

PROJECT: _____	UNIT TAG: _____	QUANTITY: _____
REPRESENTATIVE: _____	TYPE OF SERVICE: _____	DATE: _____
ENGINEER: _____	SUBMITTED BY: _____	DATE: _____
CONTRACTOR: _____	APPROVED BY: _____	DATE: _____
	ORDER NO.: _____	DATE: _____

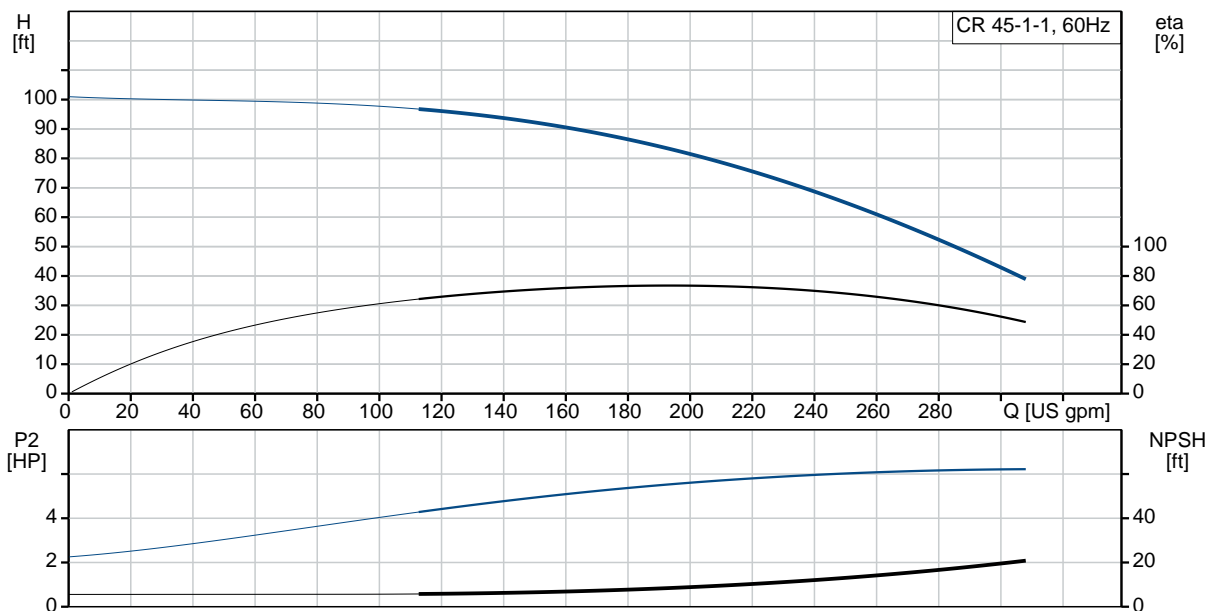


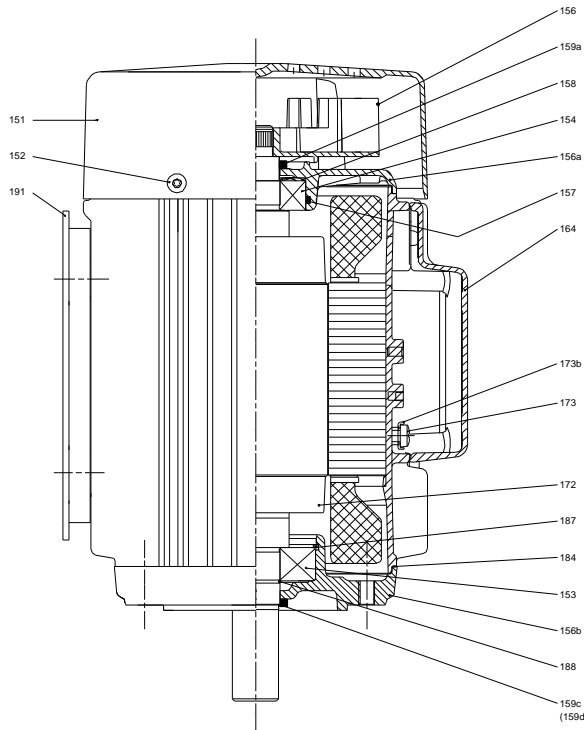
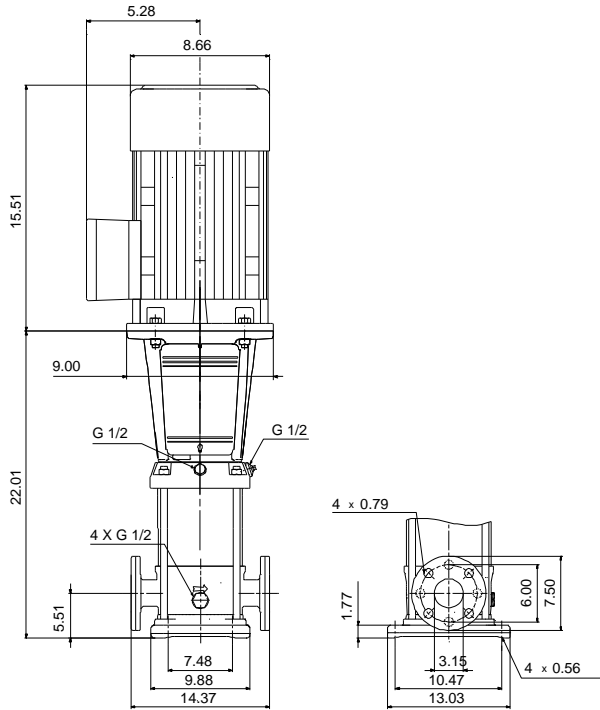
### CR 45-1-1 A-G-A-V-HQQV

Vertical, multistage centrifugal pump with suction and discharge ports on the same level. The pump head and base are in cast iron. All other wetted parts are in stainless steel (EN 1.4301) (AISI 304)

Product photo could vary from the actual product

Conditions of Service	Pump Data	Motor Data
Flow: _____	Max pressure at stated temperature: 232 psi / 194 °F	Rated power - P2: 7.5 HP
Head: _____	Liquid temperature range: -4 .. 194 °F	Rated voltage: 208-230YY/460Y V
Efficiency: _____	Maximum ambient temperature: 140 °F	Main frequency: 60 Hz
Liquid: Water	Approvals: CURUS	Enclosure class: 55 Dust/Jetting
Temperature: 68 °F	Shaft seal: HQQV	Insulation class: F
NPSH required: ft	Product number: 96419239	Motor protection: PTC
Viscosity: _____		Motor type: 132DA
Specific Gravity: 1.000		Motor_efficiency: 89.5 %





**Materials:**

- Base: Cast iron  
