

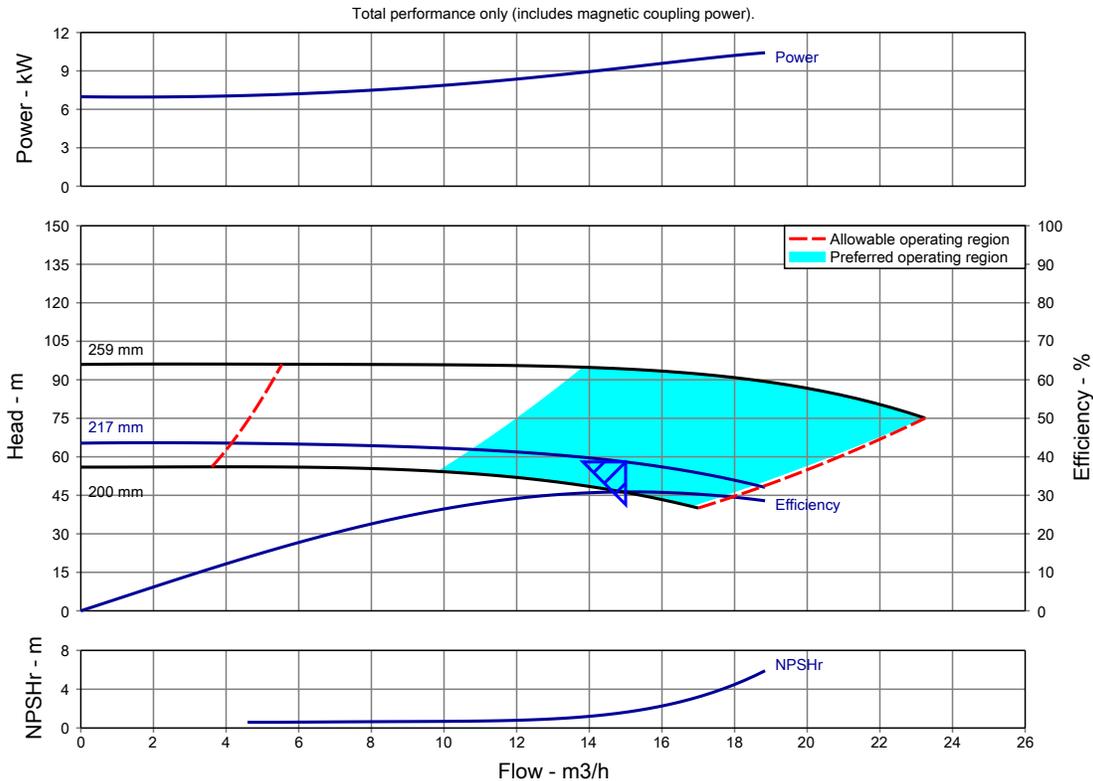


**Customer** : ETATRON UKRAINA  
 LLC  
**Reference** :

**Pump Performance Datasheet**  
 MPumps Selection System 24.4.1

Item number	: P-1603A/B/C	Size	: CN-MAG M 32-250 CC
Service	: SPENT ACID PUMP	Stages	: 1
Quantity	: 3	Based on curve number	: 10116
Quote number	: 32596	Date last saved	: 18 Dec 2024 11:09 AM

