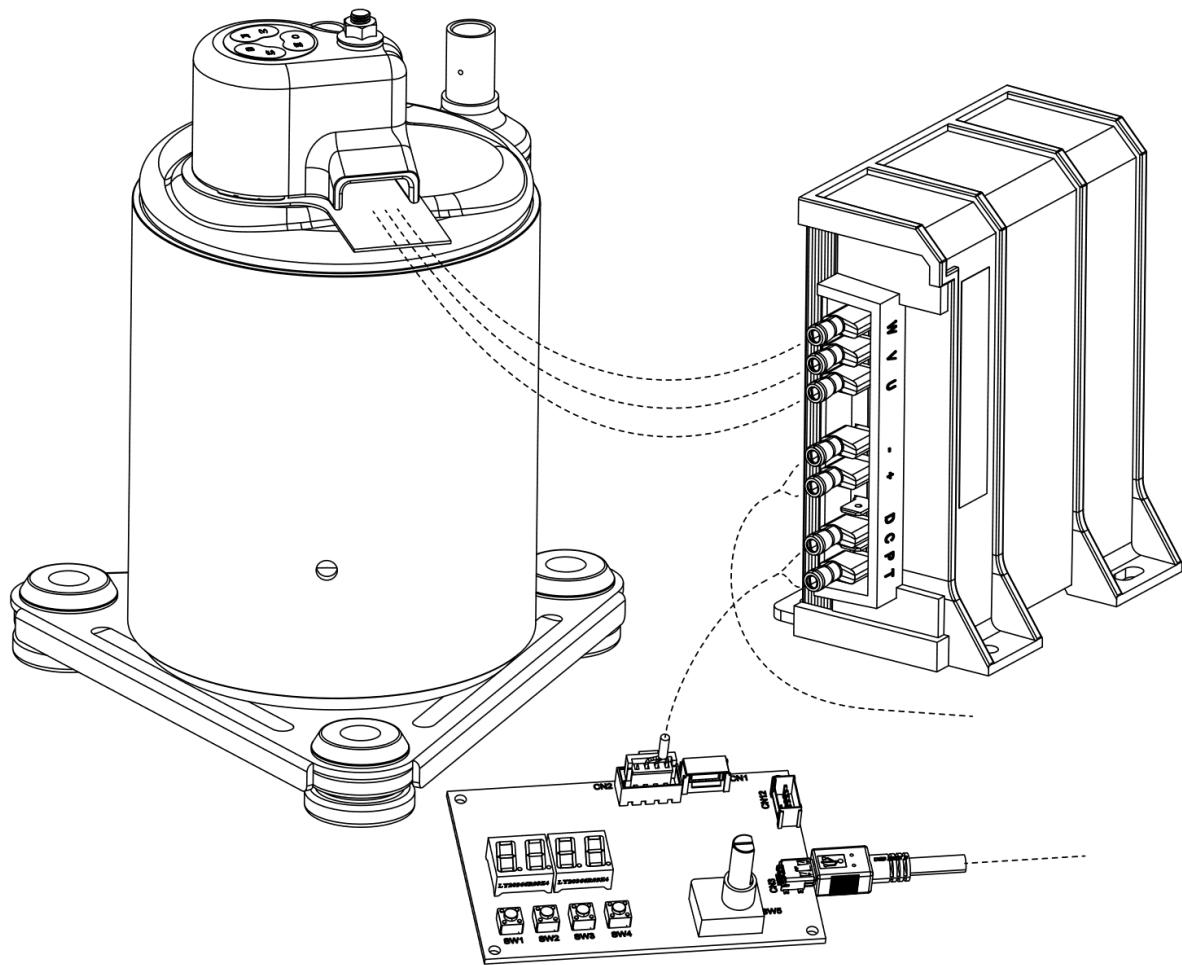


# ATLAS 24V Installation Instructions



**Compressor:**  
**ATLAS18-0444Y4**

**Controller:**  
**025F0367**



# ATLAS 24V Installation Instructions



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## Compressor Installation

The compressor must be mounted vertically in the final application. Leave space between the compressor and other components to allow the compressor to move during start up, shut down, and operation. Use three 5/16 [8mm] bolts to mount the compressor feet and rubber grommets to the application base. Torque bolts  $70 \pm 17$  lbf\*in [ $80 \pm 20$  kgf\*cm].

Refer to compressor drawing DCMX45 more information on the ATLAS compressor.

