



water technology



U|UNIQA®

High efficiency
submersible electric pumps





UNIQA®

High efficiency submersible electric pumps



CO₂ emissions reduction, lower costs and environmental protection, these are issues that affect us all closely and which we need to take care of for the sake of future generations.

UNIQA motors correspond to IE3 efficiency class and match S1 duty type standards for submerged operation at a temperature of 60° C, as per NEMA A.

In civil and industrial applications the reliability of a submersible electric pump is a synonym for smooth operation, steady performance and continuous work cycles without undesired system shutdowns.

For this reason, **UNIQA** is made of innovative materials and is equipped with cutting-edge technical features such as the new patented cooling system. All these attributes make **UNIQA** a safe and reliable product.

The **UNIQA** range represents the perfect solution for any domestic, commercial and industrial applications, with a choice of 2, 4, 6 or 8 pole motors from 4 to 200 kW, 50 and 60Hz, and discharge ports from DN65 to DN400. The vortex impeller that allows for wider free passage, paired with the anti-clogging system, guarantees the optimum performance of every **UNIQA** model in any circumstance.

2013 CATALOGUE
50Hz

Only use what you need: less waste, improved efficiency.

In emerging countries, the second largest expense in municipal budgets is generally the energy cost of water supplies. This situation is worsened by the fact that by 2020, 50% of the population of these countries will have moved to urban centres.

It is therefore clear that the energy consumed in supply drinking water and treating black water is destined to grow; at the present time, around 3% of world energy consumption is accounted by the pumping and treatment of civil and industrial water.

It is critical that water systems be as efficient as possible, while reducing wastage to a minimum.

LCC: Life Cycle Cost

Life Cycle Cost consists of 3 basic factors: initial costs, energy costs and maintenance. It must be remembered that a pump or system's energy costs, together with installation, environmental, disposal and stoppage costs, account for **85 per cent** of the total cost. Maintenance then amounts to an additional 5 per cent. It thus becomes clear that **the initial cost only accounts for 10 per cent of LCC.**

Imagine the LCC as an iceberg, of which only 10% is visible, while the remaining 90% is concealed from view; in same way, the cost of an installation makes evident only the initial investment and conceals running and maintenance costs, which are by far greater than the initial purchase price.

Therefore, giving a submersible pump a highly efficient motor and internal components can guarantee impressive energy savings, recouping the extra investment compared to the purchase of a pump with the same hydraulic characteristics but poorer energy efficiency within just two years*.

**Regular inspection of the system's components, operation and performance is essential for the achievement of efficiency targets.*

The UNIQA solution

Starting from these considerations, Zenit has decided to orient its strategy towards the creation of products which satisfy restrictive efficiency and reliability criteria, thus minimising outages and running costs.

UNCOMPROMISING EFFICIENCY

To reach the levels of efficiency set out in modern international standards, such as **"NEMA A"**, Zenit has taken an uncompromising approach with UNIQA, a product intended to last for years in both civil and industrial settings, and which provides performance to **efficiency class Premium IE3.**

A wide choice of motors, from 4 to 200 kW with 2, 4, 6 and 8 pole windings, 50 / 60Hz power and DN65 to DN400 discharge ports, vortex impellers with full free passage and channels with anti-blockage systems, make the UNIQA series ideally suited to operation in any conditions.

The generously rated mechanical assemblies provide long service life, with long maintenance intervals and reduced downtime - all of which adds up to cost savings.

Performance is constant in continuous operation without costly downtime. The reliability of the submersible pump means smooth, regular operation. This is why UNIQA is made of innovative materials, using cutting edge technologies and a new patented cooling system.

Efficiency, performance and reliability

The combination of **efficient motors, high hydraulic performance and reliability** give UNIQA a particularly high global efficiency rating, capable of ensuring a good return on investment over time.

From words to deeds:

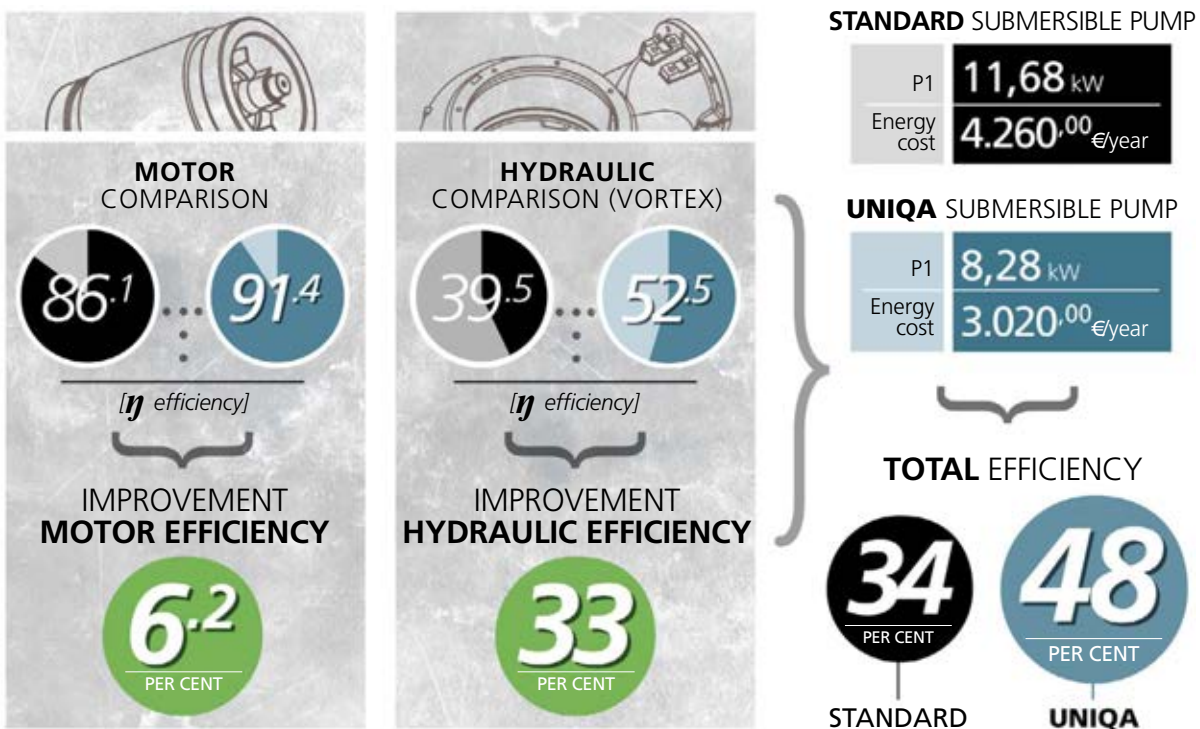
high efficiency, not just in performance, but also in running costs.

For a real understanding of how efficient UNIQA is, let's take a look at the figures for a small pumping station. Let's suppose we have calculated a "duty point" with a flow rate of 30 l/sec, lifted to a height of 13.5 m.

We now know we need a hydraulic power of 3,973 kW ($P_{idr} = \rho \cdot g \cdot Q \cdot H$), for a total of 10 working hours a day (365 days/year), with an energy cost per kWh of 0.10 €/kWh. This is what our equipment aims to provide.

THE VALUE OF UNIQA

Let's compare the performance at the duty point indicated above of a UNIQA submersible pump with **efficiency class Premium IE3 and high efficiency hydraulics (in blue)** with that of an electric pump with **standard motor and conventional hydraulics (in black)**.



The example highlights the fact that using a **UNIQA pump with efficiency class PREMIUM IE3 (+6.2%) motor and high performance hydraulics (+33%) compared to a STANDARD pump, yields improved global system efficiency, at the duty point in question, of 6%, thus providing considerable cost savings.**

1.240€ THE EFFICIENCY ADVANTAGE OF A UNIQA PUMP WITH EFFICIENCY CLASS PREMIUM IE3 MOTOR AND HIGH PERFORMANCE HYDRAULICS CAN BE QUANTIFIED AT €1,240.00/YEAR OF COST SAVINGS

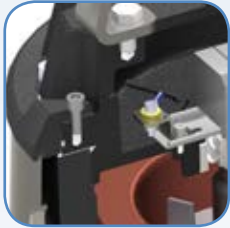
NOTE: All calculations are for example only. Energy costs can vary by supplier and consumption tariffs.

How it is made



Cable gland

The cable gland can be sealed with extra resin on request in order to prevent any possible leakage into the lid even if the cable gland seal fails.



Motor compartment

Option to install one or more water/humidity sensors in the motor compartment.



Motor shaft

The whole range is equipped with AISI 431 stainless steel shafts. The NITRONIC 50 version is also available upon request (this type of stainless steel has higher chemical and mechanical resistance compared to AISI 316 and AISI 329).



