ETN Evo

Plastic Lined Magnetic Drive Centrifugal Pumps

ETN Evo 50 ETFE

Comply to :
2006/42/CE

Design to :
sub - ISO 2858

ATEX 100
Directive 2014/34/EU

Flanged
UNI 1092-2 (ISO 7005-2)
PN10RF type B
slotted ANSI 150RF

Plastic and Fluoroplastic Lined Magnetic drive Horizontal - Single Stage - Centrifugal pumps Sub-ISO designed
Lining: PP (Polypropylene), ETFE (Ethylene tetrafluoroethylene)
Close-coupled execution

CDR® Pompe S.r.l.

ETN Evo

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.

ETN Evo STANDARD EXECUTION

ETN Evo WITH MOTOR

Versatility

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

- PP (Polypropylene)
- ETFE (Ethylene tetrafluoroethylene)

Reliability

New internal circualtion path for top reliability, even under stress conditions

Design

Made with a reliable quality as the UTN but designed for smaller applications (low duty)

Application Fields

Basic chemical

Waste Water Treatment

Fine Chemical Batch Processing

Detergents Processing

Fertilizer Industry

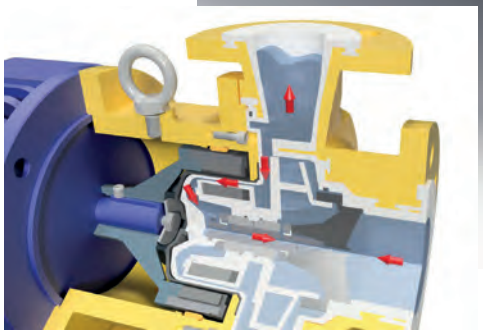
Active Pharma Ingredients

3D VIEW

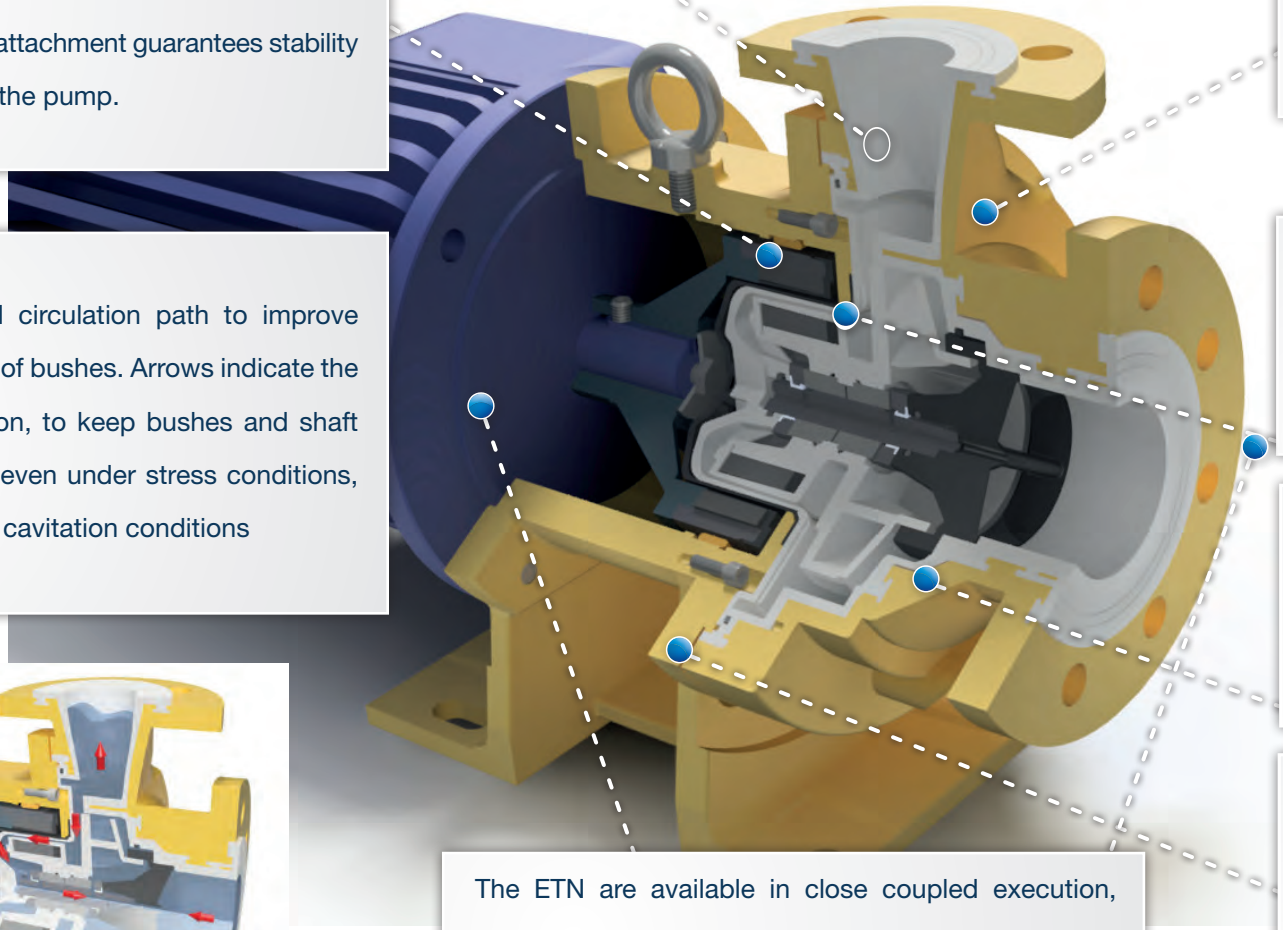
Inner and Outer magnet are equipped with NdFeB (neodymium iron boron) or SmCo (samarium cobalt) permanent magnets.

