

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

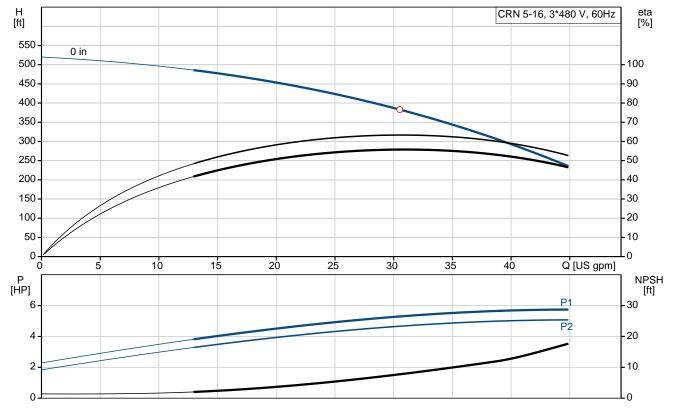
CRN 5-16

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	

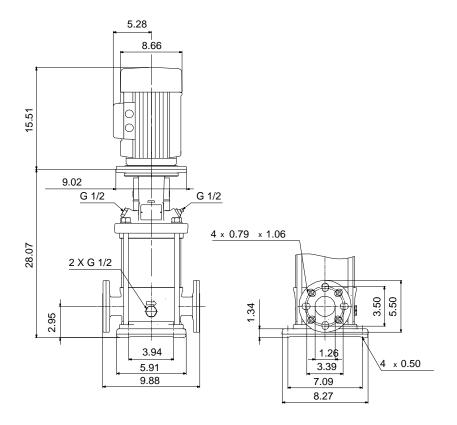
Pump Data	
Max pressure at stated temperature:	363 psi / 250 °F
Maximum ambient temperature:	140 °F
Approvals:	CURUS,NSF61
Shaft seal:	HQQE
Product number:	96085039

	Motor Data				
1	Rated power - P2:	5.5 HP			
	Rated voltage:	208-230YY/460Y V			
	Main frequency:	60 Hz			
	Enclosure class:	55 Dust/Jetting			
	Insulation class:	F			
	Motor protection:	PTC			
	Motor type:	112CA			
	Motor_efficiency:	88.5 %			





Submittal Data



Materials:

Base: Stainless steel

EN 1.4408

AISI 316

Impeller: Stainless steel

AISI 316

EN 1.4401

Material code: G Code for rubber: E



Date: 2/21/2018

Tender Text



Product No.: 96085039 CRN 5-16 A-FGJ-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 EN 12756.
- Power transmission is via cast iron split coupling.

flanges/couplings.

The motor is a 3-phase AC motor.

Controls:

Frequency converter: NONE

Liquid:

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

Technical:

Speed for pump data: 3461 rpm
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE

Approvals on nameplate: CURUS,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

Installation:

Maximum ambient temperature: 140 °F

Max pressure at stated temperature: 363 psi / 250 °F

363 psi / -4 °F

Type of connection: DIN / ANSI / JIS



Date: 2/21/2018

Size of inlet connection:

Size of suction port:

Size of outlet connection:

DN 25/32

Size of outlet connection:

DN 25/32

Size of outlet port:

1 1/4 inch

Pressure rating:

PN 25

Flange size for motor:

Flange rating inlet:

300 lb

Electrical data:

Motor standard: NEMA Motor type: 112CA

IE Efficiency class: NEMA Premium / IE3 60Hz

Rated power - P2: 5.5 HP Power (P2) required by pump: 5.5 HP Main frequency: 60 Hz

Rated voltage: 3 x 208-230YY/460Y V

Service factor: 1,15

Rated current: 14,1-13,1/7,29 A Starting current: 1000-1470 % Cos phi - power factor: 0,89-0,86 Rated speed: 3525-3540 rpm IE efficiency: IE3 88,5% Motor efficiency at full load: 88.5 % Motor efficiency at 3/4 load: 88.6 % Motor efficiency at 1/2 load: 85.2 %

Number of poles: 2

Enclosure class (IEC 34-5): 55 Dust/Jetting

Insulation class (IEC 85): F

Others:

Net weight: 144 lb Gross weight: 162 lb Shipping volume: 10.1 ft³



Date: 2/21/2018

Position | Count | Description

1 CRN 5-16 A-FGJ-G-E-HQQE



Product No.: 96085039

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 EN 12756.
- Power transmission is via cast iron split coupling.

flanges/couplings.

