

## LIGHT COMMERCIAL - 3 HP ECM MOTOR / CONTROLLER HIGH STATIC DRIVE KITS

# INSTALLATION INSTRUCTIONS

For R7TQ/P7TQ/Q7TQ -090 (7.5T) and -120 (10T) Series Single Package Rooftop Units



## IMPORTANT

### ATTENTION INSTALLERS:

The installer performing this work assumes all responsibility when installing this kit. This includes being able to install the product according to strict safety guidelines and instructing the customer on how to operate and maintain the equipment for the life of the product. Safety should always be the deciding factor when installing this product and using common sense plays an important role as well. Pay attention to all safety warnings and any other special notes highlighted in the manual. Improper installation of the kit or failure to follow safety warnings could result in serious injury, death, or property damage.

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of this appliance. Some local codes require licensed installation/service personnel for this type of equipment. Please read all instructions carefully before starting the installation. Return these instructions to the customer's package for future reference.

**DO NOT DESTROY. PLEASE READ CAREFULLY & KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.**

## IMPORTANT SAFETY INFORMATION

INSTALLER: Please read all instructions before servicing this equipment. Pay attention to all safety warnings and any other special notes highlighted in the manual. Safety markings are used frequently throughout this manual to designate a degree or level of seriousness and should not be ignored. **WARNING** indicates a potentially hazardous situation that if not avoided, could result in personal injury or death. **CAUTION** indicates a potentially hazardous situation that if not avoided, may result in minor or moderate injury or property damage.

### **WARNING:**

#### **ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD**

**Failure to follow safety warnings exactly could result in serious injury or property damage.**

**Improper servicing could result in dangerous operation, serious injury, death or property damage.**

- **Before servicing, disconnect all electrical power to furnace.**
- **When servicing controls, label all wires prior to disconnecting. Reconnect wires correctly.**
- **Verify proper operation after servicing.**

### **WARNING:**

**The safety information listed below must be followed during the installation, service, and operation of this it. Unqualified individuals should not attempt to interpret these instructions or install this equipment. Failure to follow safety recommendations could result in possible damage to the equipment, serious personal injury or death.**

- Follow all precautions in the literature, on tags and labels provided with the equipment. Read and thoroughly understand the instructions provided with the equipment prior to performing the installation and operational checkout of the equipment.
- Unless noted otherwise in these instructions, only factory authorized parts or accessory kits may be used with this product. Improper installation, service, adjustment, or maintenance may cause fire, electrical shock or other hazardous conditions which may result in personal injury or property damage.
- Use caution when handling this equipment or removing components. Personal injury can occur from sharp metal edges present in all sheet metal constructed equipment.

## GENERAL INFORMATION

The 3 HP ECM motor and controller high static drive kit is approved for use in R7TQ & P7TQ Series packaged air conditioners and Q7TQ packaged heat pumps when applied and installed according to these instructions. Use the performance tables to identify the proper drive components and airflow settings for your specific application.

**NOTE:** If any of the original wiring supplied with the unit must be replaced, it must be replaced with material of the same gauge and temperature rating.

## PRE-INSTALLATION INFORMATION

### Before You Begin

It is recommended that prior to a kit selection for a retrofit installation, the existing duct system be inspected for security and possible improvements. The removal of flexible duct sections or replacement of under sized ducts can significantly improve a buildings air distribution system for increased unit efficiency, correction of room stratification issues for personal comfort and reduction of equipment noise levels transferred through the ducts.

Some local codes require testing a buildings duct system for external air infiltration and correcting any deficient structures. Commercial duct systems should be designed for compliance with the guidelines given in the ASHRAE Handbooks, ACCA Manual Q, SMACNA manuals or as specified by any applicable NFPA and local codes or ordinances that may apply. Improving an existing duct system could be more cost effective than increasing the units airflow when weighed against the increased energy cost for the design life of the equipment.

Always make sure all equipment installation instructions are on-hand and reviewed prior to the commencement of any work for the unit and all field installed accessories. This accessory kit should be installed prior to the installation of any economizers, air-dampers, or other kits that require the blower operation for final setup.

### Pre-Installation Checklist

- Inspect the kit and verify its contents to [Table 10, \(page 11\)](#). Verify the High Static Drive Kit (HSDK) matches the unit application and building voltage requirements.
- Inspect the duct system for security, air leakage or infiltration, and that it is properly constructed for the airflow/pressure requirements of the HSDK.
- Review all equipment and accessory installation Instructions prior to beginning the installation.
- Verify the unit supply wiring, unit disconnect & over-current protection is sized properly for the addition of the HSDK and any other accessory kits that will utilize the same electrical circuit.
- Refer to the applicable unit installation instructions, technical service literature, or units rating late for the correct electrical data when using these kits.

### Electrical Information

All wiring must comply with the current revision of the National Electric Code and must be sized for the minimum ampacities And over-current protective devices.

If the unit was previously installed without a high static drive motor and controller, the existing supply wiring may not be sufficient to handle the increased load. See [Table 1, \(page 5\)](#), [Table 2, \(page 6\)](#), & [Table 3, \(page 7\)](#) for minimum circuit ampacities and maximum overcurrent protection ratings.

Before proceeding with the electrical connections, make sure the voltage, frequency, and phase of the supply source are the same as those specified on the motor and controller kit.

Wiring Diagrams are shipped with each unit and located on the control panel access doors.

## MOTOR & CONTROLLER INSTALLATION

1. TURN OFF ALL POWER TO THE UNIT.
2. Open the blower access door and remove belt from drive pulleys by loosening & removing the four motor mounting nuts on the adjustable motor mounting plate. Set aside for later use. Loosen the mounting plate belt adjustment screw and remove belt.
3. Disconnect the 12 pin motor wiring harness plug from the unit 12 pin plug and remove original motor.
4. Install motor controller on rail behind motor location using two bolts provided in kit with cooling fins facing blower assembly. See [Figure 1 \(page 4\)](#).

5. Install motor on adjustable motor mounting plate and replace four nuts removed in Step 2 for securing. Do not tighten all the way at this time.
6. Check blower tables for proper blower pulley requirement matching the specific application (downflow or horizontal) and change as required.
7. Install new BK45 fixed motor pulley on motor shaft using key provided with motor. Align pulleys & belt accordingly using standard practices. Tighten securely once complete.
8. Adjust belt tension appropriately for proper operation. DO NOT OVER-TIGHTEN!
9. Tighten four motor mounting nuts on adjustable motor mounting plate.
10. Connect 4 and 6 pin plugs from motor to mating connectors on controller. See [Figure 3 \(page 5\)](#).
11. Connect the 6 wire motor control interface cable with 12 pin plug to the unit 12 pin plug that was disconnected from the original motor.

#### High Voltage Connections To Motor Control 10 Pin Plug

See [Figure 4 \(page 5\)](#)

- a.) Connect line voltage Black wire to Terminal “G” on the motor 10 pin plug.
- b.) Connect line voltage Yellow wire to Terminal “L” on the motor 10 pin plug.
- c.) Connect line voltage Red wire to Terminal “N” on the motor 10 pin plug.
- c.) Connect GREEN ground wire using the screw that secures motor mounting rail to the blower deck. See [Figure 1 \(page 4\)](#).

#### Low Voltage Connections To Motor Control 10 Pin Plug

See [Figure 4 \(page 5\)](#)

- a.) Connect 24V COM Brown wire to Terminal C on the motor 10 pin plug.
- b.) Connect 24V Low speed Violet wire to Terminal 1 on the motor 10 pin plug.
- c.) Connect 24V High speed Orange wire to Terminal 3 on the motor 10 pin plug.

