

# STN 70



STN 70



STN 30



STN 40

Compact, Plastic Magnetic drive Horizontal - Single Stage - Centrifugal pumps  
PP-GF (Polypropylene-Glass filled) - CFR - ETFE  
Close-coupled execution



Comply to:  
2006/42/CE

Available upon request:

ATEX 100   
Directive 2014/34/CE

Flanges :  
UNI 1092 PN10RF type B  
ANSI 150RF

# STN

## MAG DRIVE CONCEPT

The synchronous drive configuration is based on an outer magnet ring assembly built to magnetically couple with an inner magnet ring assembly.

These two magnet rings are locked together by the flux of attracting magnet poles flowing through the containment isolation shell.



**STN**  
STANDARD EXECUTION  
with motor



**STN**  
ATEX EXECUTION  
without motor

### Versatility

The STN offer a wide range of materials for the wetted parts :

- PP-GF (Polypropylene-Glass filled)
- CFR-ETFE (Carbon filled - Ethylene tetrafluoroethylene) - \*only

### Reliability

Suitable for handling corrosive, aggressive and hazardous liquids (low viscosity, clean or slightly contaminated) in the chemical applications.

### Design

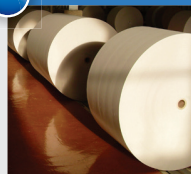
Made with a reliable quality like the ETN range, but designed for a reduced and economical requirement profile

## Application fields

Basic chemical  
Low Duty Service



Paper industry



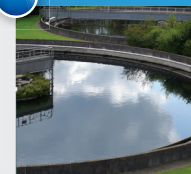
C.I.P.



