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

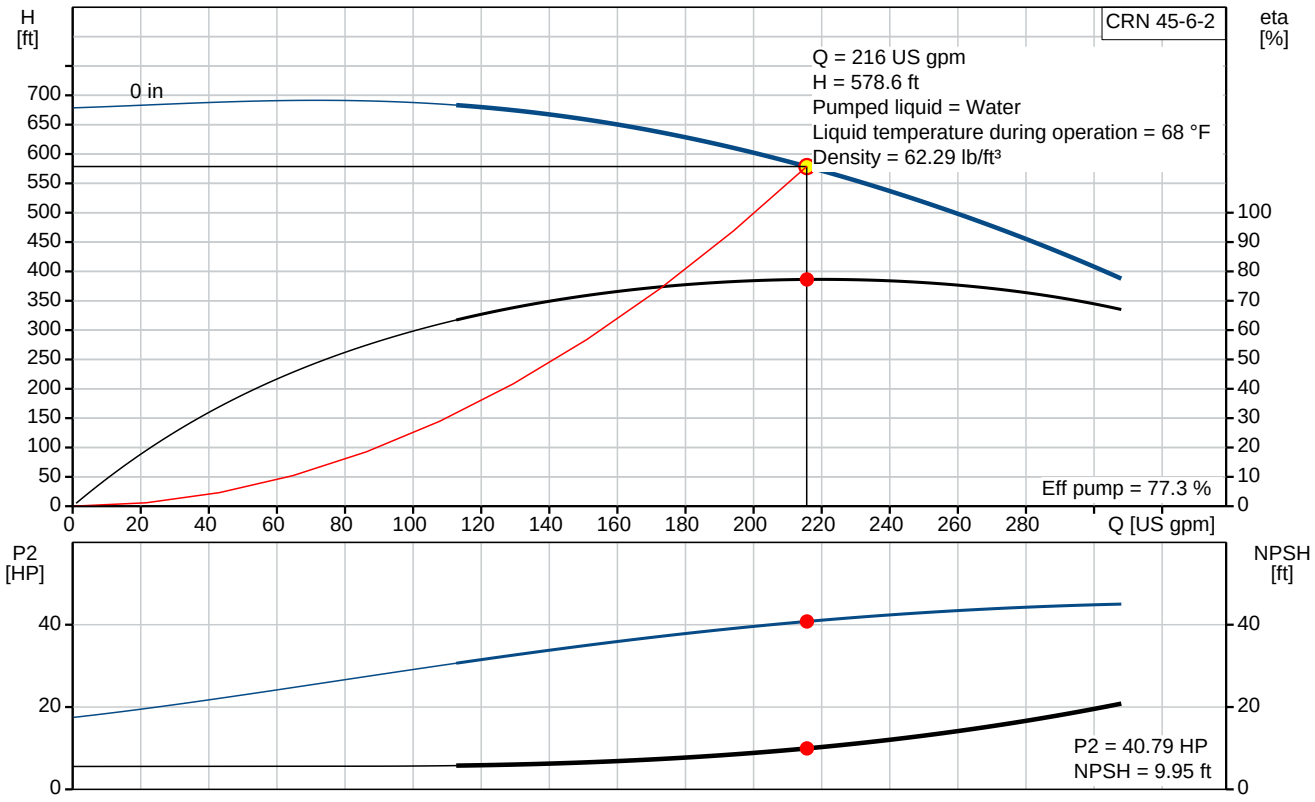
CRN 45-6-2

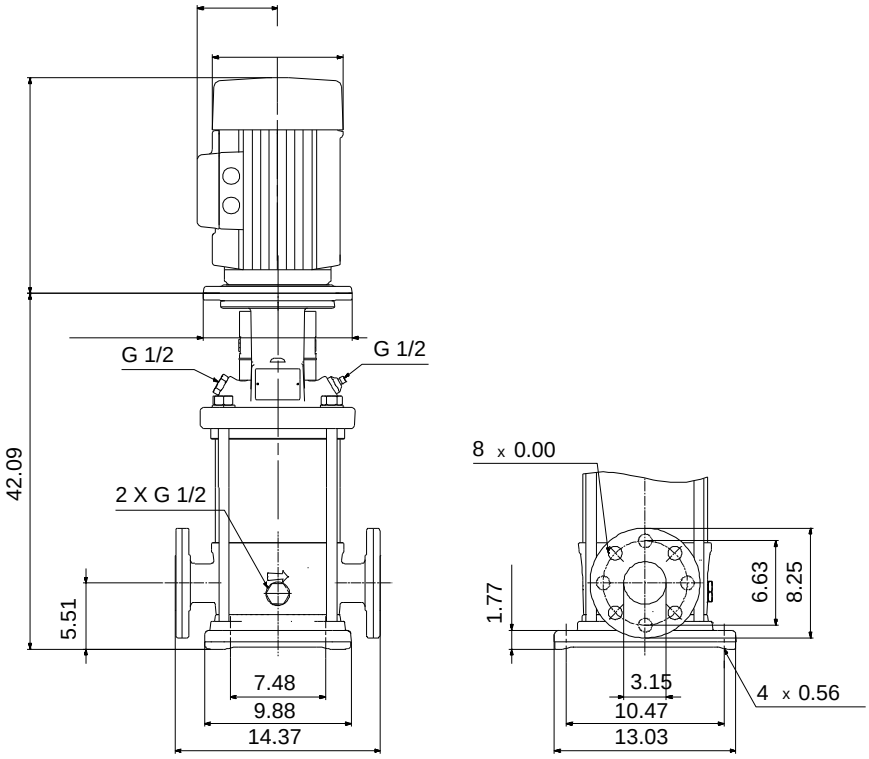
Vertical, multistage centrifugal pump with suction and discharge ports on same the level. Pump materials in contact with the liquid are in high-grade stainless steel (EN 1.4401) (AISI 316)

Conditions of Service	
Flow:	216 US gpm
Head:	578.6 ft
Efficiency:	
Liquid:	Water
Temperature:	68 °F
NPSH required:	9.95 ft
Viscosity:	
Specific Gravity:	1.000

Pump Data	
Max pressure at stated temperature:	435 psi / 250 °F
Approvals:	NSF61
Shaft seal:	HQQE
Product number:	96415853

Motor Data	
Main frequency:	60 Hz





Materials:

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

Company name:
Created by:
Phone:

Date: 2/21/2018

Tender Text



Product photo could vary from the actual product

Product No.: 96415853
CRN 45-6-2 A-G-G-E-HQQE
Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.

The pump has the following characteristics:
- Impellers, intermediate chambers and outer sleeve are made of
- Pump head cover and base are made of
- The shaft seal has assembly length according to DIN 24960.
- Power transmission is via cast iron split coupling.

flanges/couplings.

Controls:

Frequency converter:	NONE

Liquid:

Pumped liquid:	Water
Liquid temperature during operation:	68 °F
Density:	62.29 lb/ft³

Technical:

Speed for pump data:	3550 rpm
Actual calculated flow:	216 US gpm
Resulting head of the pump:	578.6 ft
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	NSF61
Curve tolerance:	ISO9906:2012 3B

Materials:

Base:	Stainless steel EN 1.4408 AISI 316
Impeller:	Stainless steel EN 1.4401 AISI 316
Bearing material:	SIC
Support bearing:	Graflon

Installation:

Max pressure at stated temperature:	435 psi / 250 °F
	435 psi / -40 °F
Type of connection:	ANSI
Size of suction port:	3 inch
Size of outlet port:	3 inch
Pressure rating:	PN 40
Flange size for motor:	324TC
Flange rating inlet:	300 lb

Electrical data:

Motor standard:	NEMA
Power (P2) required by pump:	50 HP

Others:

Net weight:	209 lb
Gross weight:	227 lb
Shipping volume:	10.9 ft^3

GRUNDFOS

Company name:
Created by:
Phone:

Date: 2/21/2018

Position	Count	Description
	1	**CRN 45-6-2 A-G-G-E-HQQE**



Product photo could vary from the actual product

Product No.: 96415853
Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.

The pump has the following characteristics:
- Impellers, intermediate chambers and outer sleeve are made of
- Pump head cover and base are made of
- The shaft seal has assembly length according to DIN 24960.
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Controls:

Frequency converter:	NONE

Liquid:

Pumped liquid:	Water
Liquid temperature during operation:	68 °F
Density:	62.29 lb/ft³

Technical:

Speed for pump data:	3550 rpm
Actual calculated flow:	216 US gpm
Resulting head of the pump:	578.6 ft
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	NSF61
Curve tolerance:	ISO9906:2012 3B

Materials:

Base:	Stainless steel EN 1.4408 AISI 316
Impeller:	Stainless steel EN 1.4401 AISI 316
Bearing material:	SIC
Support bearing:	Graflon

Installation:

GRUNDFOS

Company name:
Created by:
Phone:

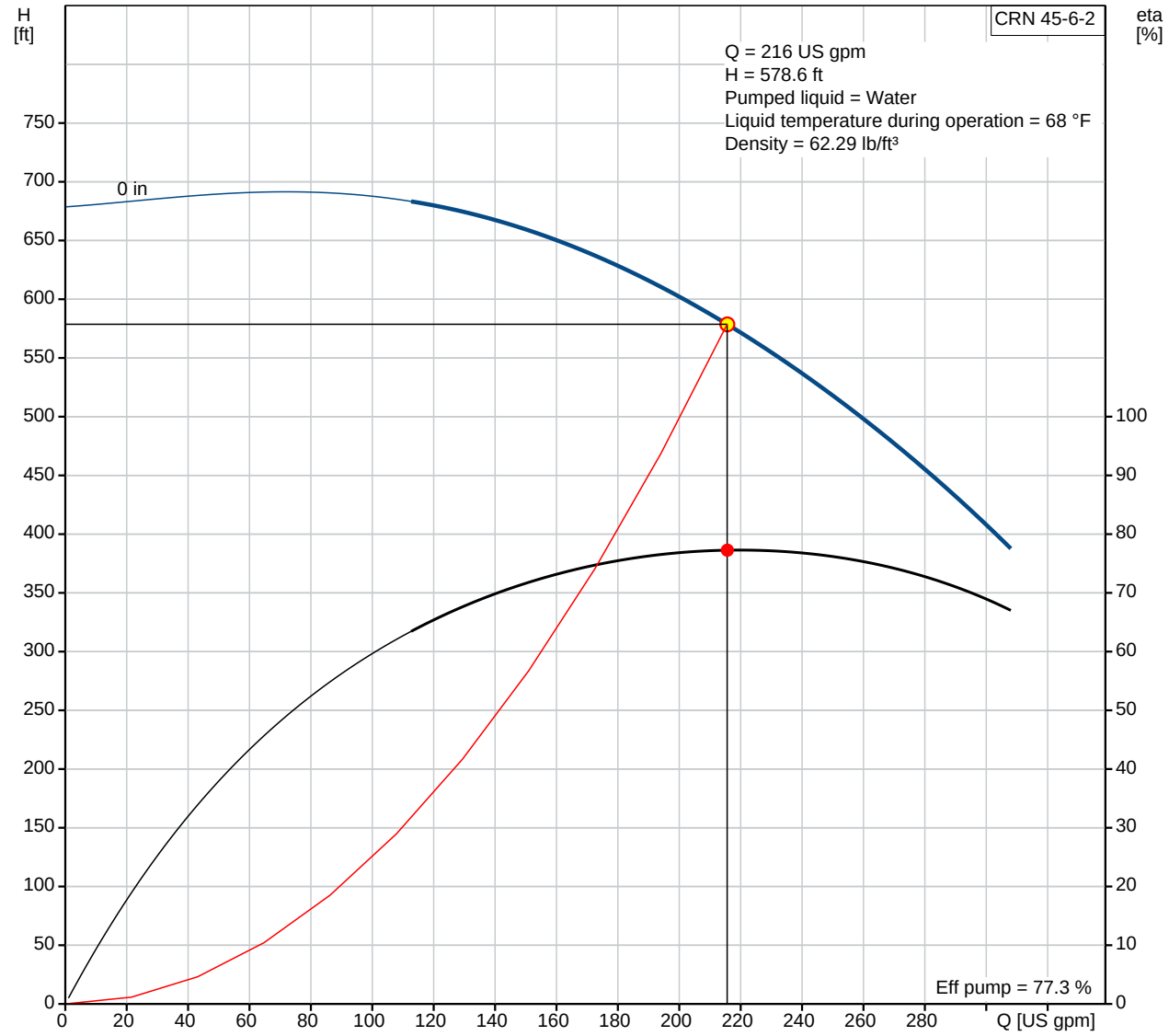
Date: 2/21/2018

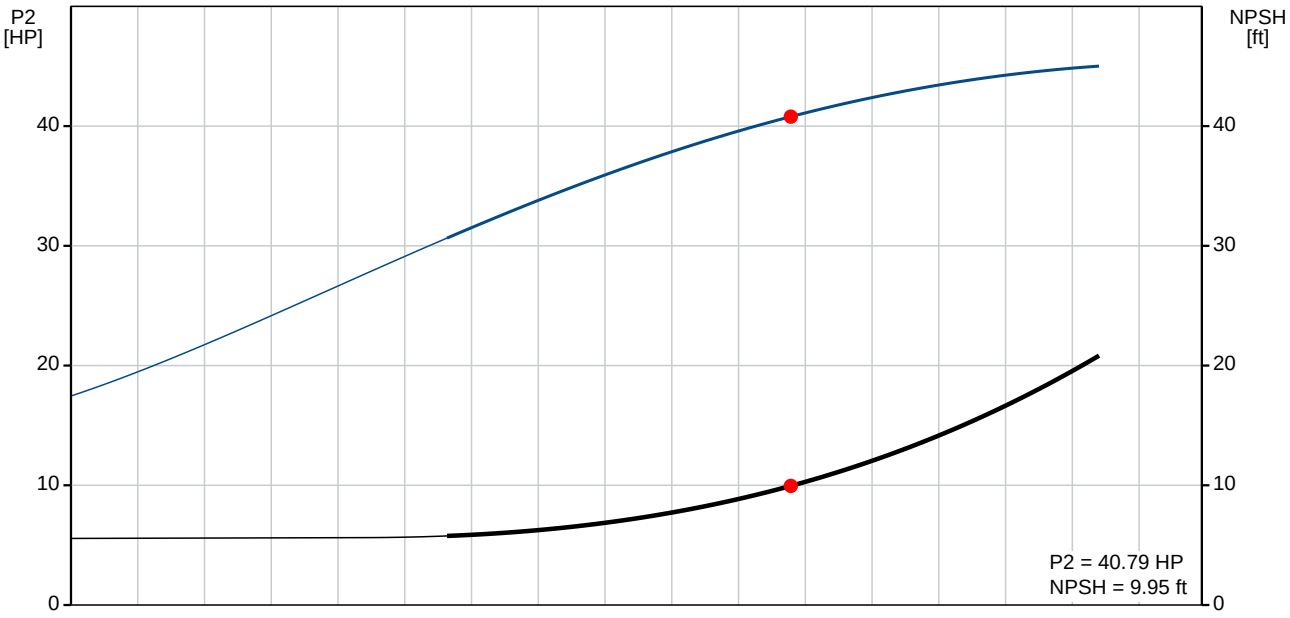
Position	Count	Description
		Max pressure at stated temperature: 435 psi / 250 °F 435 psi / -40 °F Type of connection: ANSI Size of suction port: 3 inch Size of outlet port: 3 inch Pressure rating: PN 40 Flange size for motor: 324TC Flange rating inlet: 300 