Operating Conditions		Liquid	
Flow, rated	: 15.00 m3/h	Liquid type	: Nitric Acid [55.00 %]
Differential head / pressure, rated (requested)	: 58.00 m	Additional liquid description	:
Differential head / pressure, rated (actual)	: 58.39 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	: 1,207.0 / 1,207.0 kg/m3
<b>Performance</b>		Viscosity, rated	: 0.80 cSt
Speed criteria	: Synchronous	Vapor pressure, rated	: 0.00 bar.a
Speed, rated	: 2900 rpm	<b>Material</b>	
Impeller diameter, rated	: 217 mm	Material selected	: See Construction Datasheet
Impeller diameter, maximum	: 259 mm	<b>Pressure Data</b>	
Impeller diameter, minimum	: 200 mm	Maximum working pressure	: 7.75 bar.g
Efficiency (total / pump)	: 30.89 / 38.24 %	Maximum allowable working pressure	: 16.00 bar.g
NPSH required / margin required	: 1.63 / 0.00 m	Maximum allowable suction pressure	: N/A
Ns (imp. eye flow) / Nss (imp. eye flow)	: 388 / 7,369 US Units	Hydrostatic test pressure	: N/A
MCSF	: 4.14 m3/h	<b>Driver &amp; Power Data (@Max density)</b>	
Head, maximum, rated diameter	: 65.49 m	Driver sizing specification	: Rated power
Head rise to shutoff	: 12.60 %	Margin over specification	: 0.00 %
Flow, best eff. point	: 15.15 m3/h	Service factor	: 1.00
Flow ratio, rated / BEP	: 99.03 %	Magnetic losses	: 1.78 kW
Diameter ratio (rated / max)	: 83.78 %	Power (total / pump)	: 9.26 / 7.48 kW
Head ratio (rated dia / max dia)	: 61.56 %	Power, maximum, rated diameter	: 10.42 kW
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00	Minimum recommended motor rating	: 11.00 kW / 14.75 hp
Selection status	: Acceptable		

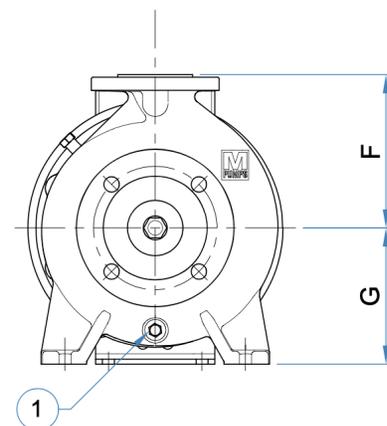
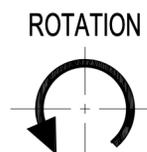
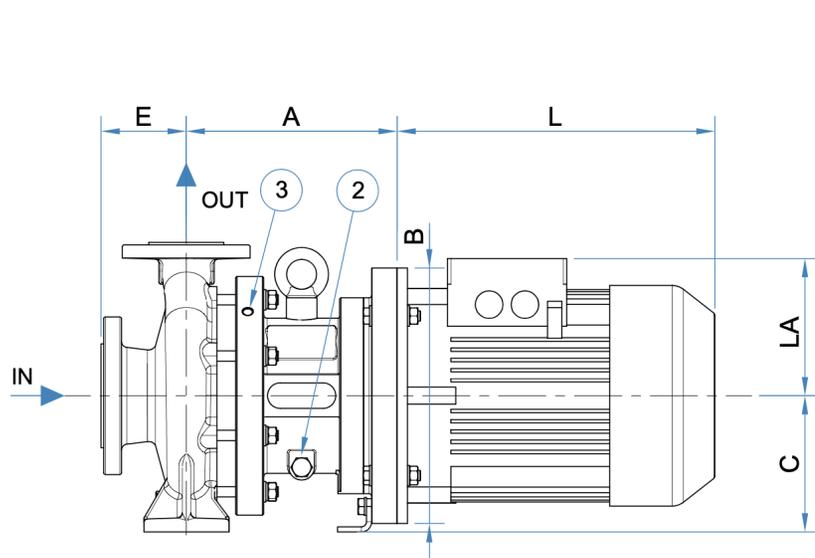




