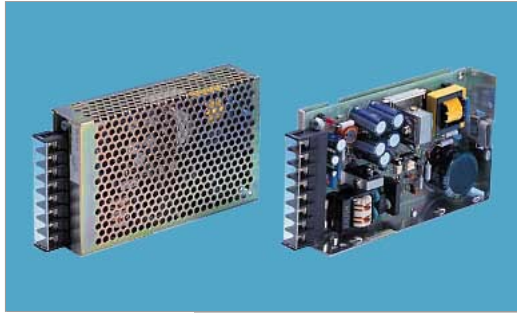


[Home](#) > Product Details

## MMC50A



 **RoHS**

### Features

- V1 isolated from V2 and V3
- Full Regulated Output
- Built-in Inrush Current Protection
- Built-in Over Voltage Protection
- RoHS Compliant

### Safety Agency Approvals

- Complies with DEN-AN
- UL1950, C-UL

### EMI Compliance

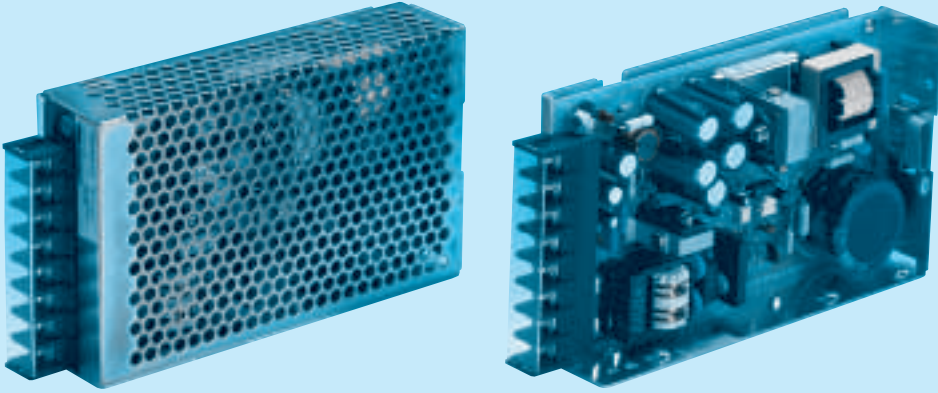
- MMC8A : FCC-B
- MMC50A, 75A, 100A : FCC-A

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

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
MMC50A-1	DC 110 - 170 AC 85 - 132	49	-12 - 12V 0.5 - 5A (peak 2A)
MMC50A-2	DC 110 - 170 AC 85 - 132	50.5	-15 - 15V 0.5 - 5A
MMC50A-3	DC 110 - 170 AC 85 - 132	45.5	-5 - 12V 0.5 - 5A (peak 2A)
MMC50A-4	DC 110 - 170 AC 85 - 132	50.6	-12 - 12V 0.3 - 7A (peak 1.5A)

- ① Series name
- ② Output wattage
- ③ Output voltage combination
- ④ Optional
- C : with Coating
- G : Low leakage current
- J : Connector type
- N : with Cover

**c** **us**  
**RoHS**



MMC

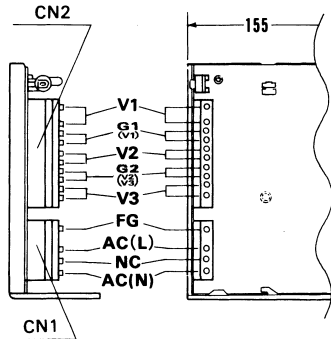
MODEL	MMC50A-1	MMC50A-2	MMC50A-3	MMC50A-4
DC OUTPUT	V1	+5V 5.0A	+5V 5.0A	+5V 5.0A
	V2	+12V 1.5(Peak 2.0)A	+15V 1.2A	+12V 1.5(Peak 2.0)A
	V3	-12V 0.5A	-15V 0.5A	-5V 0.5A