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### CAUTION:

**To avoid personal injury or property damage, make sure the motor leads do not make contact with any uninsulated metal components of the unit.**

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#### IMPORTANT NOTE:

**The ECM motor is designed to have line voltage power to it 100% of the time while waiting for a 24V Low or High Speed signal to begin operation.**

12. Locate the factory Low Speed- 3 Pole contactor in the unit main control panel. Remove the Blue, White, and Orange wires from T1, T2, and T3 and relocate to L1, L2, and L3 on the contactor respectively, so the motor has continuous power once power is restored to the unit. See [Figure 2 \(page 4\)](#).
13. Restore power to the unit.

## MOTOR OPERATION – BLOWER SPEED

The blower speed for these accessory kits is set at the factory and should be verified for each installation. For optimum system performance and comfort, refer to blower performance data. See [Table 4, \(page 8\)](#), [Table 5, \(page 8\)](#), [Table 6, \(page 9\)](#), [Table 7, \(page 9\)](#), [Table 8, \(page 10\)](#), and [Table 9, \(page 10\)](#) for proper operating range. Always verify drive belt is secure and tensioned properly while inspecting sheaves and pulleys for proper tightness of the set screws.

### Measuring the Blower Speed

For units equipped with either electric heat kit or gas heat heat exchanger, the best method to determine the delivered CFM is through a temperature rise measurement. Using quality instruments, insert a temperature probe into the units supply and return ducts. Set the thermostat for a call for heat and either calculate the airflow for the measured temperature rise or reference tables in the unit installation instructions estimate the CFM.

**NOTE:** For high static situations, never operate the blower with the access panels removed for any length of time as the blower motor may over-amp and trip the internal/external protection. If it is desired to verify the blower RPM, always use a remote indicator with the access panels closed. To verify the blower rotation, the contactor can be manually actuated for a brief period to “bump” the motor or the G terminal can be briefly energized from R. If necessary adjust the motor sheave to optimize the air delivery. Always verify the motor amp draw at the contactor to ensure it is less than the SFA for the unit/motor voltages at the selected sheave setting

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### CAUTION:

**To avoid personal injury or property damage, make sure the motor leads do not make contact with any uninsulated metal components of the unit.**

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The 3 HP ECM motor controller is pre-programmed from the factory for five speeds.

- Speed Taps 1 and 2 - Low speed operation:
  - Fan On “G” or Stage 1 refrigerant circuit.
- Speed Taps 3, 4, and 5 - High speed operation:
  - Stage 2 refrigerant circuit.

Taps 1 (LOW) and 3 (HIGH) are suitable for most applications. If higher airflows are required refer to your specific airflow tables for additional speed tap selections. **NOTE:** The blower operates at the same speed for heating and cooling.

#### If motor speed changes are required (See also [Figure 2 and Figure 4](#)):

Shut off all electrical power to the unit, open blower access panel and locate the motor controller 10 pin plug. For low speed adjustment relocate the low voltage Violet wire from terminal #1 to terminal #2. For high speed adjustment relocate the low voltage Orange wire from terminal #3 to terminal #4 or #5.

When a Fan On “G” or Stage 1 Cooling call is received from the thermostat, the blower will run on low speed. If the thermostat calls for Stage 2 the motor will ramp to high speed.