lb **Electrical data:** Motor standard: NEMA Power (P2) required by pump: 50 HP **Others:** Net weight: 209 lb Gross weight: 227 lb Shipping volume: 10.9 ft^3

Company name:
Created by:
Phone:

Date: 2/21/2018

96415853 CRN 45-6-2 60 Hz

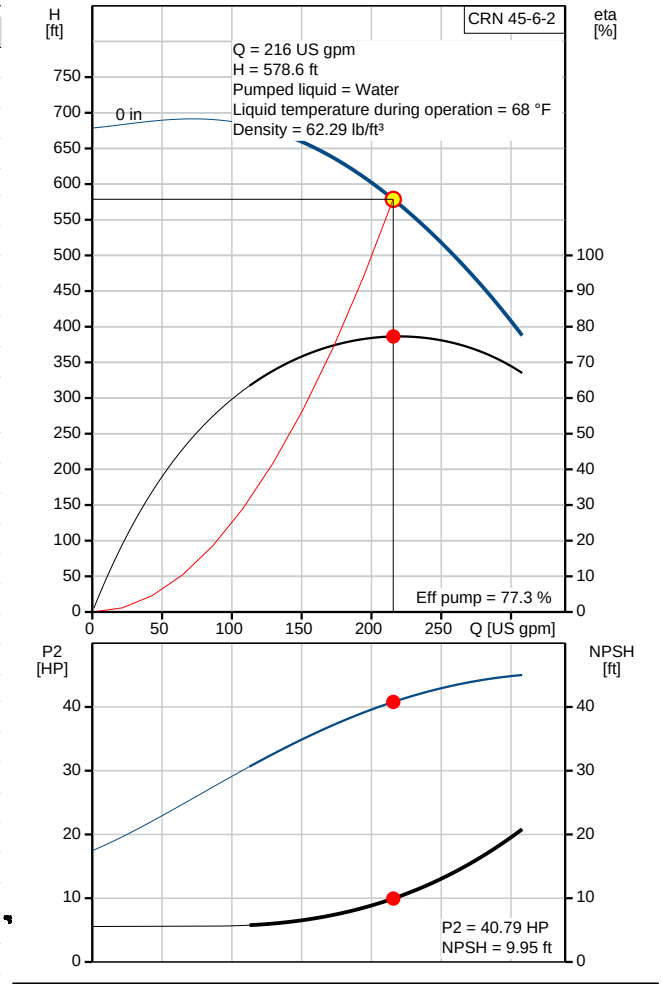


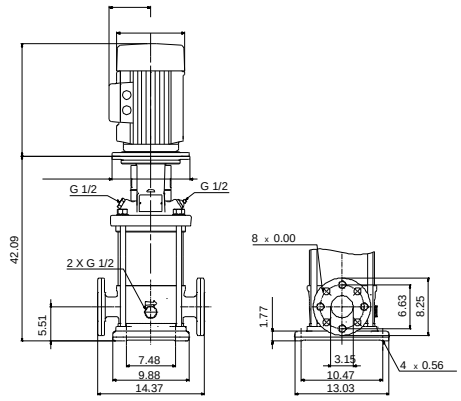


Company name:
Created by:
Phone:

Date: 2/21/2018

Description	Value
General information:	
Product name:	CRN 45-6-2 A-G-G-E-HQQE
Product No.:	96415853
EAN:	5700390650186
Technical:	
Speed for pump data:	3550 rpm
Actual calculated flow:	216 US gpm
Resulting head of the pump:	578.6 ft
Stages:	6
Impellers:	6
Number of reduced-diameter impellers:	2
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	NSF61
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	B
Materials:	
Base:	Stainless steel
	EN 1.4408
	AISI 316
Impeller:	Stainless steel
	EN 1.4401
	AISI 316
Material code:	G
Code for rubber:	E
Bearing material:	SIC
Support bearing:	Graflon
Installation:	
Max pressure at stated temperature:	435 psi / 250 °F
	435 psi / -40 °F
Type of connection:	ANSI
Connect code:	G
Size of suction port:	3 inch
Size of outlet port:	3 inch
Pressure rating:	PN 40
Flange size for motor:	324TC
Flange rating inlet:	300 lb
Liquid:	
Pumped liquid:	Water
Liquid temperature during operation:	68 °F
Density:	62.29 lb/ft³
Electrical data:	
Motor standard:	NEMA
Power (P2) required by pump:	50 HP
Controls:	
Frequency converter:	NONE
Others:	





Company name:
Created by:
Phone:

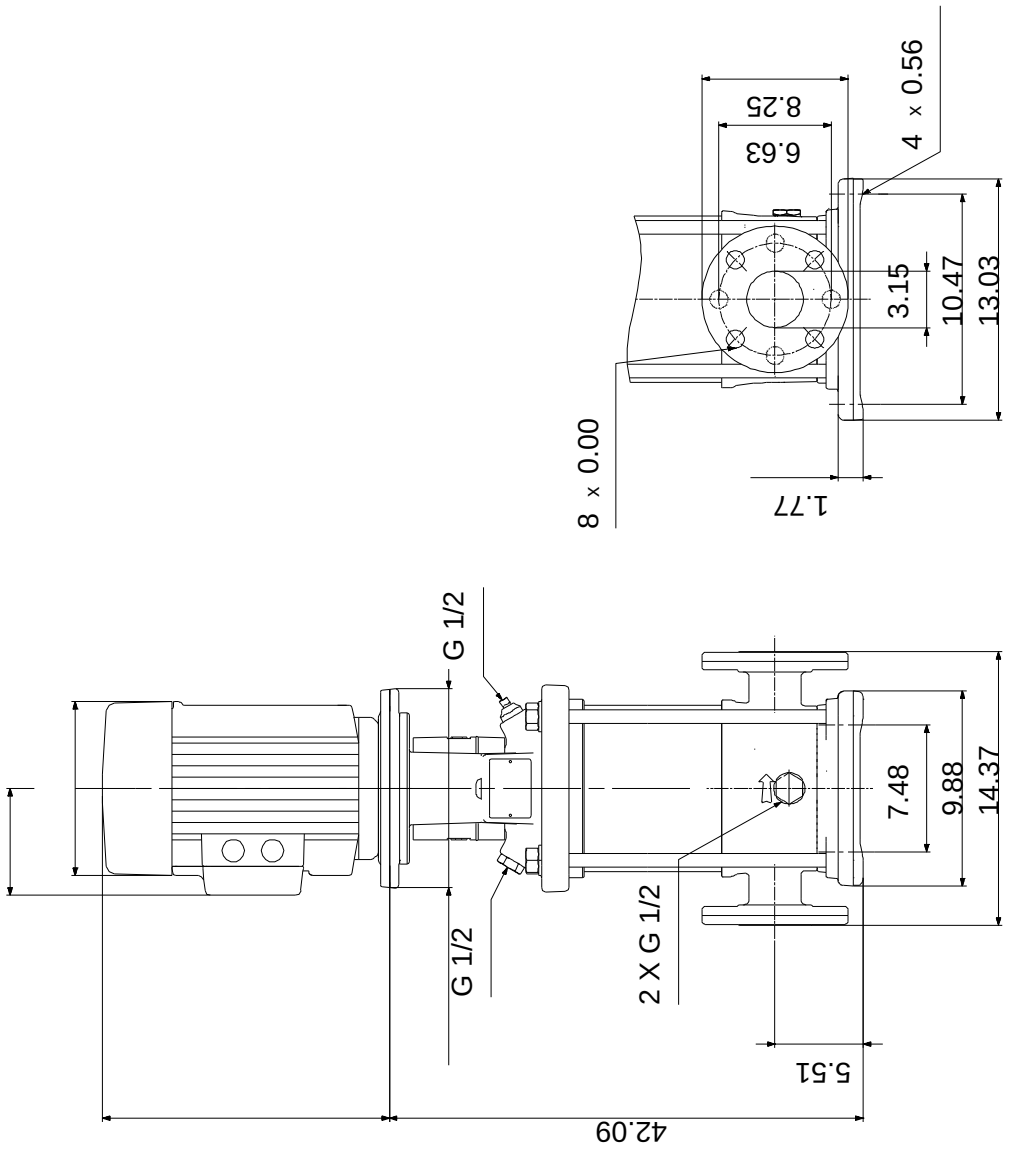
Date: 2/21/2018

Description	Value
Net weight:	209 lb
Gross weight:	227 lb
Shipping volume:	10.9 ft³
Sales region:	Namreg

Company name:
Created by:
Phone:

Date: 2/21/2018

96415853 CRN 45-6-2 60 Hz



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

Company name:
Created by:
Phone:

Date: 2/21/2018

Order Data:

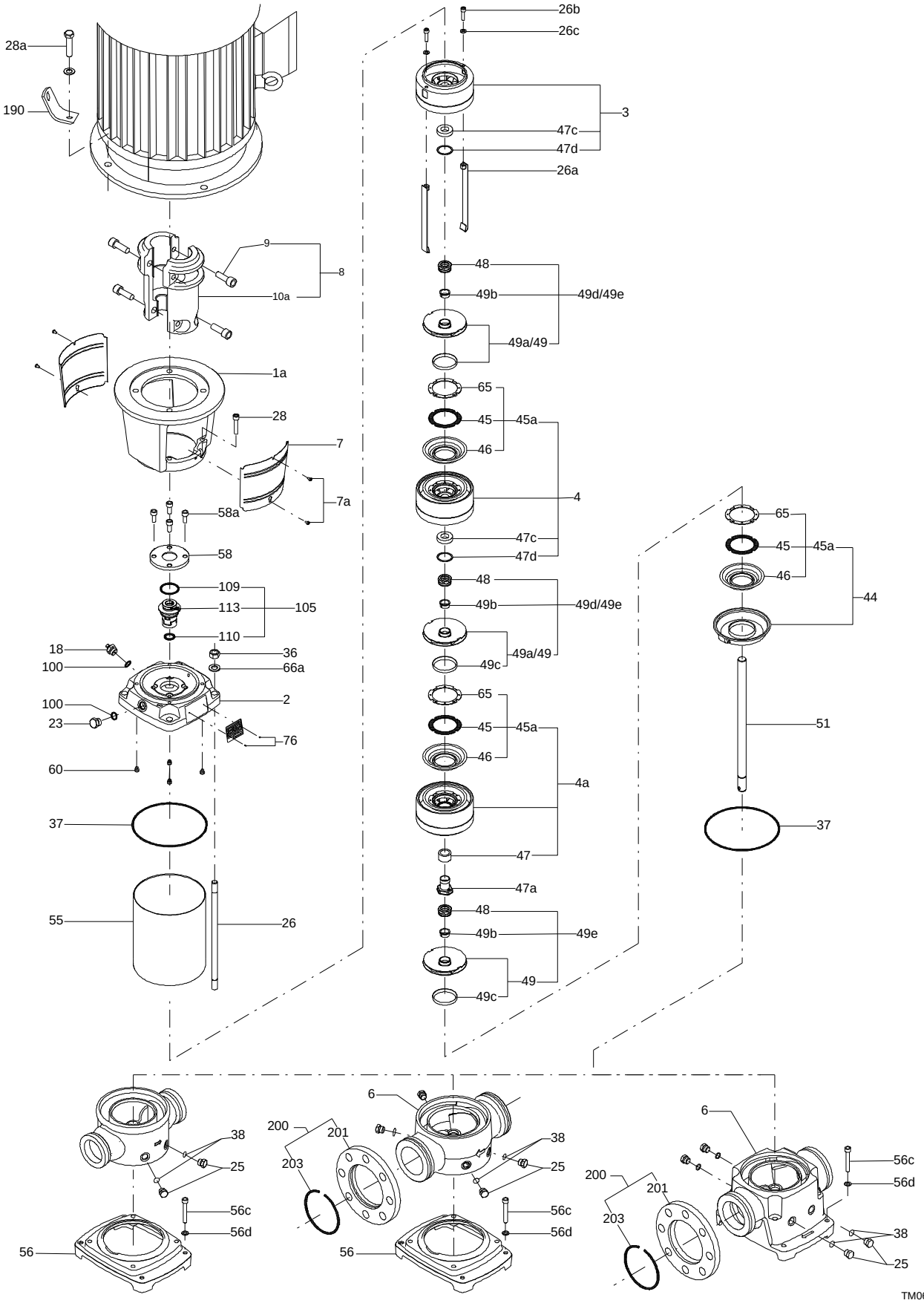
Product name: CRN 45-6-2 A-G-G-E-HQQE
Amount: 1
Product No.: 96415853

