STN

Plastic Magnetic Drive Centrifugal Pumps

STN 40 PP-GF

Comply to :

2006/42/CE

Available upon request :

ATEX 100

Directive 2014/34/EC

Flanges :

UNI 1092 PN16RF type B

ANSI 150RF

Compact, Plastic and Fluoroplastic Magnetic drive Horizontal - Single Stage - Centrifugal pumps

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

Close-coupled execution

CDR® Pompe S.r.l.

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 casing

Reliability

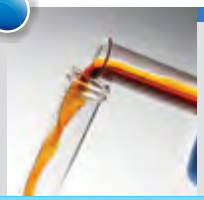
Suitable for handling corrosive, aggressive and hazardous liquids (low viscosity, clean or slightly contaminated) in the chemical applications.

Design

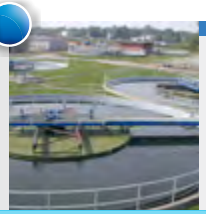
Made with a reliable quality as the ETN but designed for smaller applications or where the working condition are less critical.

Application Fields

Basic chemical
Low Duty Service



Waste Water Treatment



Air Treatment

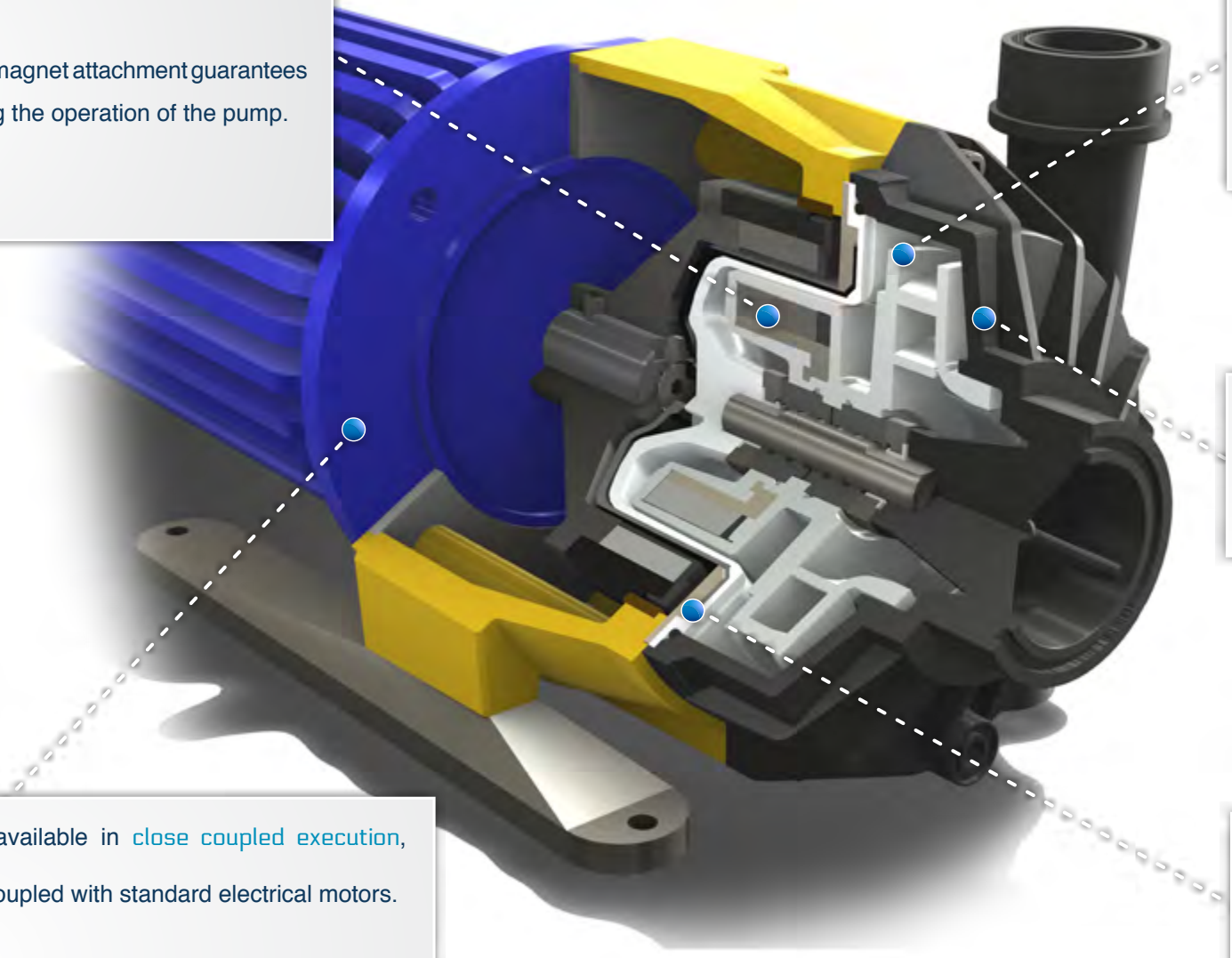
C.I.P.

