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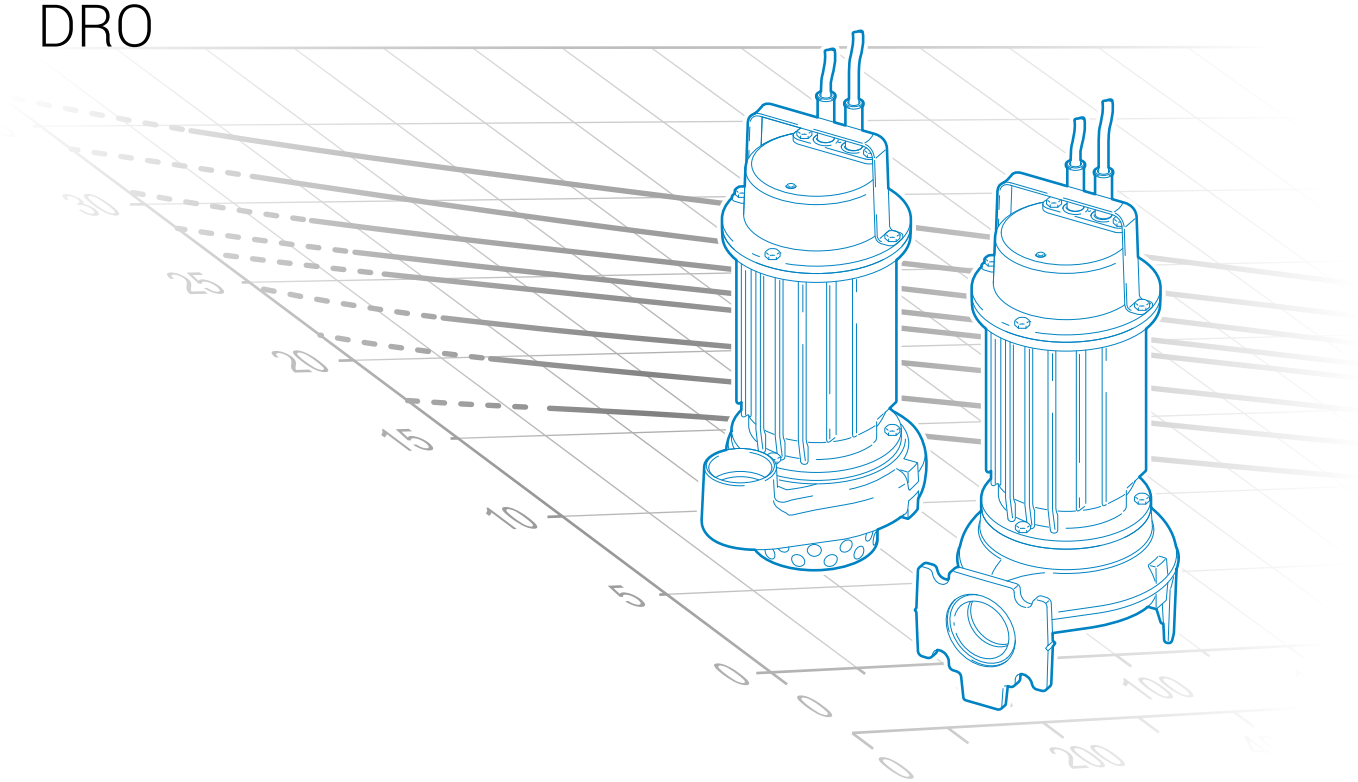
50Hz

# **O** series

DGO
DRO

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# **O** Series

DGO
DRO

50Hz

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# **O** Series

## General characteristics

- AISI 304 stainless steel lifting and carrying handle
- Constructed in GJL-250 cast iron
- One mechanical seal in silicon carbide (SiC) and one mechanical seal in alumina graphite (AL)
- Oil bath motor with thermal protections
- Capacitor and overload protection in external cabinet.
- Threaded, flanged discharge for the maximum ease of installation
- Wide free passage allowing the expulsion of solids and preventing fouling of the impeller **(DGO)**
- Intake strainer in stainless steel **(DRO)**

## Hydraulic families

### DG (Draga)

page 7

- Set-back vortex impeller
- Suitable for heavy-duty applications with soiled biological wastewaters, sewage, rainwater and seepage

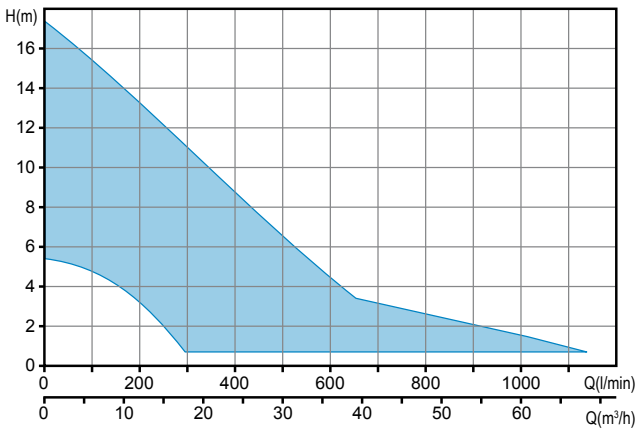
### DR (Dreno)

page 20

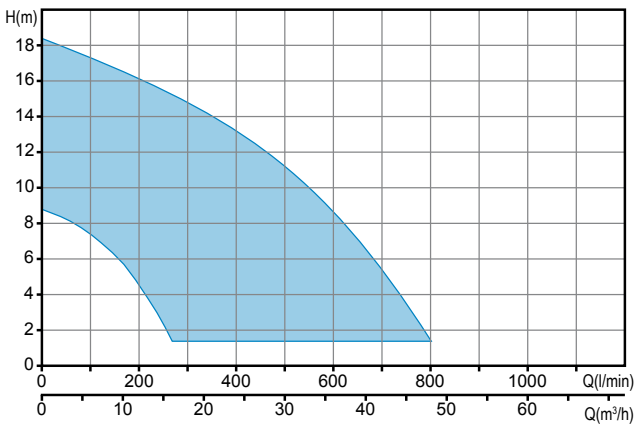
- Multi-channel open impeller
- Can be used with clear or slightly soiled wastewaters containing small solids, strained water, rainwater, seepage and water pumped from underground. Suitable for heavy-duty domestic and professional applications

## Operating ranges

### DGO




### DRO



# Versions available

## • Electrical variants

### Single-phase models

**T** Thermal protection
**TCST** Thermal protection, capacitor, electrical cabinet, overload protection
**TCSGT** Thermal protection, capacitor, float switch, electrical cabinet, overload protection

### Three-phase models

**NAE** No electric accessories installed

## • Cooling system

**N** No cooling and/or seal flushing system

## • Set of mechanical seals

**SICAL** 1 mechanical seal in silicon carbide and 1 mechanical seal in alumina graphite (NBR)

# Key to product code

DRO 50/2/G32V A0BM5
① ② ③ (A) (B) (C) ④ ⑤⑥ ⑦ ⑧ ⑨

① Family

② Series

③ Power (HPx100) / motor poles

④ Delivery rate
(A) TYPE (GAS thread/Flanged)
(B) DIAMETER (mm)
(C) POSITION
V = vertical
H = horizontal

⑤ Hydraulic model

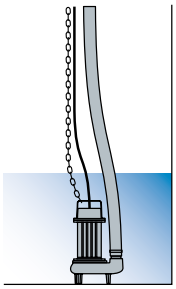
⑥ Version number

⑦ Motor size

⑧ Motor phases
M = Single-phase
T = Three-phase

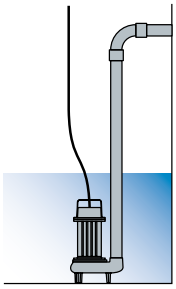
⑨ Power supply voltage frequency
5 = 50Hz
6 = 60Hz

# Installations



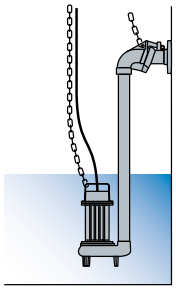
## Free installation

The electric pump, standing on its feet or base, is connected to the delivery flexible pipe using a joint fixed to the discharge.
This installation allows to move easily the electrical pump



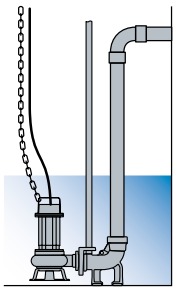
## Fixed installation

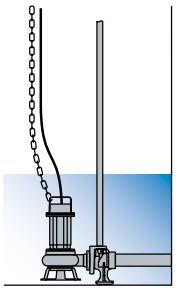
The electric pump, standing on its feet or base, is connected to the delivery pipe, which is screwed to the discharge if threaded, or fixed to a bend if the port is flanged. The pump-hose connection may be threaded or flanged, depending on the pump fitting.



## Installation with external coupler

Available for electric pumps with threaded discharge. The pump unit is supported by a special device fitted to the delivery pipe. This device can be installed at any time without having to empty the tank. It simplifies any maintenance work on the pump, which can be lifted out and resubmerged with great ease. It is recommended in particular for installations of small size, and does not require the pump to be resting on the bottom of the tank.



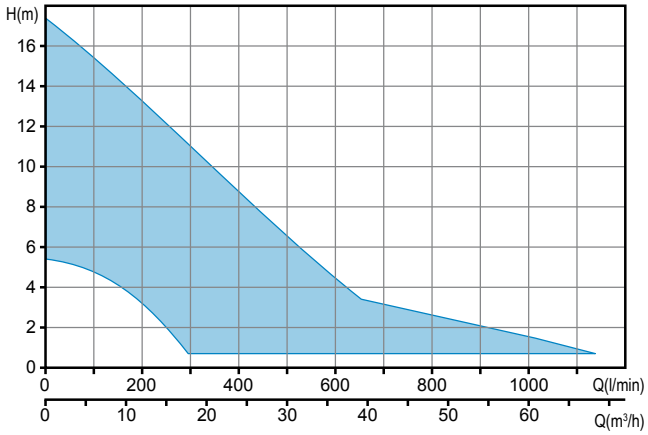


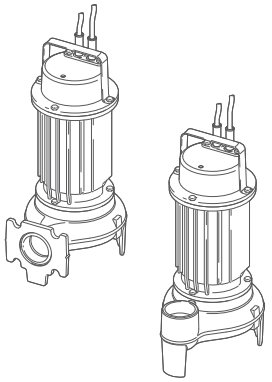
## Installation with base coupling foot

For submerged installation, available for electric pumps with flanged or threaded horizontal discharge. The coupling device is fixed to the bottom of the tank and the pump is lowered in with the aid of two guide pipes fitted earlier, until the connection to the foot is completed. The delivery pipe is fixed to the coupling device discharge. This device makes routine checks, any maintenance work or replacement of the pump extremely easy, with no need to empty the tank. A specific kit also allowing pumps with vertical discharge to be installed with the base coupling foot is available.

# Pumps with vortex impeller

## Operating ranges



## Range characteristics

| | |
|---|---|
| Motor power | 0.37 ÷ 1.5 kW |
| Poles | 2 / 4 |
| Insulation class | F |
| Degree of protection | IP68 |
| Discharge | GAS 1½ ÷ 2½ vertical<br>GAS 2" DN50 horizontal<br>DN65 DN80 horizontal |
| Free passage | max 80 mm |
| Max flow rate | 19.0 l/s (1140 l/min) |
| Max head | 17.3 m |

## Motor

Oil bath motor with thermal protections.

