

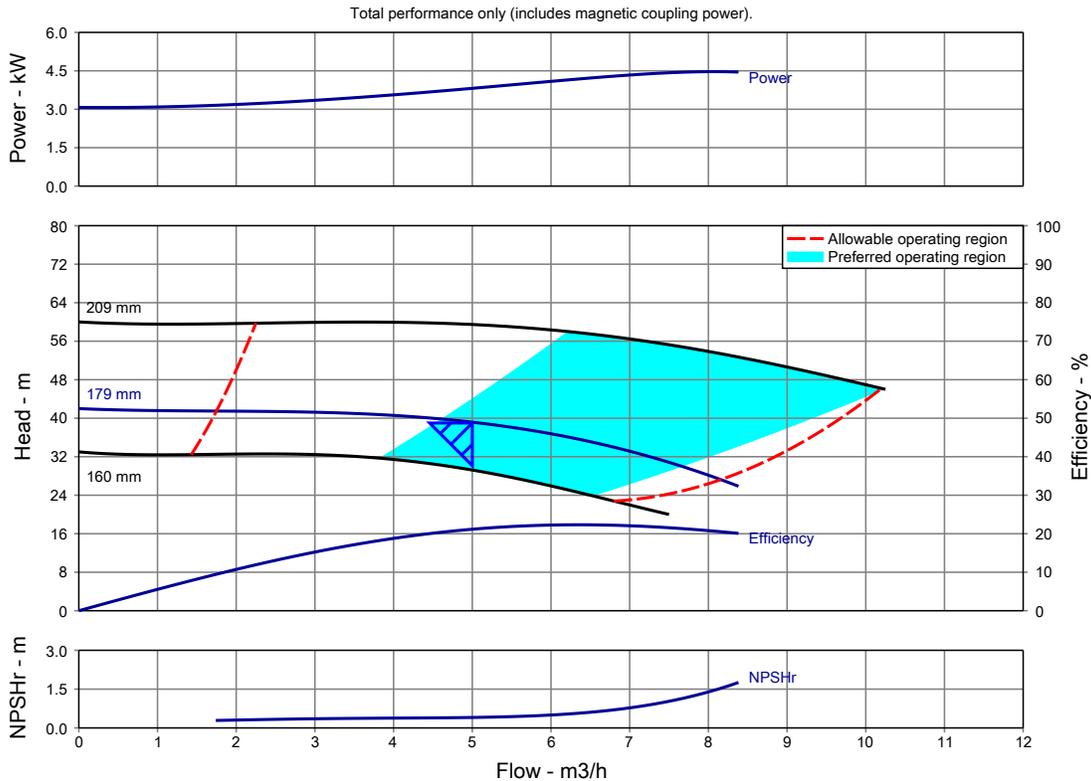


Customer : ETATRON UKRAINA
 LLC
Reference :

Pump Performance Datasheet
 MPumps Selection System 24.4.1

Item number	: P-1602A/B/C	Size	: CN-MAG M 25-200 CC
Service	: STABILIZED CONCENTRATED ACID PUMP	Stages	: 1
Quantity	: 3	Based on curve number	: 15152
Quote number	: 32596	Date last saved	: 18 Dec 2024 11:10 AM

Operating Conditions		Liquid	
Flow, rated	: 5.00 m3/h	Liquid type	: Nitric Acid [98.00 %]
Differential head / pressure, rated (requested)	: 39.00 m	Additional liquid description	:
Differential head / pressure, rated (actual)	: 39.17 m	Solids diameter, max	: 0.00 mm
Suction pressure, rated / max	: 0.00 / 0.00 bar.g	Solids concentration, by volume	: 0.00 %
NPSH available, rated	: 4.00 m	Temperature, max	: 40.00 deg C
Site Supply Frequency	: 50 Hz	Fluid density, rated / max	: 1,514.0 / 1,514.0 kg/m3
Performance		Material	
Speed criteria	: Synchronous	Vapor pressure, rated	: 0.00 bar.a
Speed, rated	: 2900 rpm	Material	
Impeller diameter, rated	: 179 mm	Material selected	: See Construction Datasheet
Impeller diameter, maximum	: 209 mm	Pressure Data	
Impeller diameter, minimum	: 160 mm	Maximum working pressure	: 6.24 bar.g
Efficiency (total / pump)	: 21.17 / 27.89 %	Maximum allowable working pressure	: 16.00 bar.g
NPSH required / margin required	: 0.40 / 0.00 m	Maximum allowable suction pressure	: N/A
Ns (imp. eye flow) / Nss (imp. eye flow)	: 389 / 6,386 US Units	Hydrostatic test pressure	: N/A
MCSF	: 1.75 m3/h	Driver & Power Data (@ Max density)	
Head, maximum, rated diameter	: 41.99 m	Driver sizing specification	: Rated power
Head rise to shutoff	: 7.20 %	Margin over specification	: 0.00 %
Flow, best eff. point	: 6.35 m3/h	Service factor	: 1.00
Flow ratio, rated / BEP	: 78.79 %	Magnetic losses	: 0.92 kW
Diameter ratio (rated / max)	: 85.65 %	Power (total / pump)	: 3.82 / 2.90 kW
Head ratio (rated dia / max dia)	: 65.87 %	Power, maximum, rated diameter	: 4.47 kW
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00	Minimum recommended motor rating	: 5.50 kW / 7.38 hp
Selection status	: Acceptable		



