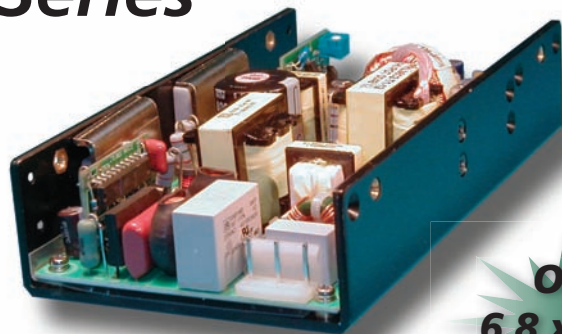


# MPA200L Series

## Low Profile 200W Single Output Power Factor Corrected AC/DC Power Supplies



**Only  
6.8 x 3.8 x  
1.5 in!!**

### Key Features:

- 200W Output Power
- Universal 90-264V AC Input
- PFC to EN61000-3-2 "D"
- UL, cUL, TUV Approvals
- CE Certified
- FCC Class B Emissions
- 3.3, 5, 12, 24 & 48 V Outputs
- Peak Power to 600W



**CB**

**RoHS**



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### Electrical Specifications

Specifications typical @ +25°C, nominal input voltage & rated output current, unless otherwise noted. Specifications subject to change without notice.

#### Input

| Parameter                  | Conditions                        | Min. | Typ. | Max. | Units |
|----------------------------|-----------------------------------|------|------|------|-------|
| Input Voltage Range        | Universal                         | 90   |      | 264  | VAC   |
| Input Frequency            |                                   | 47   |      | 63   | Hz    |
| Input Current, Full Load   | 100 VAC                           |      | 4    |      | A     |
| Inrush Current, Cold Start | 110 VAC                           |      |      | 35   | A     |
| Leakage Current (Note 1)   | 240 VAC                           |      | 1.5  |      | mA    |
| Power Factor Correction    | Active, Meets EN61000-3-2 Class D |      |      |      |       |
| Input Protection           | T5A/250V Fuse                     |      |      |      |       |

#### Output

| Parameter                        | Conditions                                       | Min. | Typ.  | Max. | Units |
|----------------------------------|--------------------------------------------------|------|-------|------|-------|
| Output Voltage Adjustment        | By Trim Pot                                      |      | ±5.0  |      | %     |
| Output Regulation (Note 2)       |                                                  |      | ±1.0  |      | %     |
| Hold Time                        | 80% Load                                         |      | 20    |      | mSec  |
| Ripple & Noise (20 MHz) (Note 3) | See Model Selection Guide                        |      |       |      |       |
| Overload Protection              | Hiccup Mode, Auto Recovery                       | 110  |       | 140  | %     |
| Over Voltage Protection          | >130% of Rated Output Voltage. Recycle AC Input. |      |       |      |       |
| Over Temperature Protection      | >+85°C Ambient with Autorecovery                 |      |       |      |       |
| Temperature Coefficient          |                                                  |      | ±0.04 |      | %/°C  |
| Transient Recovery Time (Note 4) | 50% Load Change                                  |      | 500   |      | µS    |
| Transient Response Deviation     |                                                  |      | 5     |      | %     |
| Overshoot/Undershoot             | At Turn On/Off                                   |      |       | 5.0  | %     |
| Turn On Delay                    | 120 VAC                                          |      |       | 1    | S     |
| Output Short Circuit             | Continuous With Autorecovery                     |      |       |      |       |

#### General

| Parameter           | Conditions                | Min.  | Typ. | Max. | Units |
|---------------------|---------------------------|-------|------|------|-------|
| Isolation Voltage   | Input - Output            | 3,000 |      |      | VAC   |
|                     | Input - FG (Frame Ground) | 1,500 |      |      |       |
|                     | Primary - Core            | 1,500 |      |      |       |
| Switching Frequency | Fixed                     |       | 23   |      | kHz   |

#### Interface Signals

|                   |                                                                                                                                  |  |  |  |  |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Power Supply On   | Green LED (LED1) on the PCB                                                                                                      |  |  |  |  |
| Power Good Signal | PG on CN3. Goes TTL high 100 to 500 mS after regulation. Goes low at least 1 mS before the loss of regulation. Will sink 100 mA. |  |  |  |  |
| Remote Sense      | RS + and RS- on CN3. Compensates for up to a 0.5V line drop.                                                                     |  |  |  |  |
| Remote On/Off     | REMO on CN3. A TTL low signal inhibits the output                                                                                |  |  |  |  |