Bearings

Oversized heavy-duty bearings designed for 50,000 hours of operation.



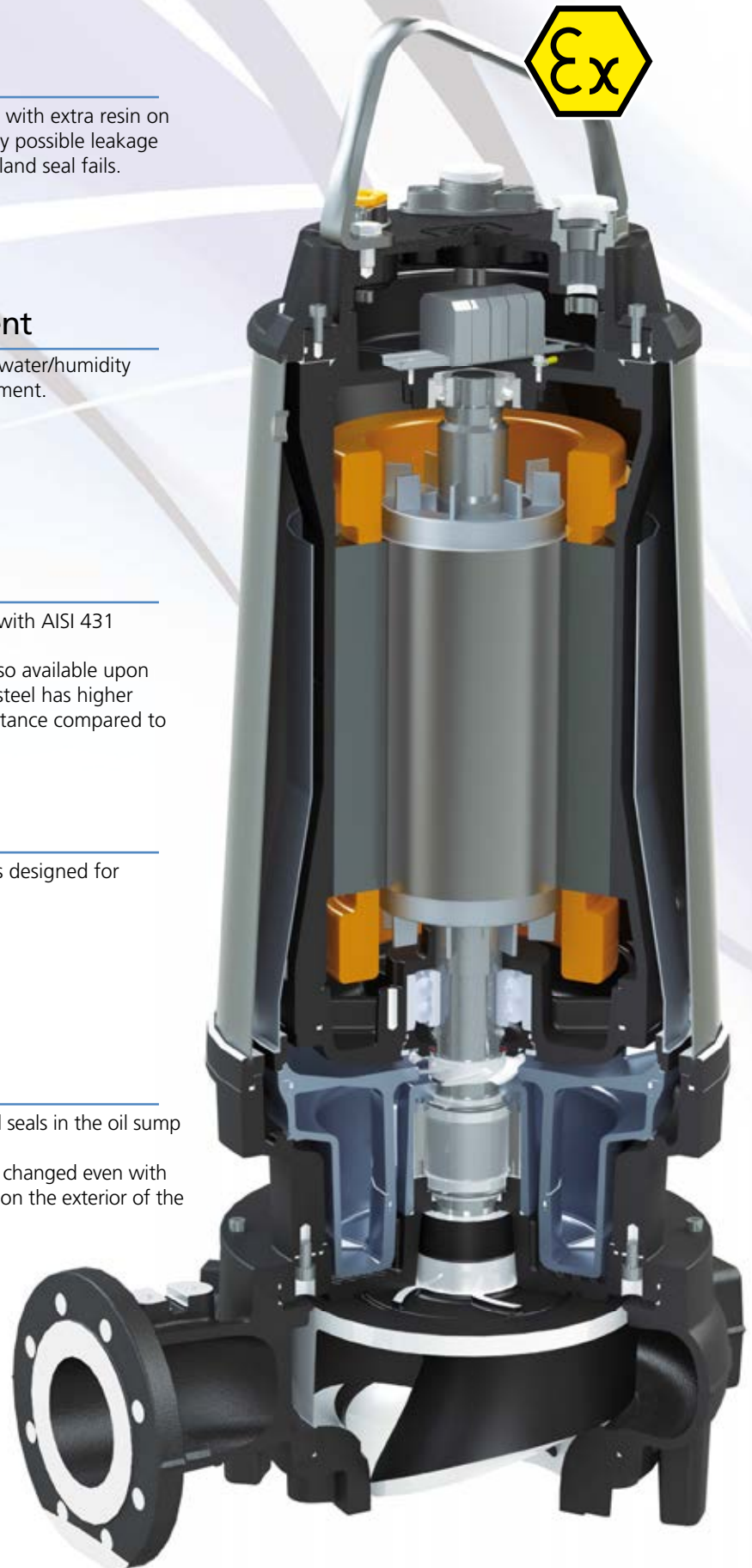
Mechanical seals

Two silicon carbide mechanical seals in the oil sump and V-rings. The oil can be checked and changed even with the pump vertical, using plugs on the exterior of the mount.



Flanges

Various flange drilling are available, including ANSI and BS.



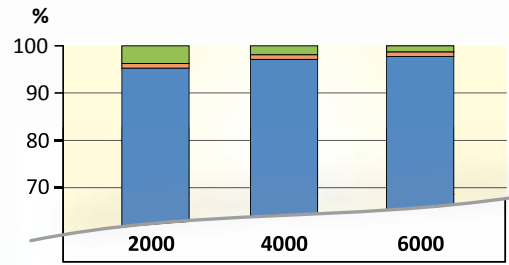


Motor

High-efficiency PREMIUM IE3 motors function, in accordance with NEMA A standard, and insulation in class H.

Guaranteed S1 duty type in fluids at 60° C or higher temperature.

Generally, since energy costs are higher than other expenses, continuous duty provides higher savings compared to a conventional system and the initial investment in a **high efficiency systems** is soon recouped, without considering the considerable advantages in terms of environmental footprint.



	Operation (hours/year)			Costs (%)
	2000	4000	6000	
Purchase	3.8	1.9	1.3	
Maintenance	1.0	1.0	1.0	
Energy	95.2	97.1	97.7	



Hydraulics

All hydraulic components are designed to provide highest efficiency and best performance combined with wide free passage.

The series is based on two different impeller types: high-efficiency **vortex** or **channel** impellers.

All models with open-channel impeller have an axial adjustment system that maintains the impeller's balance for unchanged pump performance even at first signs of wear.

The Anti-Clogging-System (ACS) prevents blocking the impeller even in heavy-duty conditions.

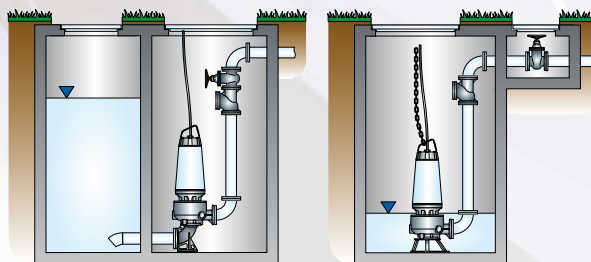


Cooling system (PATENTED)

The motor is cooled down by a **patented** closed-circuit internal re-circulation system.

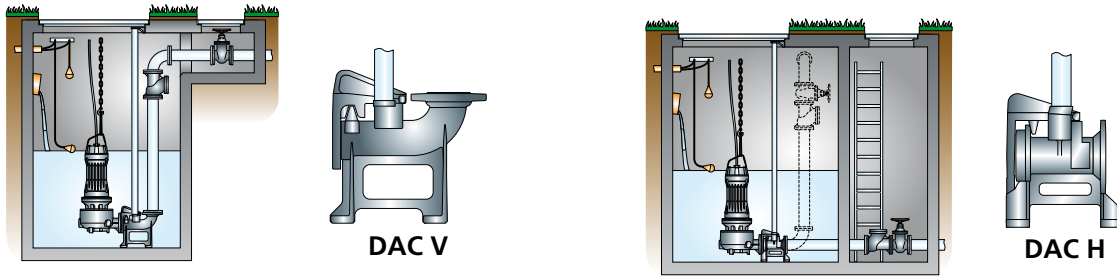
This way, should any soiled liquid penetrate the oil chamber due to possible wear of the first mechanical seal, the fluid used in the process wouldn't be affected.

Continuous duty is ensured even in dry and partially submerged working conditions.



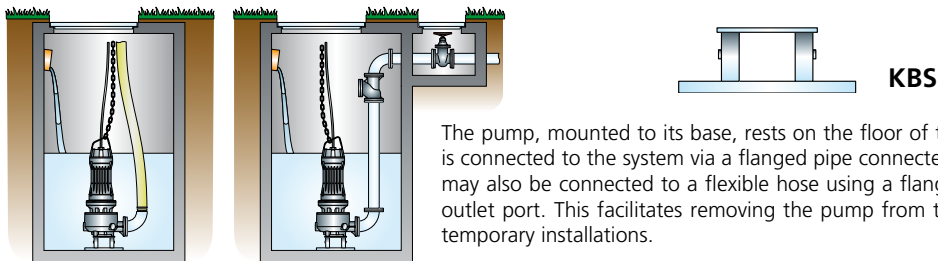
Installation types

Installation with coupling device (type P)



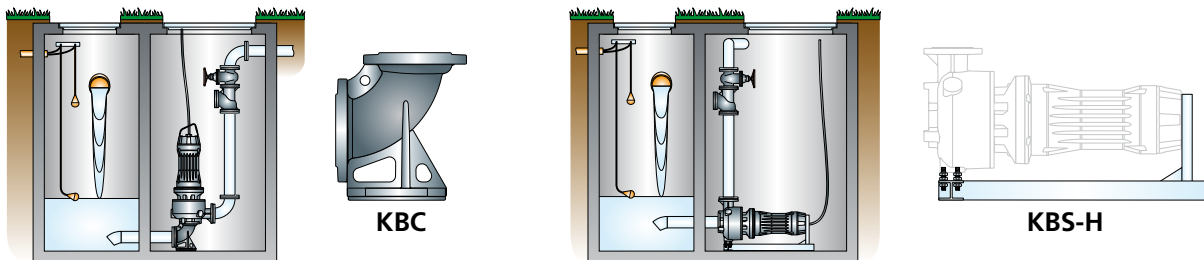
The vertical or horizontal coupling device is fixed to the bottom of the tank and the pump is lowered in with the aid of two guide pipes fitted earlier, until the connection to the foot is completed. The delivery pipe is fixed to the coupling device discharge. This device makes routine checks, any maintenance work or replacement of the pump extremely easy, with no need to empty the tank.