## Cable

H07RN-F - 5 m cable length. Optional 10 m cable length.

## Mechanical seals

One silicon carbide mechanical seal (SiC) and one carbon-aluminium oxide mechanical seal (AL)

## Applications

Suitable for heavy-duty applications with soiled biological wastewaters, sewage, rainwater and seepage.

## Versions

| | |
|---|---|
| Electrical variants | T, TCST, TCSGT (single-phase models)<br>NAE (three-phase models) |
| Cooling system | N |
| Mechanical seals | SICAL |

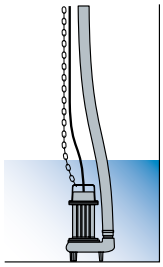
## Operating specifications

| | |
|---|---|
| Max operating temperature | 40 °C |
| PH of treated fluid | 6 ÷ 14 |
| Viscosity of treated fluid | 1 $mm^2/s$ |
| Maximum immersion depth | 3 m (cable length 5m)<br>7 m (cable length 10m) |
| Density of treated fluid | 1 $Kg/dm^3$ |
| Acoustic pressure max | <70dB |
| Max starts per hour | 30 |

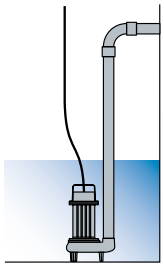
## Construction materials

| | |
|---|---|
| Case | Cast iron EN-GJL 250 |
| Hydraulic parts | Cast iron EN-GJL 250 |
| Impeller | Cast iron EN-GJL 250 |
| Nuts and bolts | Stainless steel - Class A2-70 |
| Standard gasket | Rubber - NBR |
| Shaft | Stainless steel - AISI 431 |
| Paint type | Ecological bicomponent epoxy (~ 120 µm) |

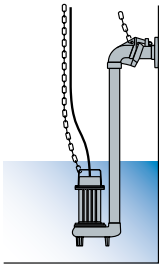
## Installations



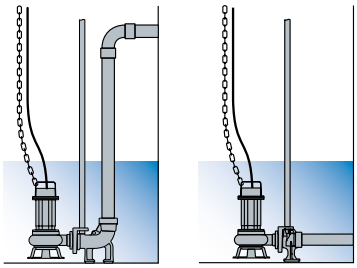
FREE



FIXED



with EXTERNAL COUPLER

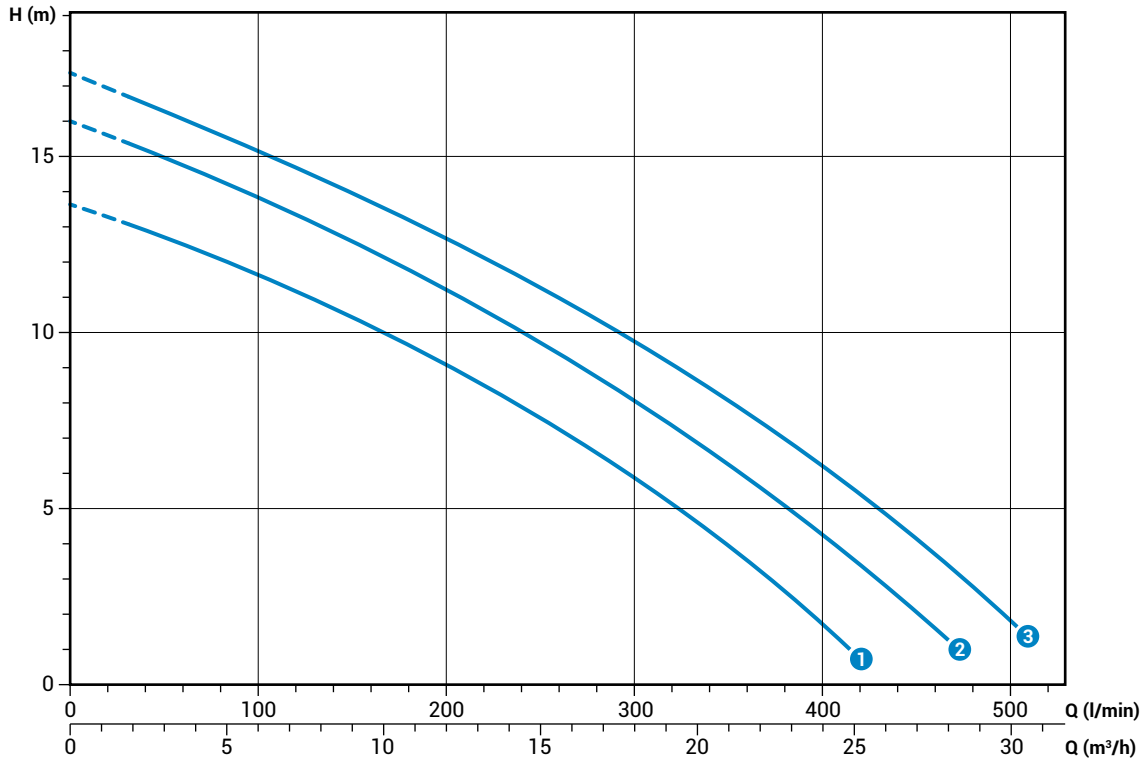


with BASE COUPLING FOOT

# DGO 2/G40V

## Performances

| | l/s | 0 | 2 | 4 | 6 | 8 |
|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 |
| 1 | DGO 100/2/G40V B1CM(T)5 | *13.6* | 11.2 | 7.9 | 3.5 | |
| 2 | DGO 150/2/G40V B1CM(T)5 | *16.0* | 13.3 | 10 | 5.9 | |
| 3 | DGO 200/2/G40V B1CM(T)5 | *17.3* | 14.7 | 11.6 | 7.8 | 2.8 |




Characteristic curves according to UNI EN ISO 9906

## Technical data

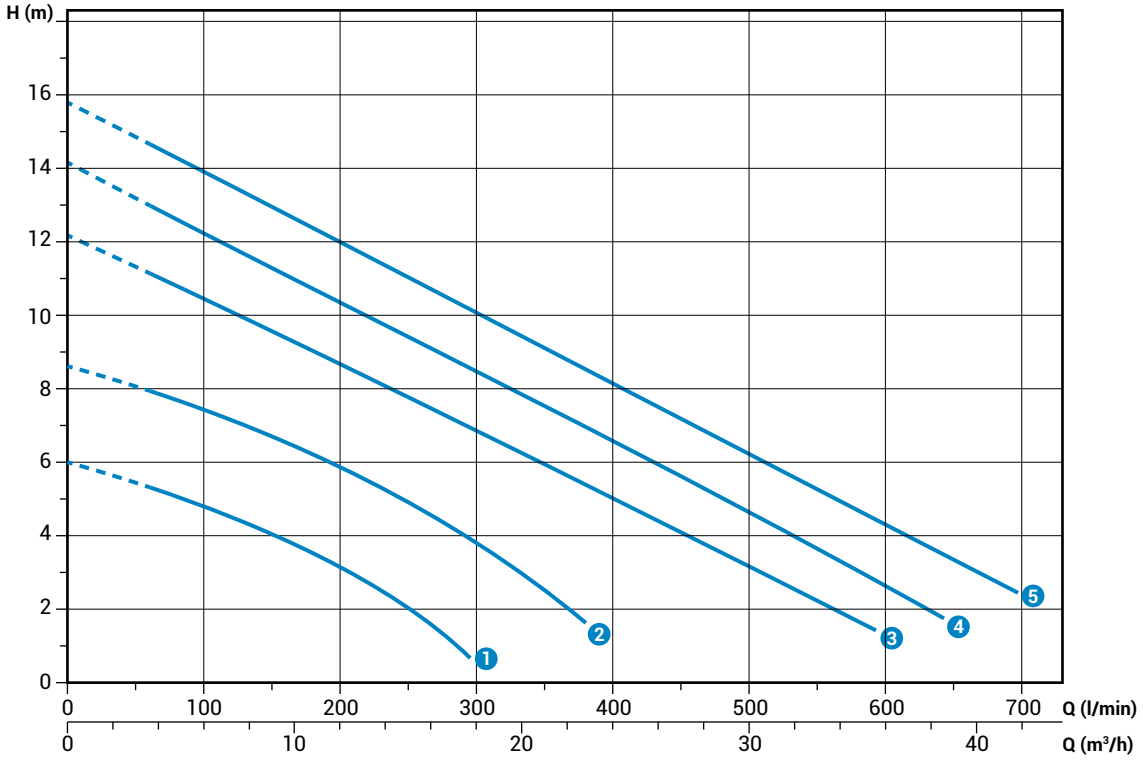
| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 100/2/G40V B1CM5 | 230 | 1 | - | 0.88 | 6.4 | 2900 | Dir | 4G1 | G 1½" | 40 mm |
| 2 | DGO 150/2/G40V B1CM5 | 230 | 1 | - | 1.1 | 8.3 | 2900 | Dir | 4G1 | G 1½" | 40 mm |
| 3 | DGO 200/2/G40V B1CM5 | 230 | 1 | - | 1.5 | 9.6 | 2900 | Dir | 4G1 | G 1½" | 40 mm |

| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 100/2/G40V B1CT5 | 400 | 3 | - | 0.88 | 2.3 | 2900 | Dir | 4G1 | G 1½" | 40 mm |
| 2 | DGO 150/2/G40V B1CT5 | 400 | 3 | - | 1.1 | 2.7 | 2900 | Dir | 4G1 | G 1½" | 40 mm |
| 3 | DGO 200/2/G40V B1CT5 | 400 | 3 | - | 1.5 | 3.6 | 2900 | Dir | 4G1 | G 1½" | 40 mm |

# DGO 2/G50V

## Performances

| | l/s | 0 | 2 | 4 | 6 | 8 | 10.0 |
|---|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36.0 |
| 1 | DGO 50/2/G50V B0CM(T)5 | *6.0* | 4.5 | 2.3 | | | |
| 2 | DGO 75/2/G50V B0CM(T)5 | *8.6* | 7.2 | 5.1 | 2.3 | | |
| 3 | DGO 100/2/G50V B0CM(T)5 | *12.2* | 10.1 | 7.9 | 5.8 | 3.6 | |
| 4 | DGO 150/2/G50V B0CM(T)5 | *14.2* | 11.8 | 9.5 | 7.3 | 5.1 | 2.7 |
| 5 | DGO 200/2/G50V B0CM(T)5 | *15.8* | 13.6 | 11.2 | 8.9 | 6.6 | 4.4 |