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

ETN Evo: new internal circulation path to improve flushing and lubrication of bushes. Arrows indicate the generous fluid circualtion, to keep bushes and shaft cooled and lubricated, even under stress conditions, i.e. end of curve and/or cavitation conditions



Top centerline discharge for air handling, self-venting.



All wetted parts have an high chemical resistance employing a performing material as ETFE of at least 3 mm thickness.

- Alternative available materials for the Wetted parts: PP.

ETFE Non-metallic double Isolation Shell configuration standard on all ETN series.

Vacuum resistant housing ETFE lining is made through Transfer Moulding process.

Sealless design

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

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

FEATURES

CASING

The ductile cast iron armour protects the fluoroplastic peripheral surfaces of the pump from pipe strain, vibration, external shocks and during the handling; moreover it allows the casing to be Vacuum resistant.

IMPELLER ASSEMBLY

• The integral design of the impeller and inner magnet prevents any misalignment problem, reducing also the production cost.

• Standard back vanes reduce axial thrust and seal chamber pressures to guarantee an extraordinary bearing and seal life.

ISOLATION SHELL

- ETFE on wet side externally reinforced by Polycarbonate reinforcement.
- Zero Eddy Current losses thanks to non-metallic execution.
- Generous flushing canals on shaft support.

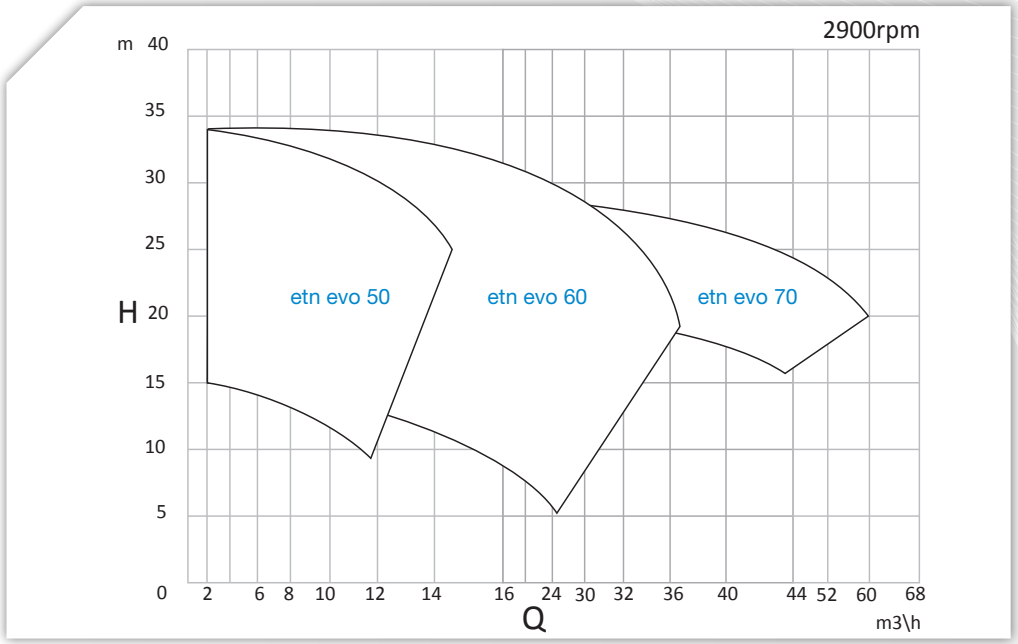
SHAFT

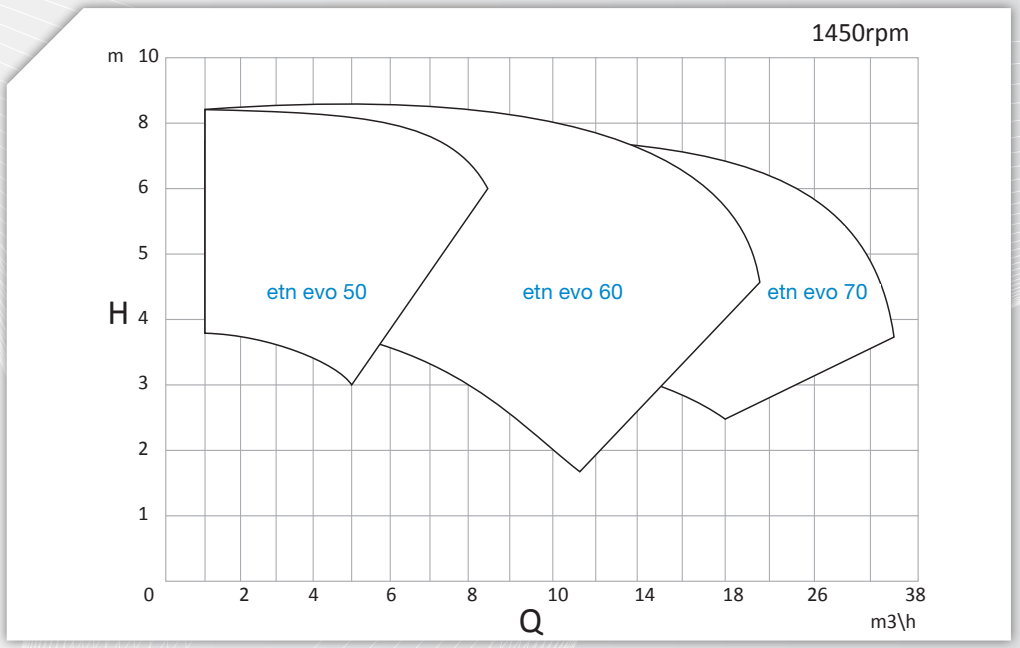
Axial and radial loads are well distributed thanks to the highly reliable rotating parts design. The static shaft (SiC, Ceramic or RunSafeSiC) is supported in the can and by the lined suction cover.

New execution with central and secondary paths, for optimal bushes lubrication and heat removal.