#### Environmental

| Parameter                   | Conditions                     | Min. | Typ. | Max. | Units |
|-----------------------------|--------------------------------|------|------|------|-------|
| Operating Temperature Range | Ambient                        | 0    | +25  | +50  | °C    |
| Output Derating             | 2.5%/ °C from +50 °C to +70 °C |      |      |      |       |
| Storage Temperature Range   |                                | -20  |      | +85  | °C    |
| Cooling                     | See Model Selection Guide      |      |      |      |       |
| Operating Humidity          | RH, Non-condensing             |      |      | 90   | %     |

#### Reliability Specifications

| Parameter               | Conditions                                                        | Min. | Typ. | Max. | Units  |
|-------------------------|-------------------------------------------------------------------|------|------|------|--------|
| MTBF                    | MIL HDBK 217F, 30°C, Gnd Benign                                   | 100  |      |      | kHours |
| Safety Standards        | UL 60950; CSA C22.2 No. 60950; TUV EN60950; CB Report (IEC 60950) |      |      |      |        |
| EMI Compliance          | Compliance to EN55022 (CISPR22) Class B; EN61000-3-2,3            |      |      |      |        |
| EMS Immunity Compliance | EN61000-4-2,3,4,5,6,8,11; EN55024; CE Marked (LVD)                |      |      |      |        |

## Model Selection Guide

| Model Number | Output Voltage |                 | Output Current (Notes 6, 7, 8) |      |             | Ripple & Noise | Efficiency (Note 7) |
|--------------|----------------|-----------------|--------------------------------|------|-------------|----------------|---------------------|
|              | Factory PreSet | Range (Note 5)  | ("U" units) Max.               | Min  | With 17 CFM |                |                     |
| MPA200Lx-03z | 3.3 VDC        | 3.0 - 4.0 VDC   | 22.00A                         | 0.0A | 30.00A      | 50 mV p-p      | 70%                 |
| MPA200Lx-05z | 5 VDC          | 5.0 - 6.0 VDC   | 22.00A                         | 0.0A | 40.00A      | 50 mV p-p      | 75%                 |
| MPA200Lx-12z | 12 VDC         | 12.0 - 18.0 VDC | 12.50A                         | 0.0A | 16.66A      | 1% p-p         | 80%                 |
| MPA200Lx-24z | 24 VDC         | 24.0 - 36.0 VDC | 6.25A                          | 0.0A | 8.33A       | 1% p-p         | 83%                 |
| MPA200Lx-48z | 48 VDC         | 36.0 - 56.0 VDC | 3.12A                          | 0.0A | 4.16A       | 1% p-p         | 83%                 |

### Notes:

- Models are available with leakage current specified as low as 750  $\mu$ A. Contact the factory for details.
- Output regulation includes line & load.
- Ripple & noise is measured from 10 Hz to 20 MHz. Measurement connection to the unit is made with a 0.1  $\mu$ F ceramic capacitor & a 22  $\mu$ F electrolytic capacitor connected in parallel.
- Transient recovery is measured to within a 1% error band for a load step change of 50% to 100%.
- The full output range (see table above) is covered in the safety agency certification. Standard models are factory set to the "Preset" voltage. This may be set to other levels within the range without affecting the agency certification. Contact the factory for details.
- A minimum 1% load is required to maintain load regulation and ripple specifications.
- Output current is given for the factory preset voltage. For more information, contact the factory.
- Units will provide peak power of 600W for 500  $\mu$ S. For units capable of longer durations, contact the factory.

### Input Connector CN1:

#### U-Chassis (U,C)

Mating Molex Part No. 09-91-0500 (5 pin, 3 used) or Howder Terminal Block No. FTB-702-3P (3-pin) or equivalent.

### Output Connector CN2:

Mating Molex Part No. 09-91-1200 (12 pin) or Howder Terminal Block No. HD-301-4P (4-pin) or equivalent.