EN 1563 EN-GJS-500-7  
ASTM A536 80-55-06
- Impeller: Stainless steel  
AISI 304  
EN 1.4301
- Material code: A
- Code for rubber: V



Company name: PFC EQUIPMENT

Created by:

Phone:

Date: 3/18/2019

Count	Description
1	<p><b>CR 45-1-1 A-G-A-V-HQQV</b></p>  <p>Product No.: <a href="#">96419239</a> Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.</p> <p>The pump has the following characteristics:</p> <ul style="list-style-type: none"><li>- Impellers and intermediate chambers are made of</li><li>- The shaft seal has assembly length according to EN 12756.</li><li>- Power transmission is via cast iron split coupling.</li></ul> <p>The motor is a 3-phase AC motor.</p> <p>Controls: Frequency converter: NONE</p> <p><b>Liquid:</b> Pumped liquid: Water Liquid temperature range: -4 .. 194 °F Liquid temperature during operation: 68 °F Density: 62.29 lb/ft<sup>3</sup></p> <p><b>Technical:</b> Rated pump speed: 3467 rpm Rated flow: 238 US gpm Rated head: 72.51 ft Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQV Approvals on nameplate: CURUS Curve tolerance: ISO9906:2012 3B</p> <p><b>Materials:</b> Base: Cast iron EN 1563 EN-GJS-500-7 ASTM A536 80-55-06 Impeller: Stainless steel EN 1.4301</p>