Galvanic Industry

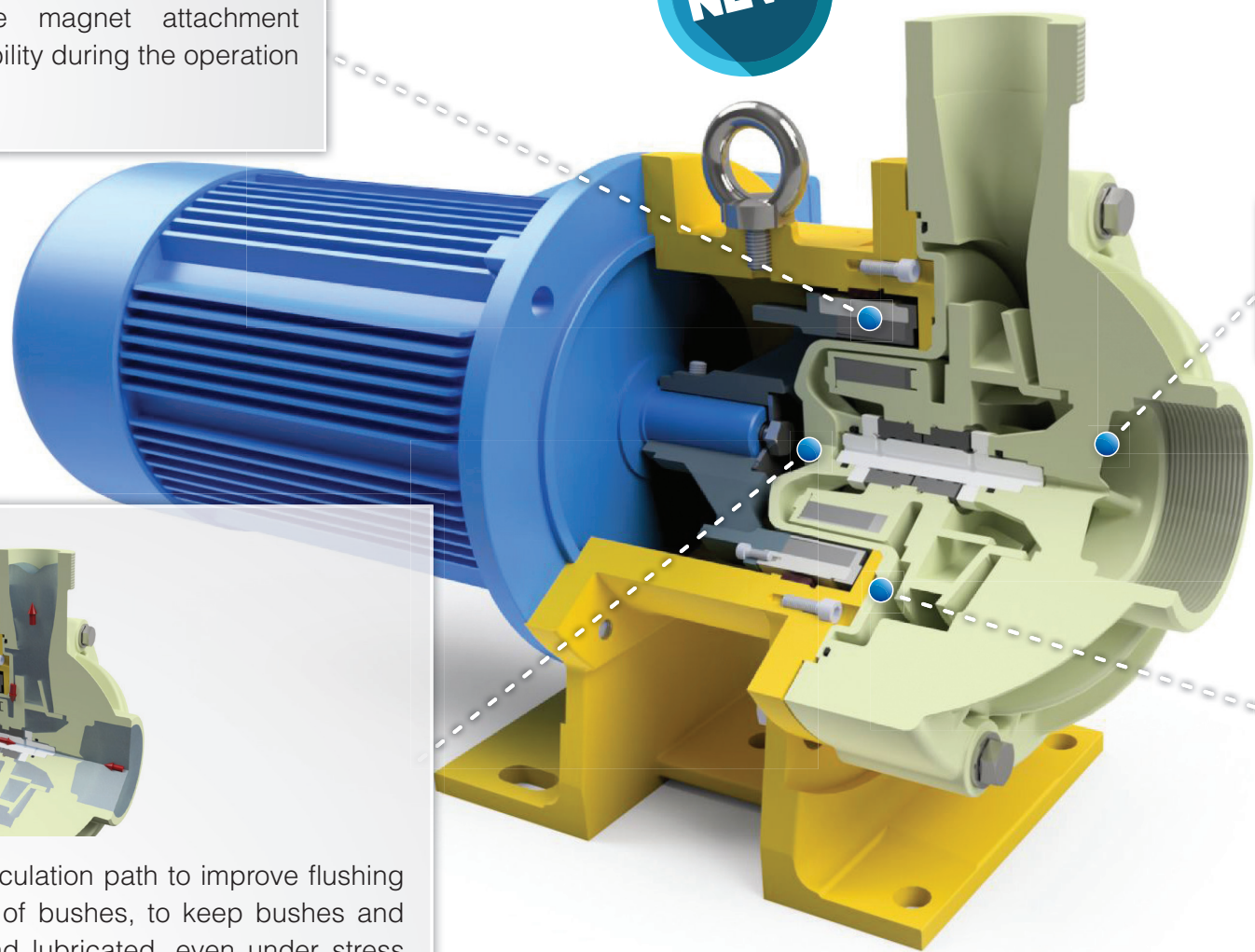


Water treatment  
Ion exchange  
resins regeneration



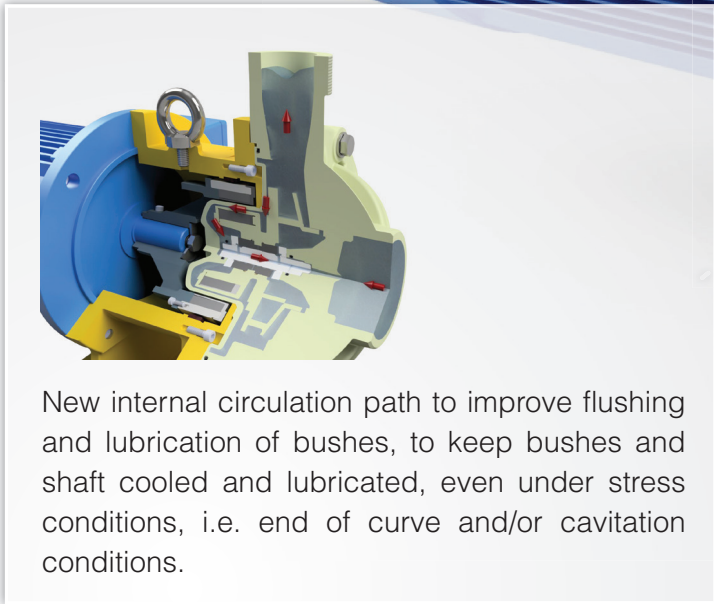
# 3D VIEW - STN 70

Inner and Outer magnets are equipped with rare earth permanent magnets. Patented cage magnet attachment guarantees stability during the operation of the pump.



The casing's design is reinforced by a solid rib structure.

Sealless design. Total containment, essential for hazardous, aggressive or valuable product.



New internal circulation path to improve flushing and lubrication of bushes, to keep bushes and shaft cooled and lubricated, even under stress conditions, i.e. end of curve and/or cavitation conditions.



# FEATURES - STN 70

## CASING



- Available in PP-GF execution
- Standard casing drain for a complete and fast draining of the casing.

## IMPELLER ASSEMBLY



- The integral design of the impeller and inner magnet prevents any misalignment problem, also reducing the production cost.
- Standard back vanes reduce axial thrust and seal chamber pressures to guarantee an extraordinary bearing and seal life.