Galvanic Industry

3D VIEW

Inner and Outer magnets are equipped with rare earth permanent magnets.

Patented cage magnet attachment guarantees stability during the operation of the pump.



High chemical resistance employing a performing material as **CFR-ETFE.**

- Alternative available materials for the Wetted parts: **PP.**

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

The STN are available in close coupled execution, suitable to be coupled with standard electrical motors.

Sealless design

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

FEATURES

CASING

• Available in CFR-ETFE and 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

• ETFE Non-metallic double Isolation Shell configuration on wet side, externally reinforced by a Polycarbonate can
As alternative, it is available made by a solid 3 mm PP-GF layer

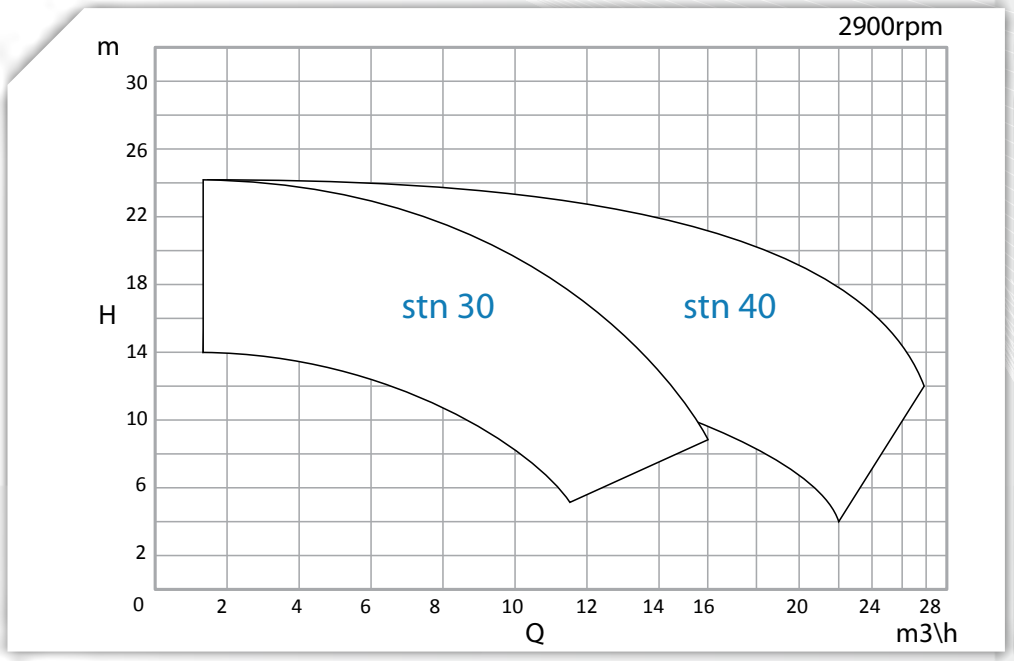
• Zero Eddy Current Losses thanks to non-metallic execution

