GRUNDFOS

Submittal Data

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

Product photo could vary from the actual product

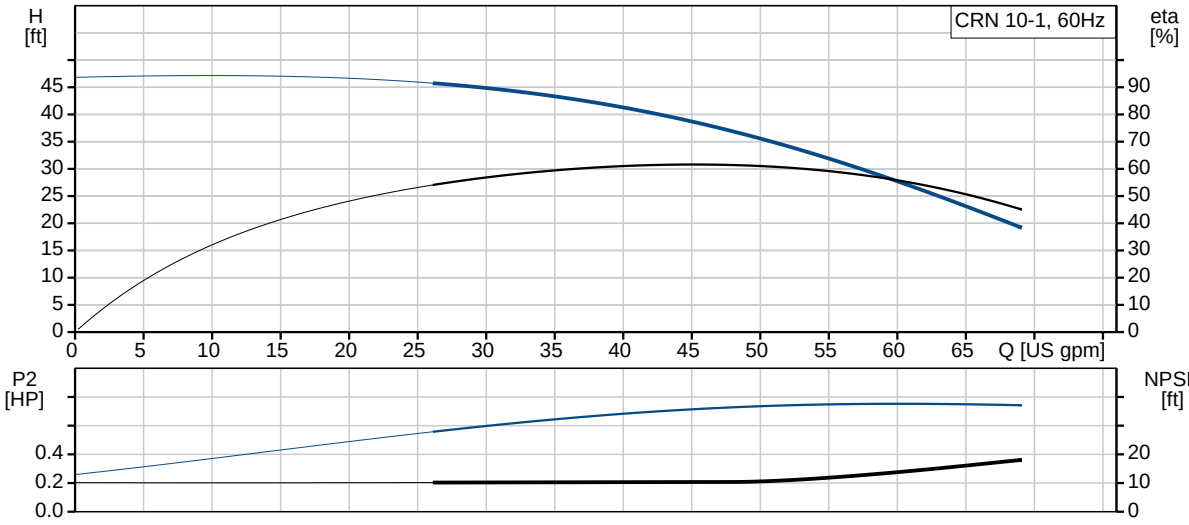
CRN 10-1 A-FGJ-A-E-HQQE

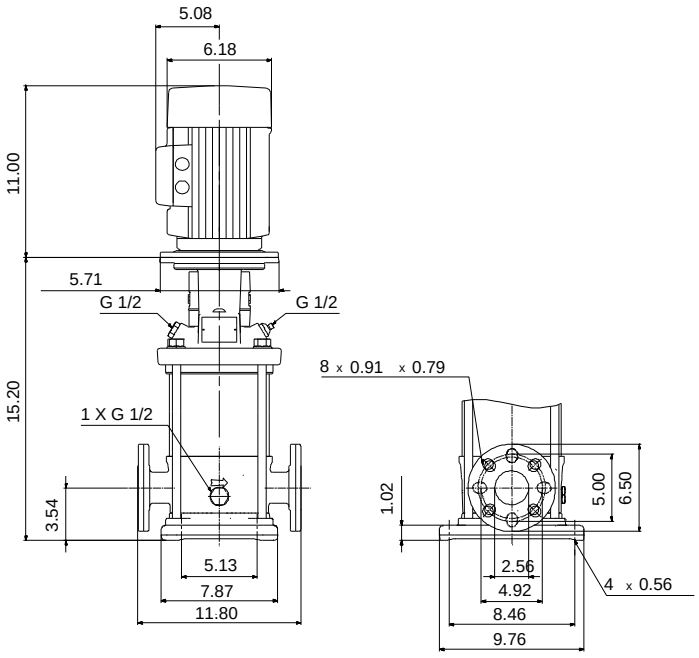
Vertical, multistage centrifugal pump with suction and discharge ports on same the level. Pump materials in contact with the liquid are in high-grade stainless steel (EN 1.4401) (AISI 316)

Conditions of Service	
Flow:	
Head:	
Efficiency:	
Liquid:	Water
Temperature:	68 °F
NPSH required:	ft
Viscosity:	
Specific Gravity:	1.000

Pump Data	
Max pressure at stated temperature:	363 psi / 250 °F
Liquid temperature range:	-4 .. 248 °F
Maximum ambient temperature:	104 °F
Approvals:	CURUS
Shaft seal:	HQQE
Product number:	96522940

Motor Data	
Rated power - P2:	0.75 HP
Rated voltage:	115/208-230 V
Main frequency:	60 Hz
Enclosure class:	IP54
Insulation class:	B
Motor protection:	NONE
Motor type:	BALDOR





Materials:

Base:	Stainless steel EN 1.4408 AISI 316
Impeller:	Stainless steel AISI 316 EN 1.4401
Material code:	A
Code for rubber:	E

Company name:
Created by:
Phone:

Date: 4/17/2020

Count	Description
1	**CRN 10-1 A-FGJ-A-E-HQQE**

Product No.: 96522940

Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid are in high-grade stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via combined DIN-ANSI-JIS flanges.