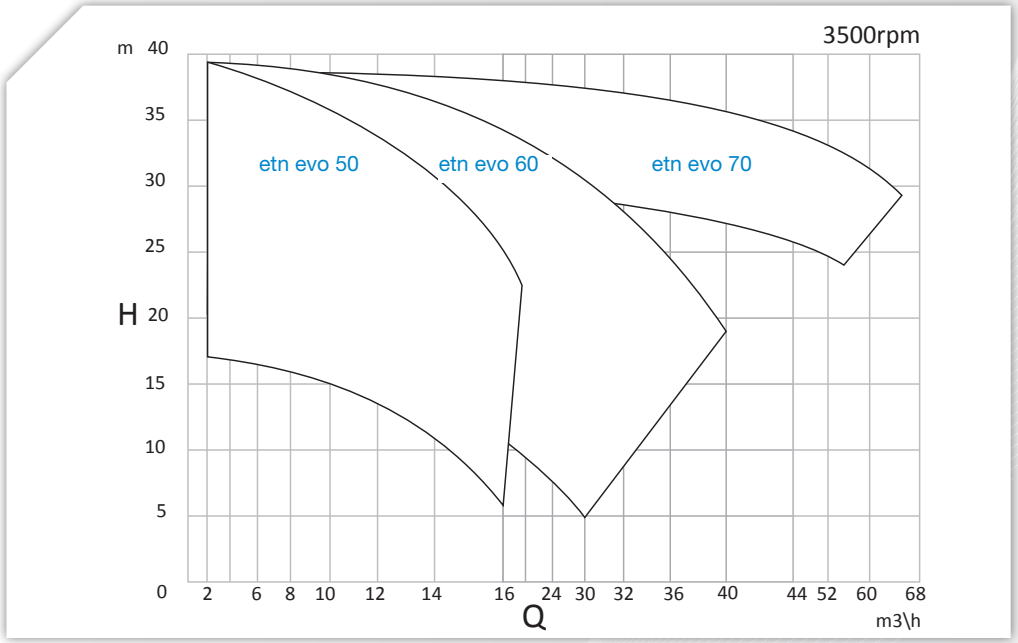
PERFORMANCE FIELDS

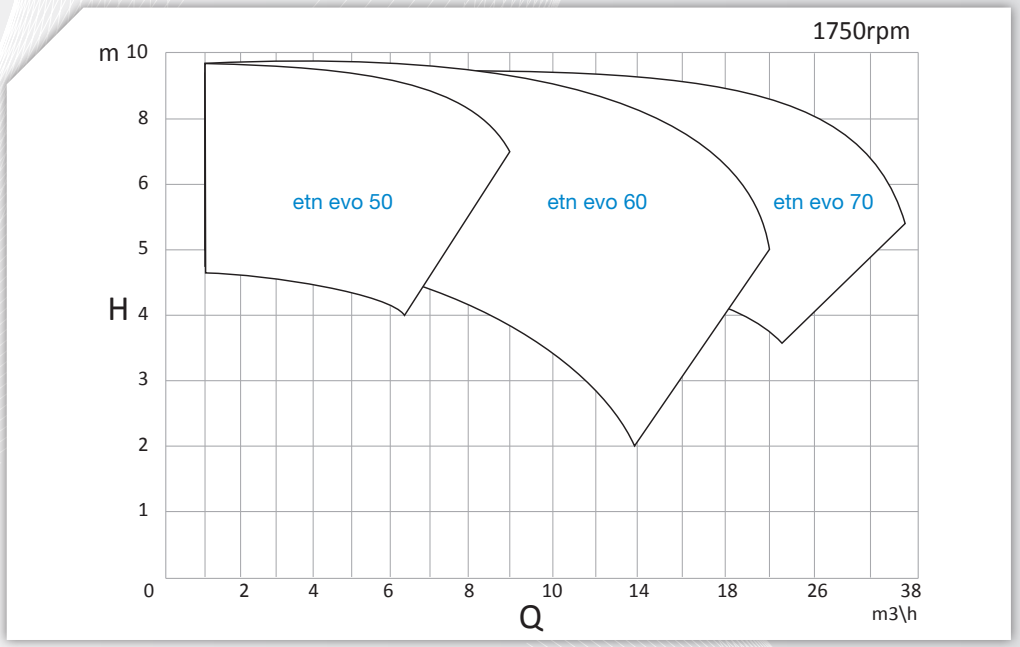
50Hz





60Hz

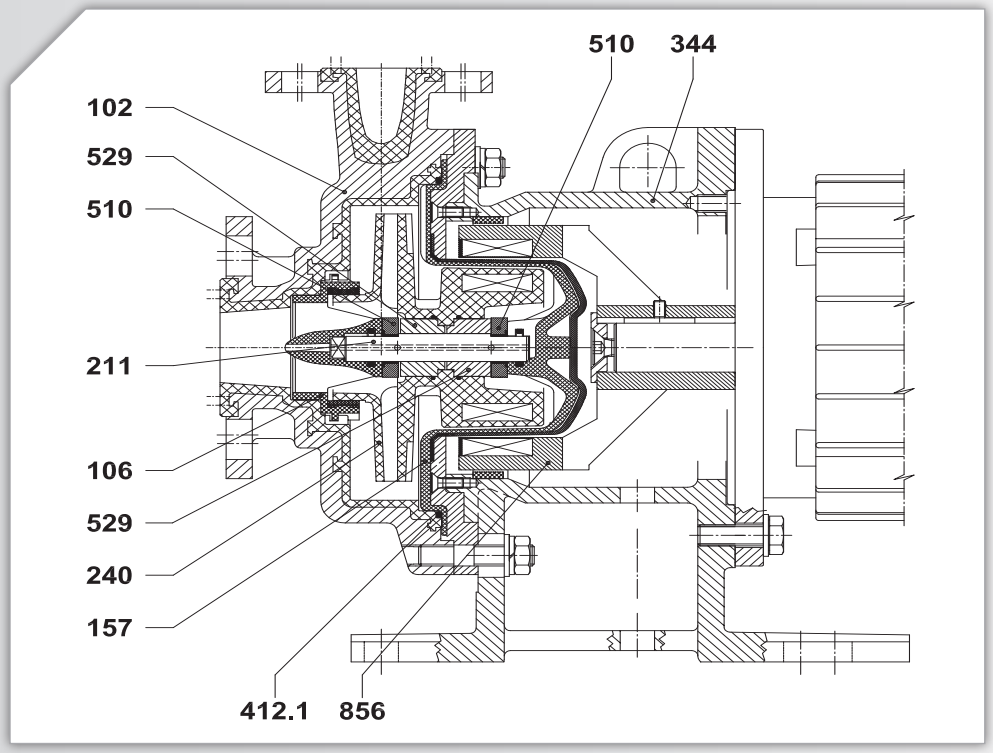




Not binding data refers to water at room temperature. For specific performance curve contact CDR Pompe S.r.l.

SECTIONAL DRAWING

ETN Evo



Part list

DIN	Component	Materials
102	Casing	PP lined / ETFE lined
106	Suction Casing	ETFE+CF
157	Isolation Shell	ETFE+PC
211	Pump Shaft	SiC / Al2O3 / RunSafeSiC
240	Impeller Assembly	PP / ETFE
344	Lantern	GS400
412.1	O-Ring (Casing)	EPDM / FPM / FPM end FEP
510	Thrust Bearing	SiC / Al2O3 /RunSafeSiC
529	Bearing Sleeve	SiC / PTFE-Al2O3 / Graphite /RunSafeSiC
856	Outer Magnet	GS400+Ryton

Technical Specifications

Performances 2900 rpm	Q max = 56 m3/h -> H max = 35 mcl
Electric Motors	0.75 kW (motor size 80) -> 7,5 kW (motor size 132)
Temperature range	• PP : - 0 °C -> + 65 °C • ETFE: - 15 °C -> + 90 °C
Allowable Pressure Range	• PP : from 7 bar (20 °C) to 4 bar (60 °C) • ETFE : from 7 bar (20 °C) to 4 bar (90 °C)
Suction / Delivery	• ETN Evo 50 : DN40/DN25 ETN Evo 60 : DN65/DN40 • ETN Evo 70 : DN80/DN50
Flange Connections	UNI 1092-2 / ISO 7005-2 PN 10, type B slotted to ASME /ANSI class 150
Viscosity	1cSt min - 100 cSt max
Allowable Solids	Max concentration 2 % by weight Max particle size 0,10 mm