The motor is a 3-phase AC motor.

Controls:

Frequency converter: NONE

Liquid:

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

Technical:

Speed for pump data: 3461 rpm
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE

Approvals on nameplate: CURUS,NSF61 Curve tolerance: ISO9906:2012 3B

Materials:

Base: Stainless steel

EN 1.4408 AISI 316

Impeller: Stainless steel

EN 1.4401 AISI 316 SIC

Bearing material: SIG

Installation:

Maximum ambient temperature: 140 °F

Max pressure at stated temperature: 363 psi / 250 °F

363 psi / -4 °F

Type of connection: DIN / ANSI / JIS Size of inlet connection: DN 25/32



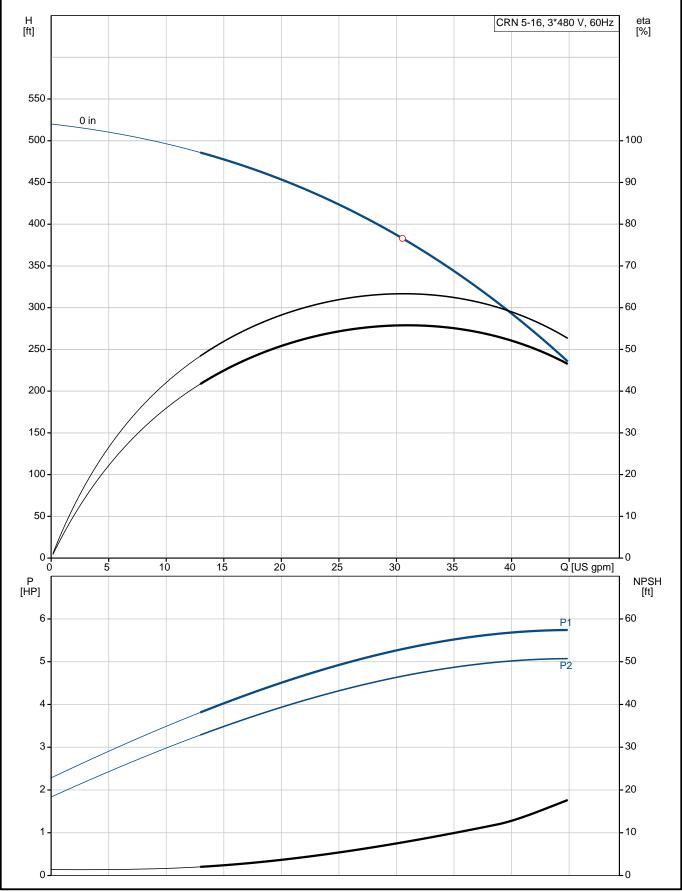
Date: 2/21/2018

			Date:	2/21/2018
Position	Count	Description		
		Size of suction port:	1 1/4 inch	
		Size of outlet connection:	DN 25/32	
		Size of outlet port:	1 1/4 inch	
		Pressure rating:	PN 25	
		Flange size for motor:	182TC	
		Flange rating inlet:	300 lb	
		Electrical data:	NUTRAG	
		Motor standard:	NEMA	
		Motor type: IE Efficiency class:	112CA NEMA Premium / IE3 60Hz	
		Rated power - P2:	5.5 HP	
		Power (P2) required by pump:	5.5 HP	
		Main frequency:	60 Hz	
		Rated voltage:	3 x 208-230YY/460Y V	
		Service factor:	1,15	
		Rated current:	14,1-13,1/7,29 A	
		Starting current:	1000-1470 %	
		Cos phi - power factor:	0,89-0,86	
		Rated speed:	3525-3540 rpm	
		IE efficiency:	IE3 88,5%	
		Motor efficiency at full load: Motor efficiency at 3/4 load:	88.5 % 88.6 %	
		Motor efficiency at 1/2 load:	85.2 %	
		Number of poles:	2	
		Enclosure class (IEC 34-5):	55 Dust/Jetting	
		Insulation class (IEC 85):	F	
		Others:	4.4.4 lb	
		Net weight: Gross weight:	144 lb 162 lb	
		Shipping volume:	10.1 ft ³	
			10.1 11	