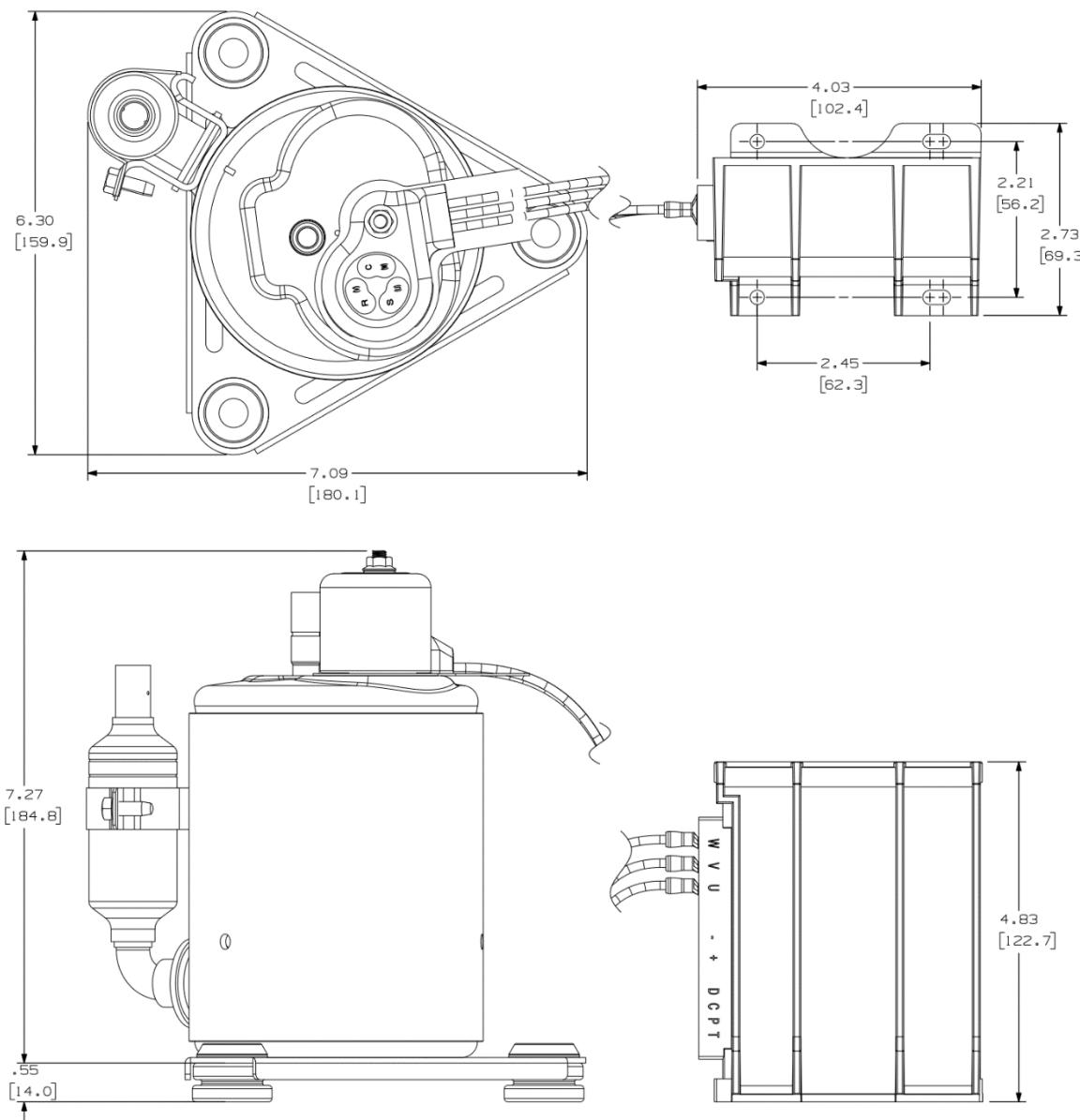


FIGURE 1: ATLAS compressor inches [mm]

# ATLAS 24V Installation Instructions



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## Tube Installation

The compressor has both discharge and suction tubes. The position of the tubes is illustrated in figure 2 and the specifications are described in table 1.

TABLE 1: Compressor tubing info

Drawing Number	Tube	Inner Diameter [in]	Depth [in]	Material
DCMX45	Suction	.374-.385 (9.5-9.8mm)	.394 (10.0mm)	Copper
	Discharge	.315-.327 (8.0-8.3mm)	.590 (15.0mm)	Copper

Rotary compressors do not have internal mounting springs in contrast to most hermetic compressors. The internal design and external mounting are designed to reduce vibration. However, some vibration is transmitted to the suction and discharge tubing. We therefore recommend using flexible connections to prevent vibration being transmitted to the rest of the installation. We recommend using annealed copper tube rather than hard drawn copper tube. A suggested design of flexible connections for this compressor is shown in figure 2.

