Model: ECR82/92

EC Motor

INSTALLATION & OPERATING INSTRUCTIONS
Issue 4 - October 2008

Important Note:

To ensure safety and correct operation the product must be installed and used according to procedures described in this manual

ELECTRIC SHOCK HAZARD !!!

DISCONNECT AC SUPPLY TO BOTH THE INPUT & CONTROL LINES BEFORE ALTERING WIRING OR DISCONNECTING MOTOR.

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1 GENERAL RATINGS

ECR92--02

Supply Voltage:	115Vrms +/-10%, 60Hz
Rated Output:	16W
Operating Temperature:	-10° to +40°C
Speed:	1800rpm

ECR82--01

Supply Voltage:	230Vrms +/-10%, 50Hz
Rated Output:	12W
Operating Temperature:	-10° to +40°C
Speed:	1500rpm

ECR82--02

Supply Voltage:	220Vrms +/-10%, 60Hz
Rated Output:	16W
Operating Temperature:	-10° to +40°C
Speed:	1800rpm

Note that operation at lower voltages and higher ambient temperatures are available at special request. Please contact Wellington for further information.

2 INSTALLATION

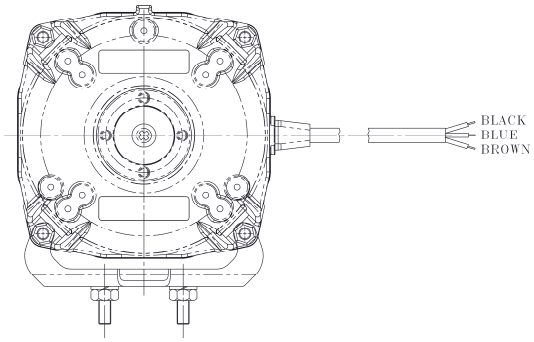
2.1 Location & Orientation

- Care should be taken to locate the motor so it is not exposed to excessive temperatures, water or moisture.
- The motor should be screwed firmly down onto a metal mounting plate or bracket and the screw depth must not exceed 6mm.

2.2 Wiring

Connect as per the following diagram:

- Cable orientations are as follows. Blue wire is neutral, brown is line/phase, and black is the control wire which receives the signal for the direction of rotation.



Black	Control lead
Blue	Neutral
Brown	Line/Phase

3 OPERATION

The direction of rotation is referenced when looking at the shaft end of the motor. The direction of rotation can be changed by the Black control lead.

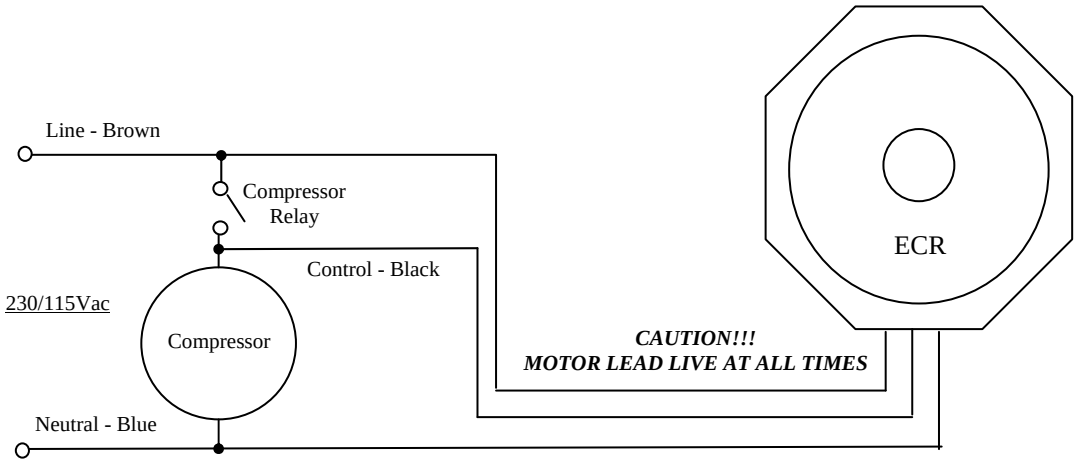
Alternative configurations are possible, including