Date: 2/21/2018

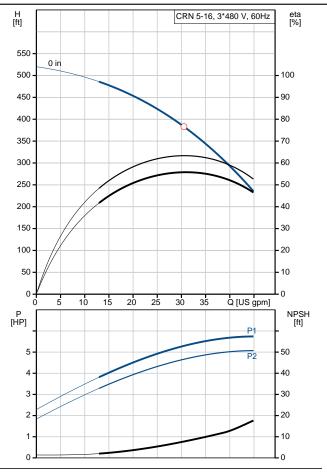
96085039 CRN 5-16 60 Hz





Date: 2/21/2018

Description	Value
General information:	
Product name:	CRN 5-16 A-FGJ-G-E-HQQE
Product No.:	96085039
EAN:	5700395198775
Technical:	
Speed for pump data:	3461 rpm
Stages:	16
Impellers:	16
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CURUS,NSF61
Curve tolerance:	ISO9906:2012 3B
Pump version:	Α
Model:	Α
Cooling:	TEFC
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

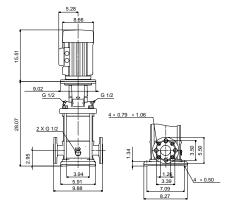


Installation:

Maximum ambient temperature: 140 °F

Max pressure at stated temperature: 363 psi / 250 °F

	363 psi / -4 °F
Type of connection:	DIN / ANSI / JIS
Connect code:	FGJ
Size of inlet connection:	DN 25/32
Size of suction port:	1 1/4 inch
Size of outlet connection:	DN 25/32
Size of outlet port:	1 1/4 inch
Pressure rating:	PN 25
Flange size for motor:	182TC
Flange rating inlet:	300 lb



Liquid:

Pumped liquid: Water Liquid temperature during operation: 68 °F

Density: 62.29 lb/ft3

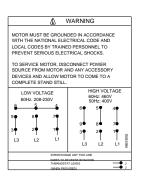
Electrical data:

Motor standard: NEMA Motor type: 112CA

NEMA Premium / IE3 60Hz IE Efficiency class:

Rated power - P2: 5.5 HP 5.5 HP Power (P2) required by pump:

Main frequency: 60 Hz Rated voltage: 3 x 208-230YY/460Y V





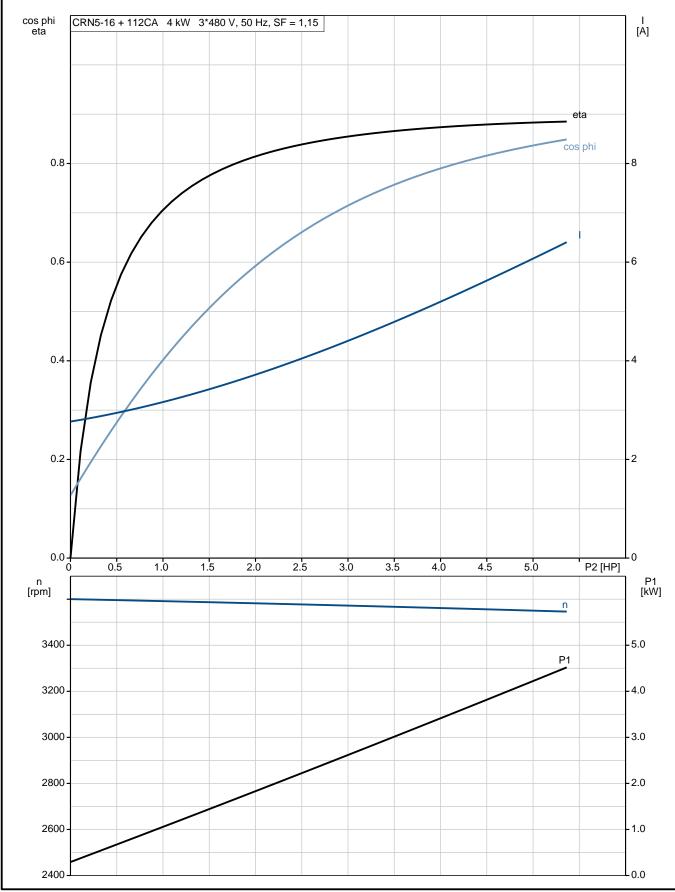
Date: 2/21/2018

Description	Value
Service factor:	1,15
Rated current:	14,1-13,1/7,29 A
Starting current:	1000-1470 %
Load current:	16,2-15,0/8,40 A
Cos phi - power factor:	0,89-0,86
Rated speed:	3525-3540 rpm
IE efficiency:	IE3 88,5%
Motor efficiency at full load:	88.5 %
Motor efficiency at 3/4 load:	88.6 %
Motor efficiency at 1/2 load:	85.2 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protection:	PTC
Motor Number:	85904389
Controls:	
Frequency converter:	NONE
Others:	
Net weight:	144 lb
Gross weight:	162 lb
Shipping volume:	10.1 ft ³



Date: 2/21/2018

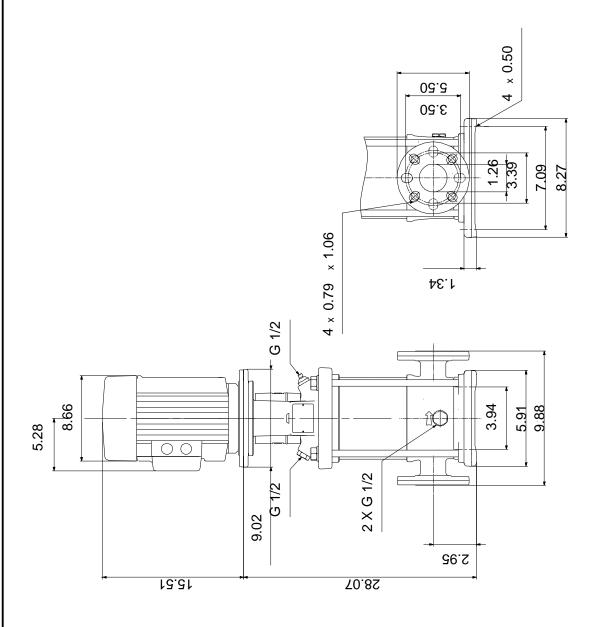
96085039 CRN 5-16 60 Hz





Date: 2/21/2018

96085039 CRN 5-16 60 Hz



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



Date: 2/21/2018

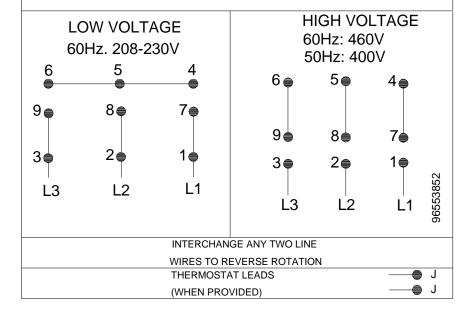
96085039 CRN 5-16 60 Hz

\(\int\)

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.



All units are [mm] unless otherwise presented.



Date: 2/21/2018

Order Data:

Product name: CRN 5-16 A-FGJ-G-E-HQQE

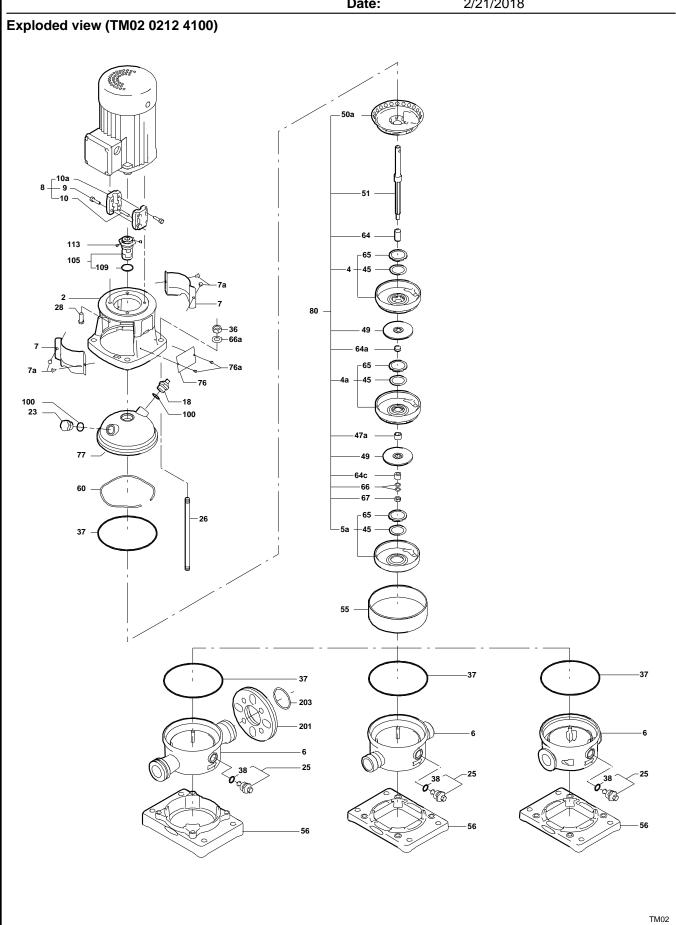
Amount: 1

Product No.: 96085039

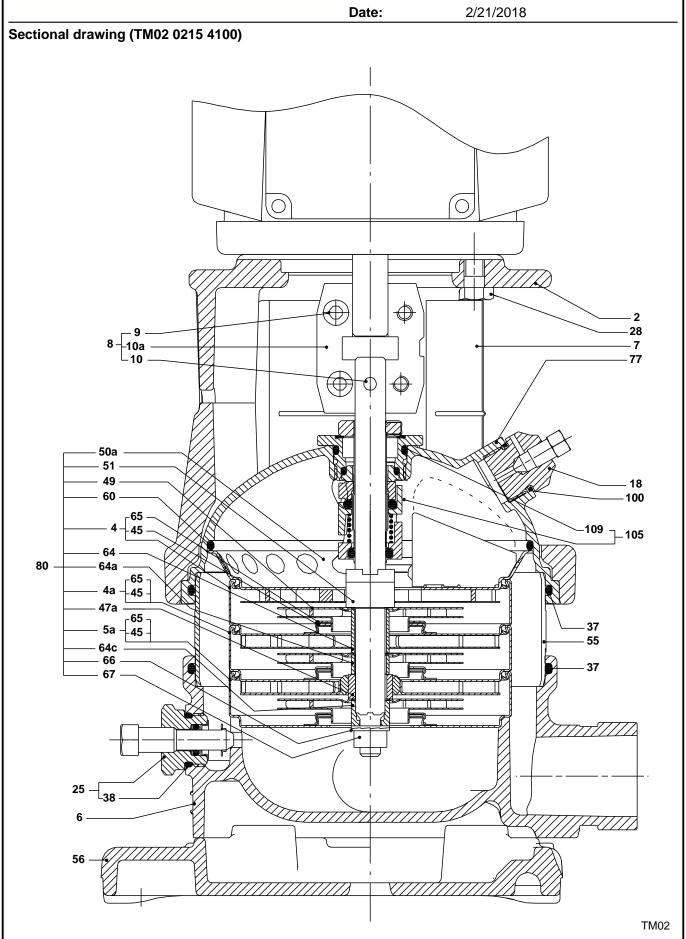
Total: Price on request



Date: 2/21/2018



