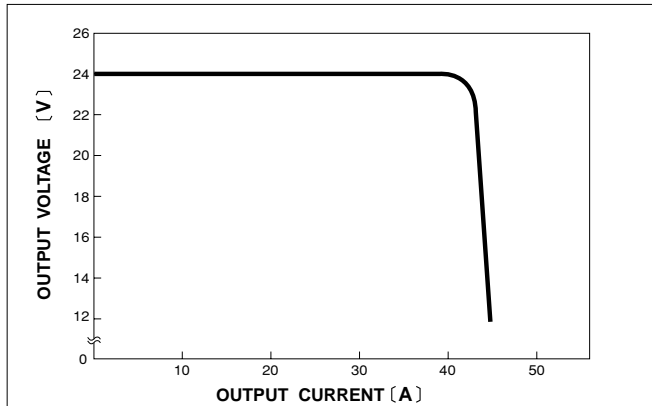
■ STATIC CHARACTERISTICS



■ RISE TIME & FALL TIME



■ OVERCURRENT CHARACTERISTICS



■ DERATING CURVE

