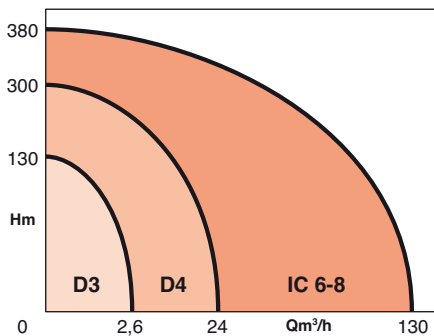


OPERATING RANGES

Flow rates of up to:	2,6 m ³ /h
Manometric heads of up to:	125 m
Max. water temperature:	+ 40°C
Max. sand content:	40g/m ³
DN (nominal diameter) delivery port:	G1"
Max. submergence depth:	60 m
Reference MEI*:	≥ 0,10

*Minimum Efficiency Index



BENEFITS

- Small diameter
- Easy to install
- Rewindable motor
- Single and three-phase supply
- Corrosion-proof components
- Vertical and horizontal installation



•IMMERSON D3 (stainless steel)



•IMMERSON PAP/H18 ready to install - pressure gauge and 18 L tank

IMMERSON D3

SUBMERGED PUMPS - 3" BOREHOLES

D Serie
2 pole - 50 Hz
304 Stainless steel range

APPLICATIONS

- Abstraction of water from 3" boreholes (DN80), tanks, wells, vessels...
- Watering and small-scale irrigation
- Water supply and distribution
- Water jet supply
- Pressure boosting

IMMERSON D3

DESIGN

• Hydraulic part

- Centrifugal, multi-stage with radial impellers.
- 304 stainless steel external jacket, built-in non-return valve.
- Discharge and suction housing with stainless steel suction mesh for the D3.

• Motor

- Existing 3-inch single-phase (MP) and three-phase (T4) motors. Oil-bath motor withstands higher temperatures (40°C).

Speed: 2800 rpm

Winding: 1 ~ 230V

3 ~ 400V

Frequency: 50Hz

Insulation class: 155 (F)

Protection class: IP 68

Speed of coolant flow.: 8 cm/s mini

Starts/hour: 20 max.

BASIC CONSTRUCTION

Main parts	Material
Impellers	noryl
Diffusers	polyacetal
Bearing bushings	PUR polyurethane
Bearing bushing supports	noryl
Pump and motor shaft	Stainless steel

IDENTIFICATION

D3 - 01 - 23 - MP/ PAP / AC
T4 H18

Submerged pump code for 3" borehole

Flow rate in m3/h at max. efficiency

Number of stages

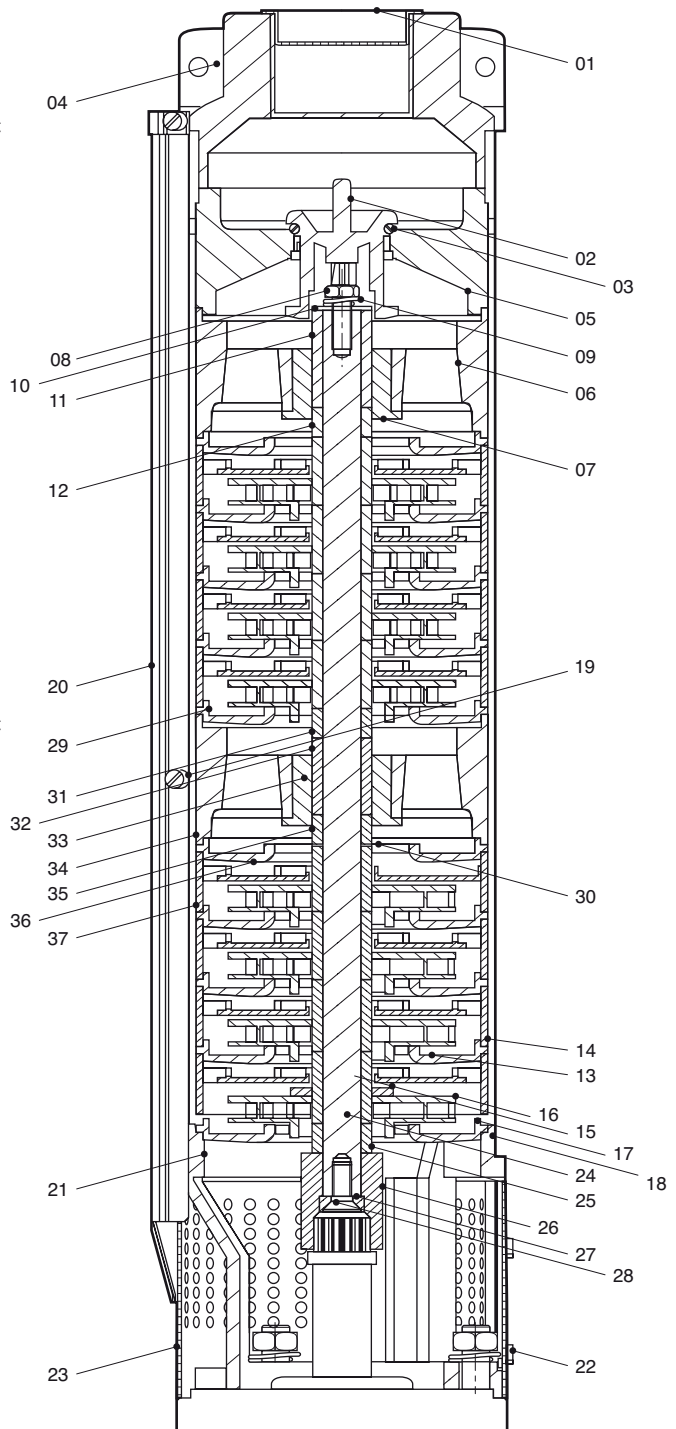
MP: 230 V single-phase with permanent capacitor
T4: 400 V three-phase