### Output Pin Assignment:

| Howder         | Molex           |
|----------------|-----------------|
| Pins 1 ~ 2: V+ | Pins 1 ~ 6: V+  |
| Pins 3 ~ 4: V- | Pins 7 ~ 12: V- |

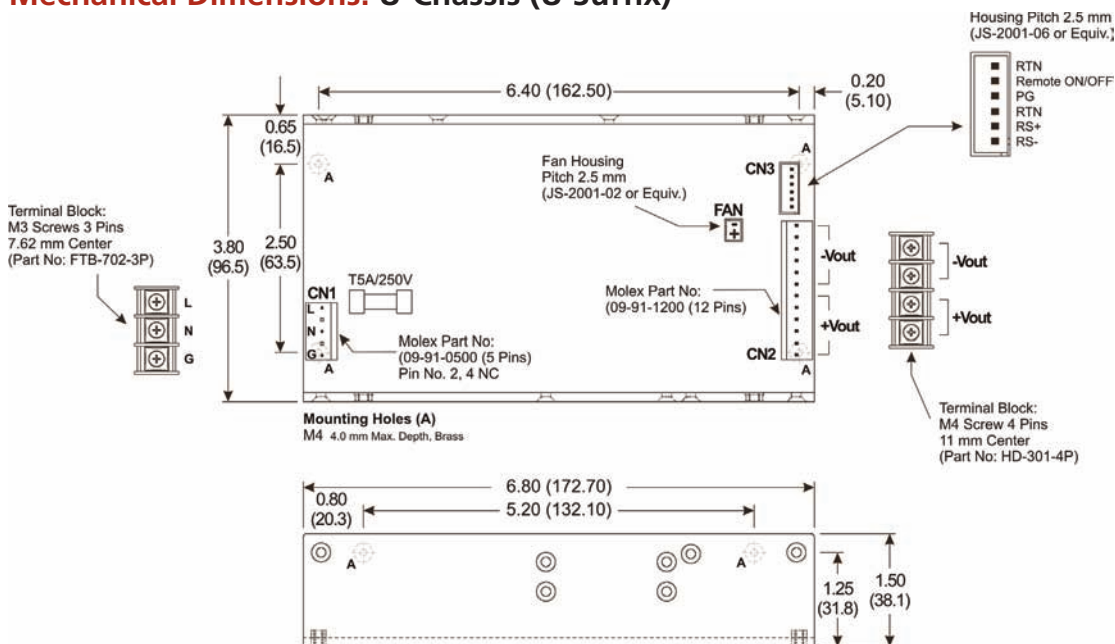
### Logic Signal Connector CN3:

Mating JST XHP-6 or equivalent (CHYAO SHIUNN JS-2001-06).

### Fan driver connector (FAN):

12 VDC / 500 mA is available to drive an external fan. Mating JST XHP-2 or equivalent (CHYAO SHIUNN JS-2001-02).

## Mechanical Dimensions: U-Chassis (U Suffix)



## U-Chassis Cover (C Suffix)

## MPA200LX-YYZ

### Mechanical Configuration

U = U-Chassis

C = U-Chassis with Cover

### Output Voltage Selection

03 = 3.3 VDC

05 = 5.0 VDC

12 = 12.0 VDC

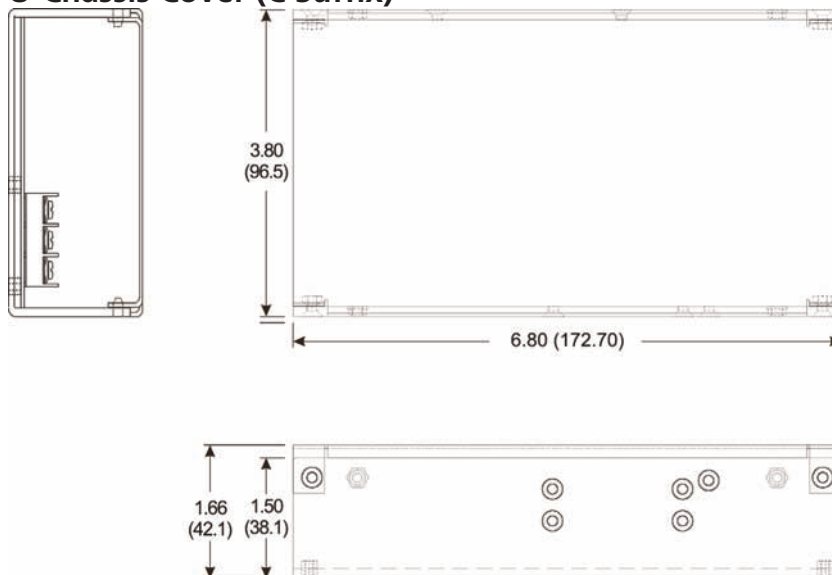
24 = 24.0 VDC

48 = 48.0 VDC

### Input/Output Connector Type

M = Molex

T = Terminal Block



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www.micropowereirect.com



**Стандарт  
Электрон  
Связь**

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