## ISOLATION SHELL



- Available made by a solid 3 mm PP-GF layer
- Zero Eddy Current Losses thanks to non-metallic execution

## SHAFT AND BUSHES



Axial and radial loads are well distributed thanks to the highly reliable rotating parts design.

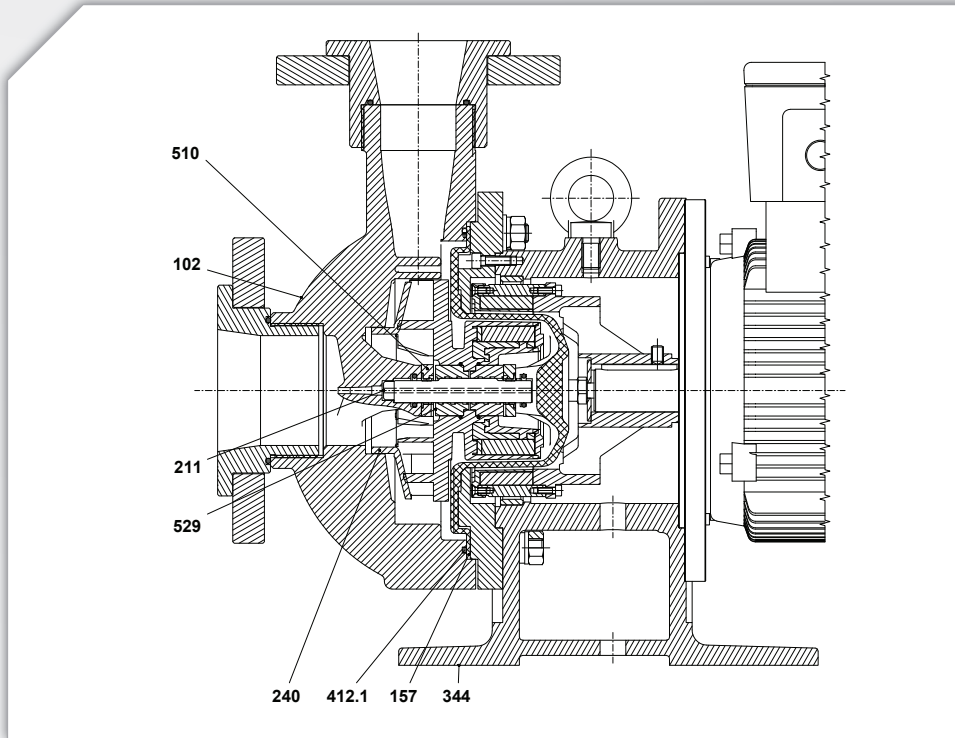
The static shaft (SiC or Ceramic) is supported in the can and by the lining suction cover.

Interchangeability of bushes, axial thrusts and shaft between ETN EVO and STN 70

Bushes available in PTFE/Carbon.

# SECTIONAL DRAWING - STN 70

STN



Pump Part List

DIN	Component	Material
102	Casing	PP-GF
157	Isolation shell	PP
183	Feet	Ryton/Inox
211	Shaft	SiC / Al2O3
240	Impeller assembly	PP
344	Lantern	GS400
412.1	O-ring casing	EPDM / FPM
412.5	O-Ring	EPDM / FPM
510	Thrust Bearing	SiC / Al2O3
529	Bearing Sleeve	PTFE/carbon/SiC/graphite
856	Outer Magnet	GS400+Ryton