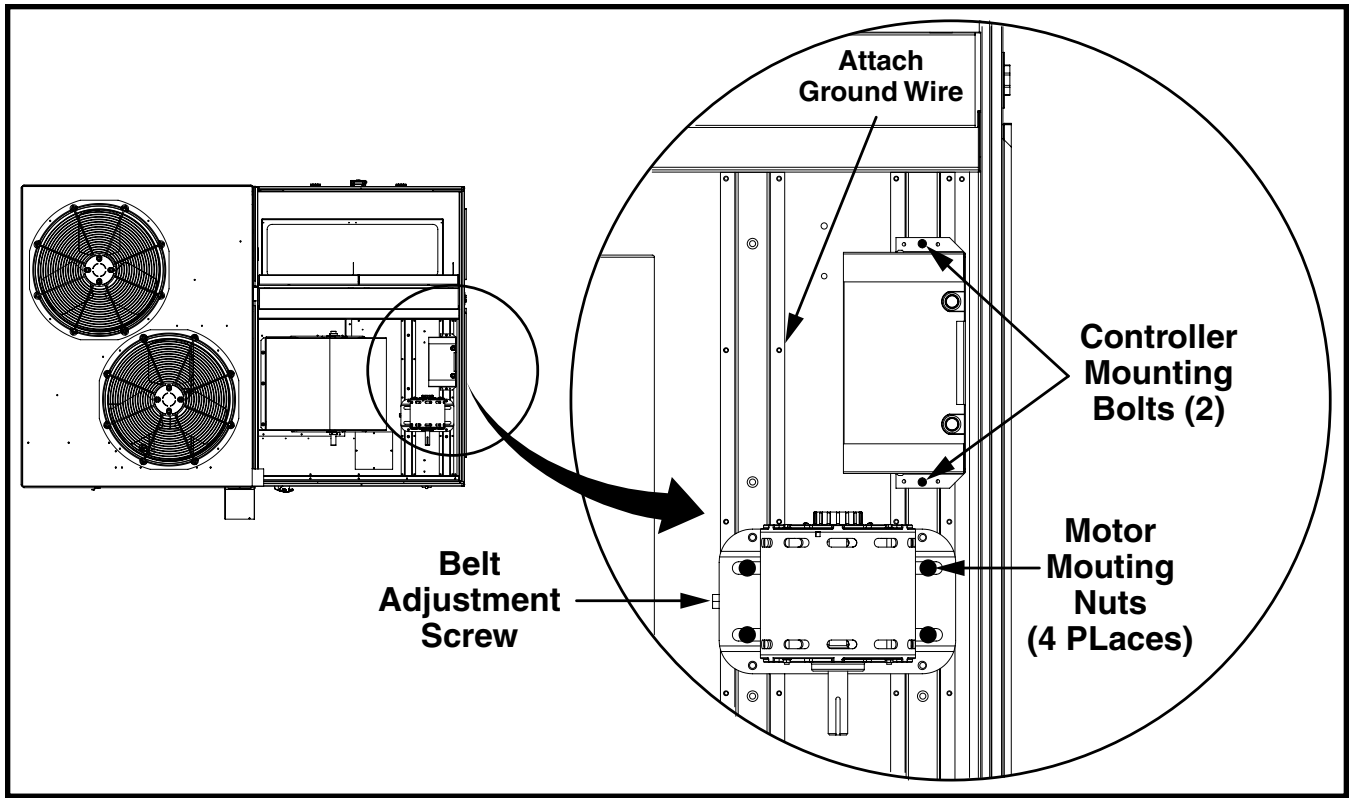


Figure 1. Motor Controller 10 Pin Plug

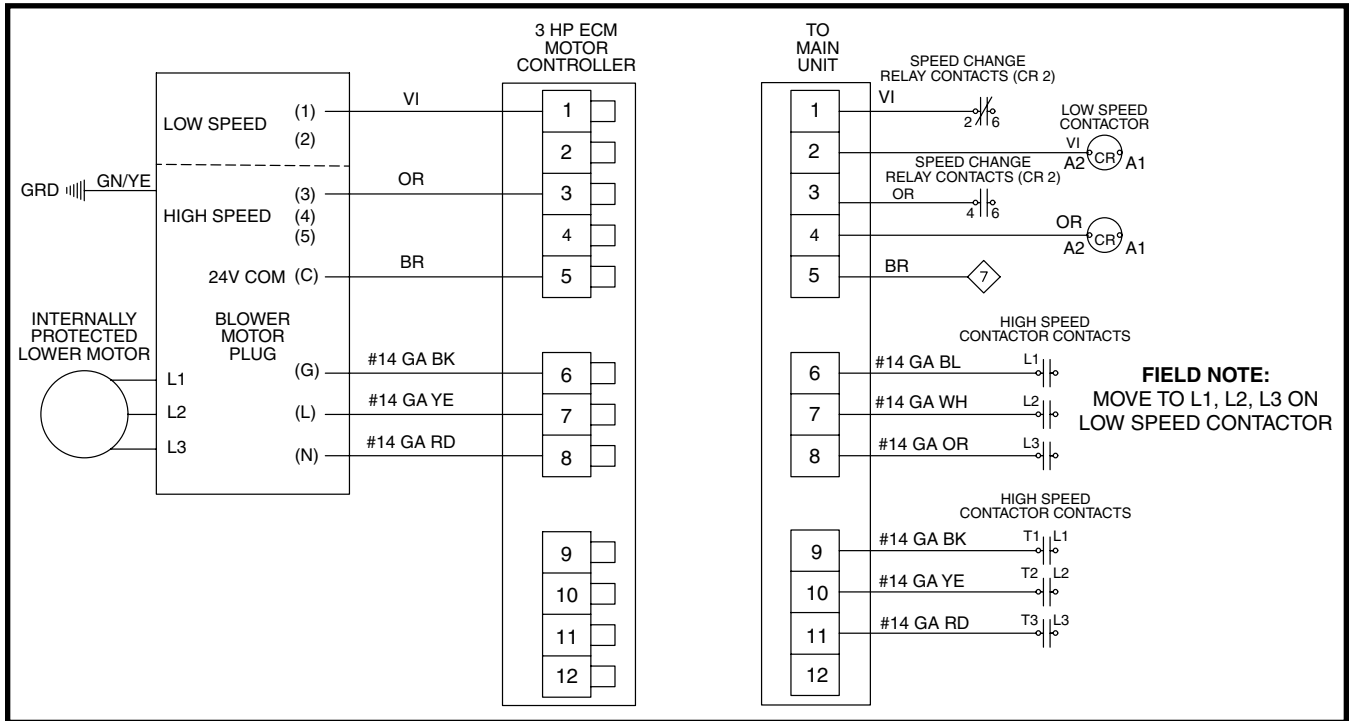


Figure 2. 3 HP ECM Motor Field Connection

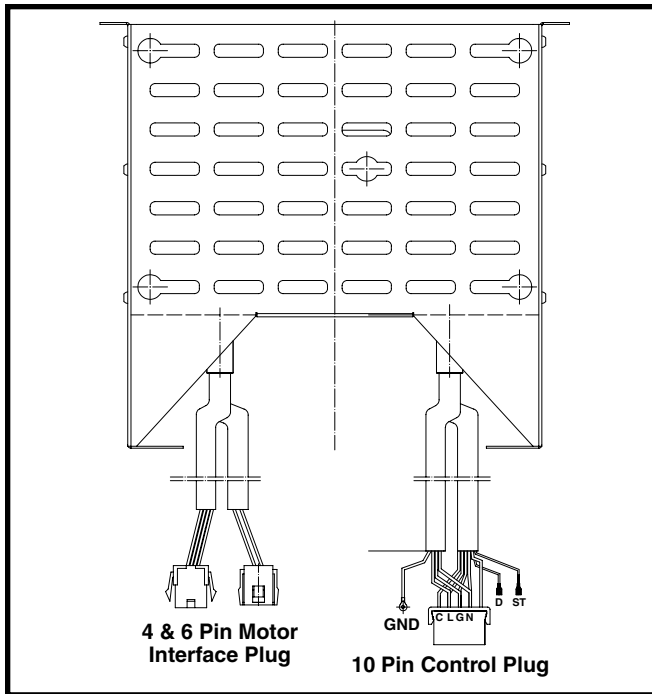


Figure 3. Motor Connections

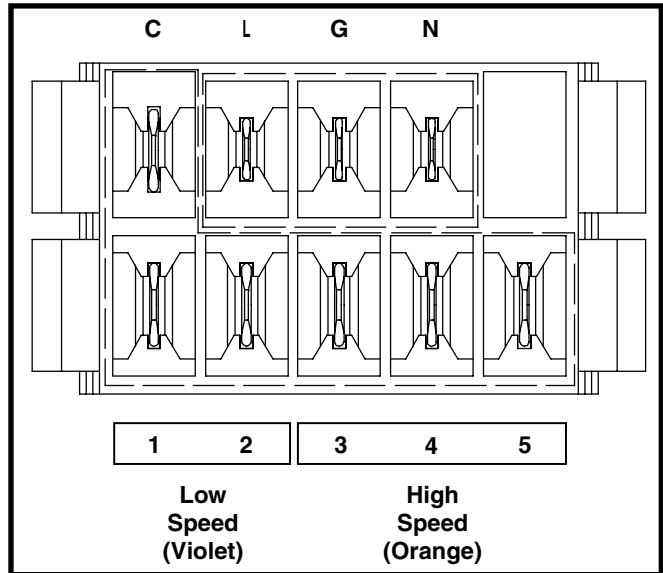


Figure 4. Motor Controller 10 Pin Plug

SINGLE CIRCUIT WITH NO ELECTRIC HEAT													
Unit equipped with		Standard 2 HP / 2 Speed Motor			Standard 2 HP / 2 Speed Motor + Power Exhaust			High Static Drive, 3 HP ECM, 5 Speed Motor			High Static Drive 3 HP ECM, 5 Speed Motor + Power Exhaust		
Cooling Tonnage	Voltage	Total Line Current	MCA	MOP	Total Line Current	MCA	MOP	Total Line Current	MCA	MOP	Total Line Current	MCA	MOP
6	208-230	26.4	30.8	45	30.4	34.8	50	29.3	33.7	50	33.3	37.7	55
	460	12.8	14.9	20	14.8	16.9	25	14.3	16.4	20	16.3	18.4	25
	575	9.8	11.4	15	11.7	13.3	15	N/A	N/A	N/A	N/A	N/A	N/A
7.5	208-230	36.8	40.1	50	40.8	44.1	50	39.7	43.0	50	43.7	47.0	60
	460	17.7	19.2	25	19.7	21.2	25	19.2	20.7	25	21.2	22.7	25
	575	13.2	14.3	15	15.1	16.2	20	N/A	N/A	N/A	N/A	N/A	N/A
10	208-230	42.6	46.6	60	46.6	50.6	60	45.5	49.5	60	49.5	53.5	60
	460	21.1	23.1	30	23.1	25.1	30	22.6	24.6	30	24.6	26.6	30
	575	15.8	17.2	20	17.7	19.1	20	N/A	N/A	N/A	N/A	N/A	N/A

Unit equipped with		Standard 3 HP / 2 Speed Motor			Standard 3 HP / 2 Speed Motor + Power Exhaust			High Static Drive, 5 HP Speed Motor			High Static Drive 5 HP, 2 Speed Motor + Power Exhaust		
Cooling Tonnage	Voltage	Total Line Current	MCA	MOP	Total Line Current	MCA	MOP	Total Line Current	MCA	MOP	Total Line Current	MCA	MOP
12.5	208-230	53.4	58.2	70	57.4	62.2	80	57.6	62.4	80	61.6	66.4	80
	460	27.3	29.7	35	29.3	31.7	40	29.5	31.9	40	31.5	33.9	40