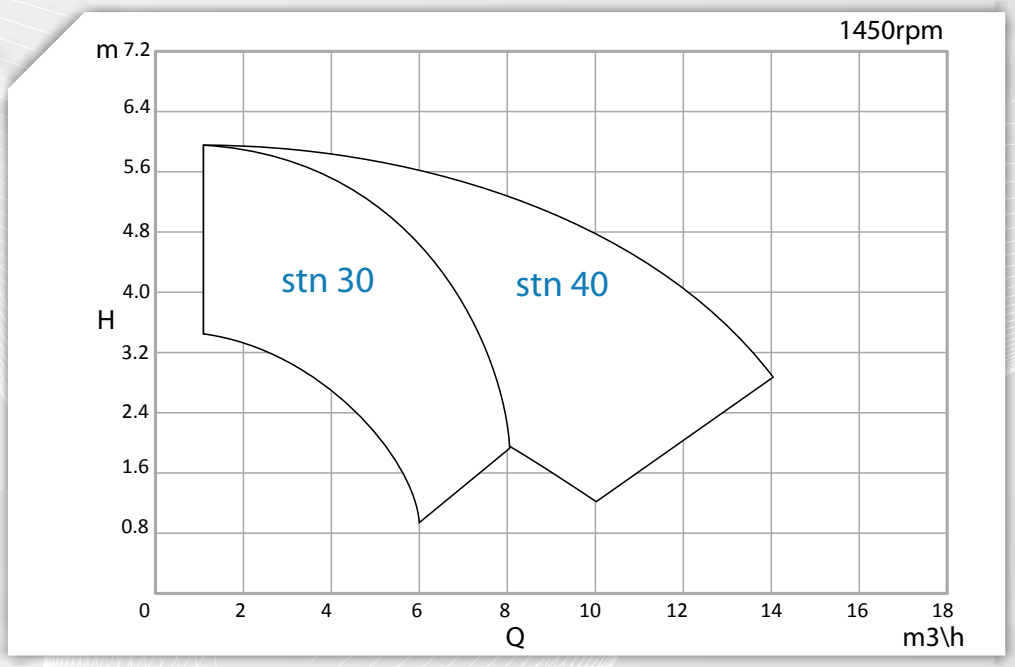
SHAFT

• 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.