Ready-to-install

Acson or 18 L tank

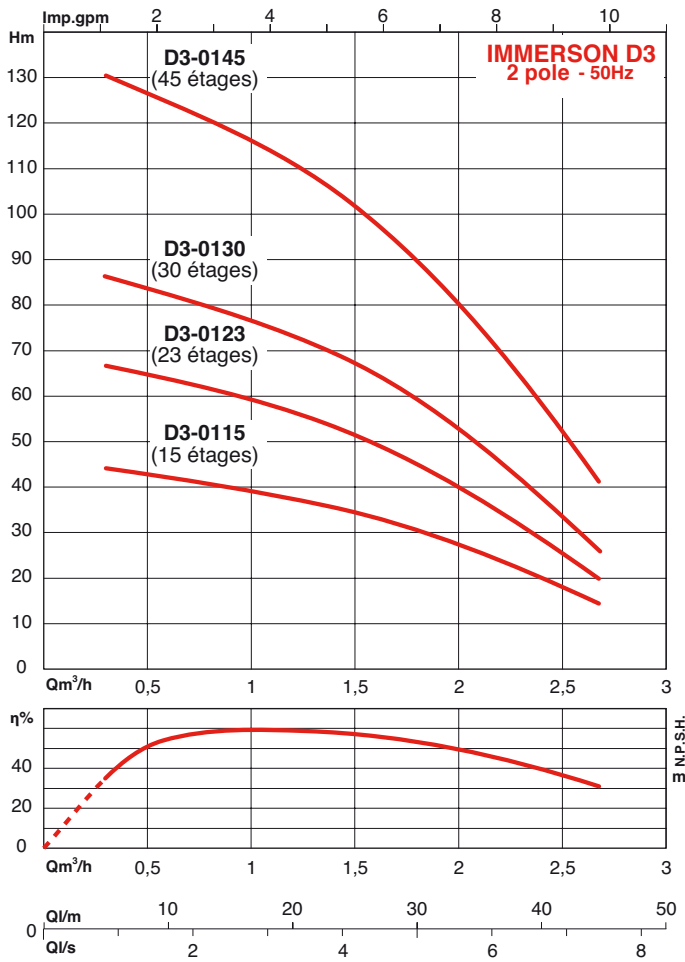
CROSS-SECTIONAL DIAGRAM

- 1 Plug
- 2 Valve
- 3 O-ring
- 4 Discharge housing
- 5 Valve seat
- 6 Bearing bushing support
- 7 Bearing bushing
- 8 Screw
- 9 Grower washer
- 10 Pressure washer
- 11 Ring
- 12 Spacer
- 13 Diffuser disk
- 14 Diffuser
- 15 Washer
- 16 Impeller
- 17 Diffuser disk
- 18 Jacket
- 19 Screw
- 20 Cable guard
- 21 Suction housing
- 22 Screw
- 23 Suction mesh
- 24 Shaft
- 25 Spacer
- 26 Gasket
- 27 Washer
- 28 Screw
- 29 Diffuser disk
- 30 Shims
- 31 Spacer
- 32 Ring
- 33 Bearing bushing
- 34 Bearing bushing support
- 35 Spacer
- 36 Diffuser disk
- 37 Diffuser