Free installation (type S)



The pump, mounted to its base, rests on the floor of the tank in the vertical position. It is connected to the system via a flanged pipe connected to its discharge port. The pump may also be connected to a flexible hose using a flanged bend union connected to the outlet port. This facilitates removing the pump from the tank and is recommended for temporary installations.

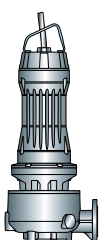
Vertical installation (type T) and horizontal installation (type Z) in dry chamber



The pump may be installed in a dry chamber by using a cooling jacket. No external cooling fluid supply is required, since the motor is cooled by a PATENTED closed loop circuit with internal recirculation. In **VERTICAL** dry installations, the pump is secured to a curved base to which the suction flange is mounted.

In **HORIZONTAL** dry installations, the pump is secured to a steel frame and the suction pipe is connected directly to the pump's suction flange.

Undefined installation (type X)



The pump is not equipped for certain types of installation. This is the variant recommended for holding in stock.

Features

ZENIT UNIQA submersible electric pumps. Designed for heavy-duty professional applications, they are used in civil and industrial wastewater treatment plants, lifting sewage, pumping industrial sludges and rainwater containing solids, and recycling raw or activated sludges and biological liquids.

ZENIT UNIQA series motors are designed with the aim of achieving the Premium (IE3) efficiency class according to EN 60034-30. The entire range is available in the "dry" version, which requires no external liquid inputs and allows the pump to operate continuously (S1 duty type) even if partially submerged or installed in a dry chamber.

Non standard diameters are available for optimal performance on the specific duty point.

- The UNIQA series features a modular design in which the motor and hydraulics are perfectly coupled to each other, thus creating a robust and highly reliable assembly.
- Maximum operating temperatures to NEMA class A.
- Motor case, impeller and hydraulics in cast iron/stainless steel.
- High efficiency electric motors to class Premium (IE3).
- Models available for 50 and 60Hz power supplies.
- Thermal cutout integrated into stator to safeguard the motor even in heavy duty and continuous service.
- Long life lubricated bearings (50,000 hours).
- AISI 431 motor shaft. Available in NITRONIC 50 on request.
- Sensors for detecting water penetration into the mechanical seal oil sumps, motor compartment and terminal box.
- Two silicon carbide mechanical seals in large oil sump and V-rings.
- Available with high performance channel or vortex impellers.
- Hydraulics with discharge ports from DN65 to DN400.
- Full free passage for vortex impeller models, min. 80mm for channel impeller models.
- Patented closed jacket cooling system with internal recirculation.



Key to product code

ZUG V 080 B 18,5/2 A W 194 X A

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

- | | |
|--|---|
| ① Product name
ZU = Zenit UNIQA | ⑥ Power in kW |
| ② Construction material
G = Cast iron
B = Bronze
X = Stainless steel | ⑦ Motor poles |
| ③ Type of impeller
OC = open channel
CC = closed channel
V = vortex | ⑧ Motor variant |
| ④ Discharge port diameter in mm | ⑨ Operating mode
D = Dry
W = Wet |
| ⑤ Hydraulic variant | ⑩ Nominal diameter of impeller (in mm) |
| | ⑪ Type of installation |
| | ⑫ Holes for installation/accessories |

Standard equipment and options

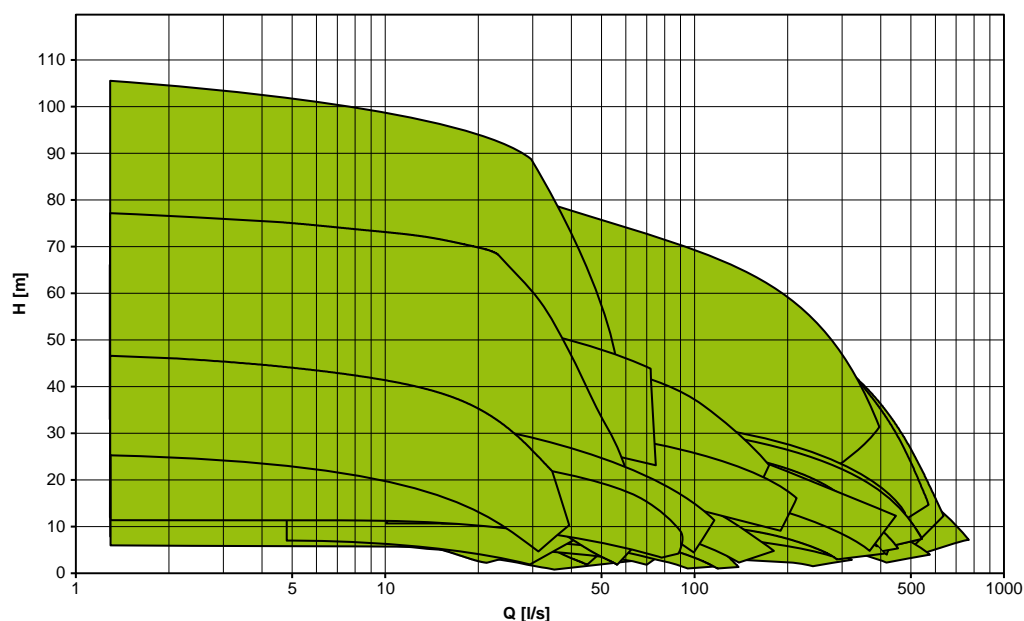
Description	Standard	Optional
Voltage	400 V	230, 500, 230/400, 440, 500/866 V
Power voltage tolerance	max \pm 10% (S3 duty type) max \pm 5% (S1 duty type)	-
Efficiency class	IE3 - Premium Efficiency	IE2 - High Efficiency
Power supply	3~ 50Hz	VFD - 60Hz
Motor insulation class	H	-
Start	Y Δ	Direct, soft-start
Max. ambient temperature	40° C	60° C
Cable	H07RN-F	NSSHÖU- O/J, EMC
Cable length	10 mt	20 - 30 - 40 - 50 mt
Painting	Epoxy bicomponent (120 micron)	Epoxy bicomponent (400 micron)
Mechanical seals	N.2 in silicon carbide (SiC/SiC) in oil chamber	-
Thermal sensors	Bimetallic thermal sensors (150°C)	PTC/PT100 Thermistor
Installation types	Submersed	Dry
Probe water in	oil chamber/motor case	YES
	oil chamber	NO
	motor case	NO
	motor cover case	NO
Zinc anodes	NO	YES
Vibrations sensors (bearings)	NO	YES (see the technical specifications)
Thermal sensors (bearings)	NO	PTC/PTC100 (see the technical specifications)
ATEX certification	NO	YES