Technical Specifications

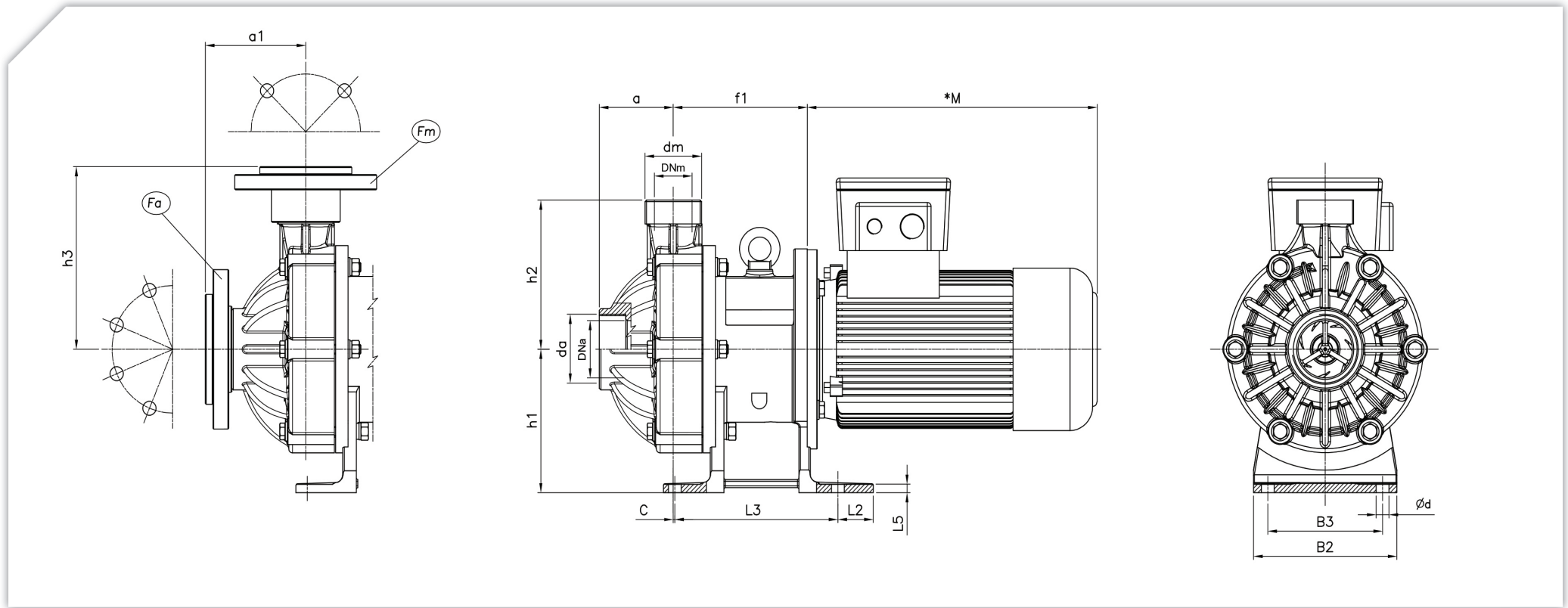
Performances 2900 rpm	Q max = 62 m3/h -> H max = 30 mcl
Electric Motors	0.75 kW (motor size 80) -> 4 kW (motor size 112)
Temperature range	• PP-GF : 0°C -> +60°C
Allowable Pressure Range	• PP : from 6 bar (20°C) to 4 bar (60°C)
Threaded Connections	STN 70 Threaded execution = DN 80 / DN 50 Flanged execution = DN 80 / DN 65 * as option: flanges ISO 1092 PN16RF or ANSI 150RF
Viscosity	1cSt min - 100 cSt max
Allowable Solids	Max concentration 2 % by weight / Max particle size 0,10 mm

Painting Coating Quality

The metal surfaces are protected by a high performance three layers coating (240 micron total)

- Epoxy zinc paint
- Epoxy amidic modified vinyl
- Epoxy enamel paint or aliphatic acrylic polyurethane.
- Available upon request : EN ISO 12944-5 C5M and C5I protecting paint system grades
- RAL 1017