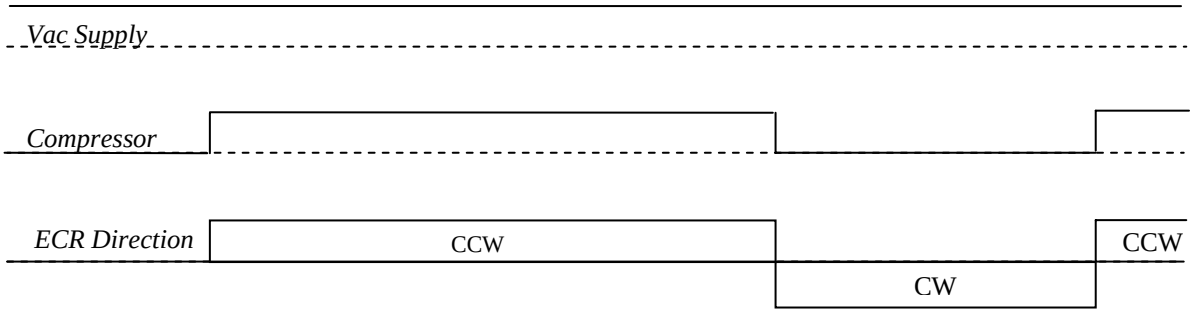
- Default direction
- Timed reverse, which is triggered by the control lead and where the duration of reversing can be factory configured

3.1 Normal Operation

The ECR82/92 motor is factory configured to run in a counter clockwise (CCW) direction when the control wire (Black) is connected to the blue wire (Neutral). It can be reconfigured to operate clockwise (CW) when the control wire is connected to the Brown (Phase) wire.

Desired Direction	Control Connection
Counter clockwise (CCW)	Black and Blue wires connected together
Clockwise (CW)	Black and Brown wires connected together





3.2 Timed Reverse

The ECR82/92 will run CCW continuously when the control input is:

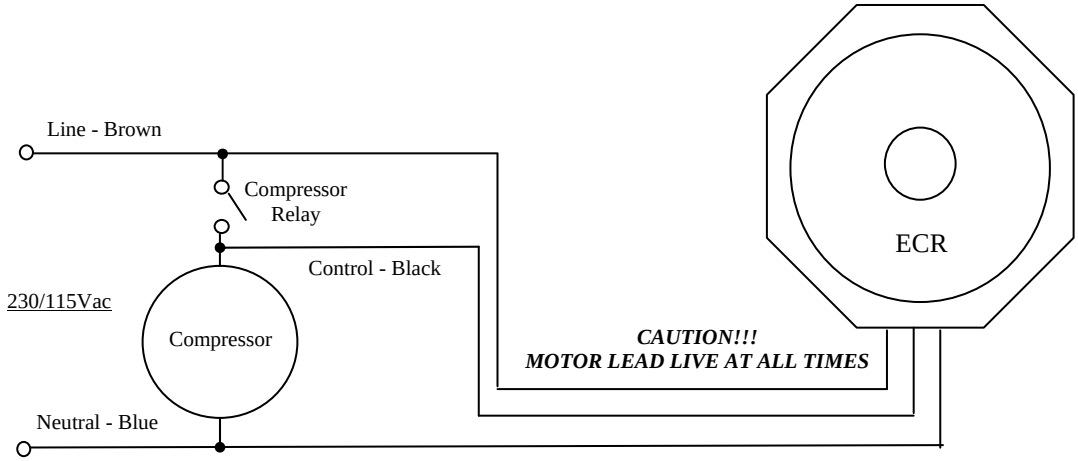
- Switched to Vac Line via the compressor relay.

The ECR82/92 runs in CW for 180 seconds while the compressor is OFF

- At the end of each compressor ON cycle.

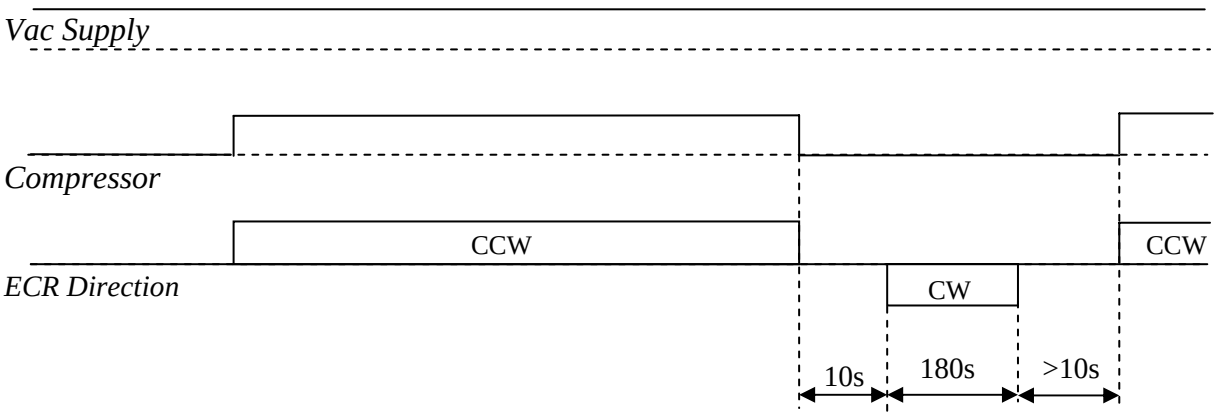
A timed delay of 10 seconds occurs at the change of direction to allow the motor to slow; this prevents rapid reversing in the event of short-term contact dropout.