Construction materials

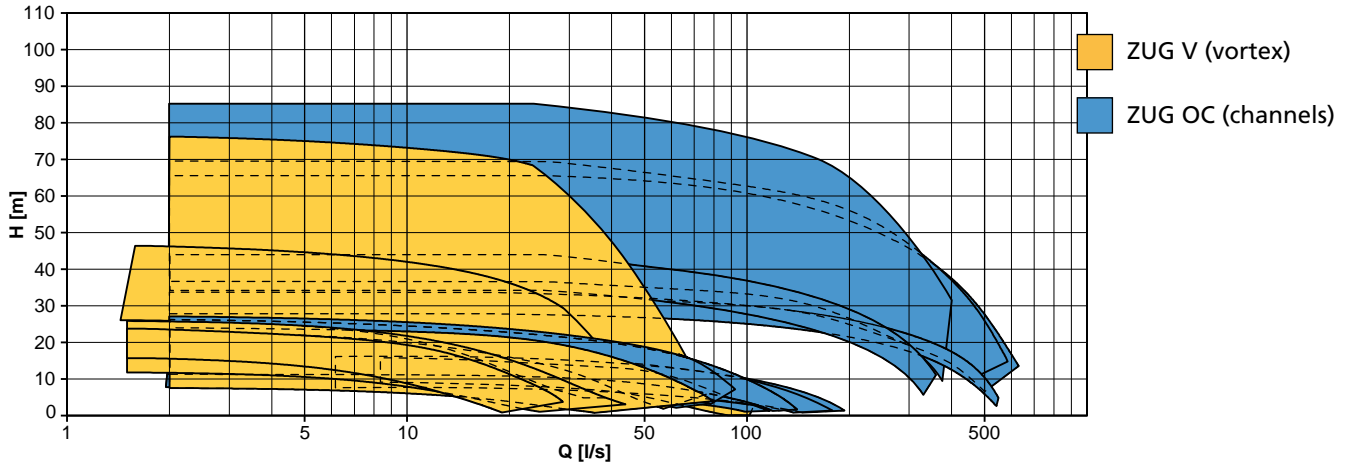
Description	Standard	Optional
Motor case	EN-GJL 250	-
Shaft	1.4057 (AISI 431)	1.4461 (AISI 329)-1.4542 (AISI 630) / NITRONIC 50
Hydraulic parts	EN-GJL 250	1.4401 (AISI 316) / 1.4460 (AISI 329 Duplex)
Cooling jacket	AISI 304	-
Gaskets	NBR	VITON
Screws	A2-70 Stainless steel	A4-80
Impeller	EN-GJL 250	1.4401 (AISI 316) / 1.4460 (AISI 329 Duplex) / Br-Al
Lifting handle	1.4401 (AISI 316)	-

Operating ranges

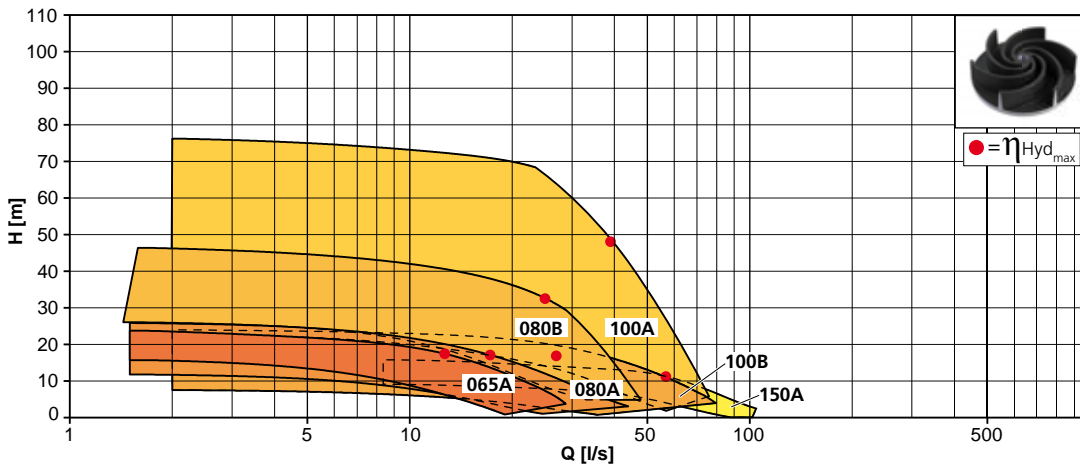
Overview of operating ranges



Currently available operating ranges



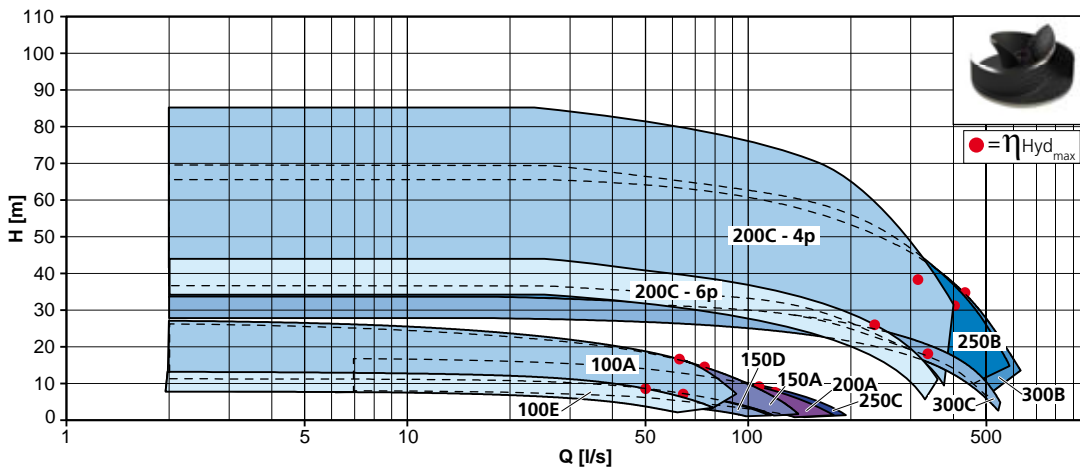
Currently available operating ranges (VORTEX)



ZUG V	page
065A	12
080A	14
080B	16
100A	18
100B	20
150A	22

Vortex impeller	Power	da 4 kW a 37 kW	
Discharge	from DN65 to DN150	Poles	2 - 4

Currently available operating ranges (CHANNELS)



ZUG OC	page
100A	24
100E	26
150A	28
150D	30
200A	32
200C-4p	34
200C-6p	36
250B	38
250C	40
300B	42
300C	44

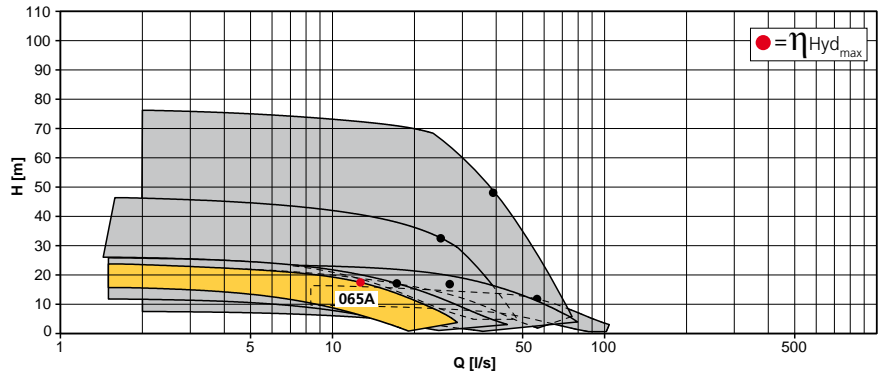
Channels impeller	Power	from 4 kW to 185 kW	
Discharge	from DN100 to DN300	Poles	4 - 6