Characteristic curves according to UNI EN ISO 9906

## Technical data

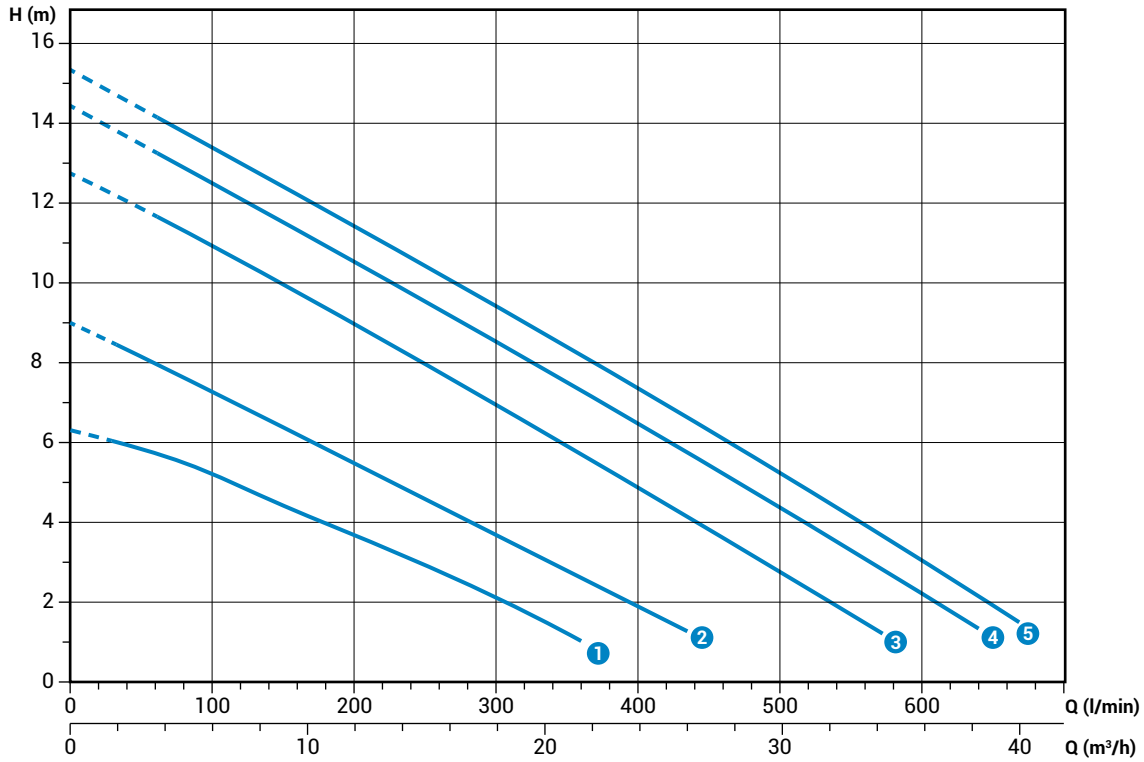
| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 50/2/G50V B0CM5 | 230 | 1 | - | 0.37 | 2.9 | 2900 | Dir | 4G1 | G 2" | 40 mm |
| 2 | DGO 75/2/G50V B0CM5 | 230 | 1 | - | 0.55 | 3.9 | 2900 | Dir | 4G1 | G 2" | 40 mm |
| 3 | DGO 100/2/G50V B0CM5 | 230 | 1 | - | 0.88 | 6.9 | 2900 | Dir | 4G1 | G 2" | 50 mm |
| 4 | DGO 150/2/G50V B0CM5 | 230 | 1 | - | 1.1 | 8.7 | 2900 | Dir | 4G1 | G 2" | 50 mm |
| 5 | DGO 200/2/G50V B0CM5 | 230 | 1 | - | 1.5 | 10.0 | 2900 | Dir | 4G1 | G 2" | 50 mm |

| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 50/2/G50V B0CT5 | 400 | 3 | - | 0.37 | 1.1 | 2900 | Dir | 4G1 | G 2" | 40 mm |
| 2 | DGO 75/2/G50V B0CT5 | 400 | 3 | - | 0.55 | 1.4 | 2900 | Dir | 4G1 | G 2" | 40 mm |
| 3 | DGO 100/2/G50V B0CT5 | 400 | 3 | - | 0.88 | 2.3 | 2900 | Dir | 4G1 | G 2" | 50 mm |
| 4 | DGO 150/2/G50V B0CT5 | 400 | 3 | - | 1.1 | 2.7 | 2900 | Dir | 4G1 | G 2" | 50 mm |
| 5 | DGO 200/2/G50V B0CT5 | 400 | 3 | - | 1.5 | 3.6 | 2900 | Dir | 4G1 | G 2" | 50 mm |

# DGO 2/G50H

## Performances

| | l/s | 0 | 2 | 4 | 6 | 8 | 10 |
|---|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36.0 |
| 1 | DGO 50/2/G50H A1CM(T)5 | *7.8* | 5.6 | 3.3 | 1.0 | | |
| 2 | DGO 75/2/G50H A1CM(T)5 | *9.0* | 6.9 | 4.7 | 2.6 | | |
| 3 | DGO 100/2/G50H A0CM(T)5 | *12.7* | 10.6 | 8.2 | 5.7 | 3.1 | |
| 4 | DGO 150/2/G50H A0CM(T)5 | *14.4* | 12.1 | 9.7 | 7.3 | 4.8 | 2.2 |
| 5 | DGO 200/2/G50H A0CM(T)5 | *15.3* | 13.0 | 10.6 | 8.2 | 5.6 | 3.0 |




Characteristic curves according to UNI EN ISO 9906

## Technical data

| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 50/2/G50H A1CM5 | 230 | 1 | - | 0.37 | 2.9 | 2900 | Dir | 4G1 | G 2"- DN50 | 40 mm |
| 2 | DGO 75/2/G50H A1CM5 | 230 | 1 | - | 0.55 | 3.9 | 2900 | Dir | 4G1 | G 2"- DN50 | 40 mm |
| 3 | DGO 100/2/G50H A0CM5 | 230 | 1 | - | 0.88 | 6.5 | 2900 | Dir | 4G1 | G 2"- DN50 | 50 mm |
| 4 | DGO 150/2/G50H A0CM5 | 230 | 1 | - | 1.1 | 8.2 | 2900 | Dir | 4G1 | G 2"- DN50 | 50 mm |
| 5 | DGO 200/2/G50H A0CM5 | 230 | 1 | - | 1.5 | 9.3 | 2900 | Dir | 4G1 | G 2"- DN50 | 50 mm |

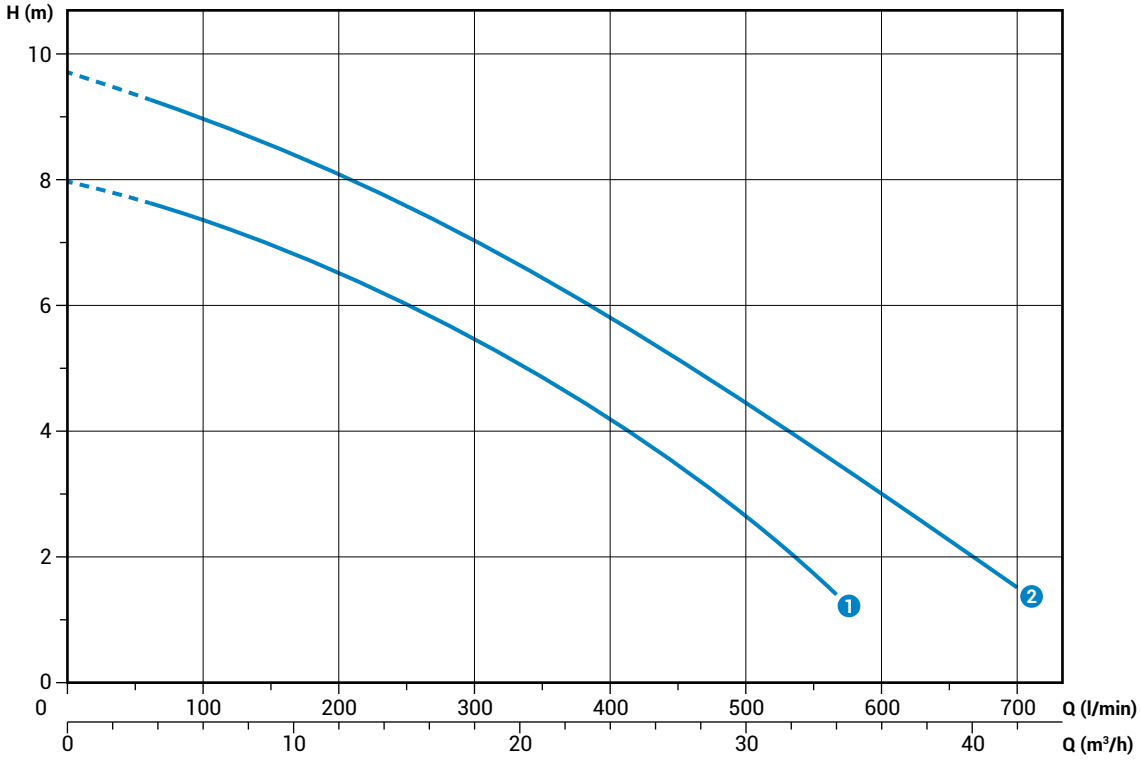
| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 50/2/G50H A1CT5 | 400 | 3 | - | 0.37 | 1.1 | 2900 | Dir | 4G1 | G 2"- DN50 | 40 mm |
| 2 | DGO 75/2/G50H A1CT5 | 400 | 3 | - | 0.55 | 1.4 | 2900 | Dir | 4G1 | G 2"- DN50 | 40 mm |
| 3 | DGO 100/2/G50H A0CT5 | 400 | 3 | - | 0.88 | 2.3 | 2900 | Dir | 4G1 | G 2"- DN50 | 50 mm |
| 4 | DGO 150/2/G50H A0CT5 | 400 | 3 | - | 1.1 | 2.6 | 2900 | Dir | 4G1 | G 2"- DN50 | 50 mm |
| 5 | DGO 200/2/G50H A0CT5 | 400 | 3 | - | 1.5 | 3.6 | 2900 | Dir | 4G1 | G 2"- DN50 | 50 mm |

# DGO 2/G65V

## Performances

| | l/s | 0 | 2 | 4 | 6 | 8 | 10.0 |
|---|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36.0 |
| 1 | DGO 150/2/G65V A1CM(T)5 | *8.0* | 7.2 | 6.1 | 4.7 | 3.0 | |
| 2 | DGO 200/2/G65V A1CM(T)5 | *9.7* | 8.8 | 7.7 | 6.3 | 4.7 | 3.0 |

Characteristic curves according to UNI EN ISO 9906




## Technical data

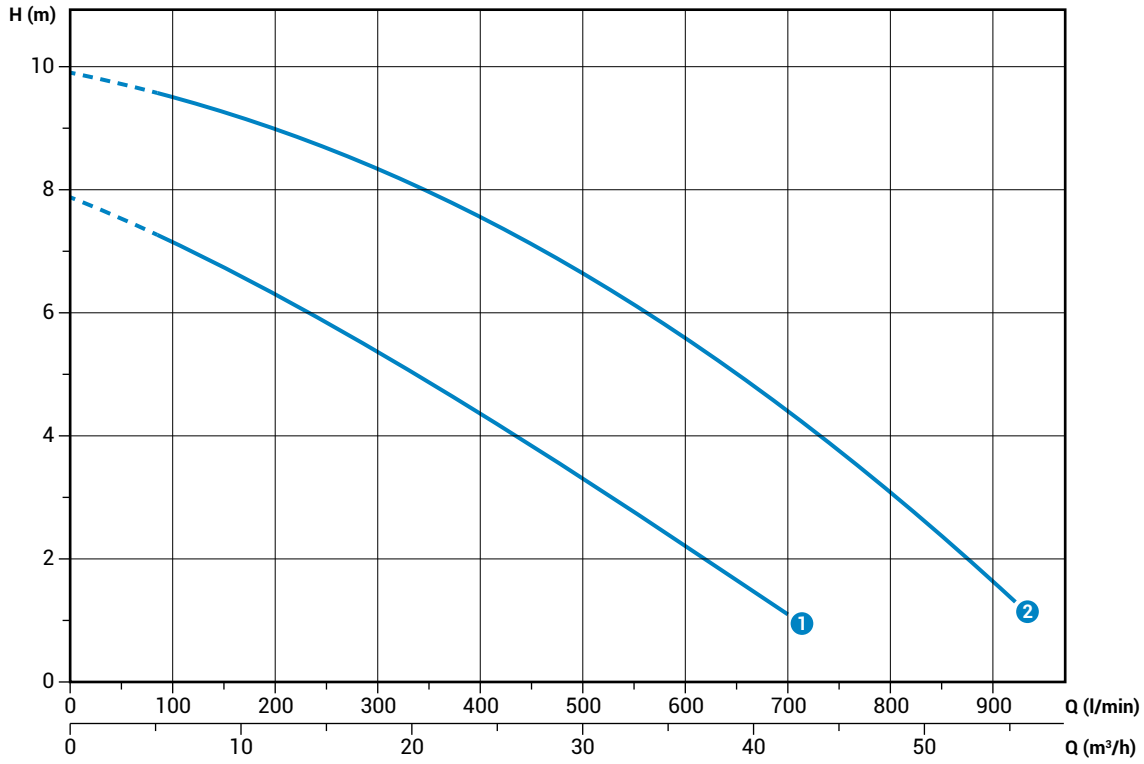
| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 150/2/G65V A1CM5 | 230 | 1 | - | 1.1 | 8.2 | 2900 | Dir | 4G1 | G 2½" | 65 mm |
| 2 | DGO 200/2/G65V A1CM5 | 230 | 1 | - | 1.5 | 10.0 | 2900 | Dir | 4G1 | G 2½" | 65 mm |

| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 150/2/G65V A1CT5 | 400 | 3 | - | 1.1 | 2.7 | 2900 | Dir | 4G1 | G 2½" | 65 mm |
| 2 | DGO 200/2/G65V A1CT5 | 400 | 3 | - | 1.5 | 3.6 | 2900 | Dir | 4G1 | G 2½" | 65 mm |

# DGO 2/65

## Performances

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | l/s | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 |
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 | 720 | 840 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36 | 43.2 | 50.4 |
| 1 | DGO 150/2/65 A1CM(T)5 | 7.9 | 7.0 | 5.9 | 4.8 | 3.5 | 2.3 | | |
| 2 | DGO 200/2/65 A1CM(T)5 | 9.9 | 9.4 | 8.8 | 7.9 | 6.9 | 5.6 | 4.2 | 2.5 |




Characteristic curves according to UNI EN ISO 9906

## Technical data

| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 150/2/65 A1CM5 | 230 | 1 | - | 1.1 | 8.2 | 2900 | Dir | 4G1 | DN65 | 65 mm |
| 2 | DGO 200/2/65 A1CM5 | 230 | 1 | - | 1.5 | 10.0 | 2900 | Dir | 4G1 | DN65 | 65 mm |

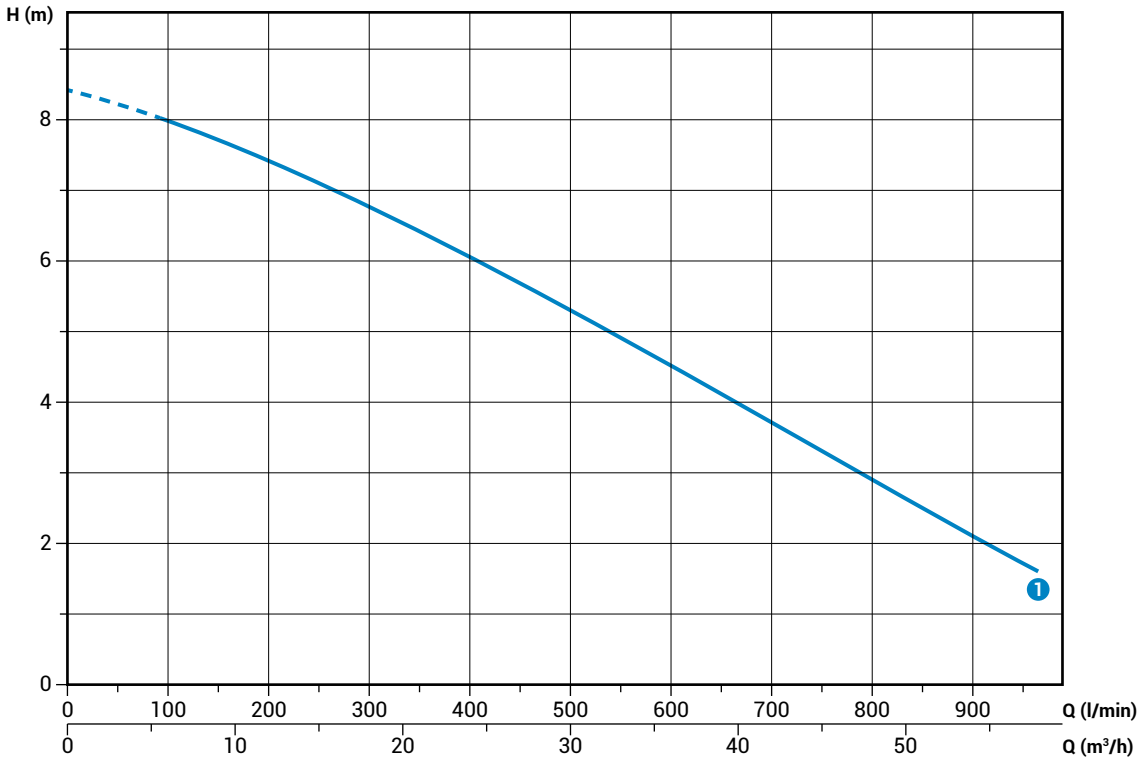
| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 150/2/65 A1CT5 | 400 | 3 | - | 1.1 | 2.7 | 2900 | Dir | 4G1 | DN65 | 65 mm |
| 2 | DGO 200/2/65 A1CM5 | 400 | 3 | - | 1.5 | 3.6 | 2900 | Dir | 4G1 | DN65 | 65 mm |

# DGO 2/80

## Performances

| | l/s | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 | 720 | 840 | 960 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36 | 43.2 | 50.4 | 57.6 |
| 1 | DGO 200/2/80 A1CM(T)5 | *8.4* | 7.9 | 7.2 | 6.4 | 5.5 | 4.5 | 3.6 | 2.6 | 1.7 |

Characteristic curves according to UNI EN ISO 9906




## Technical data

| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 200/2/80 A1CM5 (*) | 230 | 1 | - | 1.7 | 11.2 | 2900 | Dir | 4G1 | DN80 | 80 mm |

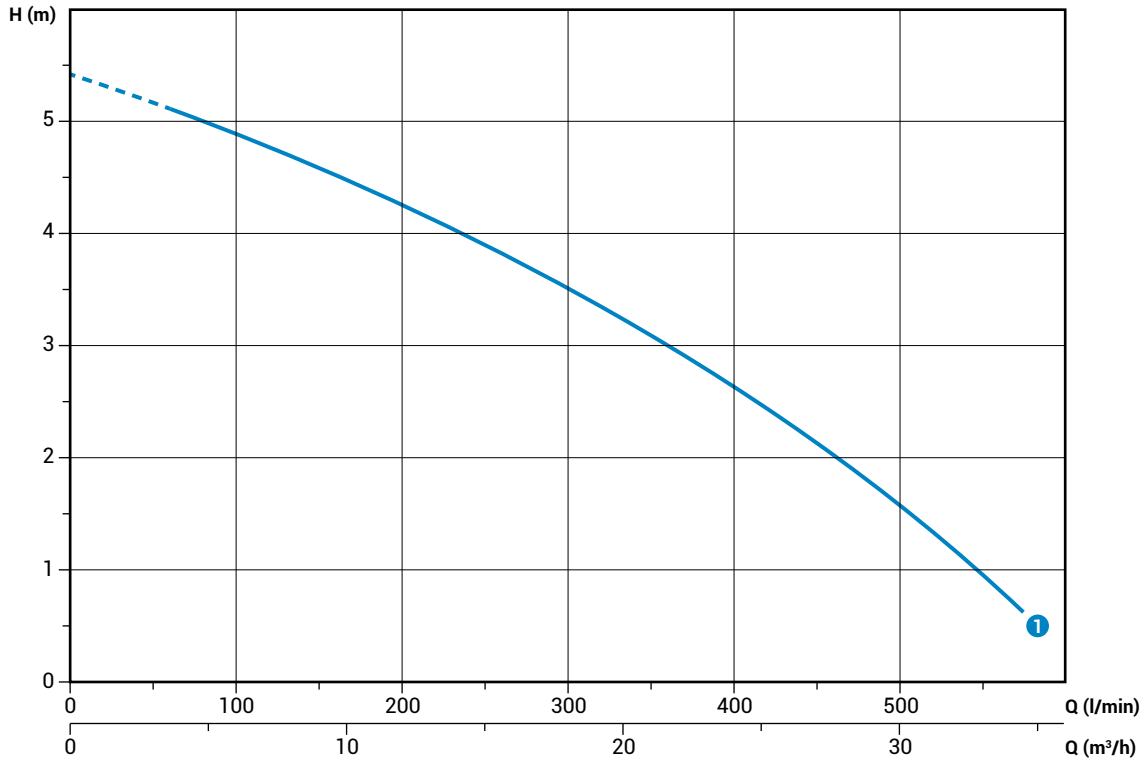
(*) TC and TCST versions only

| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DGO 200/2/80 A1CT5 | 400 | 3 | - | 1.7 | 3.9 | 2900 | Dir | 4G1 | DN80 | 80 mm |

# DGO 4/G50V

## Performances

| | l/s | 0 | 2 | 4 | 6 | 8 |
|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 |
| 1 DGO 100/4/G50V B0CM(T)5 | | 5.4 | 4.8 | 4.0 | 3.0 | 1.8 |




Characteristic curves according to UNI EN ISO 9906

## Technical data

| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DGO 100/4/G50V B0CM5 | 230 | 1 | - | 0.7 | 4.5 | 1450 | Dir | 4G1 | G2" | 45 mm |

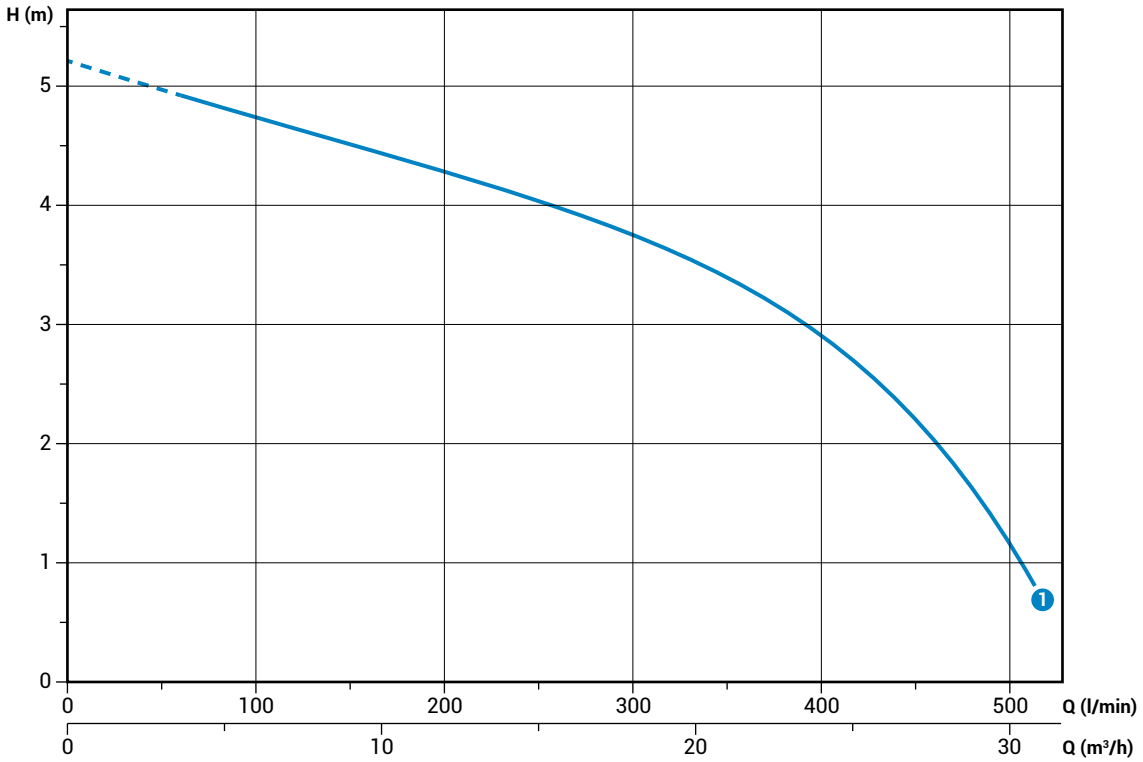
| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DGO 100/4/G50V B0CT5 | 400 | 3 | - | 0.7 | 1.6 | 1450 | Dir | 4G1 | G2" | 45 mm |