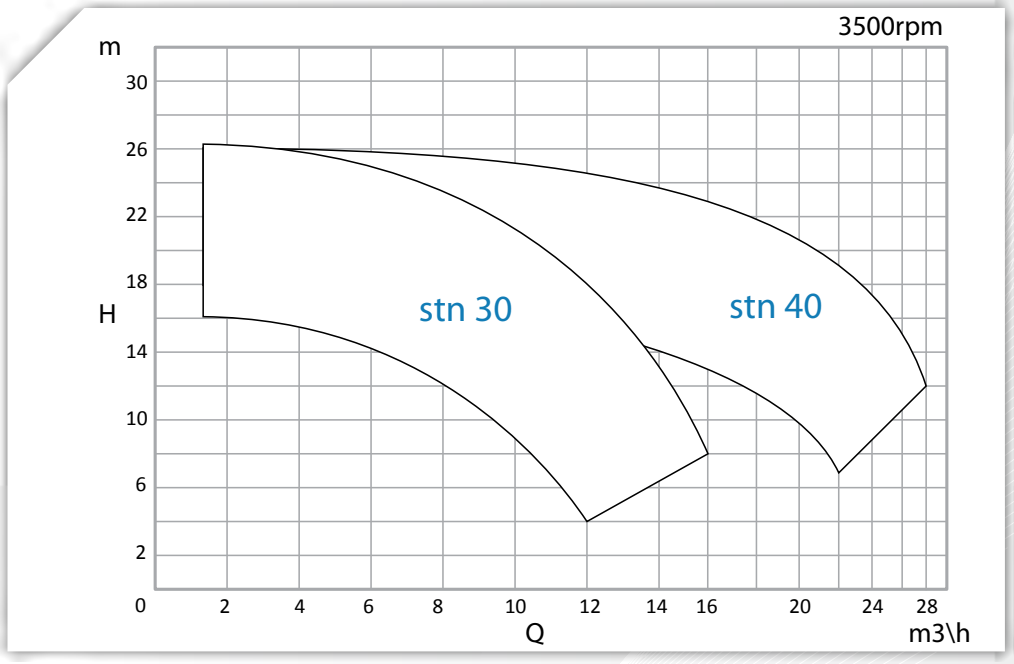
PERFORMANCE FIELDS

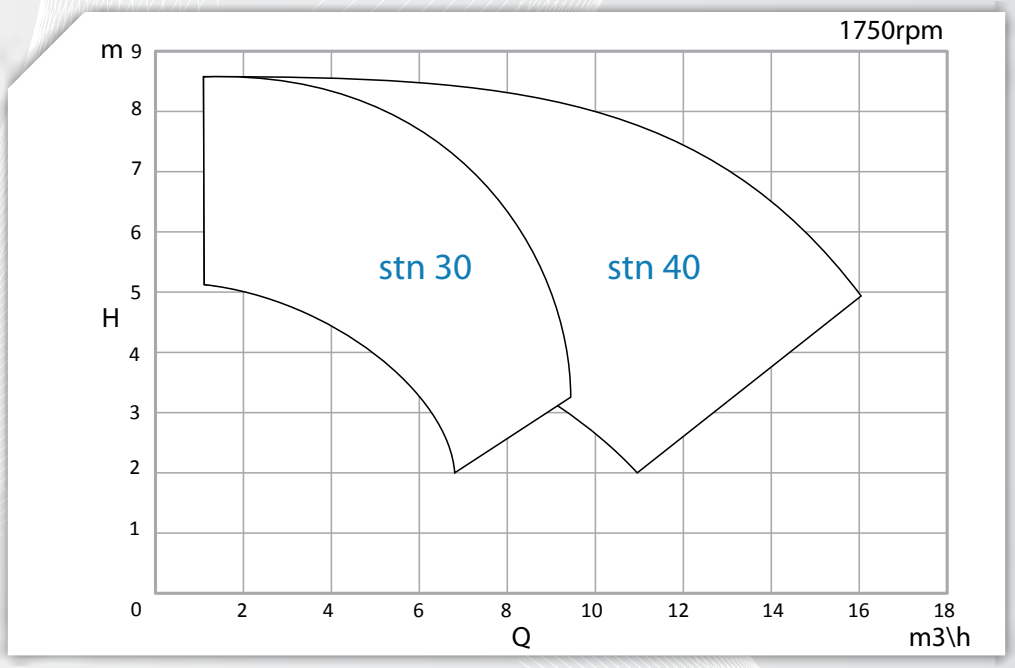
50Hz





60Hz

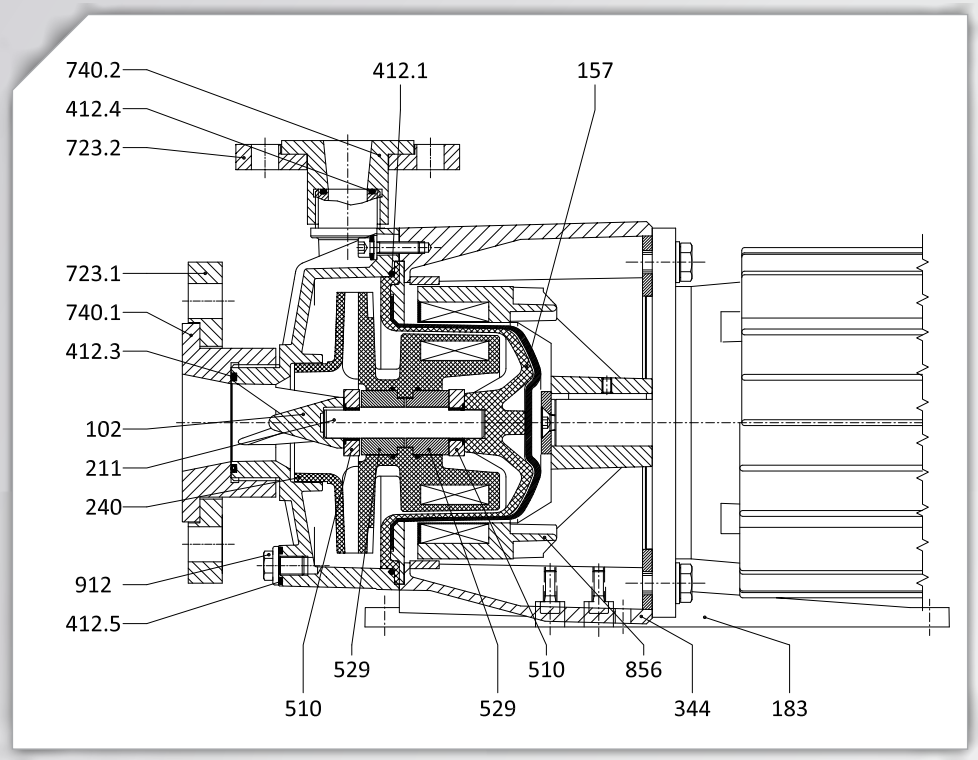




Not binding data refers to water at room temperature. For specific performance curve contact CDR Pompe Srl.