## SPECIFICATIONS

	MODEL	MMC50A-1	MMC50A-2	MMC50A-3	MMC50A-4									
INPUT	VOLTAGE[V]	AC85 - 132 1 φ or DC110 - 170												
	CURRENT[A]	ACIN 100V	1.5typ (I <sub>o</sub> =100%)											
	FREQUENCY[Hz]	47 - 440 or DC												
	EFFICIENCY[%]	ACIN 100V	70typ (I <sub>o</sub> =100%)											
	INRUSH CURRENT[A]	ACIN 100V	30typ (I <sub>o</sub> =100%) (At cold start)											
OUTPUT	VOLTAGE[V]	+5	+12	-12	+5	+15	-15	+5	+12	-5	+5	+12	-12	
	CURRENT[A]	*1 5	1.5 (Peak2)	0.5	5	1.2	0.5	5	1.5 (Peak2)	0.5	7	1 (Peak1.5)	0.3	
	MINIMUM CURRENT[A]	0.75	0	0	0.75	0	0	0.75	0	0	0.75	0	0	
	LINE REGULATION[mV]	20max	48max	100max	20max	60max	60max	20max	48max	20max	20max	48max	48max	
	LOAD REGULATION[mV]	40max	150max	150max	40max	150max	150max	40max	150max	100max	40max	150max	150max	
	RIPPLE[mVp-p]	*2 80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	150max	150max	
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	350max	350max	50max	350max	350max	50max	350max	350max	50max	350max	350max
	START-UP TIME[ms]	100max (ACIN 85V, I <sub>o</sub> =100%)												
	HOLD-UP TIME[ms]	15typ (ACIN 85V, I <sub>o</sub> =100%)												
PROTECTION CIRCUIT	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed	
	OUTPUT VOLTAGE SETTING[V]	—	11.40 to 12.60	-11.40 to -12.60	—	14.25 to 15.75	-14.25 to -15.75	—	11.40 to 12.60	-4.75 to -5.25	—	11.40 to 12.60	-11.40 to -12.60	
	OVERCURRENT PROTECTION	Works over 105% of rating (V2 works at peak current) and recovers automatically												
ISOLATION	OVERVOLTAGE PROTECTION	Works at 115 - 140% of rating (+5V)												
	INPUT-CASE, OUTPUT	AC2.000V 1minute, DC500V 50MΩmin (At Room Temperature)												
	OUTPUT-CASE	AC500V 1minute, DC500V 50MΩmin (At Room Temperature)												
ENVIRONMENT	OUTPUT-OUTPUT(V1-V2,V3)	AC100V 1minute, DC100V 10MΩmin (At Room Temperature)												
	OPERATING TEMP., HUMID. AND ALTITUDE	0 to +65°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max												
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max												
	VIBRATION	10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 30minutes each along X, Y and Z axis												
SAFETY AND NOISE REGULATIONS	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis												
	AGENCY APPROVALS	UL60950-1, C-UL Complies with DEN-AN												
CONDUCTED NOISE	Complies with FCC-A													

\*1 Peak current for 30 seconds.  
 \*2 Measured by 20MHz oscilloscope or Ripple-Noise meter (equivalent to KEISOKU-GIKEN : RM101).  
 \* When units are operated with chassis and cover, derating is required.  
 \* Avoid prolonged use under over-load.