# DGO 4/G50H

## Performances

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| l/s | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
| l/min | 0 | 120 | 240 | 360 | 480 | 600 | 720 | 840 | 960 |
| m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36 | 43.2 | 50.4 | 57.6 |
| 1 DGO 100/4/G50H A0CM(T)5 | *8.4* | 7.9 | 7.2 | 6.4 | 5.5 | 4.5 | 3.6 | 2.6 | 1.7 |

Characteristic curves according to UNI EN ISO 9906




## Technical data

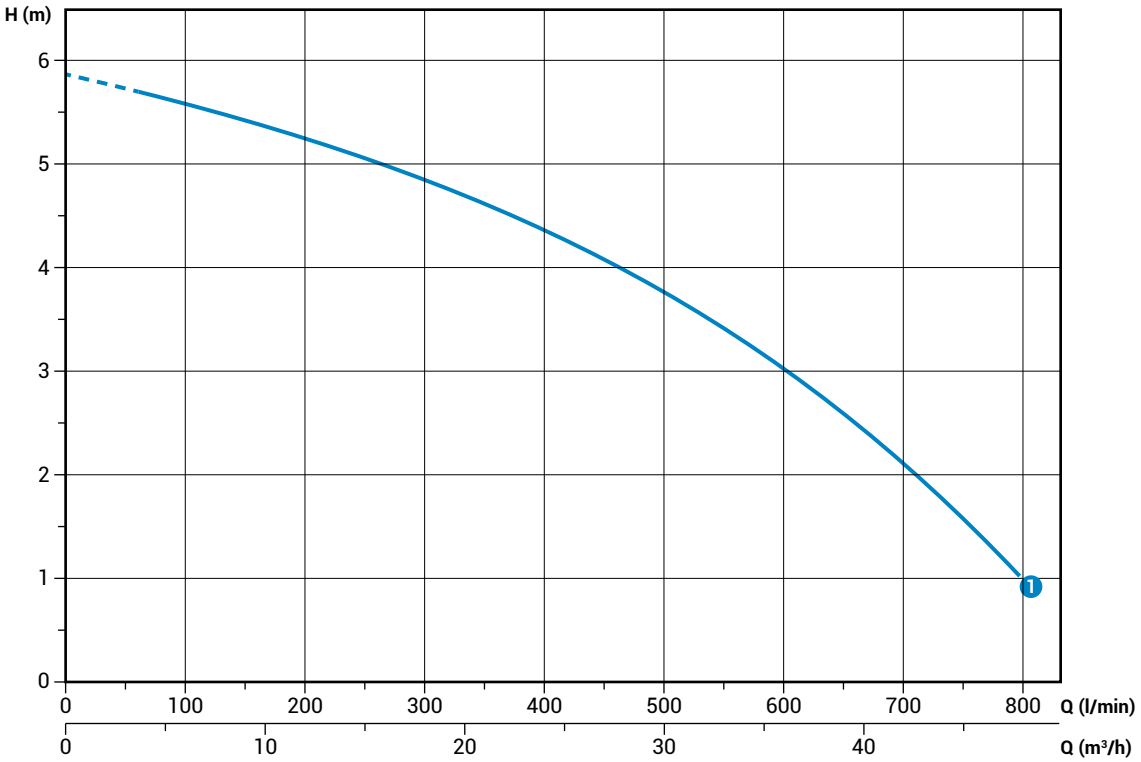
| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DGO 100/4/G50H A0CM5 | 230 | 1 | - | 0.7 | 5.7 | 1450 | Dir | 4G1 | G2"-DN50 | 45 mm |

| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DGO 100/4/G50H A0CT5 | 400 | 3 | - | 0.7 | 2.2 | 1450 | Dir | 4G1 | G2"-DN50 | 45 mm |

# DGO 4/65

## Performances

| | l/s | 0 | 2 | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 | 720 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36 | 43.2 |
| 1 DGO 150/4/65 A0CM(T)5 | | *5.9* | 5.5 | 5.1 | 4.6 | 3.9 | 3.0 | 1.9 |




Characteristic curves according to UNI EN ISO 9906

## Technical data

| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DGO 150/4/65 A0CM5 | 230 | 1 | - | 0.9 | 7.5 | 1450 | Dir | 4G1 | DN65 | 45 mm |

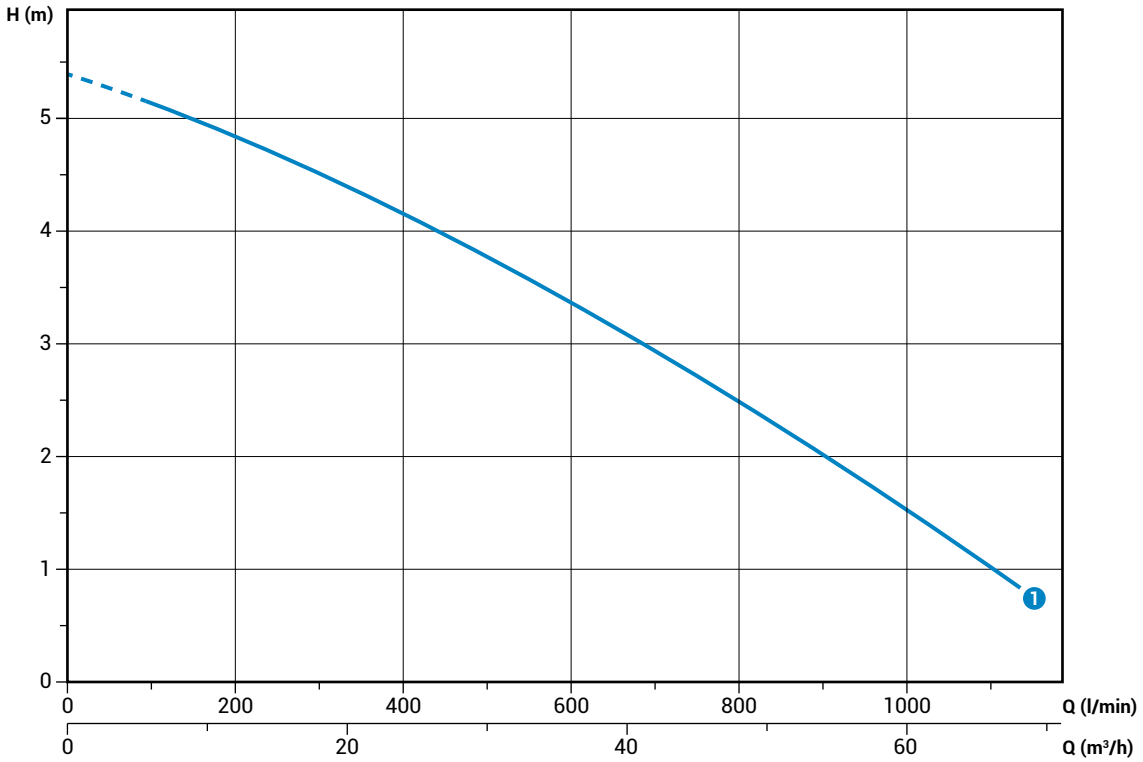
| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DGO 150/4/65 A0CT5 | 400 | 3 | - | 0.9 | 2.8 | 1450 | Dir | 4G1 | DN65 | 45 mm |

# DGO 4/80

## Performances

| | l/s | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 | 720 | 840 | 960 | 1080 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36 | 43.2 | 50.4 | 57.6 | 64.8 |
| 1 DGO 150/4/80 A0CM(T)5 | | *5.4* | 5.1 | 4.7 | 4.3 | 3.8 | 3.4 | 2.8 | 2.3 | 1.7 | 1.1 |

Characteristic curves according to UNI EN ISO 9906




## Technical data

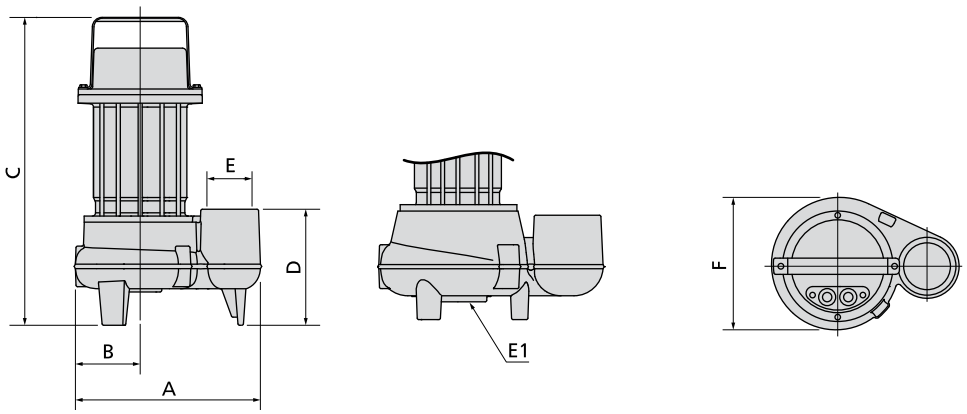
| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DGO 150/4/80 A0CM5 | 230 | 1 | - | 0.9 | 7.5 | 1450 | Dir | 4G1 | DN80 | 60 mm |

| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DGO 150/4/80 A0CT5 | 400 | 3 | - | 0.9 | 2.8 | 1450 | Dir | 4G1 | DN80 | 60 mm |