SECTIONAL DRAWING

STN



Pump Part list

DIN	Component	Material
102	Casing	PP-GF / CFR-ETFE
157	Isolation Shell	PP-GF / ETFE+PC
183	Support foot	Ryton/Inox
211	Pump Shaft	SiC / Al2O3
240	Impeller Assembly	PP/ETFE
344	Lantern	PP-GF / GS400
412.1	O-Ring Casing	EPDM / FPM / FKM
412.5	O-Ring	EPDM / FPM / FKM
510	Thrust Bearing	SiC / Al2O3
529	Bearing Sleeve	SiC / PTFE-Al2O3 / Graphite
856	Outer Magnet	GS400+Ryton
912	Threaded Cap	PTFE

Technical Specifications

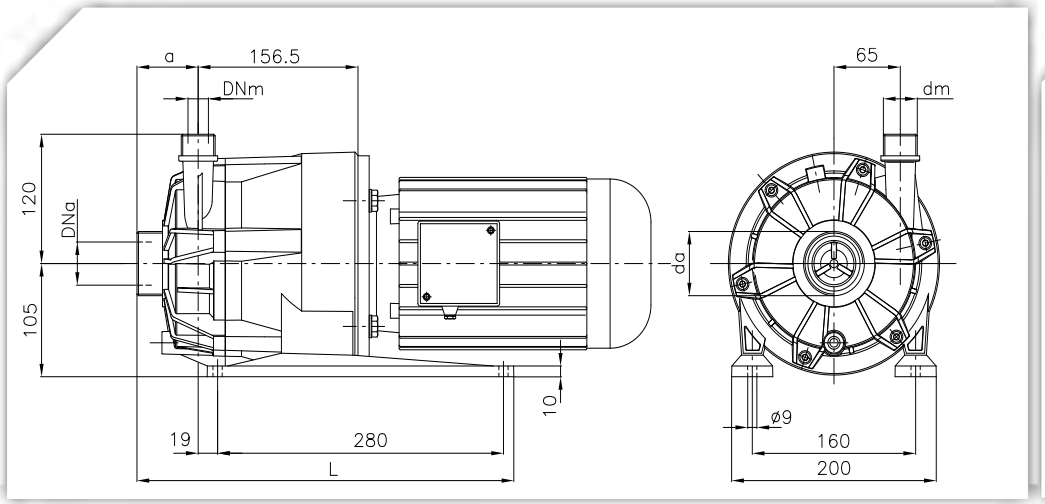
Performances 2900 rpm	Q max = 28 m3/h -> H max = 25 mcl
Electric Motors	0.75 kW (motor size 80) -> 4 kW (motor size 112)
Temperature range	• PP-GF : 0°C -> +60°C • CFR-ETFE : -15°C -> +80°C
Allowable Pressure Range	• PP : from 6 bar (20°C) to 4 bar (60°C) • CFR-ETFE : from 6 bar (20°C) to 4 bar (80°C)
Threaded Connections	STN 30 (G2" X G1") STN 40 (G2"¾ X G1"½) * as option : Flanges ISO 1092 PN16RF or ANSI 150 RF
Viscosity	1cSt min - 100 cSt max
Allowable Solids	Max concentration 2 % by weight / Max particle size 0,10 mm