**NOTES:**

- 1) To achieve the rated unit performance, unit voltage should be within 2% of nominal.
- 2) For C series units:  
 Nominal Unit Input Voltage = 208-230 Volt, 60 Hertz, 3 Phase  
 Minimum allowed unit voltage = 187V  
 Maximum allowed voltage = 253V
- 3) For D series units:  
 Nominal Unit Input Voltage = 460 Volt, 60 Hertz, 3 Phase  
 Minimum allowed unit voltage = 414V  
 Maximum allowed voltage = 506V  
 FLA = Full Load Amps; MCA = Minimum Circuit Ampacity; RLA = Rated Load Amps;  
 MOP = Maximum Over-Current Protection; LRA = Locked Rotor Amps  
 PE = Power Exhaust  
 HSD = High Static Drive

Table 1. R7TQ Package Gas / Electric Series MCA / MOP Data For Single Circuit

## SINGLE CIRCUIT ELECTRICAL DATA

SINGLE CIRCUIT WITH NO ELECTRIC HEAT													
UNIT EQUIPPED WITH		STANDARD 2 HP 2 SPEED MOTOR			STANDARD 2 HP 2 SPEED MOTOR + POWER EXHAUST			HIGH STATIC DRIVE 3 HP ECM-5 SPEED MOTOR			HIGH STATIC DRIVE 3 HP ECM-5 SPEED MOTOR + POWER EXHAUST		
COOLING TONNAGE (2),(3)	UNIT VOLTAGE	TOTAL LINE CURRENT	MCA	MOP	TOTAL LINE CURRENT	MCA	MOP	TOTAL LINE CURRENT	MCA	MOP	TOTAL LINE CURRENT	MCA	MOP
6	208-230	26.4	30.8	45	30.4	34.8	50	29.3	33.7	50	33.3	37.7	50
	460	12.8	14.9	20	14.8	16.9	25	14.3	16.4	20	16.3	18.4	25
	575	9.8	11.4	15	11.7	13.3	15	N/A	N/A	N/A	N/A	N/A	N/A
7.5	208-230	36.8	40.1	50	40.8	44.1	50	39.7	43.0	50	43.7	47.0	60
	460	17.7	19.2	25	19.7	21.2	25	19.2	20.7	25	21.2	22.7	25
	575	13.2	14.3	15	15.1	16.2	20	N/A	N/A	N/A	N/A	N/A	N/A
10	208-230	42.6	46.6	60	46.6	50.6	60	45.5	49.5	60	49.5	53.5	60
	460	21.1	23.1	30	23.1	25.1	30	22.6	24.6	30	24.6	26.6	30
	575	15.8	17.2	20	17.7	19.1	20	N/A	N/A	N/A	N/A	N/A	N/A
UNIT EQUIPPED WITH		STANDARD 3 HP 2 SPEED MOTOR			STANDARD 3 HP 2 SPEED MOTOR + POWER EXHAUST			HIGH STATIC DRIVE 5 HP-2 SPEED MOTOR			HIGH STATIC DRIVE 5 HP-2 SPEED MOTOR + POWER EXHAUST		
COOLING TONNAGE (2),(3)	UNIT VOLTAGE	TOTAL LINE CURRENT	MCA	MOP	TOTAL LINE CURRENT	MCA	MOP	TOTAL LINE CURRENT	MCA	MOP	TOTAL LINE CURRENT	MCA	MOP
12.5	208-230	53.4	58.2	70	57.4	62.2	80	57.6	62.4	80	61.6	66.4	80
	460	27.3	29.7	35	29.3	31.7	40	29.5	31.9	40	31.5	33.9	40

SINGLE CIRCUIT WITH ELECTRIC HEAT - STANDARD DRIVE MOTOR AND/OR POWER EXHAUST																	
UNIT EQUIPPED WITH		2 HP-2 SPEED MOTOR + HEATER KIT								2 HP-2 SPEED MOTOR + HEATER KIT + POWER EXHAUST							
COOLING TONNAGE (2),(3)	UNIT VOLTAGE	MCA				MOP				MCA				MOP			
		9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW
6	208-240V	31.0-34.6	52.9-59.9	82.5-94.1	98.3-112.1	45-45	60-60	90-100	100-125	36.0-39.6	57.9-64.9	87.5-99.1	103.3-117.1	50-50	60-70	90-100	110-125
	480V	18.5	30.8	46.9	56.0	20	35	50	60	21.0	33.3	49.4	58.5	25	35	50	60
	575V	15.5	28.1	40.6	53.3	20	30	45	60	17.9	30.5	43	55.6	20	35	45	60
7.5	208-240V	40.1-40.1	52.9-59.9	82.5-94.1	98.3-112.1	50-50	60-60	90-100	100-125	44.1-44.1	57.9-64.9	87.5-99.1	103.3-117.1	50-50	60-70	90-100	110-125
	480V	19.2	30.8	46.9	56.0	25	35	50	60	21.2	33.3	49.4	58.5	25	35	50	60
	575V	15.5	28.1	40.6	53.3	20	30	45	60	17.9	30.5	43	55.6	20	35	45	60
10	208-240V	46.6-46.6	52.9-59.9	82.5-94.1	98.3-112.1	60-60	60-60	90-100	100-125	50.6-50.6	57.9-64.9	87.5-99.1	103.3-117.1	60-60	60-70	90-100	110-125
	480V	23.1	30.8	46.9	56.0	30	35	50	60	25.1	33.3	49.4	58.5	30	35	50	60
	575V	17.2	28.1	40.6	53.3	20	30	45	60	19.1	30.5	43	55.6	20	35	45	60
UNIT EQUIPPED WITH		3 HP-2 SPEED MOTOR + HEATER KIT								3 HP-2 SPEED MOTOR + HEATER KIT + POWER EXHAUST							
COOLING TONNAGE (2),(3)	UNIT VOLTAGE	MCA				MOP				MCA				MOP			
		9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW
12.5	208-240V	58.2-58.2	58.9-65.9	88.5-100.1	104.3-118.1	70-70	60-70	90-110	110-125	62.2-62.2	63.9-70.9	93.5-105.1	109.3-123.1	80-80	70-80	100-110	110-125
	480V	29.7	33.8	49.9	59.0	35	35	50	60	31.7	36.3	52.4	61.9	40	40	60	70

SINGLE CIRCUIT WITH ELECTRIC HEAT- HIGH STATIC DRIVE MOTOR AND/OR POWER EXHAUST																	
UNIT EQUIPPED WITH		3 HP ECM MOTOR + HEATER KIT								3 HP ECM MOTOR + HEATER KIT + POWER EXHAUST							
COOLING TONNAGE (2),(3)	UNIT VOLTAGE	MCA				MOP				MCA				MOP			
		9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW
6	208-240V	34.6-38.3	56.5-63.5	86.1-97.8	101.9-115.8	50-50	60-70	90-100	110-125	39.6-43.3	61.5-68.5	91.1-102.8	106.9-120.8	50-50	70-70	100-110	110-125
	480V	20.4	32.6	48.8	57.9	25	35	50	60	22.9	35.1	51.3	60.4	25	40	60	70
	575V	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7.5	208-240V	43.0-43.0	56.5-63.5	86.1-97.8	101.9-115.8	50-50	60-70	90-100	110-125	47.0-47.0	61.5-68.5	91.1-102.8	106.9-120.8	60-60	70-70	100-110	110-125
	480V	20.7	32.6	48.8	57.9	25	35	50	60	22.9	35.1	51.3	60.4	25	40	60	70
	575V	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	208-240V	49.5-49.5	56.5-63.5	86.1-97.8	101.9-115.8	60-60	60-70	90-100	110-125	53.5-53.5	61.5-68.5	91.1-102.8	106.9-120.8	60-60	70-70	100-110	110-125
	480V	24.6	32.6	48.8	57.9	30	35	50	60	26.6	35.1	51.3	60.4	30	40	60	70
	575V	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
UNIT EQUIPPED WITH		5 HP-2 SPEED MOTOR + HEATER KIT								5 HP-2 SPEED MOTOR + HEATER KIT + POWER EXHAUST							
COOLING TONNAGE (2),(3)	UNIT VOLTAGE	MCA				MOP				MCA				MOP			
		9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW	9 KW	18 KW	30 KW	35 KW
12.5	208-240V	62.4-62.4	64.1-71.1	93.8-105.4	109.5-123.4	80-80	70-80	100-110	110-125	66.4-66.4	69.1-76.1	98.8-110.4	114.5-128.4	80-80	70-80	100-125	125-150
	480V	31.9	36.5	52.6	61.8	40	40	60	70	33.9	39.0	55.1	64.3	40	40	60	70