# OVERALL DIMENSIONS - STN 70

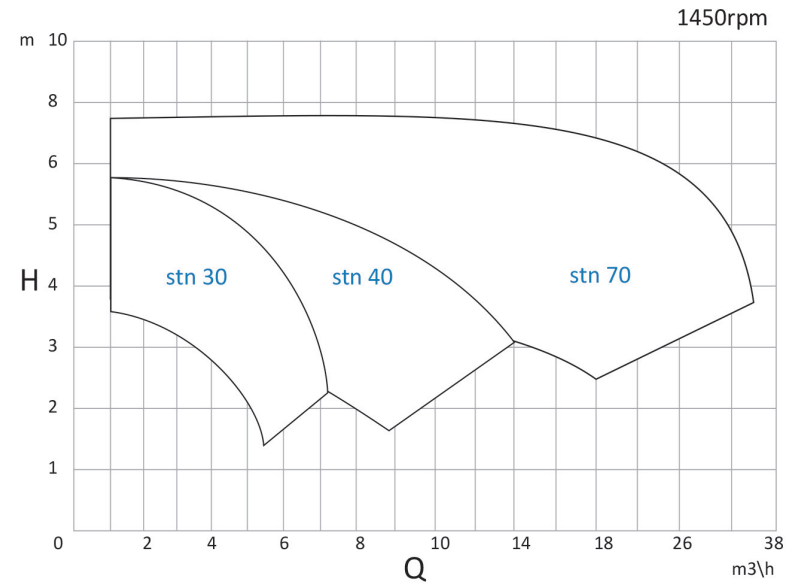
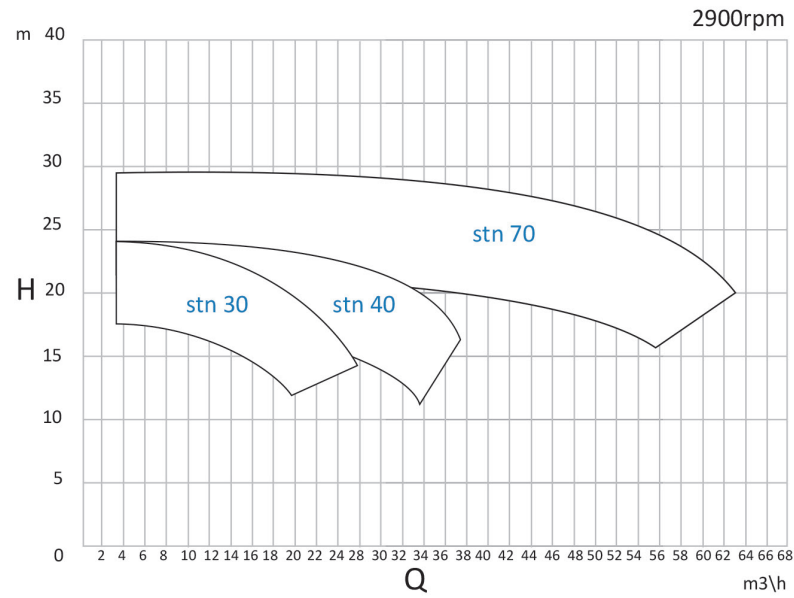


Pump Model	DNa	DNm	Fa		Fm		da	dm	a	a1	B2	B3	c	Ød	h1	h2	h3	L2	L3	L5	F1					Motor Frame	Weight pump (w/o motor)							
									Motor Size																									
									80	90	100	112									132													
STN 70	80	50	Dn80	UNI EN 1092-1 PN 10RF or ANSI 150	Dn65	UNI EN 1092-1 PN 10RF or ANSI 150	G 3"	G 2" 1/2	98	133	190	152	2	17	180	187	229	47	216	10	80	90	100	112	132	B5	kg							
																					mm	mm	mm	mm	mm									
																					178	178	178	178	196									