## Datasheet

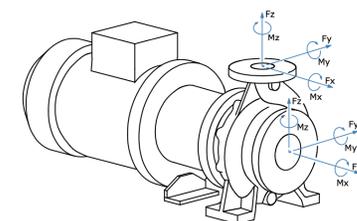
Customer : ETATRON UKRAINA LLC	Quote Number : 32596
Customer Reference :	Project :
Item Number : P-1603A/B/C	Comply To : -
Service : SPENT ACID PUMP	ATEX : Atex zone 1 (2G)
Quantity of Pumps : 3	<b>Application Data</b>
<b>Pump Design</b>	Liquid Type: : Nitric Acid
Model : CN MAG-M Close Coupled	Operating Temp : 40.00 deg C
Type : CN-MAG M 32-250 CC	Viscosity : 0.80 cSt
Standard : ISO 2858/5199	Vapour Pressure : 0.00 bar.a
Rotation : Counterclockwise	Flow, rated : 15.00 m3/h
Max. Operating Pressure : 7.75 bar.a	Head : 58.00 m
MAWP : 16.00 bar.g	NPSHA : 4.00 m
Min. Continuous Flow : 4.14 m3/h	Suction Pressure : 0.00 bar.g
NPSHR : 1.63 m	Solid Diameter : 0.00 mm
Hydraulic Efficiency : 30.89 %	Solid Volume : 0.00 %
Rated Power : 11.00 kW	Density Rated : 1.207 kg/m3
Magnetic Coupling Type : F1-F1	Design Pressure : PN 16
Impeller Rated* : 216 mm	Design Temperature : -40°C to 120°C
Pump Speed : 2900 rpm	<b>Driver Information</b>
Connections : Din PN 16 Flanged (Standard)	Brand : WEG
<b>Nozzle</b>	Power : 11.00 kW
<b>Standard</b>	Power Supply : 400 V
<b>Size</b>	Frequency : 50 Hz
<b>Rating</b>	RPM : 2900 rpm
<b>Face</b>	Enclosure : TEFC
<b>Position</b>	Frame Size : 160
Suction EN 1092-1 DN 50 PN 16 Type B End	Construction : B5
Discharge EN 1092-1 DN 32 PN 16 Type B Top	Type : Three-Phase Motor (Standard)
<b>Materials</b>	Protection : IP55
xxx : Pump Casing : CF8M (Standard)	Efficiency : IE3 (Std from 0.75 kW)
xxx : Impeller : CF8M (Standard)	Note : -
xxx : Shaft Support : CF8M (Standard)	<b>Weight</b>
xxx : Pump Bracket : ASTM WCB A216 (Standard)	Pump : 110.0 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 : 108.0 kg
xxx : Gaskets : PTFE (Standard)	<b>Painting Specification</b>
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	
<b>Jacket</b>	
Casing/Shaft support/Bracket : No/No/No	
Jacket Design Pressure : -	
<b>Baseplate Coupling Guard</b>	
Baseplate Type : No Baseplate	
Baseplate Material : Standard	

Pump size and type Item number Customer ATEX	: CN-MAG M 32-250 CC : P-1603A/B/C : ETATRON UKRAINA LLC : ATEX zone 1 (2G)	Weight (kg) Pump : 110.0 kg Motor : -1.00 kg
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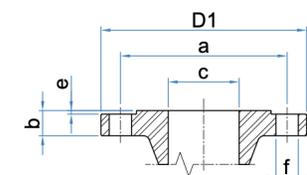


Dimension (mm)					
A	335	P	250		
E	100	Q	95		
C	190	D	310		
L	-1	R	110		
LA	-1	K	214.5		
B	350	S	14		
G	180	T	14		
F	225				

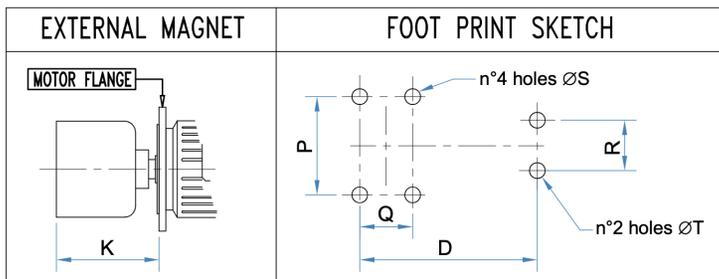
Strenght (N-m)					
SF					
Fx	Fy	Fz	Mx	My	Mz
1,155	1,050	945	980	700	805
DF					
Fx	Fy	Fz	Mx	My	Mz
630	595	735	770	525	595



Flanges			
Suction (mm)		Discharge (mm)	
DN	DN 50	DN	DN 32
N. Holes	4	N. Holes	4
D1	165	D1	140
a	125	a	100
c	50	c	32
f	18	f	18
e	3	e	2
b	18	b	18



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



Quote number : Item number : P-1603A/B/C Service : SPENT ACID PUMP Quantity of pumps : 3	Pump speed : 2900 rpm Flow : 15.00 m3/h Head : 58.00 m Driver Power : 11.00 kW	Frequency : 50 Hz Coupling Size : F1-F1 Magnet Material : NdFeB-NdFeb Motor Frame size : 160
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