The general design of the tubing can be adjusted according to your equipment.

Great care should be taken when designing the system and correct refrigeration practices must be followed to ensure the oil return to the compressor.

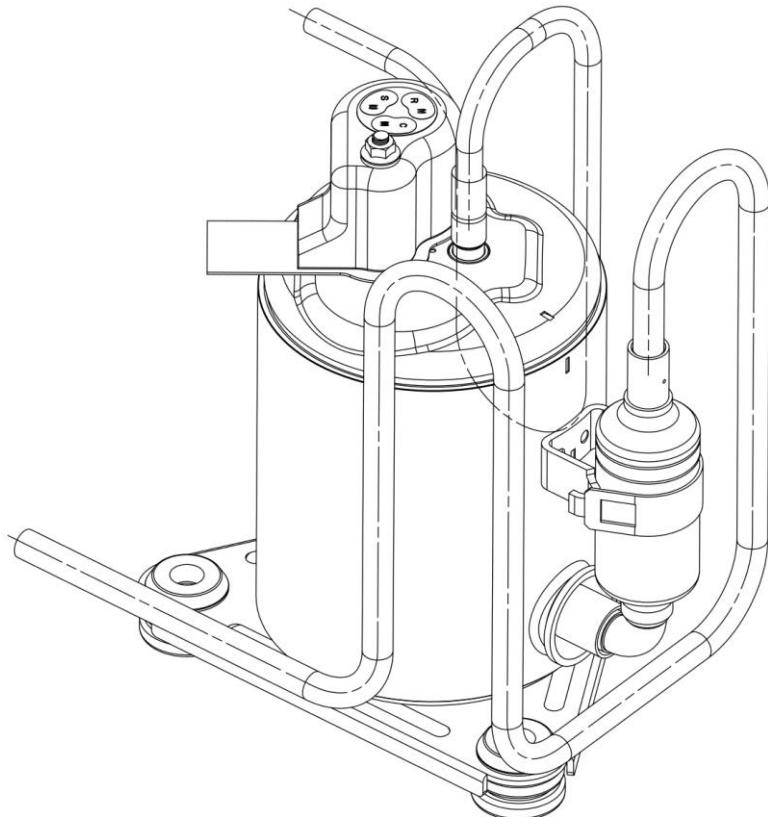


FIGURE 2: ATLAS tubing suction loop

# ATLAS 24V Installation Instructions



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## Controller Installation

Before working with the controller and wiring, the power must be disconnected for at least one minute and remain disconnected during all work.

If brazing is required close to the controller or wiring, complete brazing before installation. Controller and wiring could be damaged from high temperatures. The controller can be mounted in any orientation with four screws or bolts. If possible, mount in a way that allows for airflow over the heat sink.

Refer to technical specification 600A1664 and controller drawing DGMX0091 for more information.

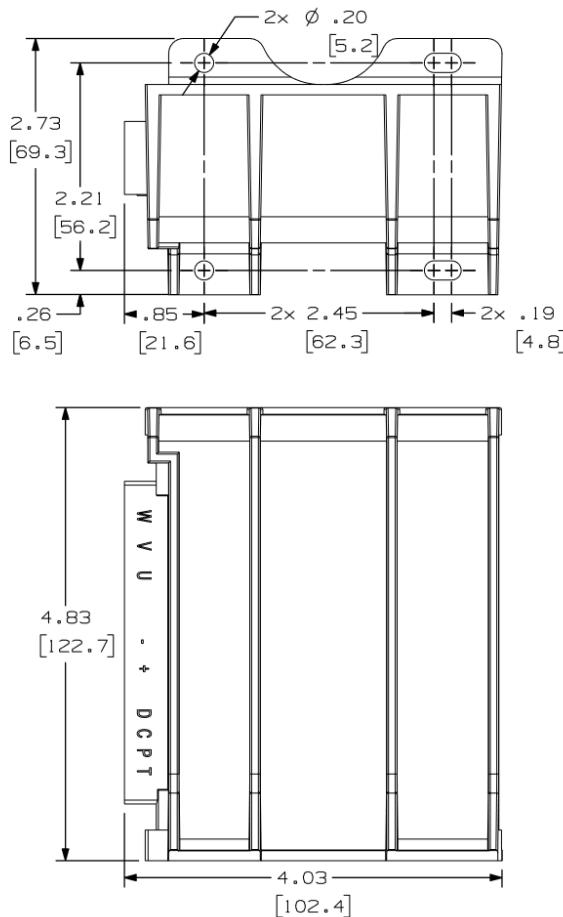


FIGURE 3: ATLAS controller dimensions in inches [mm]

## Signal Generator Installation

The signal generator is used to control the speed of the compressor. If using the signal generator, connect a customer supplied standard USB-mini cable to CN3 on the signal generator. Connect the other end to USB (DC 5V) power supply or a USB port on a computer.