ZUG V 065A - 2 poles

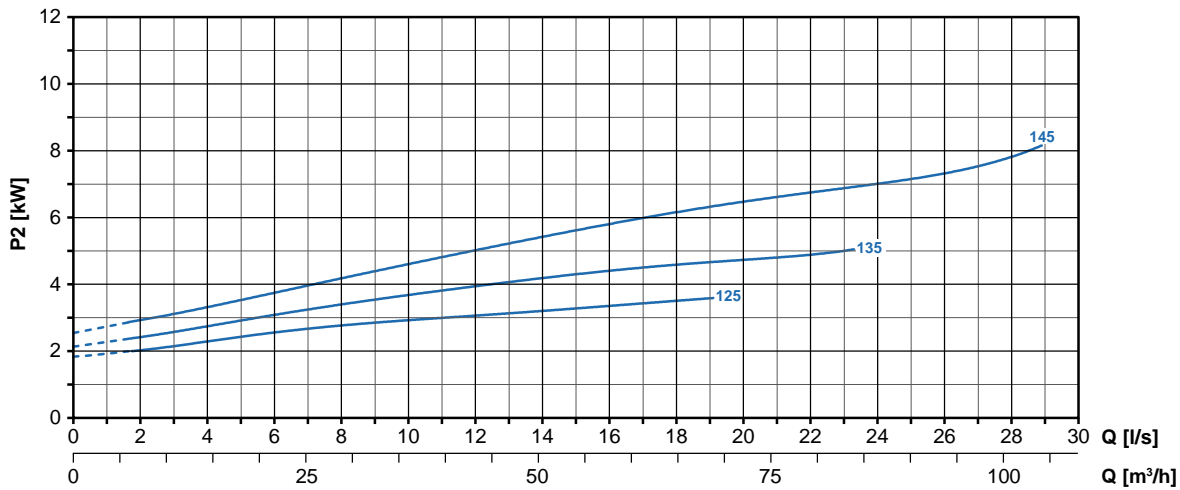
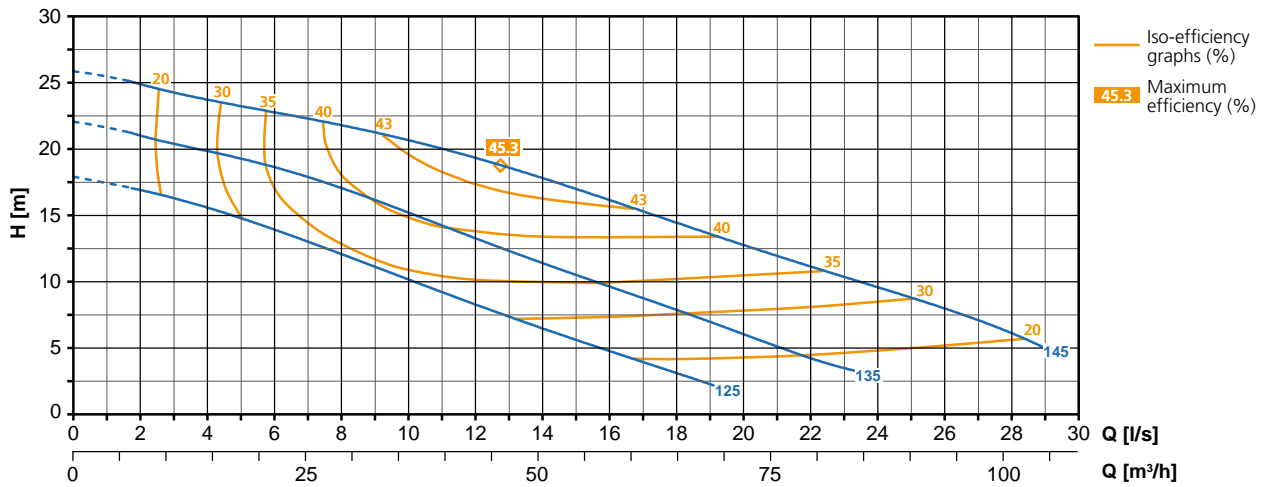
Vortex impeller

Discharge	DN65
Free passage	65 mm
Power	4 ÷ 9 kW
Poles	2

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from Customer Service.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG V 065A	4/2 AW	400	3	Y Δ	7.7	4.5	4.0	88.2
	5.5/2 AW	400	3	Y Δ	10.2	6.1	5.5	89.2
	7.5/2 AW	400	3	Y Δ	14.1	8.3	7.5	90.2
	9/2 AW	400	3	Y Δ	16.5	9.94	9.0	90.6

W: WET version (submerged operation - S1 duty type)

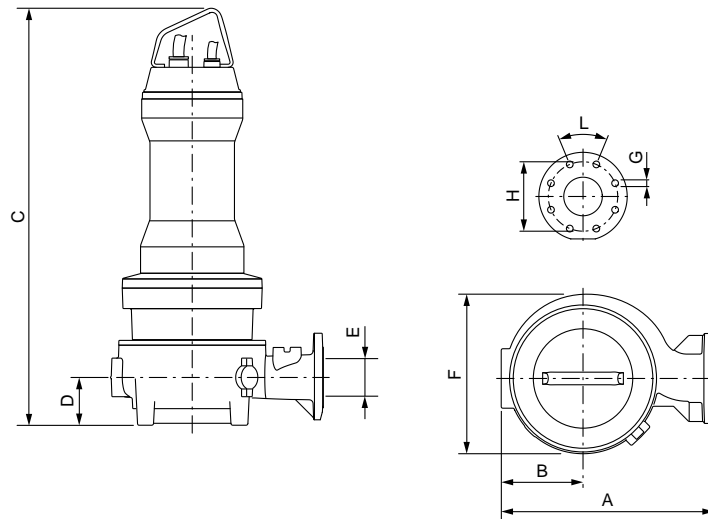


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•			•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

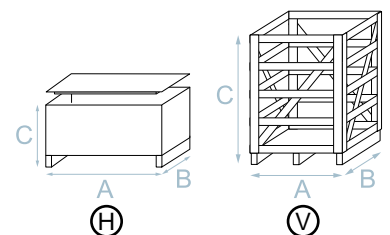
Overall dimensions and weight



	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L °	Kg	
			WET	DRY							WET	DRY
ZUG V 065A 4/2 AW	325	140	815	-	70	65	285	4x18	145	90	116	-
ZUG V 065A 5.5/2 AW	325	140	815	-	70	65	285	4x18	145	90	119	-
ZUG V 065A 7.5/2 AW	325	140	915	-	70	65	285	4x18	145	90	132	-
ZUG V 065A 9/2 AW	325	140	915	-	70	65	285	4x18	145	90	136	-

Packaging dimensions

	WET			Type
	A mm	B mm	C mm	
ZUG V 065A 4/2 A	915	535	560	H
ZUG V 065A 5.5/2 A	915	535	560	H
ZUG V 065A 7.5/2 A	1000	535	560	H
ZUG V 065A 9/2 A	1000	535	560	H



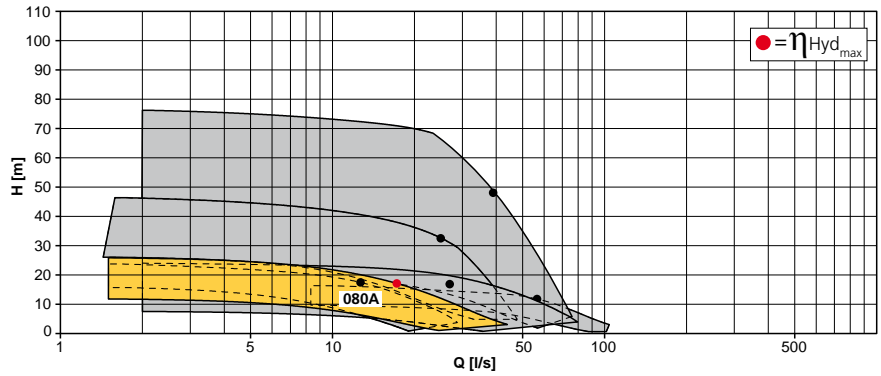
The product's outline is purely illustrative

ZUG V 080A - 2 poles

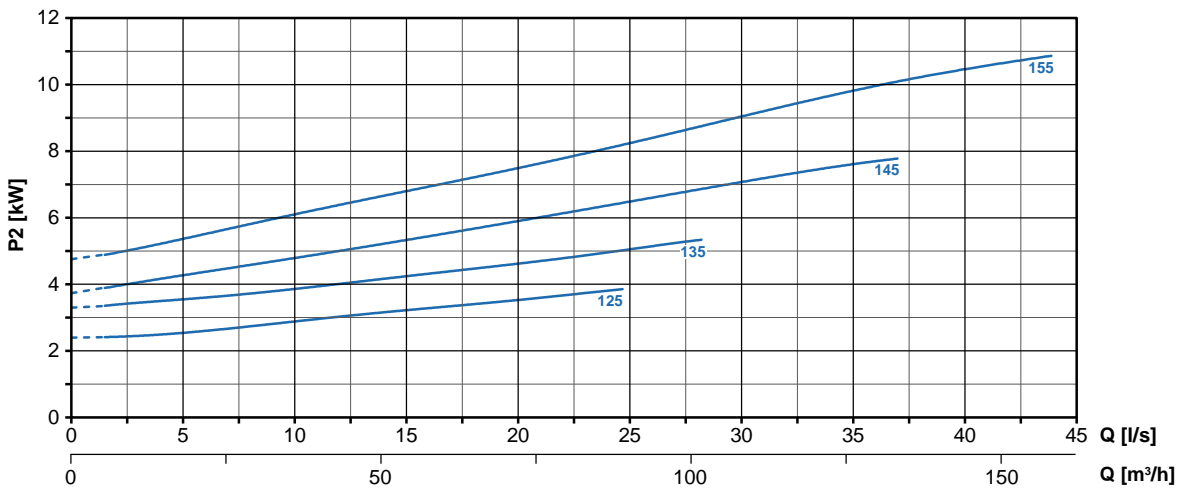
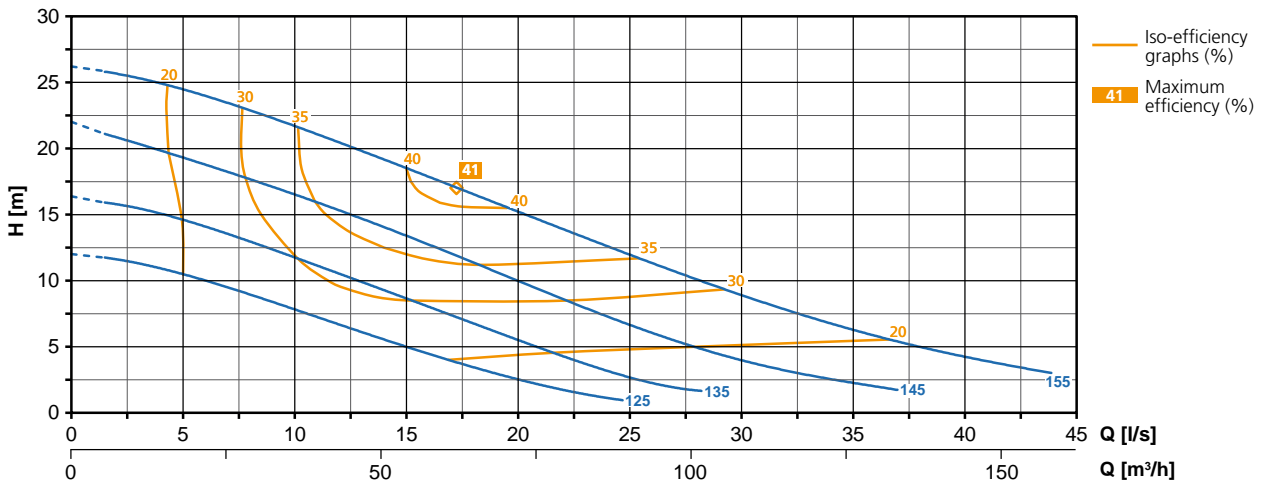
Vortex impeller