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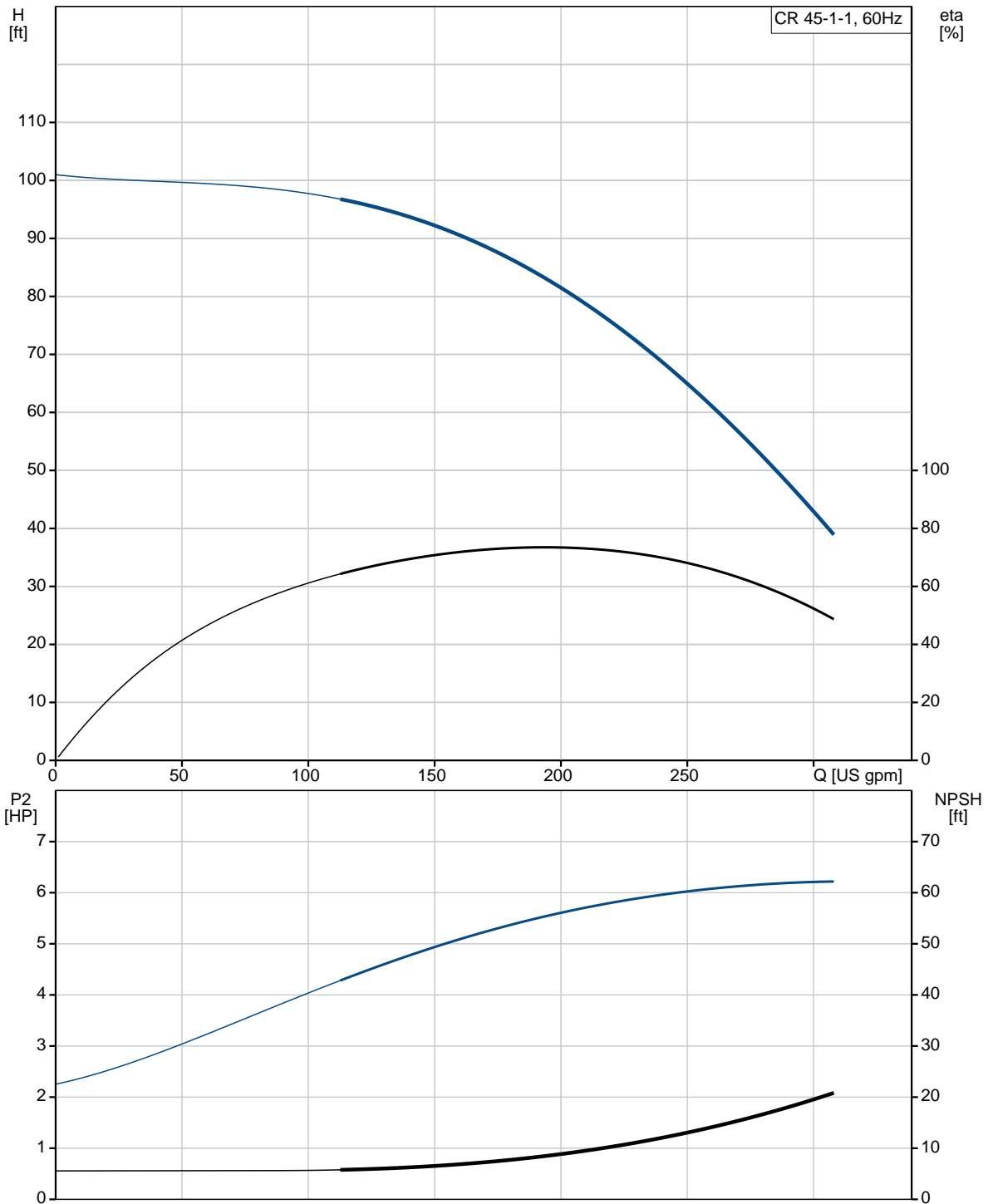
Count	Description
	AISI 304 Bearing: SIC Support bearing: Graflon
	<b>Installation:</b> Maximum ambient temperature: 140 °F Maximum operating pressure: 232 psi Max pressure at stated temperature: 232 psi / 194 °F 232 psi / -4 °F Type of connection: ANSI Size of suction port: 3 inch Size of outlet port: 3 inch Pressure rating for pipe connection: PN 16 Flange rating inlet: 150 lb Flange size for motor: 213TC
	<b>Electrical data:</b> Motor standard: NEMA Motor type: 132DA IE Efficiency class: NEMA Premium / IE3 60Hz Rated power - P2: 7.5 HP Power (P2) required by pump: 7.5 HP Main frequency: 60 Hz Rated voltage: 3 x 208-230YY/460Y V Service factor: 1.15 Rated current: 19,5-18,1/9,09 A Starting current: 1020-1480 % Cos phi - power factor: 0.89-0.86 Rated speed: 3490-3515 rpm IE efficiency: IE3 89,5% Motor efficiency at full load: 89.5 % Motor efficiency at 3/4 load: 89.7 % Motor efficiency at 1/2 load: 88.3 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F
	<b>Others:</b> Net weight: 222 lb Gross weight: 239 lb Shipping volume: 10.9 ft³ Country of origin: US Custom tariff no.: 8413.70.2040