Connect the signal cable (040F0278) from CN2 on the signal generator to W, V, and U connectors on the compressor controller.

# ATLAS 24V Installation Instructions



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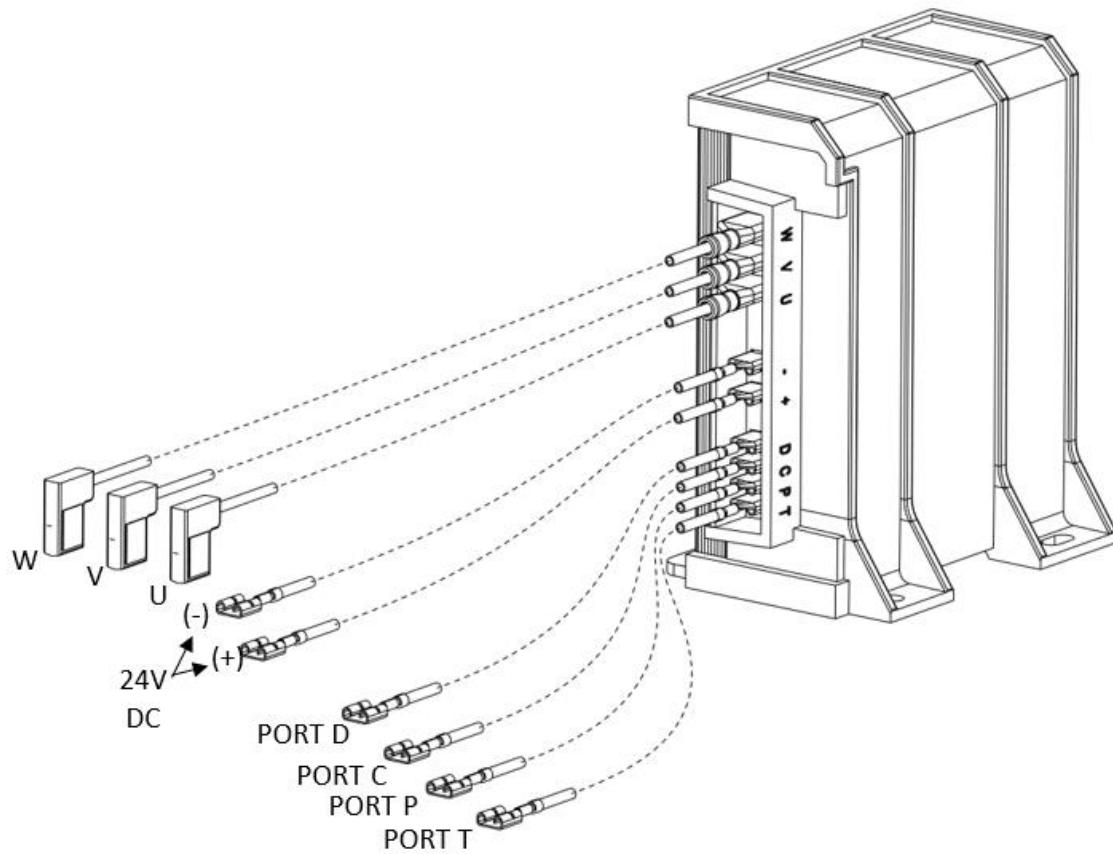


FIGURE 4: ATLAS controller with wires

## Wiring Installation

Before working with the controller and wiring, the power must be disconnected for at least one minute and remain disconnected during all work.

The wiring diagram for the ATLAS controller can be found in figure 5. W, V, and U are the compressor phase connectors. Speed control is connected to Port T.

Port T speed connectors should be attached to an external controller or frequency generator. The electrical ports are connected to 24V DC power and the compressor phase terminals.

The controller to compressor harness and power wiring harness is not supplied with the ATLAS compressor but can be purchased separately (P/N 040F0276). To attach the phase connector to the compressor, connect the wire harness to the phase connectors in the orientation shown in figure 6. Secure the cover in place with the nut. Torque nut to 8.7-17.5 in-lbs [10-20kgf-cm]. For wire diagram see figure 5 and assembly view, see figure 6.

Refer to wiring diagram DEMX0060 for more information.