Discharge	DN80
Free passage	80 mm
Power	4 ÷ 11 kW
Poles	2

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Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG V 080A	4/2 AW	400	3	Y Δ	7.7	4.5	4.0	88.2
	5.5/2 AW	400	3	Y Δ	10.2	6.1	5.5	89.2
	7.5/2 AW	400	3	Y Δ	14.1	8.3	7.5	90.2
	9/2 AW	400	3	Y Δ	16.5	9.94	9.0	90.6
	11/2 AW	400	3	Y Δ	20.0	12.1	11.0	91.2

W: WET version (submerged operation - S1 duty type)

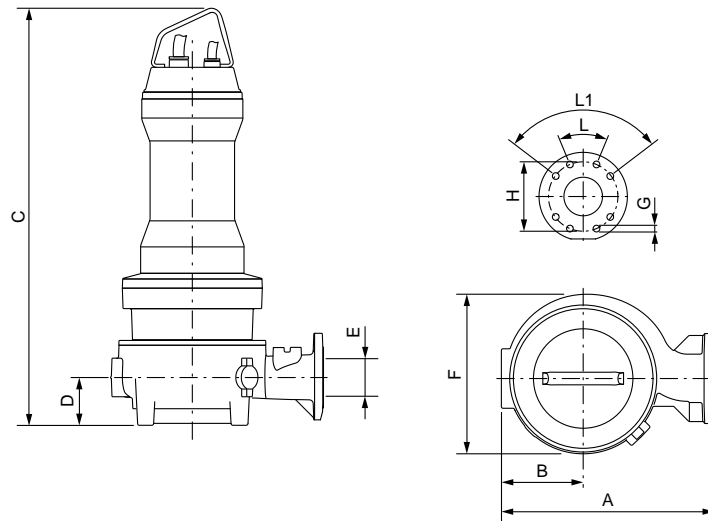


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Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•			•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight

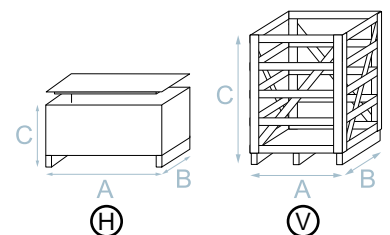


The product's outline is purely illustrative

	A	B	C mm		D	E	F	G	H	L°	L1°	Kg	
			WET	DRY								WET	DRY
ZUG V 080A 4/2 AW	330	140	855	-	90	80	285	8x17.5	160	45	90	122	-
ZUG V 080A 5.5/2 AW	330	140	855	-	90	80	285	8x17.5	160	45	90	125	-
ZUG V 080A 7.5/2 AW	330	140	955	-	90	80	285	8x17.5	160	45	90	138	-
ZUG V 080A 9/2 AW	330	140	955	-	90	80	285	8x17.5	160	45	90	142	-
ZUG V 080A 11/2 AW	330	140	955	-	90	80	285	8x17.5	160	45	90	146	-

Packaging dimensions

	WET			Type
	A mm	B mm	C mm	
ZUG V 080A 4/2 A	915	535	560	H
ZUG V 080A 5.5/2 A	915	535	560	H
ZUG V 080A 7.5/2 A	1000	535	560	H
ZUG V 080A 9/2 A	1000	535	560	H
ZUG V 080A 11/2 A	1000	535	560	H

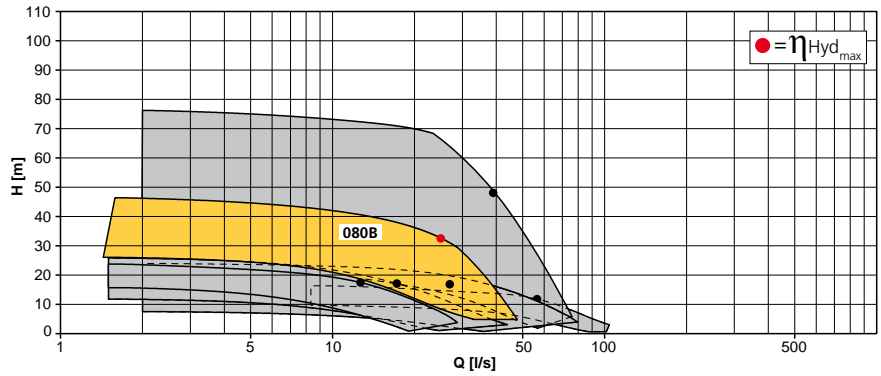


ZUG V 080B - 2 poles

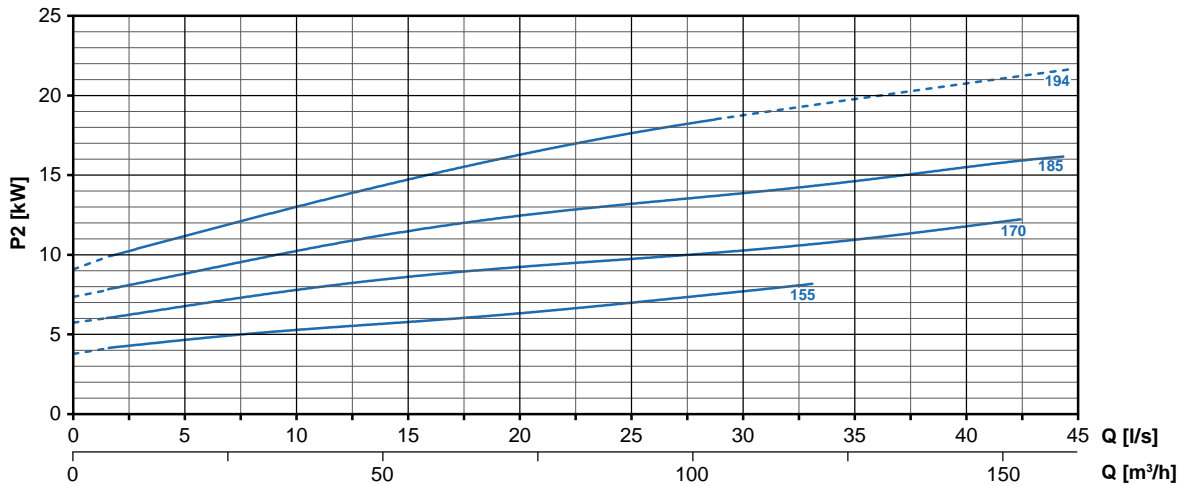
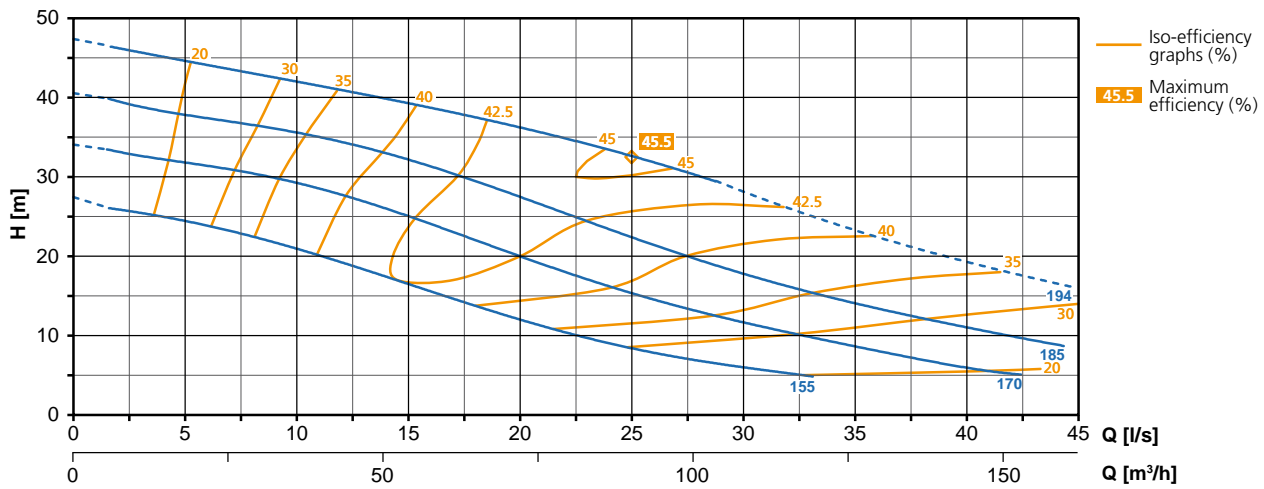
Vortex impeller