External view

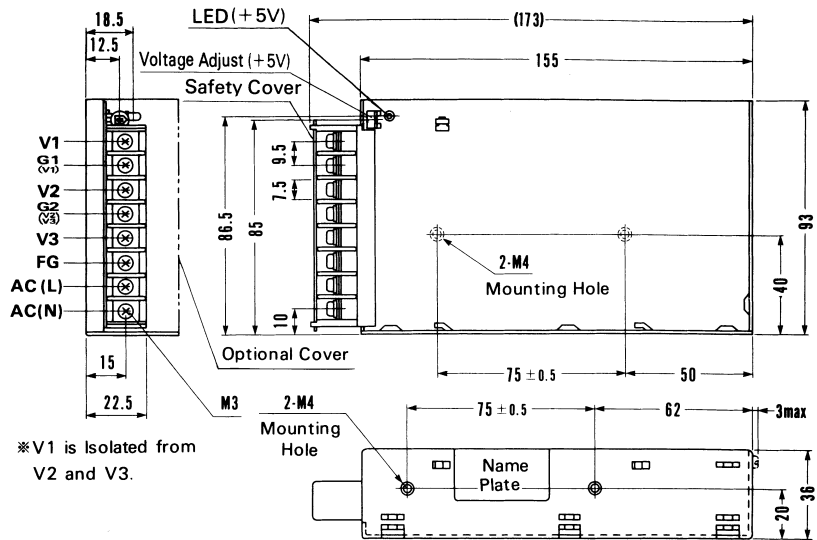


I/O Connector	Mating Connector	Terminal
CN1	5289-4A	5199-04
CN2	5277-10A	5196-10

(Mfr: Molex)

※ Use J cover for connector type.

Connector type



※ V1 is isolated from V2 and V3.

※ Mounting torque : 1.2N·m (12.8kgf·cm) max

※ Weight: 400g or less.

※ Cover is optional

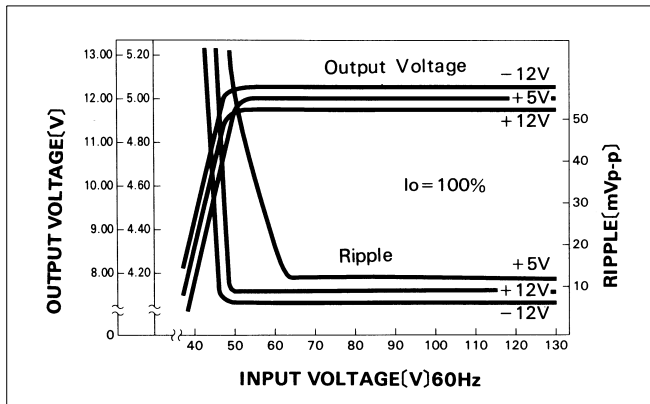
※ Tolerance: ± 1

※ Dimensions in mm.

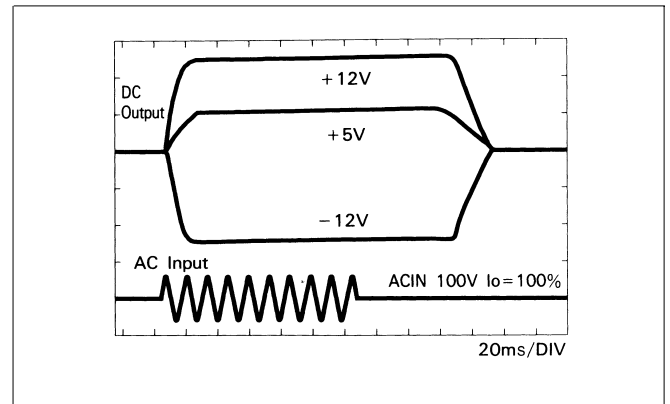
Barrier strip type

Performance data

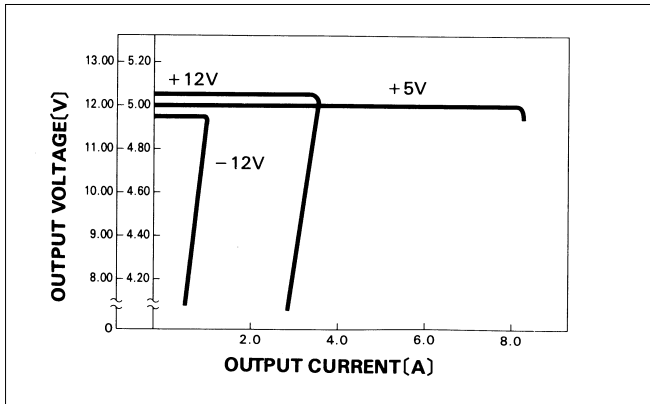
■ STATIC CHARACTERISTICS (MMC50A-1)



■ RISE TIME & FALL TIME (MMC50A-1)



■ OVERCURRENT CHARACTERISTICS (MMC50A-1)



■ DERATING CURVE