# DGO

## Overall dimensions and weights

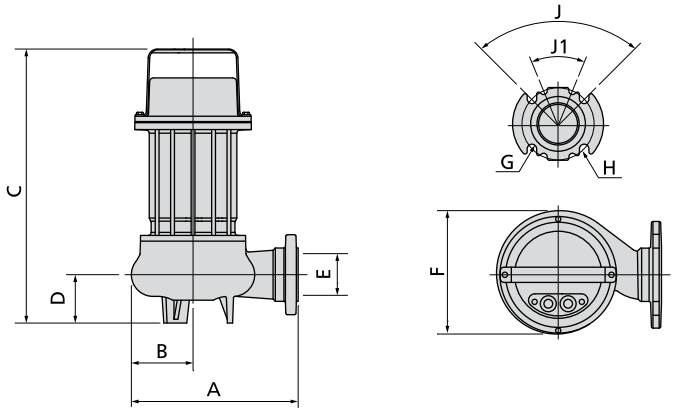
### Models with vertical discharge




| | A | B | C | D | E | E1 | F | kg |
|---|---|---|---|---|---|---|---|---|
| DGO 100/2/G40V B1CM(T)5 | 260 | 100 | 440 | 125 | G 1½" | - | 205 | 18 |
| DGO 150/2/G40V B10CM(T)5 | 260 | 100 | 440 | 125 | G 1½" | - | 205 | 19 |
| DGO 200/2/G40V B1CM(T)5 | 260 | 100 | 440 | 125 | G 1½" | - | 205 | 20 |
| DGO 50/2/G50V B0CM(T)5 | 230 | 80 | 380 | 120 | G 2" | - | 165 | 16.5 |
| DGO 75/2/G50V B0CM(T)5 | 230 | 80 | 380 | 120 | G 2" | - | 165 | 16.5 |
| DGO 100/2/G50V B0CM(T)5 | 270 | 100 | 455 | 130 | G 2" | - | 205 | 19.5 |
| DGO 150/2/G50V B0CM(T)5 | 270 | 100 | 455 | 130 | G 2" | - | 205 | 20.5 |
| DGO 200/2/G50V B0CM(T)5 | 270 | 100 | 455 | 130 | G 2" | - | 205 | 21.5 |
| DGO 150/2/G65V A1CM(T)5 | 300 | 105 | 435 | 140 | G 2½" | 3xM8 Ø160 | 210 | 21 |
| DGO 200/2/G65V A1CM(T)5 | 300 | 105 | 435 | 140 | G 2½" | 3xM8 Ø160 | 210 | 22 |
| DGO 100/4/G50V B0CM(T)5 | 270 | 100 | 455 | 130 | G 2" | - | 205 | 21 |

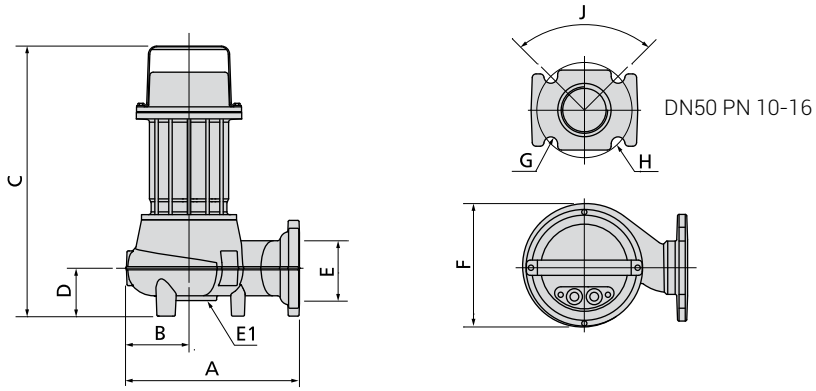
Dimensions in mm

### Models with horizontal discharge




| | A | B | C | D | E | F | G | H | J | J1 | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DGO 50/2/G50H A1CM(T)5 | 220 | 80 | 360 | 65 | G 2" - DN50 | 160 | 18 | 125 | 90° | - | 16.5 |
| DGO 75/2/G50H A1CM(T)5 | 220 | 80 | 360 | 65 | G 2" - DN50 | 160 | 18 | 125 | 90° | - | 16.5 |
| DGO 100/2/G50H A0CM(T)5 | 270 | 110 | 455 | 110 | G 2" - DN50 | 205 | 18 | 125 | 90° | - | 19.5 |
| DGO 150/2/G50H A0CM(T)5 | 270 | 110 | 455 | 110 | G 2" - DN50 | 205 | 18 | 125 | 90° | - | 20.5 |
| DGO 200/2/G50H A0CM(T)5 | 270 | 110 | 455 | 110 | G 2" - DN50 | 205 | 18 | 125 | 90° | - | 21.5 |
| DGO 100/4/G50H A0CM(T)5 | 270 | 110 | 450 | 110 | G 2" - DN50 | 205 | 18 | 125 | 90° | - | 21 |

Dimensions in mm




| | A | B | C | D | E | E1 | F | G | H | J | J1 | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DGO 150/2/65 A1CM(T)5 | 295 | 110 | 435 | 70 | 65 | 3xM8 Ø160 | 210 | 18 | 145 | 90° | - | 22 |
| DGO 200/2/65 A1CM(T)5 | 295 | 110 | 435 | 70 | 65 | 3xM8 Ø160 | 210 | 18 | 145 | 90° | - | 23 |
| DGO 200/2/80 A1CM(T)5 | 290 | 105 | 450 | 80 | 80 | 3xM8 Ø160 | 210 | 18 | 160 | 90° | 45° | 23 |
| DGO 150/4/65 A0CM(T)5 | 270 | 110 | 450 | 105 | 65 | - | 220 | 18 | 145 | 90° | - | 27 |
| DGO 150/4/80 A0CM(T)5 | 270 | 115 | 480 | 125 | 80 | - | 225 | 18 | 160 | 90° | - | 29 |

Dimensions in mm

## Packaging dimension


| | X | Y | Z |
|---|---|---|---|
| DGO 100/2/G40V B1CM(T)5 | 285 | 475 | 235 |
| DGO 150/2/G40V B1CM(T)5 | 285 | 475 | 235 |
| DGO 200/2/G40V B1CM(T)5 | 285 | 475 | 235 |
| DGO 50/2/G50V B0CM(T)5 | 225 | 385 | 245 |
| DGO 75/2/G50V B0CM(T)5 | 225 | 385 | 245 |
| DGO 100/2/G50V B0CM(T)5 | 285 | 475 | 235 |
| DGO 150/2/G50V B0CM(T)5 | 285 | 475 | 235 |
| DGO 200/2/G50V B0CM(T)5 | 285 | 475 | 235 |
| DGO 50/2/G50H A1CM(T)5 | 225 | 385 | 245 |
| DGO 75/2/G50H A1CM(T)5 | 225 | 385 | 245 |
| DGO 100/2/G50H A0CM(T)5 | 285 | 475 | 235 |

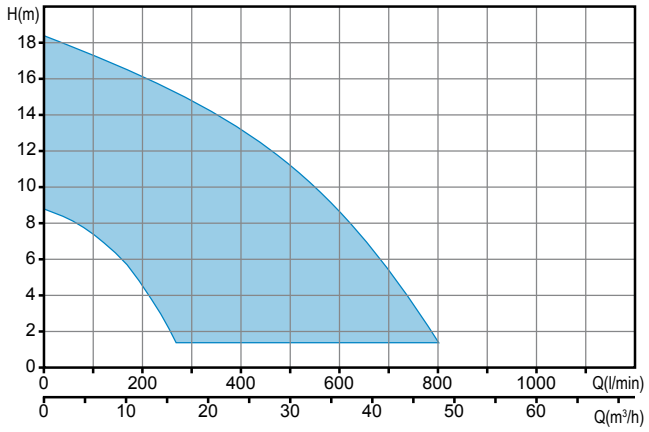
| | X | Y | Z |
|---|---|---|---|
| DGO 150/2/G50H A0CM(T)5 | 285 | 475 | 235 |
| DGO 200/2/G50H A0CM(T)5 | 285 | 475 | 235 |
| DGO 150/2/G65V A1CM(T)5 | 285 | 475 | 235 |
| DGO 200/2/G65V A1CM(T)5 | 285 | 475 | 235 |
| DGO 150/2/65 A1CM(T)5 | 310 | 580 | 310 |
| DGO 200/2/65 A1CM/(T)5 | 310 | 580 | 310 |
| DGO 200/2/80 A1CM(T)5 | 310 | 580 | 310 |
| DGO 100/4/G50V B0CM(T)5 | 285 | 475 | 235 |
| DGO 100/4/G50H A0CM(T)5 | 285 | 475 | 235 |
| DGO 150/4/65 A0CM(T)5 | 310 | 580 | 310 |
| DGO 150/4/80 A0CM(T)5 | 310 | 580 | 310 |

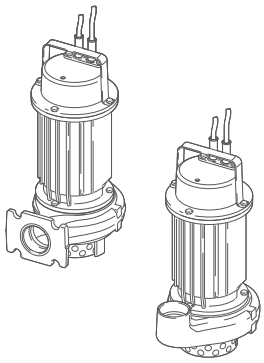
Dimensions in mm

# DRO

## Pumps with multi-channel open impeller

### Operating ranges



### Range characteristics

| | |
|---|---|
| Motor power | 0.37 ÷ 1.5 kW |
| Poles | 2 |
| Insulation class | F |
| Degree of protection | IP68 |
| Discharge | GAS 1¼ ÷ 2" vertical<br>GAS 2" DN50 horizontal |
| Free passage | max 15 mm |
| Max flow rate | 13.0 l/s (780 l/min) |
| Max head | 18.4 m |

### Motor

Oil bath motor with thermal protections.

### Cable

H07RN-F 4G1 - 5 m cable length. Optional 10 m cable length.

### Mechanical seals

One silicon carbide mechanical seal (SiC) and one carbon-aluminium oxide mechanical seal (AL)

### Applications

Can be used with clear or slightly soiled wastewaters containing small solids, strained water, rainwater, seepage and water pumped from underground.

### Versions

| | |
|---|---|
| Electrical variants | T, TCST, TCSGT (single-phase models)<br>NAE (three-phase models) |
| Cooling system | N |
| Mechanical seals | SICAL |

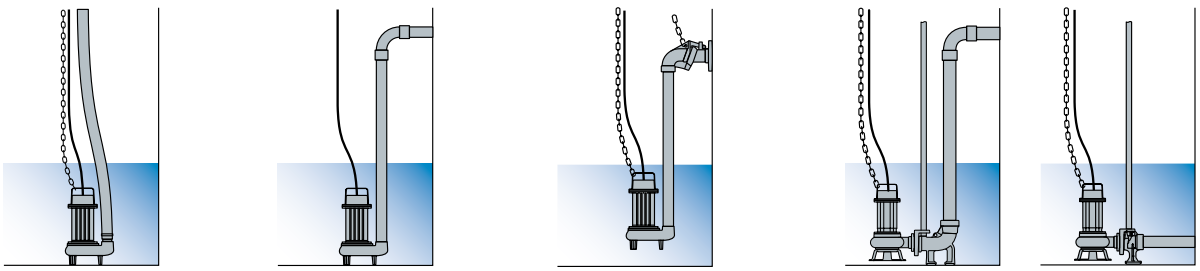
### Operating specifications

| | |
|---|---|
| Max operating temperature | 40 °C |
| PH of treated fluid | 6 ÷ 14 |
| Viscosity of treated fluid | 1 $mm^2/s$ |
| Maximum immersion depth | 3 m (cable length 5m)<br>7 m (cable length 10m) |
| Density of treated fluid | 1 $Kg/dm^3$ |
| Acoustic pressure max | <70dB |
| Max starts per hour | 30 |

### Construction materials

| | |
|---|---|
| Case | Cast iron EN-GJL 250 |
| Hydraulic parts | Cast iron EN-GJL 250 |
| Impeller | Cast iron EN-GJL 250 |
| Nuts and bolts | Stainless steel - Class A2-70 |
| Standard gasket | Rubber - NBR |
| Shaft | Stainless steel - AISI 431 |
| Paint type | Ecological bicomponent epoxy (~ 120 µm) |