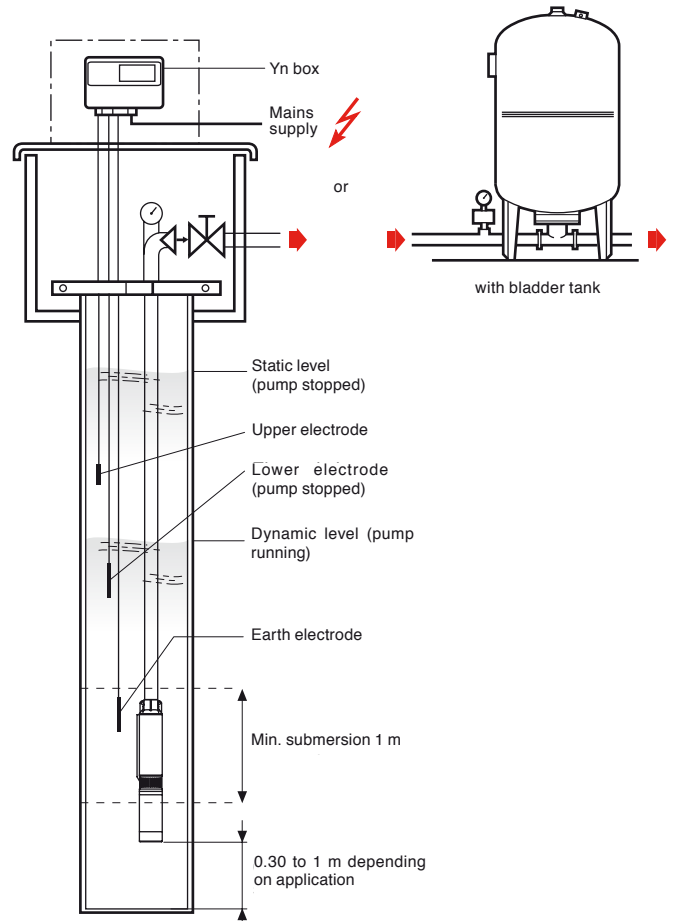


IMMERSON D3

HYDRAULIC SPECIFICATIONS

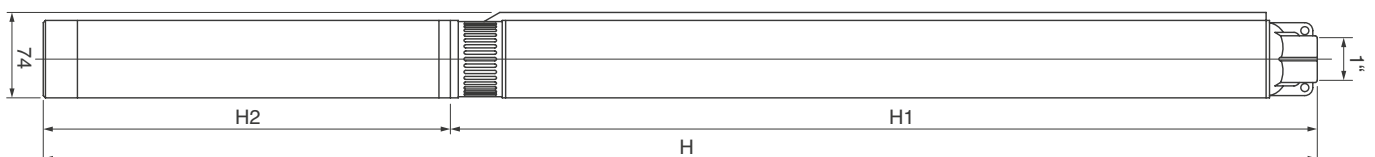


INSTALLATION DIAGRAM



DIMENSIONAL SPECIFICATIONS

Order reference	Power P2 kW	Rated current IN		Cable length		Cross-section of direct start cable mm²	H1		H2		H		Weight minus packaging pump with motor	
		1~230 V, 50 Hz	3~400 V, 50 Hz	1~230 V, 50 Hz	3~400 V, 50 Hz		1~230 V, 50 Hz	3~400 V, 50 Hz	1~230 V, 50 Hz	3~400 V, 50 Hz	1~230 V, 50 Hz	3~400 V, 50 Hz	kg	kg
D3 115	0.37	3.75	2.0	1.8	1.8	4 x 1.5	580	377	377	957	957	9.3	9.3	
D3 123	0.55	4.50	2.1	1.8	1.8	4 x 1.5	780	397	377	1177	1157	10.8	10.5	
D3 130	0.75	5.85	2.5	1.8	1.8	4 x 1.5	1000	416	397	1416	1397	12.4	12.0	
D3 145	1.10	-	3.2	-	1.8	4 x 1.5	1380	-	416	-	1796	-	14.4	



IMMERSON D3

RECOMMENDED ACCESSORIES

YN7112 control boxes

- Voltage can be switched between 230 V and 400 V just by moving a fuse.
- Motor overload protection by thermal relay.
- 240 - 400 V /12 V, 50/60 Hz transformer
- Pump controlled by two floats (to prevent flutter on restarting when the water-level float is activated).

