



Baldor Electric Company  
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U.S.A.

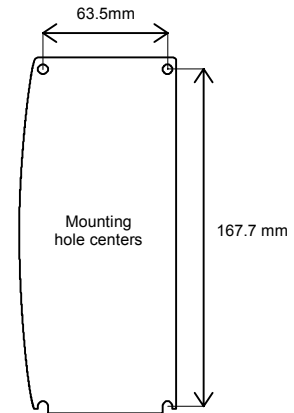
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**IMPORTANT NOTE !**  
This Quick Start Guide is not intended as a replacement for the full installation manual, *MN1919 MicroFlex Installation Manual*, which provides detailed information about the MicroFlex. The installation manual is available in PDF format on the supplied Baldor Motion Toolkit CD.

### 1 Mounting

MicroFlex is designed to be supported by four M5 screws, spaced as shown in the diagram.

MicroFlex must be fixed to a smooth vertical metal surface to ensure effective cooling.

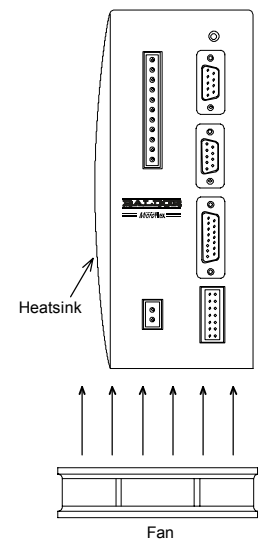


### 2 Cooling for 6A & 9A models

Effective cooling for the MicroFlex is essential:

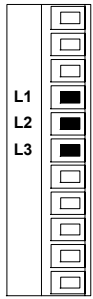
- \* The 3A model requires no additional cooling.
- \* The 6A model requires additional forced air cooling at 1.0m/s or greater.
- \* The 9A model requires additional forced air cooling at 2.5m/s or greater.

Quoted air velocities are for air originating from below the MicroFlex, passing parallel to the heatsink. With MicroFlex mounted as specified, quoted air velocities allow full drive rated current at ambient temperatures up to 45°C. Optional fan tray FAN001-024 provides sufficient cooling for all models.



LT0185A02

### 3 AC power, fuses and filter



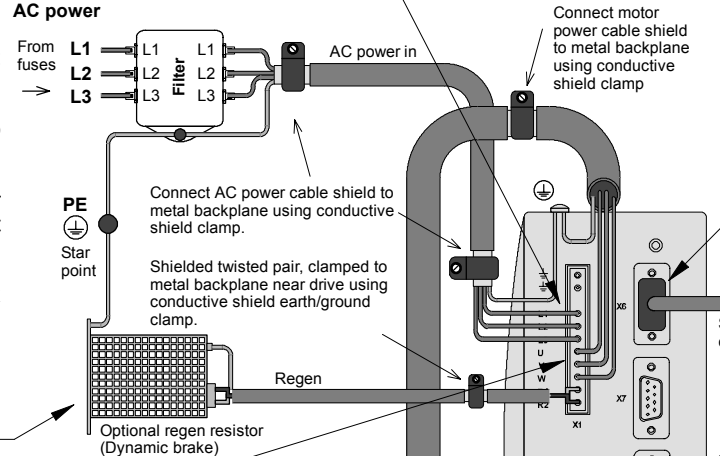
MicroFlex can accept supply voltages of 105-250VAC 50/60Hz, 1-phase or 3-phase.

For three phase supplies, connect phases to L1, L2 and L3.

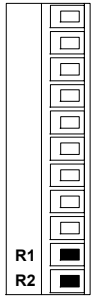
For single phase supplies, connect supply to any two line inputs, for example L1 and L2.

The AC supply must incorporate a circuit breaker (or fuse) and the specified filter. For ideal earthing, mount filter on the same metal surface as MicroFlex.

X1 Protective earth must be connected to the MicroFlex case using an M4 screw in the top of the metal heatsink.



### 4 Regeneration resistor (optional)

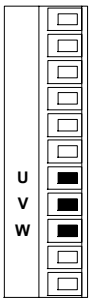


A suitable regeneration resistor may be required to dissipate excess power from the internal DC bus during motor deceleration.

The regeneration resistor must have a resistance of at least 39Ω, inductance of less than 100μH, and a power rating suitable for the application. Baldor parts RG56 (44W) or RG39 (100W) are recommended.

Connect the regeneration resistor to R1 and R2.

### 5 Motor U V W outputs



Connect the motor to the U, V and W outputs.

The U, V and W outputs must be connected to their corresponding U, V or W terminal on the motor. Misconnection may result in uncontrolled motor movement.

Motor earth should be connected to the MicroFlex case using an M4 screw in the top of the metal heatsink.

The motor cable shield should be connected using a conductive earth/ground clamp, attached to the M4 threaded hole in the top of the metal heatsink.

### 6 24VDC control supply and filter



MicroFlex requires a 24VDC (20-30VDC) supply to power the control electronics.

X2 Connect the control supply at connector X2.

A fused DC supply should be provided for the MicroFlex. If other devices are to be powered from the same 24V supply, a filter (Baldor catalog number F10014A00) should be installed to isolate the MicroFlex from the rest of the system. Alternatively, a ferrite sleeve may be attached to the supply cable near connector X2.

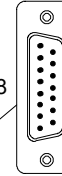
### 7 Serial communication



The MicroFlex communicates with the host PC using RS232 or RS485 communication (model dependent).

Connect a suitable cable between connector X6 and the host PC's RS232 / RS485 port.

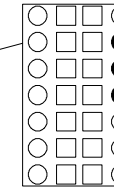
### 8 Motor feedback input



The MicroFlex can operate with incremental encoder, SSI encoder, or resolver feedback devices. The device type is configured in WorkBench v5. Suitable cables are available from Baldor.

Connect the motor feedback signal to connector X8.

### 9a Step & direction inputs (optional)

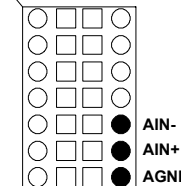


+5V step and direction signals can be used to provide the position reference when operating in position control mode.

Connect the step and direction signals to pins 9, 10 and 11 of connector X3.

Step and direction signals are not required if the analog demand input is to be used as a torque or speed reference (see below).

### 9b Analog demand input (optional)

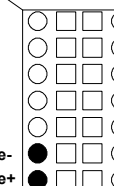


A ±10VDC signal can be used to provide the demand reference for torque and speed control modes.

For differential operation, connect the demand signal to pins 12 and 13 of connector X3. For single ended operation, connect the positive signal to pin 13; connect the 0V side of the signal and AIN- to AGND (pin 14).

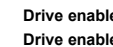
An analog demand signal is not required if the step and direction inputs are to be used as a position reference (see above).

### 10 Drive enable input



To enable the MicroFlex, 24VDC (12-30VDC) must be applied to the drive enable input.

Connect the drive enable signal to pins 6 and 7 of connector X3.



X3