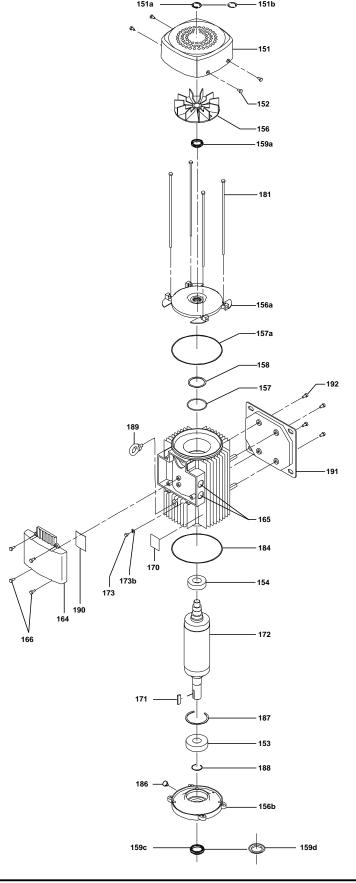






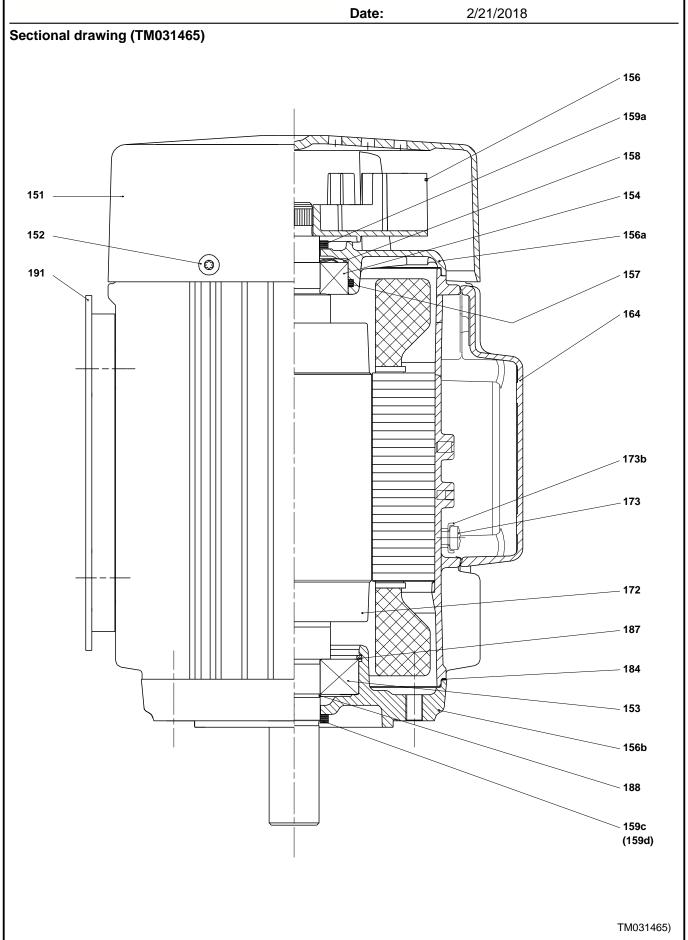
Date: 2/21/2018

Exploded view (tm030553)



TM030553)

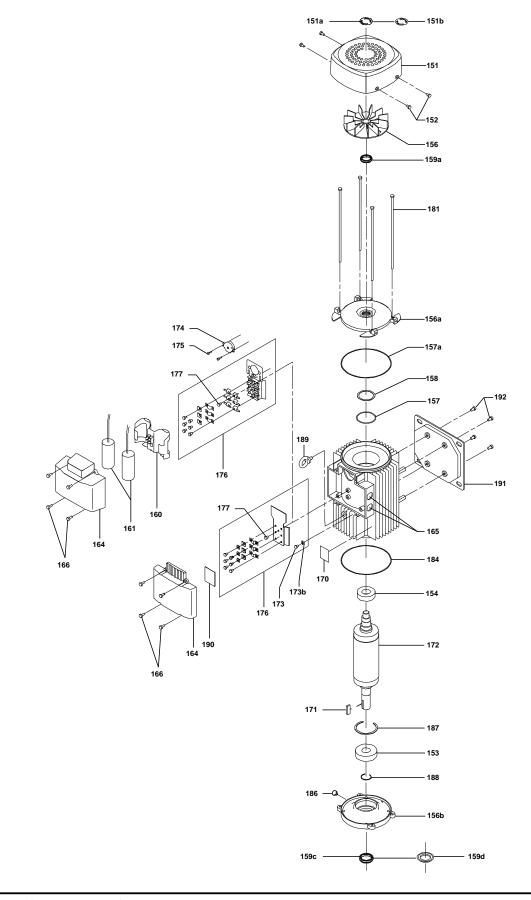






Date: 2/21/2018

Exploded view (tm029184 0505)