**NOTES:**

- To achieve the rated unit performance, unit voltage should be within 2% of nominal.
- For C series units:  
Nominal Unit Input Voltage = 208-230 Volt, 60 Hertz, 3 Phase  
Minimum allowed unit voltage = 187V  
Maximum allowed voltage = 253V

3. For D series units:

- Nominal Unit Input Voltage = 460 Volt, 60 Hertz, 3 Phase  
Minimum allowed unit voltage = 414V  
Maximum allowed voltage = 506V  
FLA = Full Load Amps; MCA = Minimum Circuit Ampacity; RLA = Rated Load Amps;  
MOP = Maximum Over-Current Protection; LRA = Locked Rotor Amps

**Table 2. P7TQ Package AC Series MCA / MOP Data For Single Circuit**

**MULTIPLE CIRCUIT ELECTRICAL DATA**

MOTOR TYPE	COOLING TONNAGE (2),(3)	UNIT VOLTAGE	COOLING CIRCUIT								HEATING CIRCUIT							
			9 KW		18 KW		30 KW		35 KW		9 KW		18 KW		30 KW		35 KW	
			MCS	MOP	MCS	MOP	MCS	MOP	MCS	MOP	MCS	MOP	MCS	MOP	MCS	MOP	MCS	MOP
STANDARD 2 HP-2 SPEED MOTOR	6	208-240V	30.8	45.0	30.8	45.0	30.8	45.0	30.8	45.0	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	14.9	20.0	14.9	20.0	14.9	20.0	14.9	20.0	14.9	15.0	27.1	30.0	43.3	45.0	52.3	60.0
		575V	11.4	15.0	11.4	15.0	11.4	15.0	11.4	15.0	12.5	15.0	26.0	30.0	37.7	40.0	50.2	60.0
	7.5	208-240V	40.1	50	40.1	50	40.1	50	40.1	50	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	19.2	25	19.2	25	19.2	25	19.2	25	14.9	15	27.1	30	43.3	45	52.3	60
		575V	14.3	15	14.3	15	14.3	15	14.3	15	12.5	15	26	30	37.7	40	50.2	60
	10	208-240V	46.6	60	46.6	60	46.6	60	46.6	60	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	23.1	30	23.1	30	23.1	30	23.1	30	14.9	15	27.1	30	43.3	45	52.3	60
		575V	17.2	20	17.2	20	17.2	20	17.2	20	12.5	15	26	30	37.7	40	50.2	60
STANDARD 3 HP-2 SPEED MOTOR	12.5	208-240V	58.2	70	58.2	70	58.2	70	58.2	70	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	29.7	35	29.7	35	29.7	35	29.7	35	14.9	15	27.1	30	43.3	45	52.3	60
STANDARD 2 HP-2 SPEED MOTOR WITH POWER EXHAUST (OPTIONAL)	6	208-240V	34.8	50	34.8	50	34.8	50	34.8	50	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	16.9	25	16.9	25	16.9	25	16.9	25	14.9	15.0	27.1	30.0	43.3	45.0	52.3	60.0
		575V	13.3	15	13.3	15	13.3	15	13.3	15	12.5	15.0	26.0	30.0	37.7	40.0	50.2	60.0
	7.5	208-240V	44.1	50	44.1	50	44.1	50	44.1	50	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	21.2	25	21.2	25	21.2	25	21.2	25	14.9	15	27.1	30	43.3	45	52.3	60
		575V	16.2	20	16.2	20	16.2	20	16.2	20	12.5	15	26	30	37.7	40	50.2	60
	10	208-240V	50.6	60	50.6	60	50.6	60	50.6	60	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	25.1	30	25.1	30	25.1	30	25.1	30	14.9	15	27.1	30	43.3	45	52.3	60
		575V	19.1	20	19.1	20	19.1	20	19.1	20	12.5	15	26	30	37.7	40	50.2	60
STANDARD 3 HP-2 SPEED MOTOR WITH POWER EXHAUST (OPTIONAL)	12.5	208-240V	62.2	80	62.2	80	62.2	80	62.2	80	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	31.7	40	31.7	40	31.7	40	31.7	40	14.9	15	27.1	30	43.3	45	52.3	60

MOTOR TYPE	COOLING TONNAGE (2),(3)	UNIT VOLTAGE	COOLING CIRCUIT								HEATING CIRCUIT							
			9 KW		18 KW		30 KW		35 KW		9 KW		18 KW		30 KW		35 KW	
			MCS	MOP	MCS	MOP	MCS	MOP	MCS	MOP	MCS	MOP	MCS	MOP	MCS	MOP	MCS	MOP
HIGH STATIC DRIVE (OPTIONAL): 3HP ECM MOTOR	6	208-240V	33.7	50	33.7	50	33.7	50	33.7	50	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	16.4	20	16.4	20	16.4	20	16.4	20	14.9	15.0	27.1	30.0	43.3	45.0	52.3	60.0
		575V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.5	15.0	26.0	30.0	37.7	40.0	50.2	60.0
	7.5	208-240V	43.0	50	43.0	50	43.0	50	43.0	50	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	20.7	25	20.7	25	20.7	25	20.7	25	14.9	15	27.1	30	43.3	45	52.3	60
		575V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.5	15	26	30	37.7	40	50.2	60
	10	208-240V	49.5	60	49.5	60	49.5	60	49.5	60	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	24.6	30	24.6	30	24.6	30	24.6	30	14.9	15	27.1	30	43.3	45	52.3	60
		575V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.5	15	26	30	37.7	40	50.2	60
HIGH STATIC DRIVE (OPTIONAL): 5 HP-2 SPEED MOTOR	12.5	208-240V	62.4	80	62.4	80	62.4	80	62.4	80	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	31.9	40	31.9	40	31.9	40	31.9	40	14.9	15	27.1	30	43.3	45	52.3	60
HIGH STATIC DRIVE (OPTIONAL): 3HP ECM MOTOR WITH POWER EXHAUST (OPTIONAL)	6	208-240V	37.7	50	37.7	50	37.7	50	37.7	50	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	18.4	25	18.4	25	18.4	25	18.4	25	14.9	15.0	27.1	30.0	43.3	45.0	52.3	60.0
		575V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.5	15.0	26.0	30.0	37.7	40.0	50.2	60.0
	7.5	208-240V	47.0	60	47.0	60	47.0	60	47.0	60	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	22.7	25	22.7	25	22.7	25	22.7	25	14.9	15	27.1	30	43.3	45	52.3	60
		575V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.5	15	26	30	37.7	40	50.2	60
	10	208-240V	53.5	60	53.5	60	53.5	60	53.5	60	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	26.6	30	26.6	30	26.6	30	26.6	30	14.9	15	27.1	30	43.3	45	52.3	60
		575V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.5	15	26	30	37.7	40	50.2	60
HIGH STATIC DRIVE (OPTIONAL): 5HP-2 SPEED MOTOR WITH POWER EXHAUST (OPTIONAL)	12.5	208-240V	66.4	80	66.4	80	66.4	80	66.4	80	23.5-27.1	30-30	45.4-52.3	50-60	75.0-86.6	80-90	90.7-104.6	100-110
		480V	33.9	40	33.9	40	33.9	40	33.9	40	14.9	15	27.1	30	43.3	45	52.3	60