Flange connections

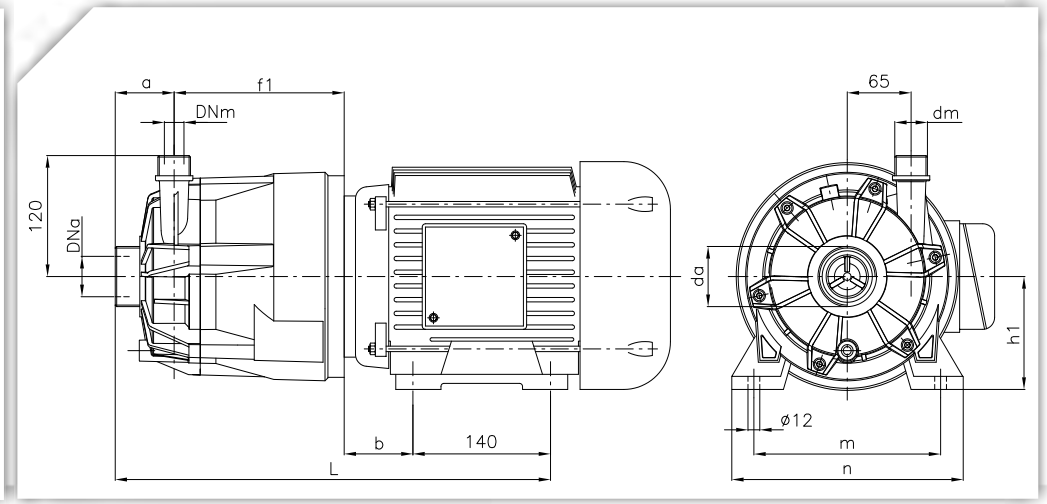
DIN	Component	Material
412.3	O-Ring	EPDM /FPM / FKM
412.4	O-Ring	EPDM / FPM / FKM
723.1	Suction Flange	PP-STEEL / AISI 304
723.2	Suction Flange	PP-STEEL / AISI 304
740.1	Flare connection	PP / ETFE-AISI 304
740.2	Flare connection	PP / ETFE-AISI 304

OVERALL DIMENSIONS

STN 30/40 MOTOR SIZE 80/90



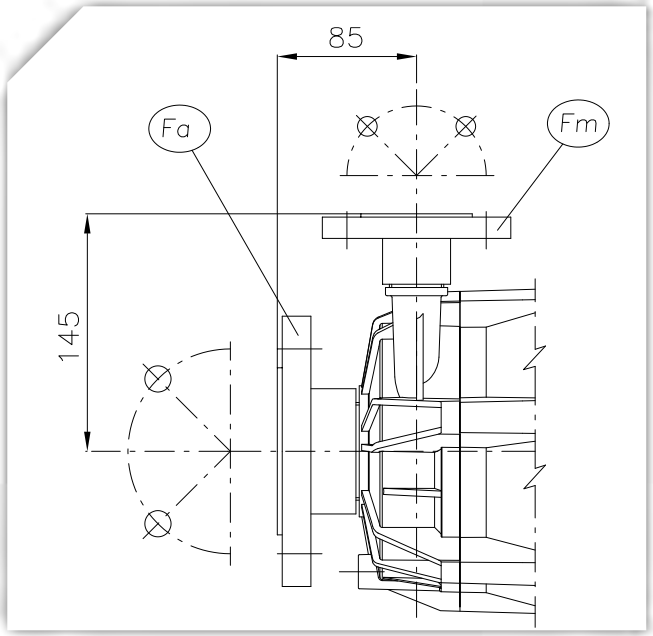
STN 30/40 MOTOR SIZE 100/112



STN 30/40 MOTOR SIZE 80/90

Model	DNa	DNm	da	dm	a (mm)	L (mm)	Motor Frame
STN 30	40	20	G 2"	G 1"	60	370	80 / 90 B5
STN 40	50	32	G 2 3/4"	G 1 1/2"	67	377	80 / 90 B5

FLANGED EXECUTION



STN 30/40 MOTOR SIZE 100/112

Model	DNa	DNm	da	dm	a (mm)	b (mm)	h1 (mm)	L (mm)	f1 (mm)	m (mm)	n (mm)	Motor Frame
STN 30	40	20	G 2"	G 1"	60	63	100	438	173	180	200	100 B3 / B14
	40	20	G 2"	G 1"	60	70	112	443	173	190	240	112 B3 / B14
STN 40	50	32	G 2 -3/4"	G 1-1/2"	67	63	100	443	173	180	200	100 B3 / B14
	50	32	G 2-3/4"	G 1-1/2"	67	70	112	450	173	190	240	112 B3 / B14

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For further info, please visit

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Technical Characteristics

The technical data and characteristics stated in this General Catalogue are not binding. CDR Pompe S.r.l. reserves the right to make modifications without notice. Therefore data, dimensions, performances and any other stated issues are indicative only and not binding. Anyway for any technical details you must require an up-to-date product technical card.