Discharge	DN80
Free passage	80 mm
Power	7.5 ÷ 18.5kW
Poles	2

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from Customer Service.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG V 080B	7.5/2 AW (D)	400	3	Y Δ	14.1	8.3	7.5	90.2
	9/2 AW (D)	400	3	Y Δ	16.5	9.94	9.0	90.6
	11/2 AW (D)	400	3	Y Δ	20.0	12.1	11.0	91.2
	15/2 AW (D)	400	3	Y Δ	26.8	16.3	15.0	91.9
	18.5/2 AW (D)	400	3	Y Δ	33.1	20.0	18.5	92.4

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

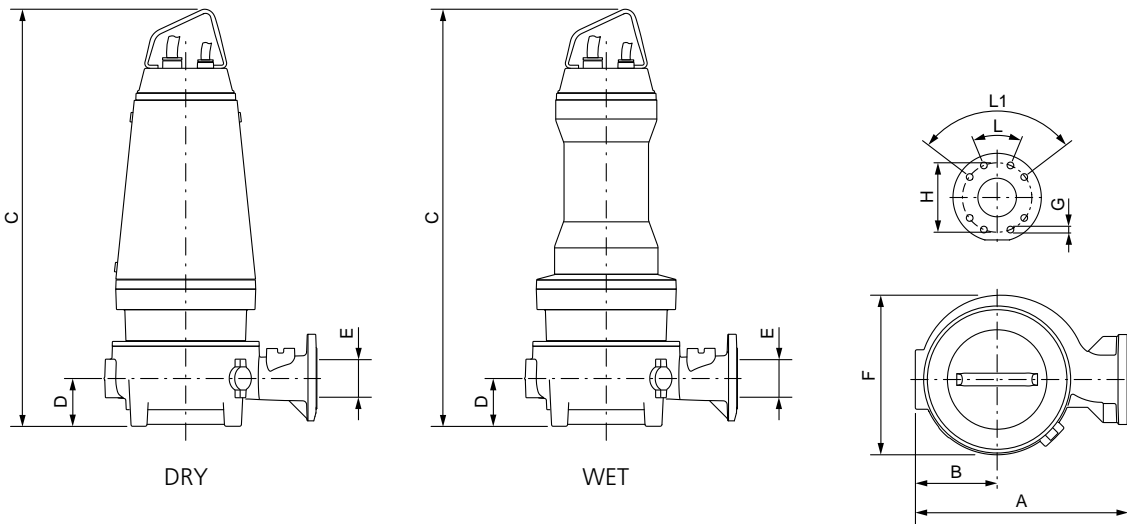


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•	•		•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



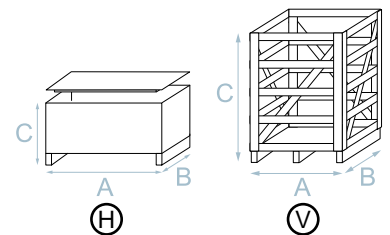
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	L1°	Kg	
			WET	DRY								WET	DRY (*)
ZUG V 080B 7.5/2 AW (D)	405	170	955	1030	90	80	325	8x17.5	160	45	90	169	253
ZUG V 080B 9/2 AW (D)	405	170	955	1030	90	80	325	8x17.5	160	45	90	173	257
ZUG V 080B 11/2 AW (D)	405	170	955	1030	90	80	325	8x17.5	160	45	90	177	261
ZUG V 080B 15/2 AW (D)	415	180	1120	1120	90	80	365	8x17.5	160	45	90	232	266
ZUG V 080B 18.5/2 AW (D)	415	180	1120	1120	90	80	365	8x17.5	160	45	90	241	275

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG V 080B 7.5/2 A	1000	535	560	H	770	620	1400	V
ZUG V 080B 9/2 A	1000	535	560	H	770	620	1400	V
ZUG V 080B 11/2 A	1000	535	560	H	770	620	1400	V
ZUG V 080B 15/2 A	1270	725	670	H	770	620	1400	V
ZUG V 080B 18.5/2 A	1270	725	670	H	770	620	1400	V

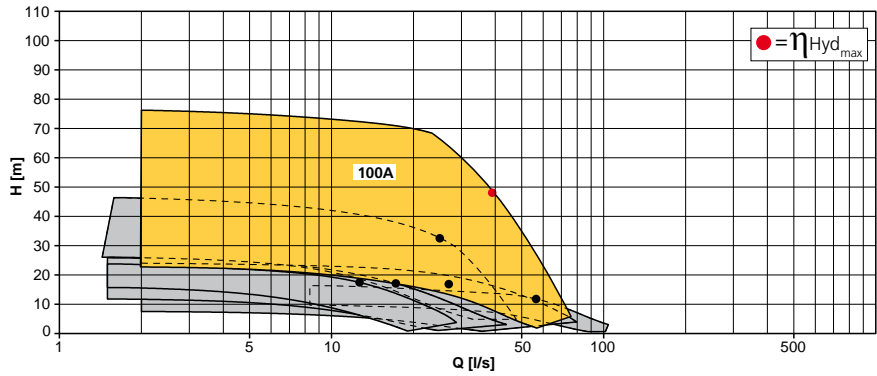


ZUG V 100A - 2 poles

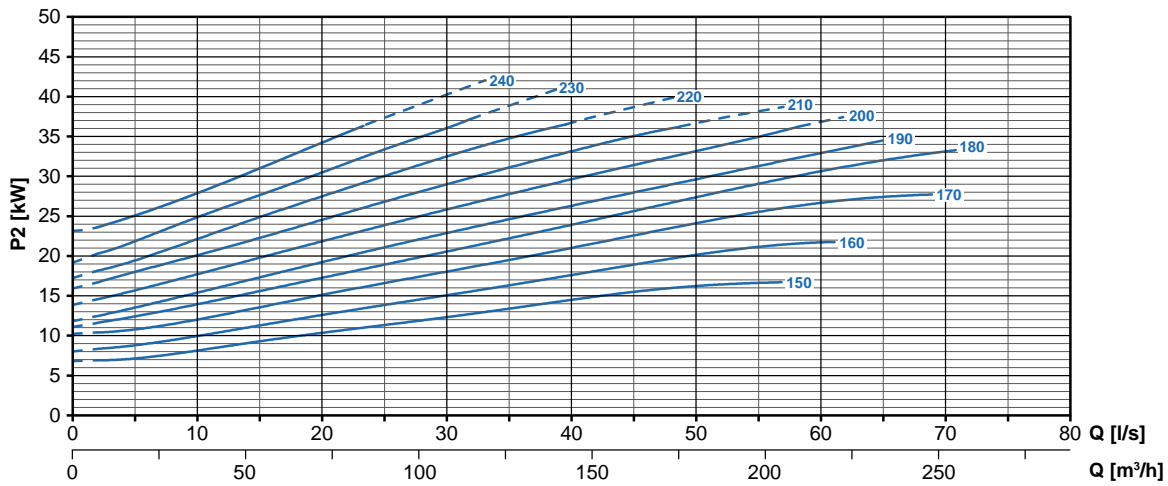
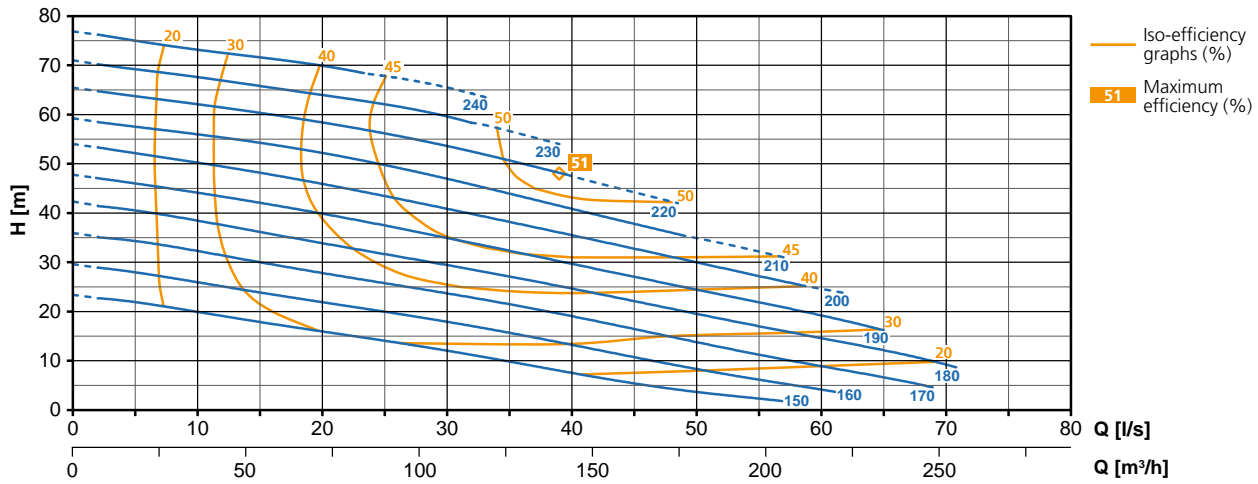
Vortex impeller