### Installations



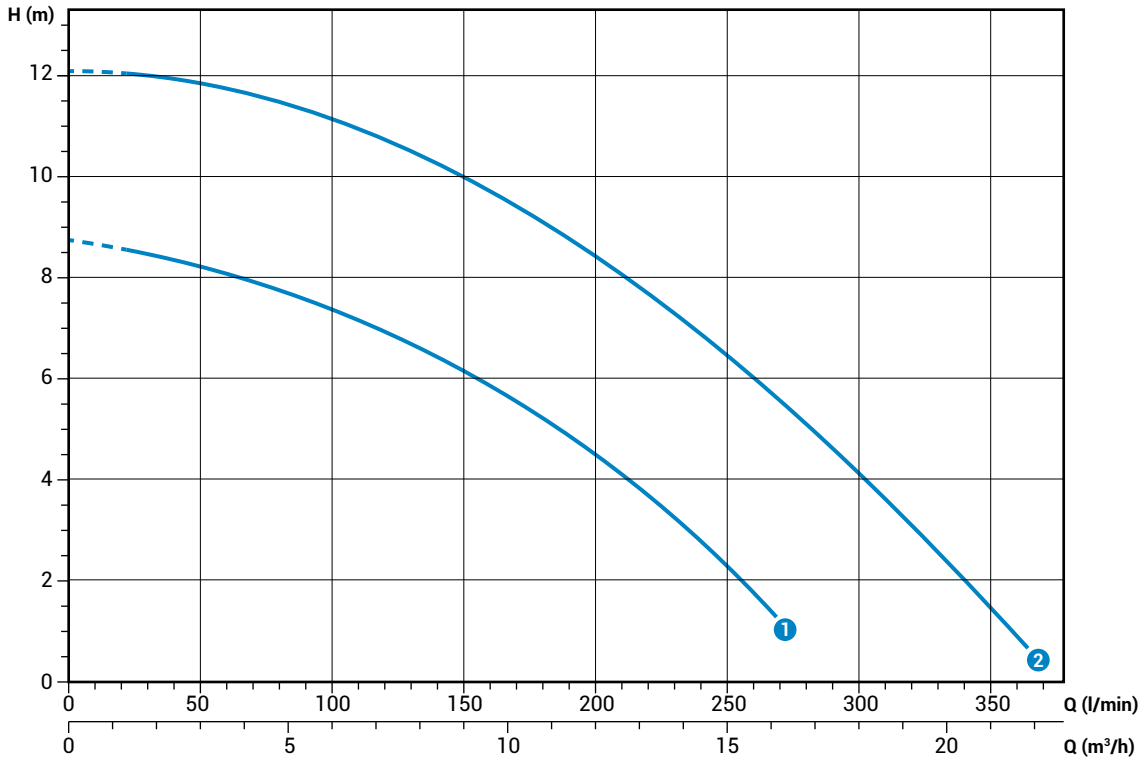
FREE | FIXED | with EXTERNAL COUPLER | with BASE COUPLING FOOT

# DRO 2/G32V

## Performances

| | l/s | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| | l/min | 0 | 60 | 120 | 180 | 240 | 300 | 360 |
| | m³/h | 0 | 3.6 | 7.2 | 10.8 | 14.4 | 18.0 | 21.6 |
| 1 DRO 50/2/G32V A0CM(T)5 | | *8.8* | 8.1 | 6.9 | 5.2 | 2.7 | | |
| 2 DRO 75/2/G32V A0CM(T)5 | | *12.1* | 11.8 | 10.8 | 9.1 | 6.9 | 4.2 | 0.9 |

Characteristic curves according to UNI EN ISO 9906




## Technical data

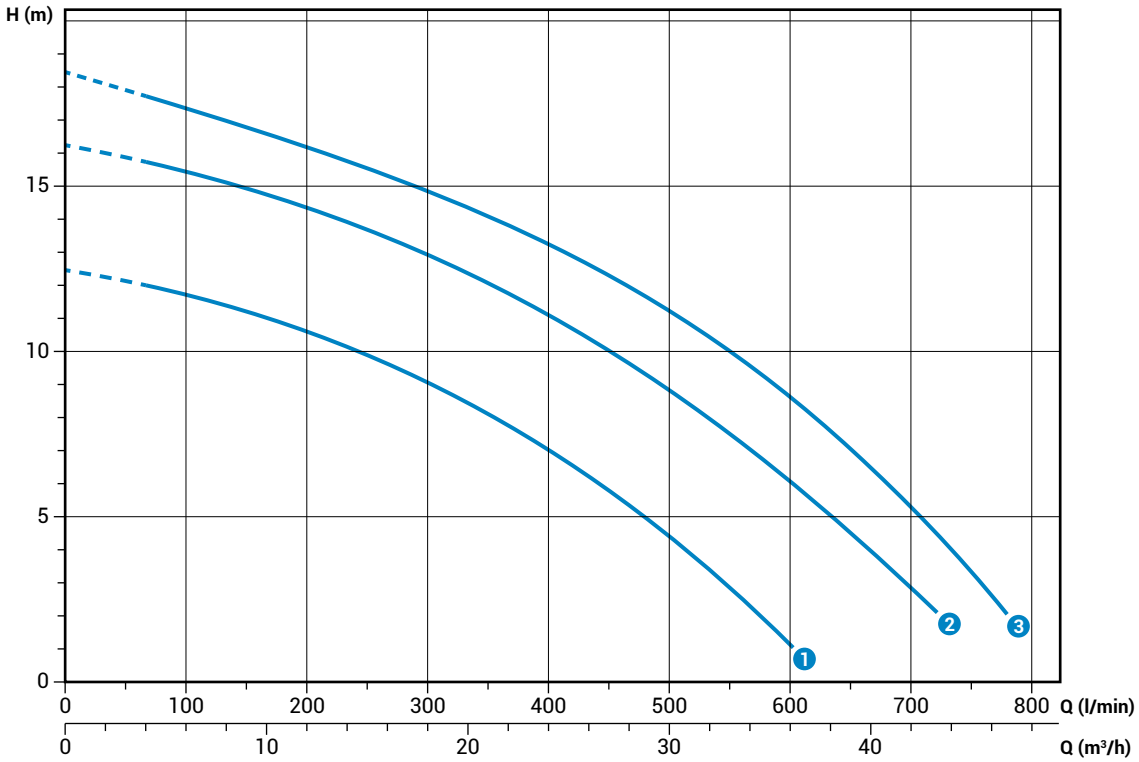
| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DRO 50/2/G32V A0CM5 | 230 | 1 | - | 0.37 | 2.9 | 2900 | Dir | 4G1 | G 1¼" | 15 mm |
| 2 DRO 75/2/G32V A0CM5 | 230 | 1 | - | 0.55 | 3.9 | 2900 | Dir | 4G1 | G 1¼" | 15 mm |

| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DRO 50/2/G32V A0CT5 | 400 | 3 | - | 0.37 | 1.1 | 2900 | Dir | 4G1 | G 1¼" | 15 mm |
| 2 DRO 75/2/G32V A0CT5 | 400 | 3 | - | 0.55 | 1.4 | 2900 | Dir | 4G1 | G 1¼" | 15 mm |

# DRO 2/G50V

## Performances

| | l/s | 0 | 2 | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 | 720 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36 | 43.2 |
| 1 DRO 100/2/G50V A0CM(T)5 | | *12.4* | 11.5 | 10.0 | 7.9 | 5.0 | 1.1 | |
| 2 DRO 150/2/G50V A0CM(T)5 | | *16.3* | 15.2 | 13.8 | 11.9 | 9.3 | 6.0 | 2.1 |
| 3 DRO 200/2/G50V A0CM(T)5 | | *18.4* | 17.1 | 15.6 | 13.9 | 11.7 | 8.6 | 4.5 |




Characteristic curves according to UNI EN ISO 9906

## Technical data

| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DRO 100/2/G50V A0CM5 | 230 | 1 | - | 0.88 | 6.5 | 2900 | Dir | 4G1 | G 2" | 15 mm |
| 2 DRO 150/2/G50V A0CM5 | 230 | 1 | - | 1.1 | 8.2 | 2900 | Dir | 4G1 | G 2" | 15 mm |
| 3 DRO 200/2/G50V A0CM5 | 230 | 1 | - | 1.5 | 9.3 | 2900 | Dir | 4G1 | G 2" | 15 mm |

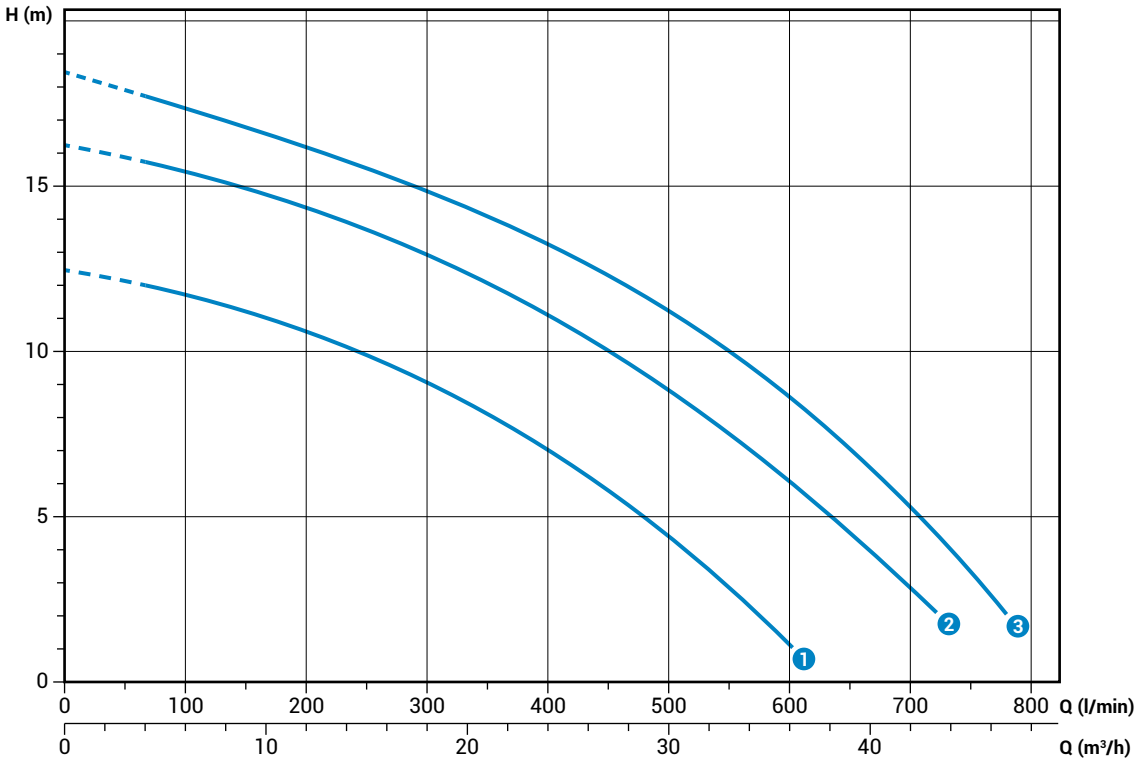
| | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 DRO 100/2/G50V A0CT5 | 400 | 3 | - | 0.88 | 2.3 | 2900 | Dir | 4G1 | G 2" | 15 mm |
| 2 DRO 150/2/G50V A0CT5 | 400 | 3 | - | 1.1 | 2.7 | 2900 | Dir | 4G1 | G 2" | 15 mm |
| 3 DRO 200/2/G50V A0CT5 | 400 | 3 | - | 1.5 | 3.5 | 2900 | Dir | 4G1 | G 2" | 15 mm |