Painting Coating Quality

PAINTING COATING QUALITY

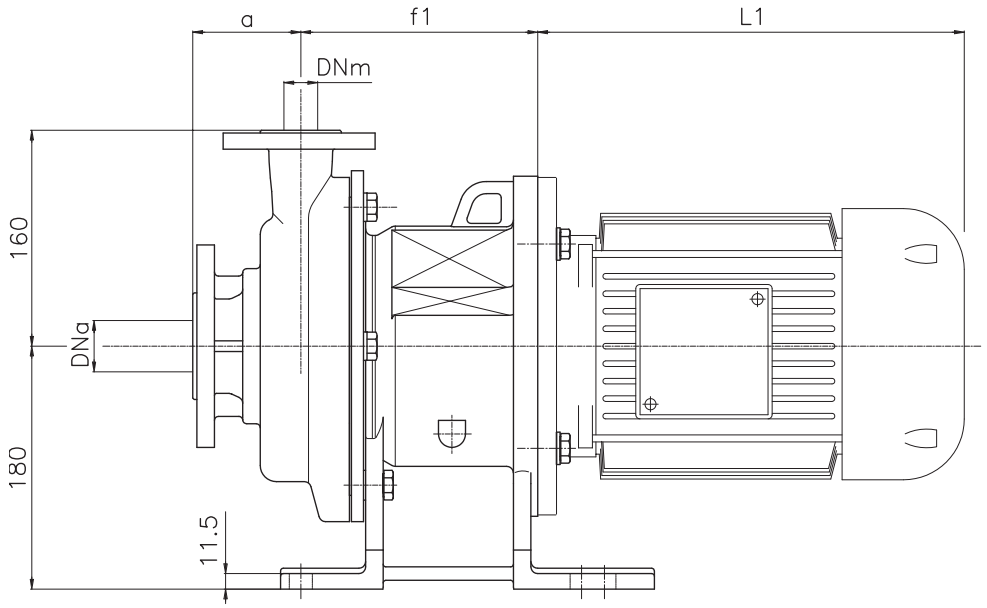
The metal surfaces are protected by a high performance three layers coating (240 micron total)

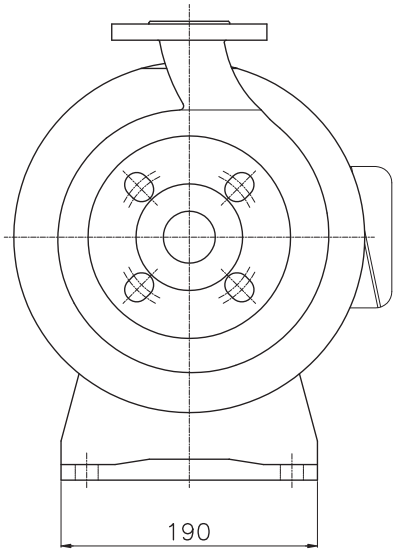
- Epoxy zinc paint
- Epoxy amidic modified vinyl
- Epoxy enamel paint or aliphatic acrylic polyurethane

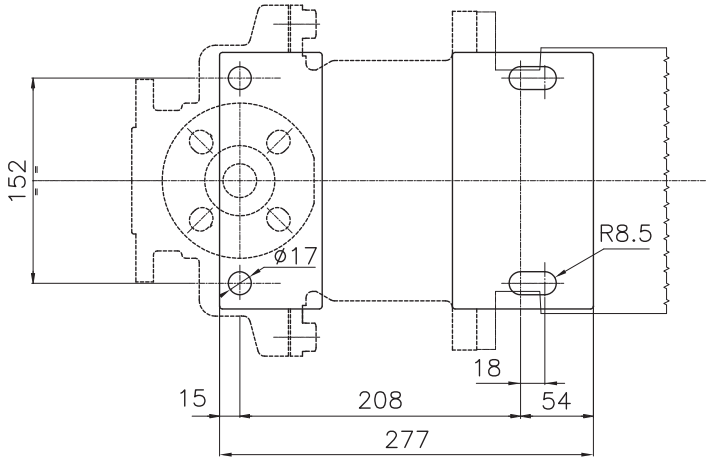
Available upon request :

EN ISO 12944-5 C5M and C5I protecting paint system grades

OVERALL DIMENSIONS







Model	DNa**	DNm**	a (mm)
ETN Evo 50 PP / ETFE	40	25	80
	40	25	80
ETN Evo 60 PP / ETFE	65	40	80
	65	40	80
	65	40	80
ETN Evo 70 PP / ETFE	80	50	100
	80	50	100

B5 MOTOR	FRAME	f1 (mm)
	80	175.5
	90	175.5
	90	175.5
	100	175.5
	112	175.5
	132	193.5

* L1 dimension is according to installed motor manufacturer

** Flanges dimensions according to UNI 1092-2 slotted ANSI 150 RF

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For further info, please visit

www.cdrpompe.com

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.