# ATLAS 24V Installation Instructions



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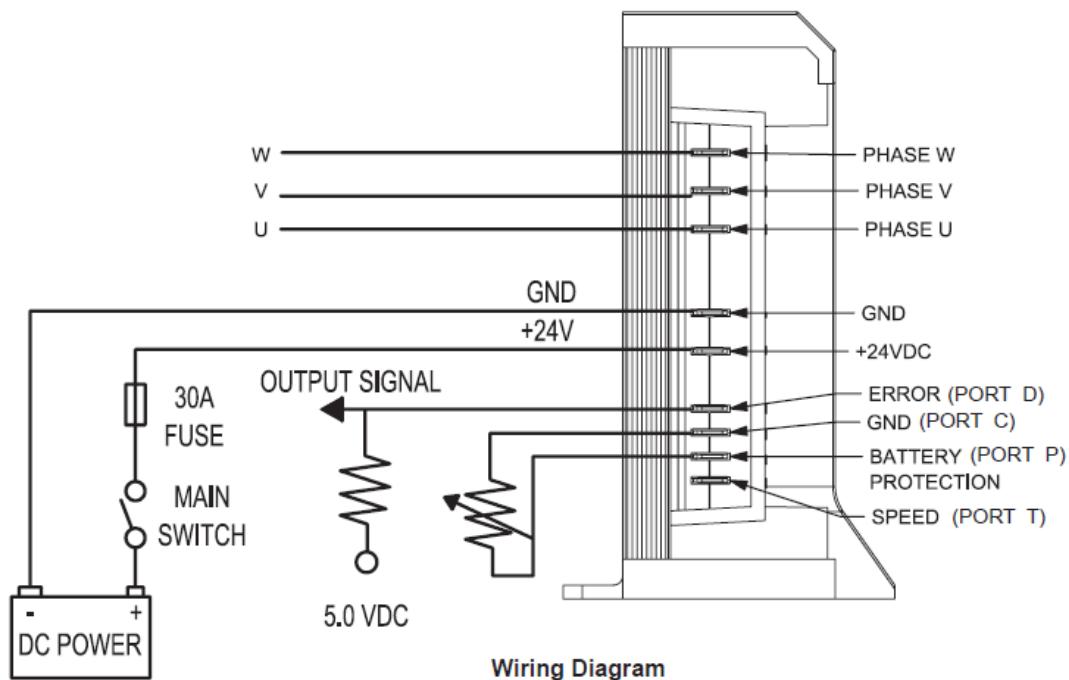


FIGURE 5: ATLAS wiring diagram

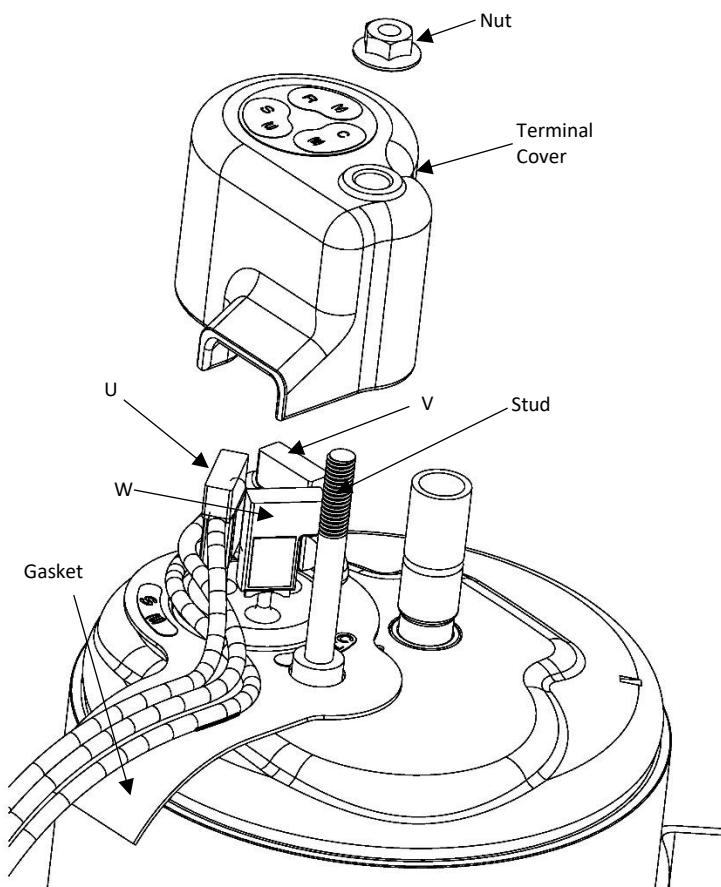


FIGURE 6: ATLAS assembly