TM029184



Date: 2/21/2018 Sectional drawing (tm029178 2004) 156 159a 151 -152 156a (\bigcirc) 191 - 172 187 184 - 153 - 156b **- 188** - 159c (159d) TM029178



Date: 2/21/2018

Parts list CRN 5-16, Prod number 96085039 Valid from 1.7.2011 (1127)

Position		Annotation	Classification data	Part No.		
	Motor				1	р
	Motor				1	р
	Base cpl.				1	р
6	Base				1	
56	Base plate				1	
201.a	Flange				2	
203	Lock ring				2	:
	Sealing parts				1	p
25	Drain plug w/bypass valve				1	
38	O-ring		Diameter: 16,3			
			Material type: EPDM			
			Thickness: 2,4			
37	O-ring				2	<u>.</u>
100	O-ring		Diameter: 16,3		2	<u>'</u>
			Material type: EPDM			
			Thickness: 2,4			
2	Pump head cpl.				1	р
2	Motor stool				1	
7	Coupling guard				2	2
7a	Thread cutting screw					
18	Air vent screw				1	
	Plug					
	Spindle					
25	Drain plug				1	
23	Pipe plug					
25	Drain plug					
28	Hex head cap screw		Length: 25			L
20	Tiex fledd dap dolew		Thread: UNC 1/2"			
60	Formed wire spring		Tillicad. 0140 1/2		1	
77	Pump cover				1	
8	Coupling cpl.				1	p
9	Hex socket head cap screw		Designation: DIN 012		1 4	
9	Hex socket head cap screw		Designation: DIN 912 Length: 25			
			Thread: M8			
40	Oh - ft i		Diameter: 5			
10	Shaft pin				1	
40	0 " 1 "		Length: 26			
10a	Coupling half		Law with COO		4	
26	Staybolt		Length: 529		4	р
00	N		Thread: M12		_	
36	Nut		Thread: M12		4	p
55	Outer sleeve		<u></u>		1	р
66a	Washer		Designation: DIN 125 A2		4	р
			Inner diameter: 13			
			Outer diameter: 24			
			Thickness: 2,5			
80	Chamber stack				1	р
	Spacing pipe		Length: 2.00		1	
	Chamber w. bearing cpl.				3	,
	Chamber					
45	Neck ring					
65	Neck ring retainer					
4	Chamber cpl.				1	2
	Chamber					



Date: 2/21/2018

Position	Description	Annotation Classification data	Part No. Count	Unit
45	Neck ring			
65	Neck ring retainer			
- 5a	Chamber cpl.		1	
	Chamber			
45	Neck ring			
65	Neck ring retainer			
36	Lock nut	Thread: M8	1	
47a	Bearing ring, rotating		3	
+ 49	Impeller cpl.		16	
- 50a	Guide vane		1	
	Guide vane			
	Plate			
50b	Top plate			
51	Shaft, spline, cpl.		1	
64a	Spacing pipe	Inner diameter: 12,85	1	
		Outer diameter: 15,85		
		Length: 4,50		
64a	Spacing pipe	Length: 13.00	3	
64c	Clamp, splined	Inner diameter: 8,5	1	
		Outer diameter: 15		
66	Wedge lock washer		1	
69	Spacing pipe	Length: 26.0	12	
- 105	Shaft seal	Material type: HQQE	1	pcs
	O-ring		1	
	O-ring		1	
	Seal driver, upper		1	
	Seal driver, lower		1	
	Spacer ring		1	
	Pipe		1	
	Plug		1	
	Plug		1	
	Compression spring		1	
	Socket set screw		1	
102	O-ring	Diameter: 22,00	1	
		Material type: EPDM		
		Thickness: 2,75		
103	Seal ring, stationary		1	
105	Seal ring, rotating		1	
107	O-ring		1	
113	Driver		1	