**NOTES:**

- To achieve the rated unit performance, unit voltage should be within 2% of nominal.
- For C series units:  
Nominal Unit Input Voltage = 208-230 Volt, 60 Hertz, 3 Phase  
Minimum allowed unit voltage = 187V  
Maximum allowed voltage = 253V

3. For D series units:

- Nominal Unit Input Voltage = 460 Volt, 60 Hertz, 3 Phase  
Minimum allowed unit voltage = 414V  
Maximum allowed voltage = 506V  
FLA = Full Load Amps; MCA = Minimum Circuit Ampacity; RLA = Rated Load Amps;  
MOP = Maximum Over-Current Protection; LRA = Locked Rotor Amps

**Table 3. P7TQ Package AC Series MCA / MOP Data For Multiple Circuits**

### 7.5 TON HIGH STATIC DRIVE - DOWNFLOW - 3 HP ECM MOTOR

ESP	0.2			0.3			0.4			0.5			0.6			0.7			0.8			
SPEED TAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	
1-Low	2165	559	0.5	2090	588	0.52	2000	623	0.56	1900	653	0.58										
2-Low	2380	593	0.58	2310	618	0.61	2240	643	0.64	2130	680	0.67	2025	716	0.70							
3-High										3300	831	1.39	3230	847	1.41	<b>3200</b>	<b>865</b>	<b>1.44</b>	3160	882	1.47	
4-High										3480	857	1.55	3430	875	1.58	3330	897	1.64	3230	918	1.70	
5-High													3620	901	1.76	3560	918	1.79	3510	935	1.83	
ESP	0.9			1.0			1.1			1.2			1.3			1.4						
SPEED TAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	
1-Low																						
2-Low																						
3-High	3100	901	1.50	3040	919	1.53	2930	953	1.57	2830	987	1.61	2780	1001	1.66							
4-High	<b>3200</b>	<b>934</b>	<b>1.72</b>	3170	950	1.74	3140	966	1.76	3100	982	1.78	2980	1016	1.82							
5-High	3450	951	1.86	3400	967	1.88	3350	986	1.93	3290	1005	1.97	3240	1023	2.01	<b>3180</b>	<b>1042</b>	<b>2.06</b>				

**NOTES:**

1. Factory recommended settings are in bold.
2. Shaded areas are not recommended or approved for proper operation of equipment.
3. 7.5 Ton High Static Drive Consists of: 3 HP / 5 Speed ECM Motor and Controller, BK45 Motor Pulley, BK70 Blower Pulley, and B56 Belt. See accessory offering in Technical Sales Literature.

**Table 4. P7TQ-090C/D/N\* Package AC Series High Static Drive**

### 10 TON HIGH STATIC DRIVE - DOWNFLOW - 3 HP ECM MOTOR

ESP	0.2			0.3			0.4			0.5			0.6			0.7			0.8			
SPEED TAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	
1-Low	<b>2310</b>	<b>581</b>	<b>0.55</b>	2240	608	0.58	2170	634	0.60	2050	674	0.63										
2-Low	2540	616	0.65	2450	639	0.68	2380	662	0.70	2290	692	0.73	2195	721	0.8							
3-High										<b>3480</b>	<b>857</b>	<b>1.55</b>	3430	875	1.58	3330	897	1.64	3230	918	1.70	
4-High										3670	886	1.73	3620	901	1.76	3560	918	1.79	3510	935	1.83	
5-High													3845	938	2.01	3790	954	2.06	3740	969	2.10	
ESP	0.9			1.0			1.1			1.2			1.3			1.4						
SPEED TAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	
1-Low																						
2-Low																						
3-High	3200	934	1.72	3170	950	1.74	3140	966	1.76													
4-High	<b>3450</b>	<b>951</b>	<b>1.86</b>	3400	967	1.88	3350	986	1.93	3290	1005	1.97	3240	1023	2.01	3180	1042	2.06				
5-High	3690	985	2.13	3635	1000	2.15	3575	1016	2.188	3525	1031	2.222	3490	1048	2.25	<b>3450</b>	<b>1063</b>	<b>2.27</b>				

**NOTES:**

1. Factory recommended settings are in bold.
2. Shaded areas are not recommended or approved for proper operation of equipment.
3. 10 Ton High Static Drive Consists of: 3 HP / 5 Speed ECM Motor and Controller, BK45 Motor Pulley, BK70 Blower Pulley, and B56 Belt. See accessory offering in Technical Sales Literature.

**Table 5. P7TQ-120C/D/N\* Package AC Series High Static Drive**



### 7.5 TON HIGH STATIC DRIVE - DOWNFLOW

ESP	0.1			0.2			0.3			0.4			0.5		
SPEEDTAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW
1-Low	<b>2100</b>	<b>554</b>	<b>0.55</b>	<b>2000</b>	<b>589</b>	<b>0.57</b>	<b>1890</b>	<b>620</b>	<b>0.60</b>	<i>1745</i>	<i>648</i>	<i>0.74</i>			
2-Low	<b>2395</b>	<b>610</b>	<b>0.74</b>	<b>2306</b>	<b>637</b>	<b>0.77</b>	<b>2204</b>	<b>662</b>	<b>0.81</b>	<b>2032</b>	<b>690</b>	<b>0.86</b>	<b>1950</b>	<b>721</b>	<b>0.91</b>
3-High	<b>3445</b>	<b>821</b>	<b>1.71</b>	<b>3380</b>	<b>838</b>	<b>1.72</b>	<b>3325</b>	<b>854</b>	<b>1.75</b>	<b>3235</b>	<b>874</b>	<b>1.78</b>	<b>3175</b>	<b>895</b>	<b>1.81</b>
4-High				<b>3595</b>	<b>877</b>	<b>1.98</b>	<b>3530</b>	<b>894</b>	<b>2.01</b>	<b>3450</b>	<b>913</b>	<b>2.05</b>	<b>3385</b>	<b>931</b>	<b>2.07</b>
5-High													<i>3670</i>	<i>975</i>	<i>2.41</i>
ESP	0.6			0.7			0.8			0.9			1.0		
SPEEDTAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW
1-Low															
2-Low															
3-High	<b>3095</b>	<b>913</b>	<b>1.87</b>	<b>3040</b>	<b>933</b>	<b>1.92</b>	<b>2940</b>	<b>957</b>	<b>1.93</b>	<b>2845</b>	<b>975</b>	<b>1.97</b>	<i>2755</i>	<i>988</i>	<i>1.97</i>
4-High	<b>3335</b>	<b>946</b>	<b>2.14</b>	<b>3275</b>	<b>965</b>	<b>2.17</b>	<b>3165</b>	<b>984</b>	<b>2.17</b>	<b>3030</b>	<b>998</b>	<b>2.17</b>	<b>2925</b>	<b>1007</b>	<b>2.14</b>
5-High	<b>3620</b>	<b>985</b>	<b>2.44</b>	<b>3550</b>	<b>1000</b>	<b>2.44</b>	<b>3370</b>	<b>1005</b>	<b>2.37</b>	<b>3150</b>	<b>1008</b>	<b>2.29</b>	<b>3010</b>	<b>1011</b>	<b>2.20</b>

**NOTES:**

1. Factory recommended settings are in bold.
2. Shaded areas are not recommended or approved for proper operation of equipment.
3. 7.5 Ton High Static Drive Consists of: 3 HP ECM Motor and Controller, BK45 Motor Pulley, BK77 Blower Pulley, and B56 Belt. See accessory offering in Technical Sales Literature.