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### 96419239 CR 45-1-1 A-G-A-V-HQQV 60 Hz

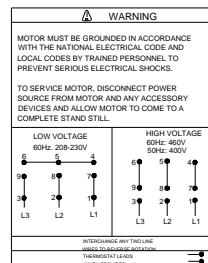
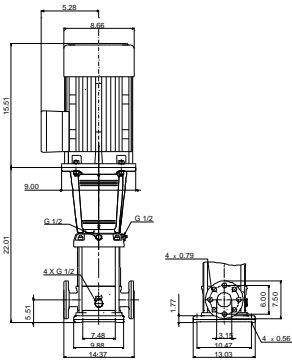
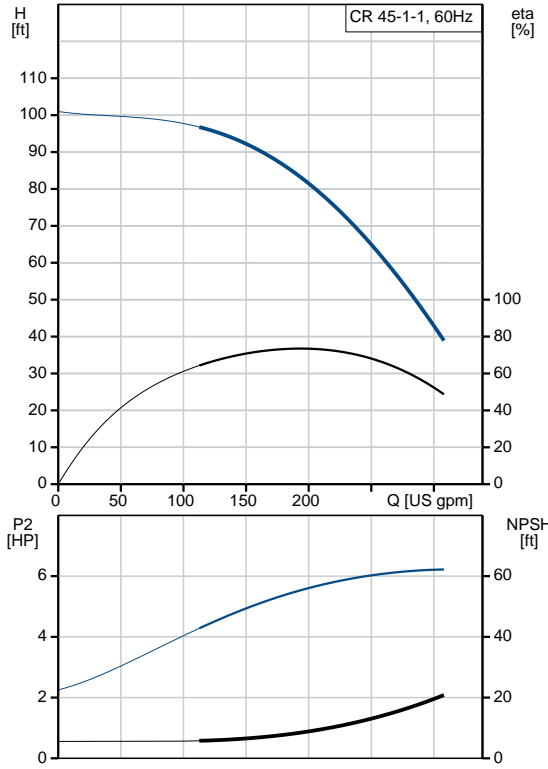




Company name: PFC EQUIPMENT  
 Created by:  
 Phone:

Date: 3/18/2019

Description	Value
<b>General information:</b>	
Product name:	CR 45-1-1 A-G-A-V-HQQV
Product No.:	96419239
EAN:	5700390752149
<b>Technical:</b>	
Rated pump speed:	3467 rpm
Rated flow:	238 US gpm
Rated head:	72.51 ft
Head max:	101.7 ft
Stages:	1
Impellers:	1
Number of reduced-diameter impellers:	1
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQV
Approvals on nameplate:	CURUS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	B
Cooling:	TEFC
<b>Materials:</b>	
Base:	Cast iron EN 1563 EN-GJS-500-7
Impeller:	ASTM A536 80-55-06 Stainless steel EN 1.4301 AISI 304
Material code:	A
Code for rubber:	V
Bearing:	SIC
Support bearing:	Graflon
<b>Installation:</b>	
Maximum ambient temperature:	140 °F
Maximum operating pressure:	232 psi
Max pressure at stated temperature:	232 psi / 194 °F
Type of connection:	ANSI
Size of suction port:	3 inch
Size of outlet port:	3 inch
Pressure rating for pipe connection:	PN 16
Flange rating inlet:	150 lb
Flange size for motor:	213TC
Connect code:	G
<b>Liquid:</b>	





Company name: PFC EQUIPMENT

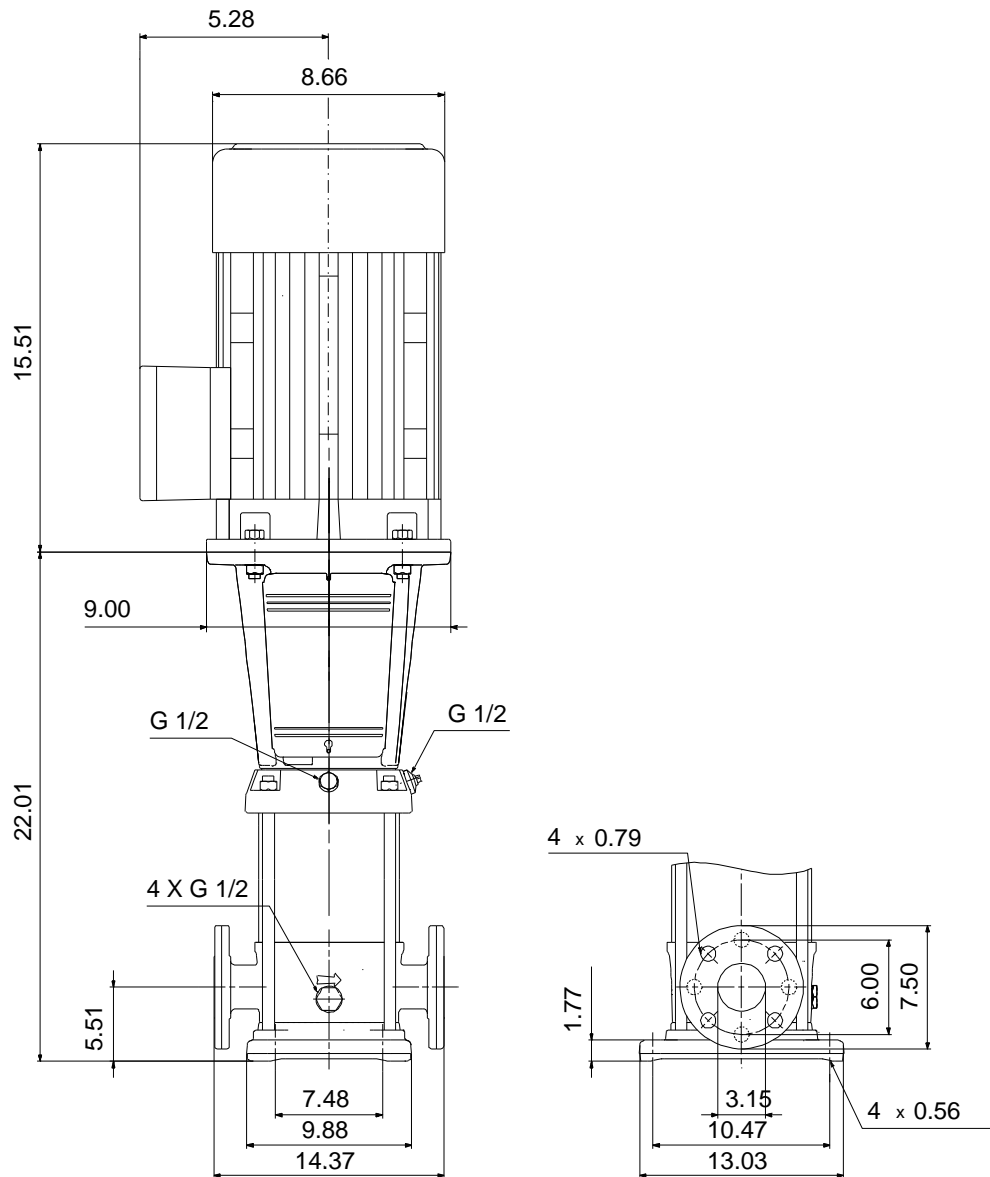
Created by:

Phone:

Date: 3/18/2019

Description	Value
Pumped liquid:	Water
Liquid temperature range:	-4 .. 194 °F
Liquid temperature during operation:	68 °F
Density:	62.29 lb/ft³
<b>Electrical data:</b>	
Motor standard:	NEMA
Motor type:	132DA
IE Efficiency class:	NEMA Premium / IE3 60Hz
Rated power - P2:	7.5 HP
Power (P2) required by pump:	7.5 HP
KVA code:	L
Main frequency:	60 Hz
Rated voltage:	3 x 208-230YY/460Y V
Service factor:	1.15
Rated current:	19,5-18,1/9,09 A
Starting current:	1020-1480 %
Load current:	22,4-20,8/10,4 A
Cos phi - power factor:	0.89-0.86
Rated speed:	3490-3515 rpm
IE efficiency:	IE3 89,5%
Motor efficiency at full load:	89.5 %
Motor efficiency at 3/4 load:	89.7 %
Motor efficiency at 1/2 load:	88.3 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protection:	PTC
Motor Number:	85904392
<b>Controls:</b>	
Frequency converter:	NONE
<b>Others:</b>	
Net weight:	222 lb
Gross weight:	239 lb
Shipping volume:	10.9 ft³
Sales region:	Namreg
Country of origin:	US
Custom tariff no.:	8413.70.2040

## 96419239 CR 45-1-1 A-G-A-V-HQQV 60 Hz



Note! All units are in [mm] unless otherwise stated.  
Disclaimer: This simplified dimensional drawing does not show all details.



## 96419239 CR 45-1-1 A-G-A-V-HQQV 60 Hz

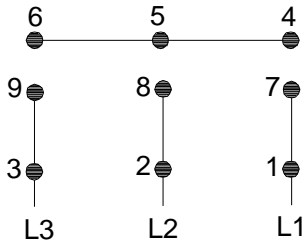


### WARNING

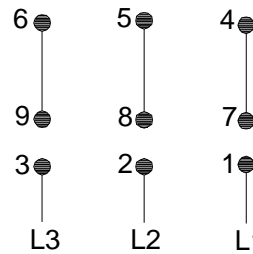
MOTOR MUST BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES BY TRAINED PERSONNEL TO PREVENT SERIOUS ELECTRICAL SHOCKS.

TO SERVICE MOTOR, DISCONNECT POWER SOURCE FROM MOTOR AND ANY ACCESSORY DEVICES AND ALLOW MOTOR TO COME TO A COMPLETE STAND STILL.

LOW VOLTAGE  
60Hz. 208-230V



HIGH VOLTAGE  
60Hz: 460V  
50Hz: 400V



96553852

INTERCHANGE ANY TWO LINE  
 WIRES TO REVERSE ROTATION  
 THERMOSTAT LEADS  
 (WHEN PROVIDED)



All units are [mm] unless otherwise presented.