Desired Direction	Control Connection
Counter clockwise (CCW)	Black and Brown wires connected together
Clockwise (CW), 180s reverse after 10 seconds delay	Black and Blue wires connected together



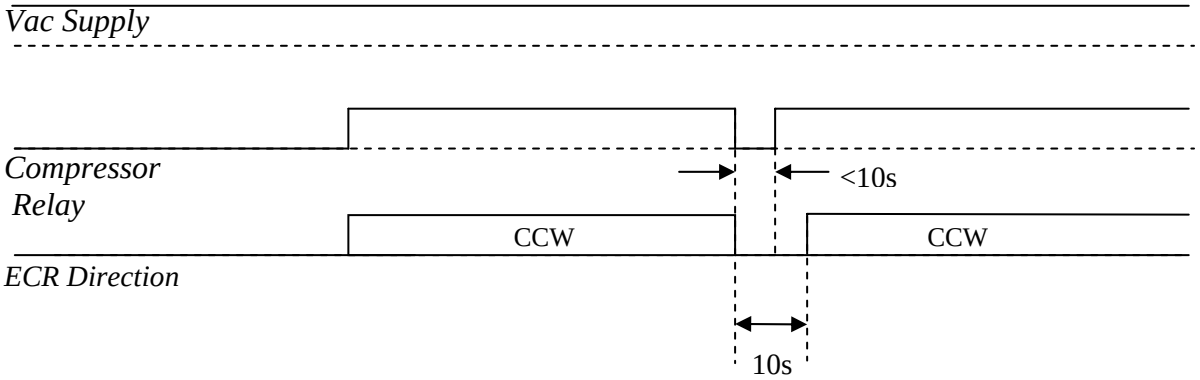
3.2.1 Normal Operation

Stop after 180 seconds when compressor is OFF; Restart immediately when compressor is ON



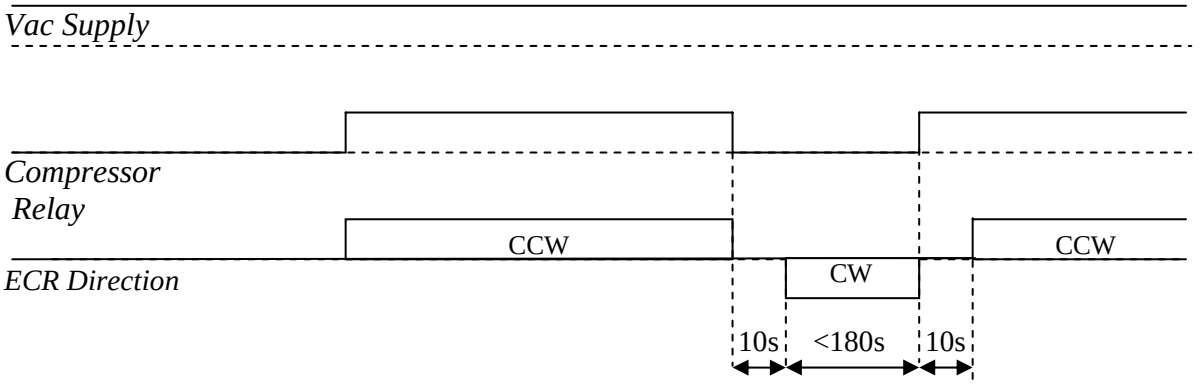
3.2.2 Compressor Restarts within 10 Seconds

Restart in CCW direction after 10 seconds delay.



3.3.3 Compressor Restarts During REV Period

Stop immediately; Restart in CCW after 10sec delay



3.3.4 Compressor OFF when Vac First Turned ON

a. Run CW for 180s then stop; CCW immediately when compressor starts
b. Run CW; if compressor starts during reverse period, stop immediately and restart CCW after 10 sec delay (as 3.3.3).