# DRO 2/G50H

## Performances

| | l/s | 0 | 2 | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 | 720 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36 | 43.2 |
| 1 | DRO 100/2/G50H A0CM(T)5 | *12.4* | 11.5 | 10.0 | 7.9 | 5.0 | 1.1 | |
| 2 | DRO 150/2/G50H A0CM(T)5 | *16.3* | 15.2 | 13.8 | 11.9 | 9.3 | 6.0 | 2.1 |
| 3 | DRO 200/2/G50H A0CM(T)5 | *18.4* | 17.1 | 15.6 | 13.9 | 11.7 | 8.6 | 4.5 |

Characteristic curves according to UNI EN ISO 9906




## Technical data

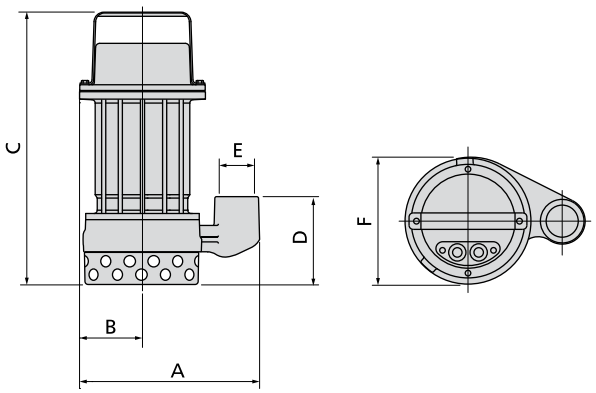
| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DRO 100/2/G50H A0CM5 | 230 | 1 | - | 0.88 | 6.5 | 2900 | Dir | 4G1 | G 2" | 15 mm |
| 2 | DRO 150/2/G50H A0CM5 | 230 | 1 | - | 1.1 | 8.2 | 2900 | Dir | 4G1 | G 2" | 15 mm |
| 3 | DRO 200/2/G50H A0CM5 | 230 | 1 | - | 1.5 | 9.3 | 2900 | Dir | 4G1 | G 2" | 15 mm |

| | | V | Phases | P1 (kW) | P2 (kW) | A | Rpm | Start | Cable | Ø | Free passage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DRO 100/2/G50H A0CT5 | 400 | 3 | - | 0.88 | 2.3 | 2900 | Dir | 4G1 | G 2" | 15 mm |
| 2 | DRO 150/2/G50H A0CT5 | 400 | 3 | - | 1.1 | 2.7 | 2900 | Dir | 4G1 | G 2" | 15 mm |
| 3 | DRO 200/2/G50H A0CT5 | 400 | 3 | - | 1.5 | 3.5 | 2900 | Dir | 4G1 | G 2" | 15 mm |

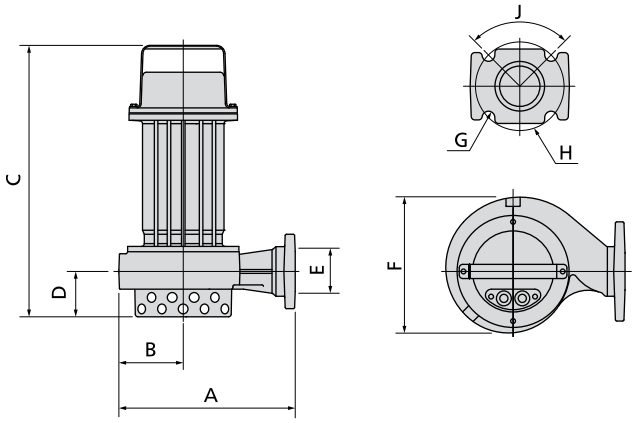
# DRO

## Overall dimensions and weights

### Models with vertical discharge




### Models with horizontal discharge




| | A | B | C | D | E | F | kg |
|---|---|---|---|---|---|---|---|
| DRO 50/2/G32V A0CM(T)5 | 220 | 75 | 330 | 105 | G 1¼" | 155 | 15 |
| DRO 75/2/G32V A0CM(T)5 | 220 | 75 | 330 | 105 | G 1¼" | 155 | 15.5 |
| DRO 100/2/G50V A0CM(T)5 | 260 | 95 | 385 | 125 | G 2" | 195 | 19.5 |
| DRO 150/2/G50V A0CM(T)5 | 260 | 95 | 385 | 125 | G 2" | 195 | 20.5 |
| DRO 200/2/G50V A0CM(T)5 | 260 | 95 | 385 | 125 | G 2" | 195 | 21.5 |

Dimensions in mm

| | A | B | C | D | E | F | G | H | J | kg |
|---|---|---|---|---|---|---|---|---|---|---|
| DRO 100/2/G50H A0CM(T)5 | 250 | 90 | 385 | 65 | G 2"-DN50 | 195 | 18 | 125 | 90° | 19.5 |
| DRO 150/2/G50H A0CM(T)5 | 250 | 90 | 385 | 65 | G 2"-DN50 | 195 | 18 | 125 | 90° | 20.5 |
| DRO 200/2/G50H A0CM(T)5 | 250 | 90 | 385 | 65 | G 2"-DN50 | 195 | 18 | 125 | 90° | 21.5 |

Dimensions in mm

## Packaging dimension


| | X | Y | C |
|---|---|---|---|
| DRO 50/2/G32V A0CM(T)5 | 225 | 385 | 245 |
| DRO 75/2/G32V A0CM(T)5 | 225 | 385 | 245 |
| DRO 100/2/G50V A0CM(T)5 | 285 | 475 | 235 |
| DRO 150/2/G50V A0CM(T)5 | 285 | 475 | 235 |
| DRO 200/2/G50V A0CM(T)5 | 285 | 475 | 235 |
| DRO 100/2/G50H A0CM(T)5 | 285 | 475 | 235 |
| DRO 150/2/G50H A0CM(T)5 | 285 | 475 | 235 |
| DRO 200/2/G50H A0CM(T)5 | 285 | 475 | 235 |

Dimensions in mm

# Hydraulic performance data

For quick, easy reference

## DGO

| | l/s | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 | 720 | 840 | 960 | 1080 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36 | 43.2 | 50.4 | 57.6 | 64.8 |
| DGO 100/2/G40V B1CM(T)5 | | 13.6 | 11.2 | 7.9 | 3.5 | | | | | | |
| DGO 150/2/G40V B1CM(T)5 | | 16.0 | 13.3 | 10.0 | 5.9 | | | | | | |
| DGO 200/2/G40V B1CM(T)5 | | 17.3 | 14.7 | 11.6 | 7.8 | 2.8 | | | | | |
| DGO 50/2/G50V B0CM(T)5 | | 6.0 | 4.5 | 2.3 | | | | | | | |
| DGO 75/2/G50V B0CM(T)5 | | 8.6 | 7.2 | 5.1 | 2.3 | | | | | | |
| DGO 100/2/G50V B0CM(T)5 | | 12.2 | 10.1 | 7.9 | 5.8 | 3.6 | | | | | |
| DGO 150/2/G50V B0CM(T)5 | | 14.2 | 11.8 | 9.5 | 7.3 | 5.1 | 2.7 | | | | |
| DGO 200/2/G50V B0CM(T)5 | | 15.8 | 13.6 | 11.2 | 8.9 | 6.6 | 4.4 | | | | |
| DGO 50/2/G50H A1CM(T)5 | | 7.8 | 5.6 | 3.3 | 1.0 | | | | | | |
| DGO 75/2/G50H A1CM(T)5 | | 9.0 | 6.9 | 4.7 | 2.6 | | | | | | |
| DGO 100/2/G50H A0CM(T)5 | | 12.7 | 10.6 | 8.2 | 5.7 | 3.1 | | | | | |
| DGO 150/2/G50H A0CM(T)5 | | 14.4 | 12.1 | 9.7 | 7.3 | 4.8 | 2.2 | | | | |
| DGO 200/2/G50H A0CM(T)5 | | 15.3 | 13.0 | 10.6 | 8.2 | 5.6 | 3.0 | | | | |
| DGO 150/2/G65V A1CM(T)5 | | 8.0 | 7.2 | 6.1 | 4.7 | 3.0 | | | | | |
| DGO 200/2/G65V A1CM(T)5 | | 9.7 | 8.8 | 7.7 | 6.3 | 4.7 | 3.0 | | | | |
| DGO 150/2/65 A1CM(T)5 | | 7.9 | 7.0 | 5.9 | 4.8 | 3.5 | 2.3 | | | | |
| DGO 200/2/65 A1CM(T)5 | | 9.9 | 9.4 | 8.8 | 7.9 | 6.9 | 5.6 | 4.2 | 2.5 | | |
| DGO 200/2/80 A1CM(T)5 | | 8.4 | 7.9 | 7.2 | 6.4 | 5.5 | 4.5 | 3.6 | 2.6 | 1.7 | |
| DGO 100/4/G50V B0CM(T)5 | | 5.4 | 4.8 | 4.0 | 3.0 | 1.8 | | | | | |
| DGO 100/4/G50H A0CM(T)5 | | 5.2 | 4.7 | 4.1 | 3.3 | 1.6 | | | | | |
| DGO 150/4/65 A0CM(T)5 | | 5.9 | 5.5 | 5.1 | 4.6 | 3.9 | 3.0 | 1.9 | | | |
| DGO 150/4/80 A0CM(T)5 | | 5.4 | 5.1 | 4.7 | 4.3 | 3.8 | 3.4 | 2.8 | 2.3 | 1.7 | 1.1 |

## DRO

| | l/s | 0 | 2 | 4 | 6 | 8 | 10 | 12 |
|---|---|---|---|---|---|---|---|---|
| | l/min | 0 | 120 | 240 | 360 | 480 | 600 | 720 |
| | m³/h | 0 | 7.2 | 14.4 | 21.6 | 28.8 | 36 | 43.2 |
| DRO 50/2/G32V A0CM(T)5 | | 8.8 | 6.9 | 2.7 | | | | |
| DRO 75/2/G32V A0CM(T)5 | | 12.1 | 10.8 | 6.9 | 0.9 | | | |
| DRO 100/2/G50V A0CM(T)5 | | 12.4 | 11.5 | 10.0 | 7.9 | 5.0 | 1.1 | |
| DRO 150/2/G50V A0CM(T)5 | | 16.3 | 15.2 | 13.8 | 11.9 | 9.3 | 6.0 | 2.1 |
| DRO 200/2/G50V A0CM(T)5 | | 18.4 | 17.1 | 15.6 | 13.9 | 11.7 | 8.6 | 4.5 |
| DRO 50/2/G32H A0CM(T)5 | | 8.8 | 6.9 | 2.7 | | | | |
| DRO 75/2/G32H A0CM(T)5 | | 12.1 | 10.8 | 6.9 | 0.9 | | | |
| DRO 100/2/G50H A0CM(T)5 | | 12.4 | 11.5 | 10.0 | 7.9 | 5.0 | 1.1 | |
| DRO 150/2/G50H A0CM(T)5 | | 16.3 | 15.2 | 13.8 | 11.9 | 9.3 | 6.0 | 2.1 |
| DRO 200/2/G50H A0CM(T)5 | | 18.4 | 17.1 | 15.6 | 13.9 | 11.7 | 8.6 | 4.5 |

## Notes

better together