Total: Price on request

Company name:
Created by:
Phone:

Date: 2/21/2018

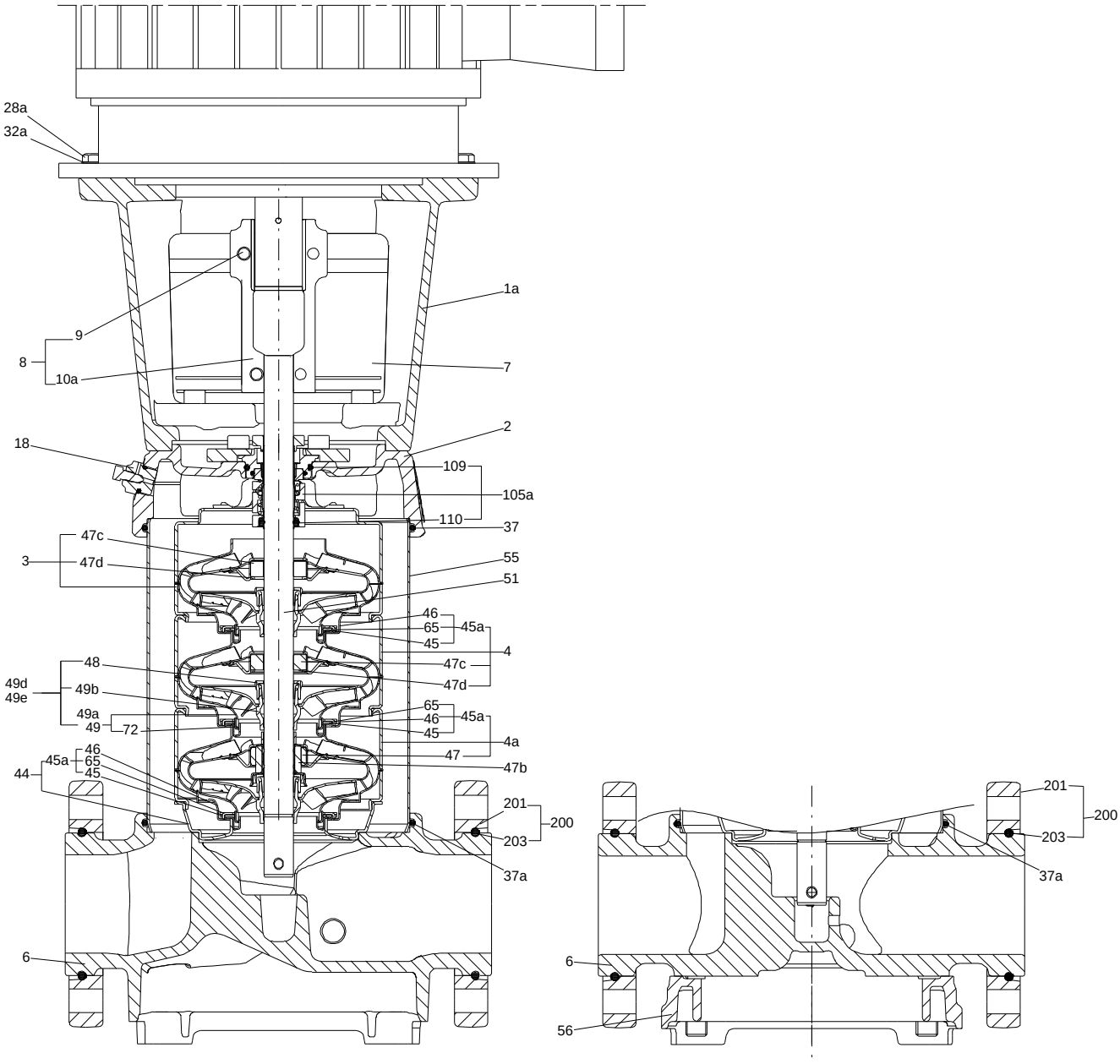
Exploded view (TM065558 LACR)