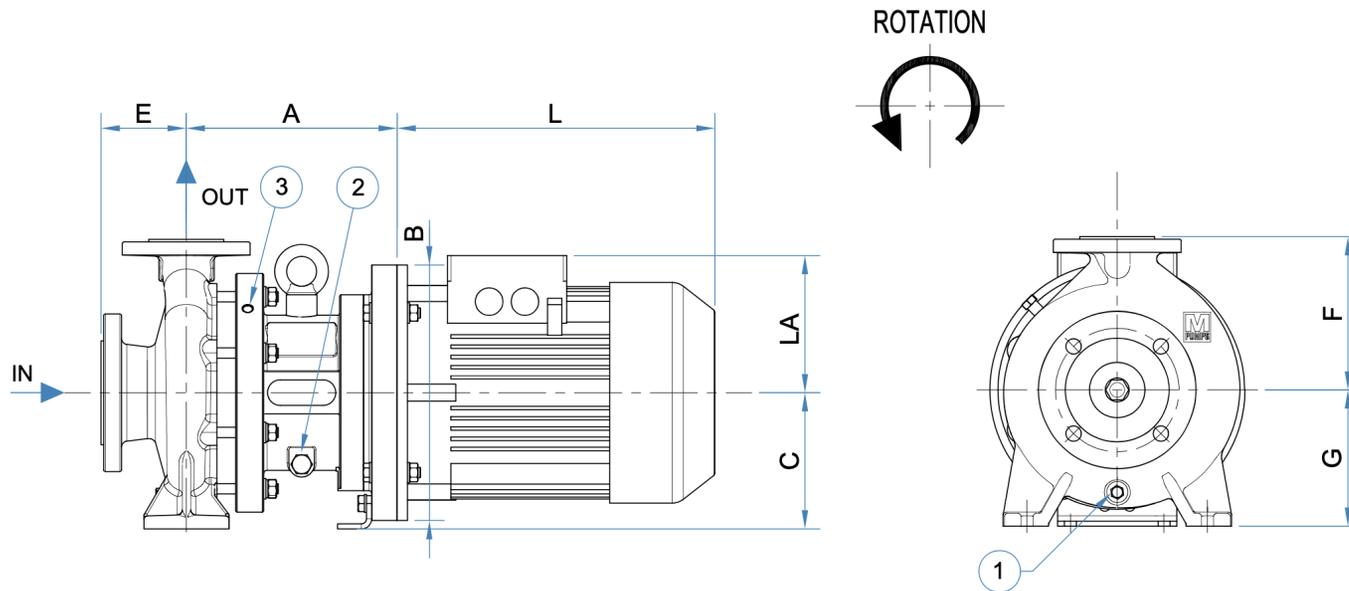


Datasheet

Customer : ETATRON UKRAINA LLC	Quote Number : 32596
Customer Reference :	Project :
Item Number : P-1602A/B/C	Comply To : -
Service : STABILIZED CONCENTRATED ACID PUMP	ATEX : Atex zone 1 (2G)
Quantity of Pumps : 3	Application Data
Pump Design	Liquid Type: : Nitric Acid
Model : CN MAG-M Close Coupled	Operating Temp : 40.00 deg C
Type : CN-MAG M 25-200 CC	Viscosity : 0.60 cSt
Standard : ISO 2858/5199	Vapour Pressure : 0.00 bar.a
Rotation : Counterclockwise	Flow, rated : 5.00 m3/h
Max. Operating Pressure : 6.24 bar.a	Head : 39.00 m
MAWP : 16.00 bar.g	NPSHA : 4.00 m
Min. Continuous Flow : 1.75 m3/h	Suction Pressure : 0.00 bar.g
NPSHR : 0.40 m	Solid Diameter : 0.00 mm
Hydraulic Efficiency : 21.17 %	Solid Volume : 0.00 %
Rated Power : 5.50 kW	Density Rated : 1.514 kg/m3
Magnetic Coupling Type : B1-B1	Design Pressure : PN 16
Impeller Rated* : 179 mm	Design Temperature : -40°C to 120°C
Pump Speed : 2900 rpm	Driver Information
Connections : Din PN 16 Flanged (Standard)	Brand : WEG
Nozzle	Power : 5.50 kW
Standard	Power Supply : 400 V
Size	Frequency : 50 Hz
Rating	RPM : 2900 rpm
Face	Enclosure : TEFC
Position	Frame Size : 132
Suction EN 1092-1 DN 40 PN 16 Type B End	Construction : B5
Discharge EN 1092-1 DN 25 PN 16 Type B Top	Type : Three-Phase Motor (Standard)
Materials	Protection : IP55
xxx : Pump Casing : CF8M (Standard)	Efficiency : IE3 (Std from 0.75 kW)
xxx : Impeller : CF8M (Standard)	Note : -
xxx : Shaft Support : CF8M (Standard)	Weight
xxx : Pump Bracket : ASTM WCB A216 (Standard)	Pump : 51.00 kg