**Table 6. R7TQ-090C/D/N\* Package Gas / Electric Series High Static Drive (Downflow)**

### 7.5 TON HIGH STATIC DRIVE - HORIZONTAL

ESP	0.1			0.2			0.3			0.4			0.5		
SPEEDTAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW
1-Low	<b>2125</b>	<b>441</b>	<b>0.39</b>	<b>2010</b>	<b>481</b>	<b>0.42</b>	<b>1845</b>	<b>527</b>	<b>0.45</b>	<i>1665</i>	<i>576</i>	<i>0.48</i>	<i>1545</i>	<i>604</i>	<i>0.51</i>
2-Low	<b>2455</b>	<b>489</b>	<b>0.50</b>	<b>2360</b>	<b>522</b>	<b>0.53</b>	<b>2265</b>	<b>554</b>	<b>0.56</b>	<b>2100</b>	<b>608</b>	<b>0.60</b>	<b>1950</b>	<b>643</b>	<b>0.64</b>
3-High	<b>3518</b>	<b>640</b>	<b>1.02</b>	<b>3435</b>	<b>661</b>	<b>1.04</b>	<b>3350</b>	<b>684</b>	<b>1.08</b>	<b>3281</b>	<b>707</b>	<b>1.11</b>	<b>3213</b>	<b>730</b>	<b>1.14</b>
4-High	<i>3690</i>	<i>665</i>	<i>1.13</i>	<b>3600</b>	<b>688</b>	<b>1.17</b>	<b>3530</b>	<b>709</b>	<b>1.20</b>	<b>3465</b>	<b>733</b>	<b>1.23</b>	<b>3400</b>	<b>757</b>	<b>1.26</b>
5-High	<i>1845</i>	<i>333</i>	<i>0.57</i>	<i>3840</i>	<i>710</i>	<i>1.32</i>	<i>3750</i>	<i>730</i>	<i>1.38</i>	<i>3690</i>	<i>759</i>	<i>1.40</i>	<b>3630</b>	<b>774</b>	<b>1.42</b>
ESP	0.6			0.7			0.8			0.9			1.0		
SPEEDTAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW
1-Low															
2-Low															
3-High	<b>3135</b>	<b>753</b>	<b>1.18</b>	<b>3058</b>	<b>776</b>	<b>1.22</b>	<b>2943</b>	<b>812</b>	<b>1.28</b>	<i>2829</i>	<i>849</i>	<i>1.33</i>	<i>2718</i>	<i>877</i>	<i>1.36</i>
4-High	<b>3330</b>	<b>776</b>	<b>1.31</b>	<b>3260</b>	<b>794</b>	<b>1.36</b>	<b>3185</b>	<b>819</b>	<b>1.40</b>	<b>3110</b>	<b>844</b>	<b>1.44</b>	<b>2975</b>	<b>882</b>	<b>1.48</b>
5-High	<b>3560</b>	<b>799</b>	<b>1.46</b>	<b>3510</b>	<b>818</b>	<b>1.498</b>	<b>3440</b>	<b>944</b>	<b>1.53</b>	<b>3360</b>	<b>865</b>	<b>1.58</b>	<b>3260</b>	<b>889</b>	<b>1.61</b>

**NOTES:**

1. Factory recommended settings are in bold.
2. Shaded areas are not recommended or approved for proper operation of equipment.
3. 7.5 Ton High Static Drive Consists of: 3 HP ECM Motor and Controller, BK45 Motor Pulley, BK77 Blower Pulley, and B56 Belt. See accessory offering in Technical Sales Literature.

**Table 7. R7TQ-90C/D/N\* Package Gas / Electric Series High Static Drive (Horizontal)**

### 10 TON HIGH STATIC DRIVE - DOWNFLOW

ESP	0.1			0.2			0.3			0.4			0.5		
SPEED TAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW
1-Low	<b>2200</b>	<b>549</b>	<b>0.60</b>	<b>2115</b>	<b>574</b>	<b>0.62</b>	<b>1995</b>	<b>634</b>	<b>0.64</b>						
2-Low	<i>2460</i>	<i>601</i>	<i>0.74</i>	<b>2390</b>	<b>622</b>	<b>0.75</b>	<b>2285</b>	<b>648</b>	<b>0.76</b>	<b>2195</b>	<b>684</b>	<b>0.83</b>	<b>2050</b>	<b>713</b>	<b>0.85</b>
3-High	<i>3680</i>	<i>855</i>	<i>1.83</i>	<b>3635</b>	<b>874</b>	<b>1.88</b>	<b>3560</b>	<b>892</b>	<b>1.92</b>	<b>3480</b>	<b>906</b>	<b>1.97</b>	<b>3430</b>	<b>868</b>	<b>1.94</b>
4-High	<i>3905</i>	<i>900</i>	<i>2.14</i>	<i>3840</i>	<i>917</i>	<i>2.20</i>	<b>3760</b>	<b>932</b>	<b>2.21</b>	<b>3710</b>	<b>945</b>	<b>2.23</b>	<b>3650</b>	<b>933</b>	<b>2.23</b>
5-High	<i>4130</i>	<i>945</i>	<i>2.45</i>	<i>4042</i>	<i>961</i>	<i>2.51</i>	<i>3960</i>	<i>973</i>	<i>2.50</i>	<i>3937</i>	<i>984</i>	<i>2.50</i>	<b>3870</b>	<b>997</b>	<b>2.52</b>
ESP	0.6			0.7			0.8			0.9			1.0		
SPEED TAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW
1-Low															
2-Low															
3-High	<b>3390</b>	<b>937</b>	<b>1.99</b>	<b>3335</b>	<b>953</b>	<b>2.01</b>	<b>3275</b>	<b>971</b>	<b>2.06</b>	<b>3230</b>	<b>986</b>	<b>2.11</b>	<b>3170</b>	<b>1009</b>	<b>2.13</b>
4-High	<b>3595</b>	<b>973</b>	<b>2.26</b>	<b>3535</b>	<b>986</b>	<b>2.28</b>	<b>3465</b>	<b>1000</b>	<b>2.31</b>	<b>3400</b>	<b>1014</b>	<b>2.33</b>	<b>3335</b>	<b>1031</b>	<b>2.34</b>
5-High	<b>3800</b>	<b>1009</b>	<b>2.53</b>	<b>3735</b>	<b>1018</b>	<b>2.55</b>	<b>3650</b>	<b>1029</b>	<b>2.56</b>	<b>3570</b>	<b>1043</b>	<b>2.56</b>	<b>3505</b>	<b>1053</b>	<b>2.55</b>

**NOTES:**

1. Factory recommended settings are in bold.
2. Shaded areas are not recommended or approved for proper operation of equipment.
3. 10 Ton High Static Drive Consists of: 3 HP ECM Motor and Controller, BK45 Motor Pulley, BK70 Blower Pulley, and B56 Belt. See accessory offering in Technical Sales Literature.