Low-water box (BME), with:

- 2 indicator lights on the front: Red = low water, green = power on.
- Automatic reset configurable from 30 seconds to 2 minutes
- Operates with a level-sensing electrode and a 30 m cable, connected to the box by a pin connector.
- Connects to mains power supply via a standard 2 pole + earth wall socket.

Motor cable

Permissible cable lengths

Type of electric courant	Motor P2 kW	Cable cross-section in mm ² (cable with 4 conductors)				
		1,5	2,5	4	6	
230 V single-phase Direct start	0,37	78	125	—	—	
	0,55	57	95	152	—	
	0,75	45	75	120	174	
400 V Three-phase Direct Start	0,37	—	—	—	—	
	0,55	246	—	—	—	
	0,75	200	333	—	—	
	1,1	146	244	390	—	
Cable weight per m/kg	0,2	0,25	0,3	0,4	0,65	

Heat-shrinkable junctions

Order reference	For cable cross-sections
Jonctiontherm 0	4 X 1,5 mm ² Et 4 X 2,5 mm ²
Jonctiontherm 1	4 X 4,0 mm ² À 4 X 6 mm ²

SPECIFICITIES

a) Electrical

MP (single phase) and T4 (three-phase) in 50Hz as standard.

b) Installation

Vertically or horizontally (cooling skirt strongly recommended for horizontal).

NOTA

Single-phase motors are designed to operate with a permanent capacitor (MP) integrated into a box with thermal protection (specify the type of motor when ordering). In both SINGLE-PHASE and THREE-PHASE, provide a control and low-water protection box or cabinet with level-sensing electrodes or a float switch.

c) Packaging

Supplied packaged with a 1.8 m long, 4x1.5mm² cable.

d) Maintenance

Standard exchange of the appliance or repair of the hydraulic part and motor.

CHARACTERISTICS OF COOLING SKIRTS

If the borehole diameter is too big in relation to the pump diameter, or for installation in a tank, the fluid speed will not be sufficient to cool the motor.

A cooling skirt will then be necessary.

To check whether a skirt should be installed, refer to the technical data sheet: **cooling skirts**. Skirt made of 100% AISI 304 stainless steel

For vertical installation:

- 1 motor cooling jacket
- 1 spacer for centring the motor in the skirt
- 3 clamping collars for securing skirts and spacers
- 1 skirt end gasket to be positioned between the skirt and the hydraulics

For horizontal installations:

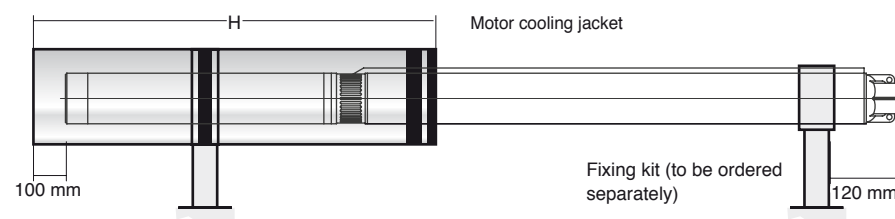
- 1 motor cooling jacket
- 1 spacer for centring the motor in the skirt
- 3 clamping collars for securing skirts and spacers
- 1 skirt end gasket to be positioned between the skirt and the hydraulics
- 1 kit with 2 mounts (motor and hydraulics) for stabilising the pump in the horizontal position

We offer vertical installation kits which are different from horizontal installation kits.

Important

For horizontal installation, the skirt and fixing kit must be ordered separately.

Composition of the kit:	H	Ø	G
	mm	mm	mm
Stainless steel skirt	500	100	
Spacer for centring the skirt around the motor	75	92,5	
gasket	20	93	
3 clamping collars			
1x large mount (skirt)	112	93	150
1x small mount (hydraulics)	112	71,5	139



PAP

“Ready-to-Install”

- single-phase (MP) models supplied with:
 - D3 single-phase
 - Starter box with thermal protection
 - 30 m of power cable between pump and box
 - 30 m of polypropylene rope for supporting the pump.
 - 2 m of power cable with standardised pug
 - One 1” PVC male connector
 - One 1” PVC female connector
 - Depending on the versions: one Acson (AC) or a booster assembly with an 18-litre tank (H18).

ACCESSORIES

- Shut-off valves.
- Non-return valves.
- Bladder (or galvanised) tanks).
- Pressure gauge.
- Single-core cable for level-sensing electrodes.
- Stainless steel cooling skirts, see technical data sheet on **Cooling Skirts**. N.T. N°300-16/F