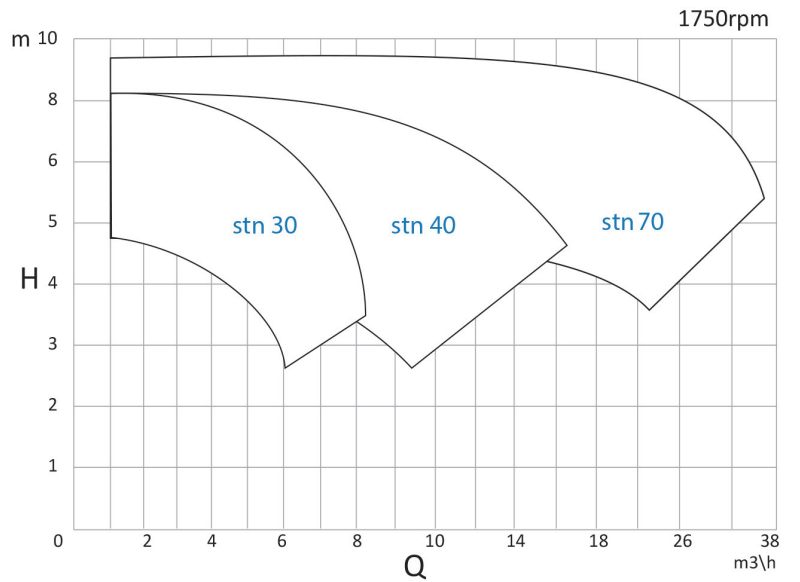
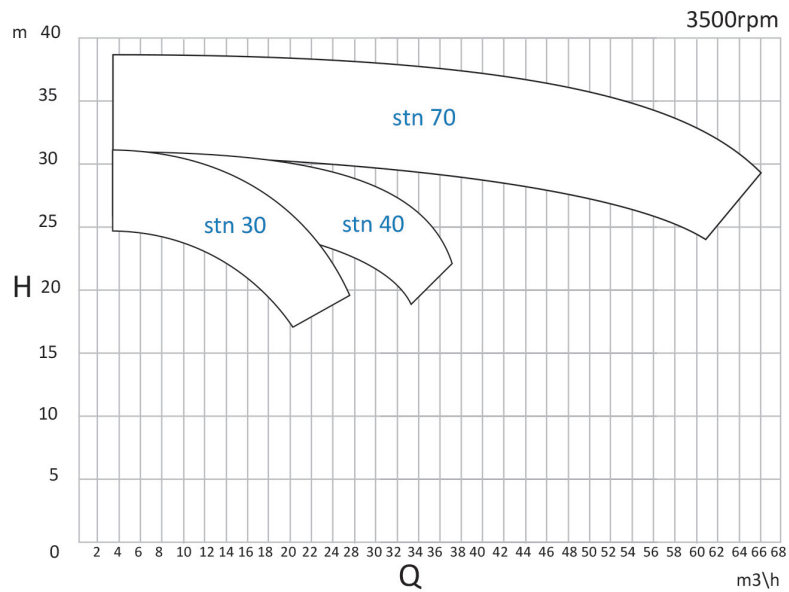
\*M dimension is according to installed motor manufacturer

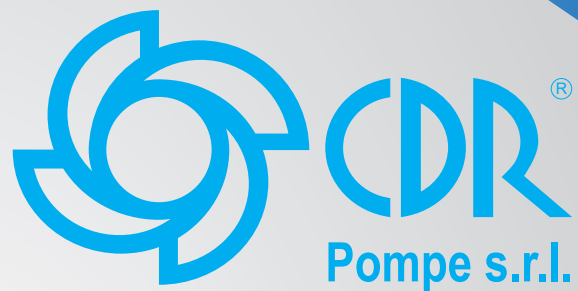
# PERFORMANCE FIELDS

50Hz



60Hz





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TB - STN 2019 - 00



For further info, please visit:  
[www.cdrpompe.com](http://www.cdrpompe.com)

**Technical Characteristics:**

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