The pump is fitted with a 1-phase, fan-cooled asynchronous motor.

Further product details

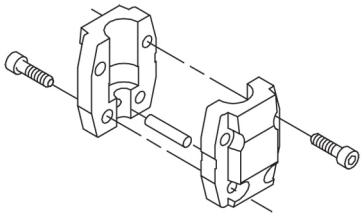
Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An integral part of the process is a pretreatment. The entire process consists of these elements:

1) Alkaline-based cleaning.
2) Zinc phosphating.
3) Cathodic electro-deposition.
4) Curing to a dry film thickness 18-22 my m.

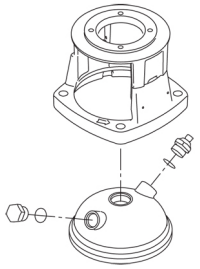
The colour code for the finished product is NCS 9000/RAL 9005.

Pump

A standard split coupling connects the pump and motor shaft. It is enclosed in the pump head/motor stool by means of two coupling guards.



The pump head and flange for motor mounting is made in one piece (cast iron). The pump head cover is a separate component (stainless steel). The pump head has a combined 1/2" priming plug and vent screw.



The pump is fitted with a balanced O-ring seal unit with a rigid torque-transmission system. This seal type is assembled in a cartridge unit which makes replacement safe and easy. Due to the balancing, this seal type is suitable for high-pressure applications. The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.

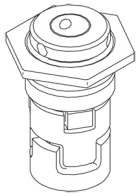
Primary seal:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.



The shaft seal is screwed into the pump head.

The pump has a special air-cooled shaft-seal chamber generating the same insulation effect as that of a vacuum flask. No external cooling is necessary; the ambient temperature is sufficient. An automatic vent vents the pump seal chamber.

The chambers and impellers are made of stainless-steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency.

The pump has a stainless steel base mounted on a separate base plate. This base and base plate are kept in position by the tension of the staybolts which hold the pump together. The outlet side of the base has a combined drain plug and bypass valve. The pump is secured to the foundation by four bolts through the base plate. The flanges and base are cast in one piece and prepared for connection by means of DIN, ANSI or JIS.

Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with tapped-hole flange (FT).

Motor-mounting designation in accordance with IEC 60034-7: IM B 14 (Code I) / IM 3601 (Code II).

GRUNDFOS

Company name:
Created by:
Phone:

Date: 4/17/2020

Count	Description

Electrical tolerances comply with IEC 60034.

The motor does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (I1/1).

The motor has built-in thermal protection (PTO current and temperature sensors) in accordance with IEC 60034-11 and requires no further motor protection. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.

Technical data

Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-4 .. 248 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft³

Technical:

Rated pump speed:	3464 rpm
Rated flow:	53.3 US gpm
Rated head:	33.14 ft
Actual impeller diameter:	3.66 in
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CURUS
Curve tolerance:	ISO9906:2012 3B

Materials:

Base:	Stainless steel
	EN 1.4408
	AISI 316
Impeller:	Stainless steel
	EN 1.4401
	AISI 316
Bearing:	SIC

Installation:

Maximum ambient temperature:	104 °F
Maximum operating pressure:	362.59 psi
Max pressure at stated temperature:	363 psi / 250 °F
	363 psi / -4 °F
Type of connection:	DIN / ANSI / JIS
Size of inlet connection:	DN 50
Size of outlet connection:	DN 50
Pressure rating for connection:	PN 25
Flange rating inlet:	300 lb
Flange size for motor:	56C

GRUNDFOS

Company name:
Created by:
Phone:

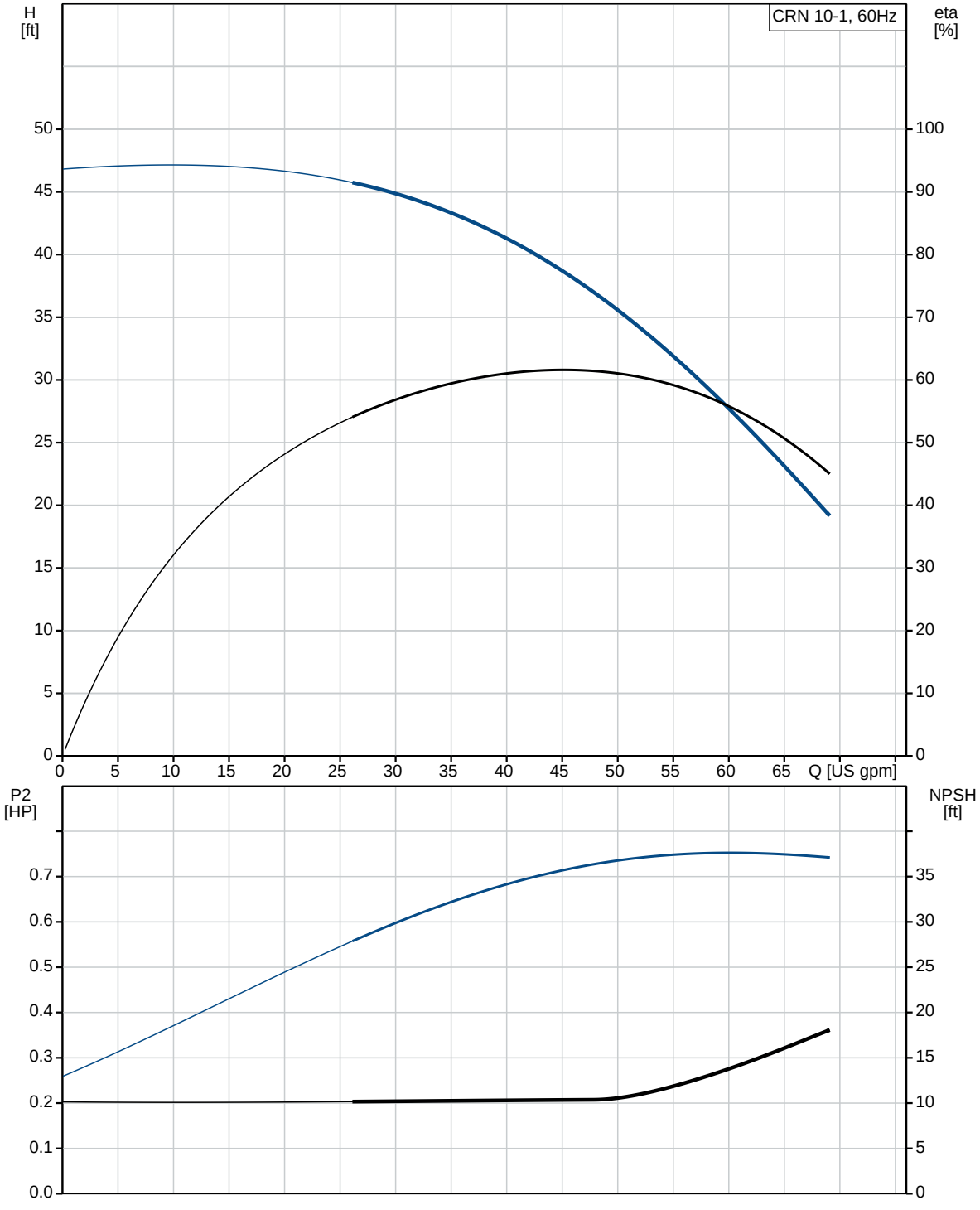
Date: 4/17/2020

Count	Description	
	Electrical data:	
	Motor standard:	NEMA
	Motor type:	BALDOR
	Rated power - P2:	0.75 HP
	Power (P2) required by pump:	0.75 HP
	Main frequency:	60 Hz
	Rated voltage:	1 x 115/208-230 V
	Service factor:	1.25
	Rated current:	9,60/5,00-4,80 A
	Rated speed:	3450 rpm
	Number of poles:	2
	Enclosure class (IEC 34-5):	IP54
	Insulation class (IEC 85):	B
	Motor Number:	84Z04001
	Controls:	
	Frequency converter:	NONE
	Others:	
	DOE Pump Energy Index CL:	0.87
	Net weight:	90.4 lb
	Gross weight:	106 lb
	Shipping volume:	6.11 ft^3
	Country of origin:	US
	Custom tariff no.:	8413.70.2040

Company name:
Created by:
Phone:

Date: 4/17/2020

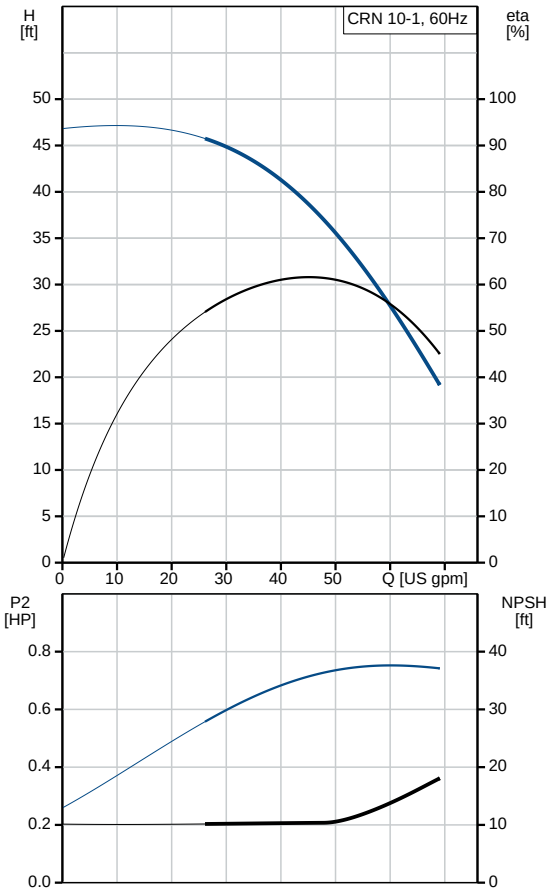
96522940 CRN 10-1 A-FGJ-A-E-HQQE 60 Hz



Company name:
Created by:
Phone:

Date: 4/17/2020

Description	Value
General information:	
Product name:	CRN 10-1 A-FGJ-A-E-HQQE
Product No.:	96522940
EAN:	5700396896878
	5700396896878
Technical:	
Rated pump speed:	3464 rpm
Rated flow:	53.3 US gpm
Rated head:	33.14 ft
Maximum head:	46.92 ft
Actual impeller diameter:	3.66 in
Stages:	2
Impellers:	1
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CURUS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Cooling:	TEFC
Materials:	
Base:	Stainless steel
	EN 1.4408
	AISI 316
Impeller:	Stainless steel
	EN 1.4401
	AISI 316
Material code:	A
Code for rubber:	E
Bearing:	SIC
Installation:	
Maximum ambient temperature:	104 °F
Maximum operating pressure:	362.59 psi
Max pressure at stated temperature:	363 psi / 250 °F
	363 psi / -4 °F
Type of connection:	DIN / ANSI / JIS
Size of inlet connection:	DN 50
Size of outlet connection:	DN 50
Pressure rating for connection:	PN 25
Flange rating inlet:	300 lb
Flange size for motor:	56C
Connect code:	FGJ
Liquid:	



GRUNDFOS

Company name:
Created by:
Phone:

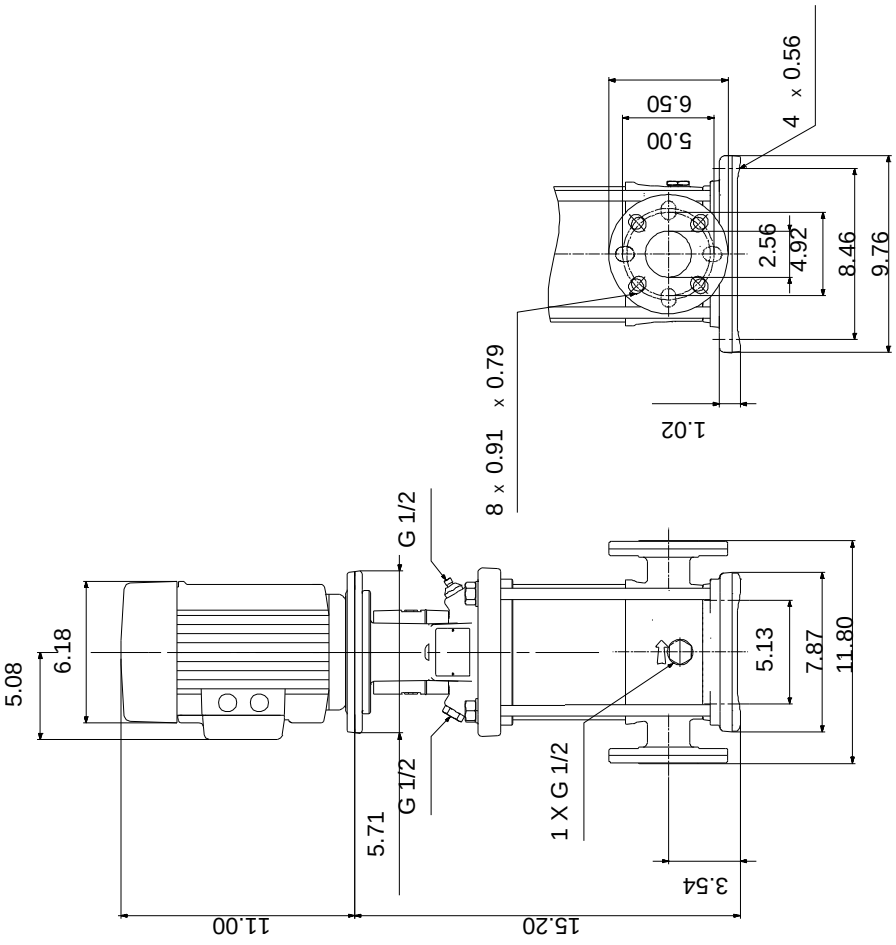
Date: 4/17/2020

Description	Value
Pumped liquid:	Water
Liquid temperature range:	-4 .. 248 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft³
Electrical data:	
Motor standard:	NEMA
Motor type:	BALDOR
Rated power - P2:	0.75 HP
Power (P2) required by pump:	0.75 HP
Main frequency:	60 Hz
Rated voltage:	1 x 115/208-230 V
Service factor:	1.25
Rated current:	9,60/5,00-4,80 A
Load current:	11.4/6.0-5.7 A
Rated speed:	3450 rpm
Number of poles:	2
Enclosure class (IEC 34-5):	IP54
Insulation class (IEC 85):	B
Motor protection:	NONE
Motor Number:	84Z04001
Controls:	
Frequency converter:	NONE
Others:	
DOE Pump Energy Index CL:	0.87
Net weight:	90.4 lb
Gross weight:	106 lb
Shipping volume:	6.11 ft³
Country of origin:	US
Custom tariff no.:	8413.70.2040

Company name:
Created by:
Phone:

Date: 4/17/2020

96522940 CRN 10-1 A-FGJ-A-E-HQQE 60 Hz

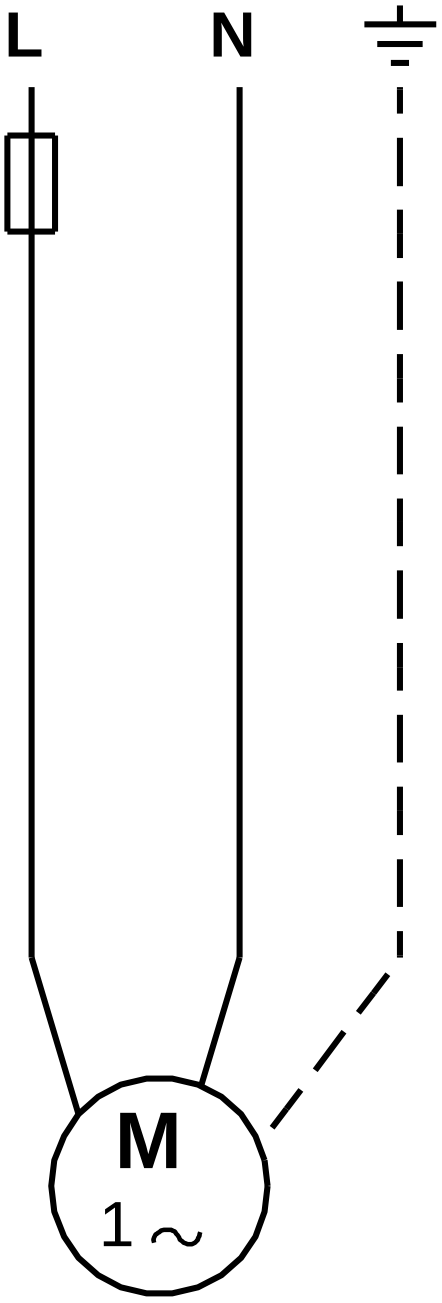


Note! All units are in [in] unless otherwise stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Company name:
Created by:
Phone:

Date: 4/17/2020

96522940 CRN 10-1 A-FGJ-A-E-HQQE 60 Hz



All units are [in] unless otherwise presented.