**Table 8. R7TQ-120C/D/N\* Package Gas / Electric Series High Static Drive (Downflow)**

### 10 TON HIGH STATIC DRIVE - HORIZONTAL

ESP	0.1			0.2			0.3			0.4			0.5		
SPEED TAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW
1-Low	<b>2300</b>	<b>466</b>	<b>0.40</b>	<b>2180</b>	<b>505</b>	<b>0.43</b>	<b>2100</b>	<b>532</b>	<b>0.46</b>	<b>1930</b>	<b>583</b>	<b>0.49</b>	<i>1760</i>	<i>634</i>	<i>0.53</i>
2-Low							<i>2406</i>	<i>569</i>	<i>0.56</i>	<b>2317</b>	<b>601</b>	<b>0.58</b>	<b>2228</b>	<b>633</b>	<b>0.61</b>
3-High	<i>3775</i>	<i>676</i>	<i>1.14</i>	<i>3710</i>	<i>697</i>	<i>1.17</i>	<b>3645</b>	<b>718</b>	<b>1.21</b>	<b>3580</b>	<b>739</b>	<b>1.25</b>	<b>3515</b>	<b>762</b>	<b>1.28</b>
4-High							<i>3850</i>	<i>745</i>	<i>1.37</i>	<i>3790</i>	<i>764</i>	<i>1.40</i>	<i>3730</i>	<i>786</i>	<i>1.43</i>
5-High													<i>3850</i>	<i>802</i>	<i>1.53</i>
ESP	0.6			0.7			0.8			0.9			1.0		
SPEED TAP	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW	CFM	RPM	KW
1-Low	<i>1655</i>	<i>657</i>	<i>0.55</i>												
2-Low	<b>2051</b>	<b>675</b>	<b>0.65</b>	<b>1874</b>	<b>716</b>	<b>0.69</b>	<b>1768</b>	<b>738</b>	<b>0.70</b>	<b>1662</b>	<b>760</b>	<b>0.72</b>			
3-High	<b>3450</b>	<b>784</b>	<b>1.30</b>	<b>3385</b>	<b>806</b>	<b>1.34</b>	<b>3320</b>	<b>828</b>	<b>1.37</b>	<b>3245</b>	<b>850</b>	<b>1.40</b>	<i>3170</i>	<i>872</i>	<i>1.44</i>
4-High	<b>3670</b>	<b>807</b>	<b>1.46</b>	<b>3600</b>	<b>829</b>	<b>1.50</b>	<b>3530</b>	<b>851</b>	<b>1.53</b>	<b>3460</b>	<b>874</b>	<b>1.57</b>	<b>3390</b>	<b>896</b>	<b>1.60</b>
5-High	<i>3790</i>	<i>821</i>	<i>1.57</i>	<i>3732</i>	<i>842</i>	<i>1.60</i>	<b>3668</b>	<b>862</b>	<b>1.63</b>	<b>3610</b>	<b>879</b>	<b>1.66</b>	<b>3540</b>	<b>904</b>	<b>1.70</b>

**NOTES:**

1. Factory recommended settings are in bold.
2. Shaded areas are not recommended or approved for proper operation of equipment.
3. 10 Ton High Static Drive Consists of: 3 HP ECM Motor and Controller, BK45 Motor Pulley, BK70 Blower Pulley, and B56 Belt. See accessory offering in Technical Sales Literature.

**Table 9. R7TQ-120C/D/N\* Package Gas / Electric Series High Static Drive (Horizontal)**

### R7TQ SERIES PARTS LIST

COMPONENT DESCRIPTION	KIT APPLICATION	7.5 TON				10 TON			
		DOWNFLOW APPLICATIONS		HORIZONTAL APPLICATIONS		DOWNFLOW APPLICATIONS		HORIZONTAL APPLICATIONS	
		208-230V	460V	208-230V	460V	208-230V	460V	208-230V	460V
		KIT SKU #	1011379	1011380	1012814	1012815	1012816	1012817	1012818
Motor, 3 HP ECM, 208-230/3/60, 5 Speed		1010930	—	1010930	—	1010930	—	1010930	—
Motor, 3 HP ECM, 460/3/60, 5 Speed		—	1010936	—	1010936	—	1010936	—	1010936
Wire asm.12 pin, LC Cab B, motor 3HP		1011080	1011080	1011080	1011080	1011080	1011080	1011080	1011080
Pulley, Motor Drive, BK45 X 7/8"		1011448	1011448	1011448	1011448	1011448	1011448	1011448	1011448
BLTTF, SIHWH, SE, 5/16-18X0.75(EZ (Controller Mntg.))		600471	600471	600471	600471	600471	600471	600471	600471
Installation Instructions		1012821	1012821	1012821	1012821	1012821	1012821	1012821	1012821
Cntrl/Prog, DM2X, R7TQ090C, 3HP HSD-Downflow		101282001	—	—	—	—	—	—	—
Cntrl/Prog, DM2X, R7TQ090D, 3HP HSD-Downflow		—	101282002	—	—	—	—	—	—
Cntrl/Prog, DM2X, R7TQ090C, 3HP HSD-Horizontal		—	—	101282003	—	—	—	—	—
Cntrl/Prog, DM2X, R7TQ090D, 3HP HSD-Horizontal		—	—	—	101282004	—	—	—	—
Cntrl/Prog, DM2X, R7TQ120C, 3HP HSD-Downflow		—	—	—	—	101282005	—	—	—
Cntrl/Prog, DM2X, R7TQ120D, 3HP HSD-Downflow		—	—	—	—	—	101282006	—	—
Cntrl/Prog, DM2X, R7TQ120C, 3HP HSD-Horizontal		—	—	—	—	—	—	101282007	—
Cntrl/Prog, DM2X, R7TQ120D, 3HP HSD-Horizontal		—	—	—	—	—	—	—	101282008
Motor Controller, 3 HP, 208-230/3/60		1010931	—	1010931	—	1010931	—	1010931	—
Motor Controller, 3 HP, 460/3/60		—	1010937	—	1010937	—	1010937	—	1010937
Motor Program Torque Values	Speed Tap # 1 - Low	400		300		400		300	
	Speed Tap # 2 - Low	500		400		500		390	
	Speed Tap # 3 - High	1025		725		1200		900	
	Speed Tap # 4 - High	1150		800		1350		1000	
	Speed Tap # 5 - High	1350		1000		1500		1060	

### P7TQ SERIES PARTS LIST

COMPONENT DESCRIPTION	KIT APPLICATION	7.5 TON		10 TON	
		DOWNFLOW APPLICATIONS		DOWNFLOW APPLICATIONS	
		208-230V	460V	208-230V	460V
		KIT SKU #	1021012	1021013	1021014
Motor, 3 HP ECM, 208-230/3/60, 5 Speed		1010930	—	1010930	—
Motor, 3 HP ECM, 460/3/60, 5 Speed		—	1010936	—	1010936
Wire asm.12 pin, LC Cab B, motor 3HP		1011080	1011080	1011080	1011080
Pulley, Motor Drive, BK45 X 7/8"		1011448	1011448	1011448	1011448
BLTTF, SIHWH,SE, 5/16-18X0.75(EZ (Controller Mntg.))		600471	600471	600471	600471
Installation Instructions		1012821	1012821	1012821	1012821
Cntrl/Prog, DM2X, P7TQ090C, 3HP HSD-Downflow		101282009	—	101282009	—
Cntrl/Prog, DM2X, P7TQ090D, 3HP HSD-Downflow		—	—	—	—
Cntrl/Prog, DM2X, P7TQ120C, 3HP HSD-Downflow		—	—	—	—
Cntrl/Prog, DM2X, P7TQ120D, 3HP HSD-Downflow		—	101282012	—	101282012
Motor Controller, 3 HP, 208-230/3/60		1010931	—	1010931	—
Motor Controller, 3 HP, 460/3/60		—	1010937	—	1010937
Motor Program Torque Values	Speed Tap # 1 - Low	360		400	
	Speed Tap # 2 - Low	425		475	
	Speed Tap # 3 - High	900		1000	
	Speed Tap # 4 - High	1000		1100	
	Speed Tap # 5 - High	1100		1225	

Please specify the correct Model No., Serial No, and Part No.(s) when ordering parts from the nearest authorized dealer or service center.

**Table 10. R7TQ & P7TQ Parts List**

**INSTALLER: PLEASE LEAVE THESE  
INSTALLATION INSTRUCTIONS WITH  
THE HOMEOWNER**



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