Company name:
Created by:
Phone:

Date: 2/21/2018

Sectional drawing (TM065571 LACR)



GRUNDFOS

Company name:
Created by:
Phone:

Date: 2/21/2018

Parts list CRN 45-6-2, Prod number 96415853
Valid from 3.3.2014 (1410)

	Position	Description	Annotation	Classification data	Part No.	Count	Unit
		Hex head screw				1	pcs
		Washer				1	pcs
-		Flange cpl.				2	pcs
	201	Flange				1	
	203	Lock ring				1	
-		Motor stool cpl.				1	pcs
	1a	Motor stool				1	
	7	Coupling guard				2	
	7a	Socket button head screw				4	
	28	Hex socket head cap screw		Designation: DIN 912		4	
				Length: 50			
				Thread: M10			
	28.a	Hex socket head screw				4	
		Quick guide				1	pcs
		Shaft end				1	pcs
		Bar				1	pcs
		Spring lock washer				1	pcs
-	1	Basic unit				1	pcs
-	2a	Pump head cpl.				1	
		O-ring					
	2	Pump head					
	9	Hex socket head cap screw		Designation: DIN 912			
				Length: 25			
				Thread: M10			
-	18	Air vent screw					
		Plug					
		Spindle					
	23	Plug					
	58	Cover					
	60	Spring					
	100	O-ring		Diameter: 16,3			
				Material type: EPDM			
				Thickness: 2,4			
-	6b	Base cpl.		Rubber type: EPDM		1	
		O-ring					
	6	Base					
	25	Plug					
	32	Washer		Designation: DIN 125A			
				Inner diameter: 6,4			
				Outer diameter: 12,0			
				Thickness: 1,6			
	38	O-ring		Diameter: 16,3			
				Material type: EPDM			
				Thickness: 2,4			
	56	Base plate					
	26	Staybolt		Length: 710		4	
				Thread: M16			
	36	Nut		Thread: M16		4	
	55	Outer sleeve		Outer diameter: 216		1	
				Length: 503,5			
	66a	Washer		Designation: DIN 125 A2		4	
				Inner diameter: 17			
				Outer diameter: 30			

GRUNDFOS

Company name:
Created by:
Phone:

Date: 2/21/2018

	Position	Description	Annotation	Classification data	Part No.	Count	Unit
				Thickness: 3			
-	80	Chamber stack				1	
-	3	Upper chamber cpl.					
		Chamber					
		Guide vane					
		Cone					
		Guide cup					
		Guide cup					
	3	Upper chamber cpl.					
	47c	Bush					
	47d	Lock ring					
-	4	Intermediate chamber cpl.					
		Chamber					
		Chamber					
		Neck ring cpl.					
		Guide vane					
		Cone					
		Guide cup					
		Guide cup					
	47c	Bush					
	47d	Lock ring					
-	4a	Intermediate chamber cpl.					
		Chamber					
		Chamber					
		Neck ring cpl.					
		Guide vane					
		Cone					
		Guide cup					
		Guide cup					
	47	Bearing					
	26a	Strap cpl.		Length: 489			
				Thread: M8			
	26b	Hex socket head cap screw					
	26c	Washer		Designation: DIN 125A			
				Inner diameter: 8,4			
				Outer diameter: 16			
				Thickness: 1,6			
-	44	Suction interconnector coupling					
	44a	Suction interconnector					
	45	Seal ring					
	65	Neck ring					
	65	Top f/neck ring					
-	47a	Bearing cpl.					
		Disc spring					
		Bearing ring, rotating					
		Holder					
		Driver					
-	49a	Impeller cpl. reduced diameter					
-		Impeller, reduced diameter					
		Impeller hub					
	49c	Wear ring					
	48	Nut					
	49b	Split cone					
-	49e	Impeller cpl.					
	48	Nut					
-	49	Impeller, reduced diameter					
		Impeller hub					
	49c	Wear ring					
	49b	Split cone					

GRUNDFOS

Company name:
Created by:
Phone:

Date: 2/21/2018

	Position	Description	Annotation	Classification data	Part No.	Count	Unit
	51	Shaft					
-	8	Coupling cpl.		Dimension: 22/47,6		1	pcs
	9	Hex socket head cap screw		Designation: DIN 912		4	
				Length: 25			
				Thread: M10			
	10a	Coupling half				2	
	28a	Hex head screw		Length: 45		2	pcs
				Thread: M16			
	36	Hex nut		Thread: M16		2	pcs
-	105	Shaft seal		Material type: HQQE		1	pcs
		Adjusting fork				1	
	109	O-ring				1	
	110	O-ring		Diameter: 21,5		1	
				Material type: EPDM			
				Thickness: 4,25			