xxx : Shaft : DUPLEX 22% (Standard)	Base : -1.00 kg
xxx : Tolerance Ring : AISI 301 (Standard)	Motor : -1.00 kg
xxx : Bushing/Sleeve/Thrust Bearings : Sic / Sic - Sic	Total : 49.00 kg
xxx : Gaskets : PTFE (Standard)	Painting Specification
xxx : Containment Shell : Hybrid CF-HC	Color/Specifications : C4 HIGH RAL 5015 on no-inox surface - ISO 12944:2018 (Std)
xxx : Internal Magnet : NdFeB	Note : -
xxx : External Magnet : NdFeb	Baseplate Coupling Guard
Jacket	Baseplate Type : No Baseplate
Casing/Shaft support/Bracket : No/No/No	Baseplate Material : Standard
Jacket Design Pressure : -	

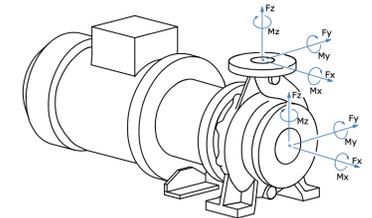
Pump size and type : CN-MAG M 25-200 CC
 Item number : P-1602A/B/C
 Customer : ETATRON UKRAINA LLC
 ATEX : ATEX zone 1 (2G)

Weight (kg)
 Pump : 51.00 kg
 Motor : -1.00 kg

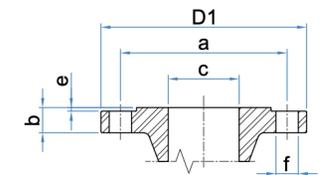


Dimension (mm)					
A	248	P	190		
E	80	Q	70		
C	160	D	228		
L	-1	R	110		
LA	-1	K	158.5		
B	300	S	14		
G	160	T	14		
F	180				

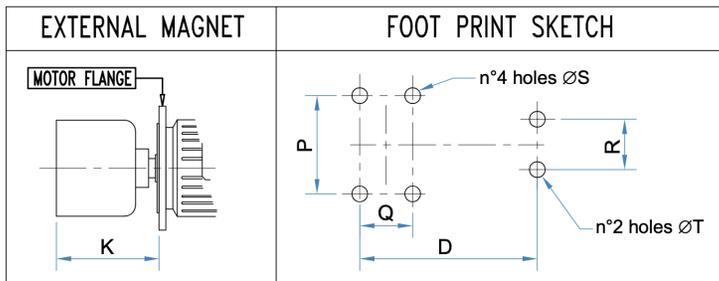
Strenght (N-m)					
SF					
Fx	Fy	Fz	Mx	My	Mz
875	770	700	910	630	735
DF					
Fx	Fy	Fz	Mx	My	Mz
525	490	595	630	420	490



Flanges			
Suction (mm)		Discharge (mm)	
DN	DN 40	DN	DN 25
N. Holes	4	N. Holes	4
D1	150	D1	115
a	110	a	85
c	40	c	25
f	18	f	14
e	3	e	2
b	18	b	18



Plug and Port
 N.1 Pump Casing Drain Plug: 1/4" NPT Male
 N.2 Bracket Plug: 3/8" BSPP Male
 N.3 PT100 Port: 1/4" NPT Female



Quote number :
 Item number : P-1602A/B/C
 Service : STABILIZED CONCENTRATED ACID

Pump speed : 2900 rpm
 Flow : 5.00 m3/h
 Head : 39.00 m

Frequency : 50 Hz
 Coupling Size : B1-B1
 Magnet Material : NdFeB-NdFeb