Discharge	DN100
Free passage	100 mm
Power	15 ÷ 37 kW
Poles	2

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from Customer Service.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG V100A	15/2 AW (D)	400	3	Y Δ	26.8	16.3	15.0	91.9
	18.5/2 AW (D)	400	3	Y Δ	33.1	20.0	18.5	92.4
	22/2 AW (D)	400	3	Y Δ	39.3	23.7	22.0	92.8
	30/2 AW (D)	400	3	Y Δ	53.0	32.15	30.0	93.3
	37/2 HW (D)	400	3	Y Δ	64.0	40.0	37.0	92.5

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

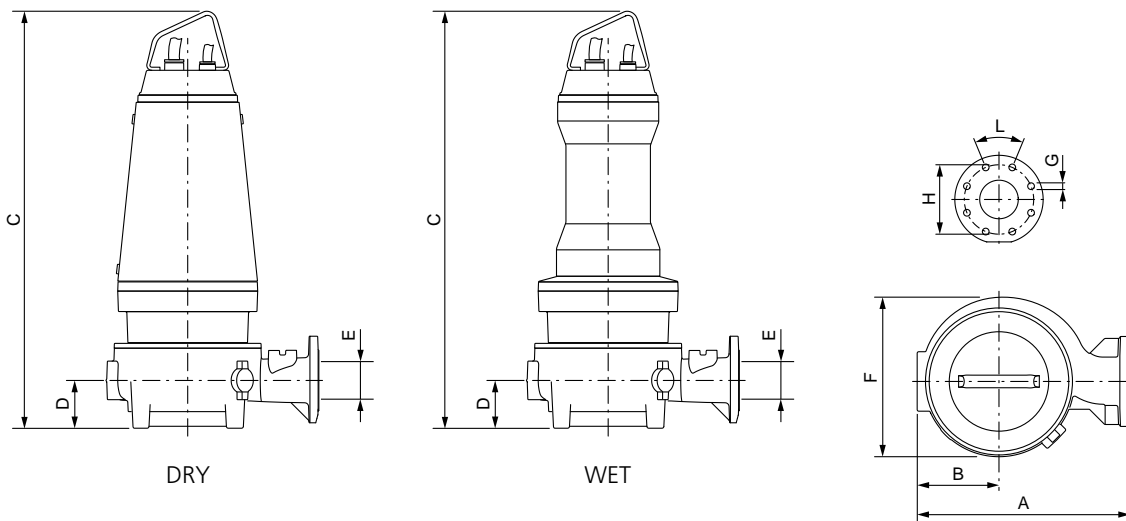


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•	•		•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



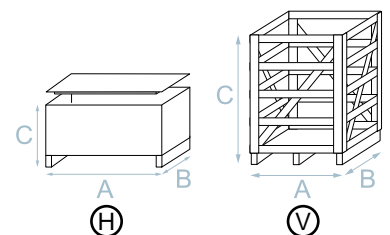
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
			ZUG V 100A 15/2 AW (D)	500							195	1170
ZUG V 100A 18.5/2 AW (D)	500	195	1170	1170	110	100	375	8x17.5	180	45	242	276
ZUG V 100A 22/2 AW (D)	505	200	1220	1220	110	100	405	8x17.5	180	45	303	350
ZUG V 100A 30/2 AW (D)	505	200	1220	1220	110	100	405	8x17.5	180	45	314	361
ZUG V 100A 37/2 HW (D)	505	200	1220	1220	110	100	405	8x17.5	180	45	314	361

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG V 100A 15/2 A	1270	725	670	V	770	620	1400	V
ZUG V 100A 18.5/2 A	1270	725	670	V	770	620	1400	V
ZUG V 100A 22/2 A	1270	725	670	V	770	620	1400	V
ZUG V 100A 30/2 A	1270	725	670	V	770	620	1400	V
ZUG V 100A 37/2 H	1270	725	670	V	770	620	1400	V

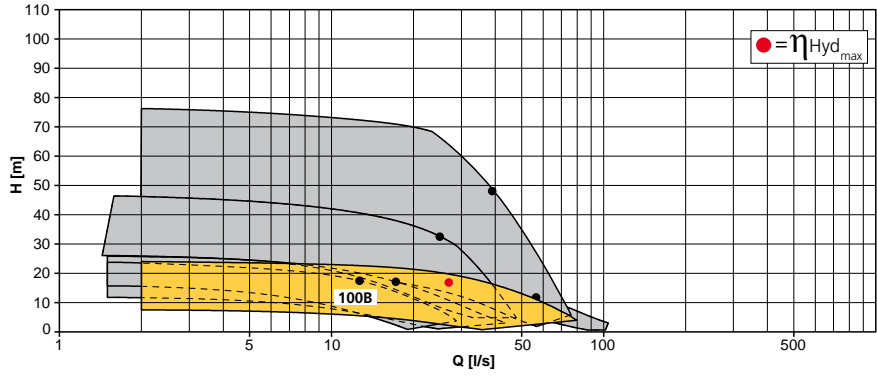


ZUG V 100B - 4 poles

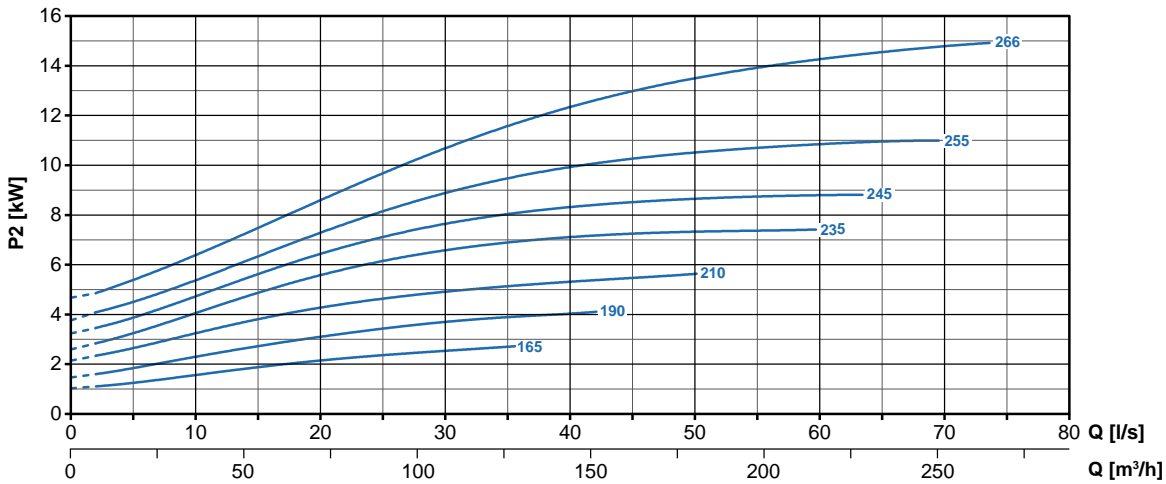
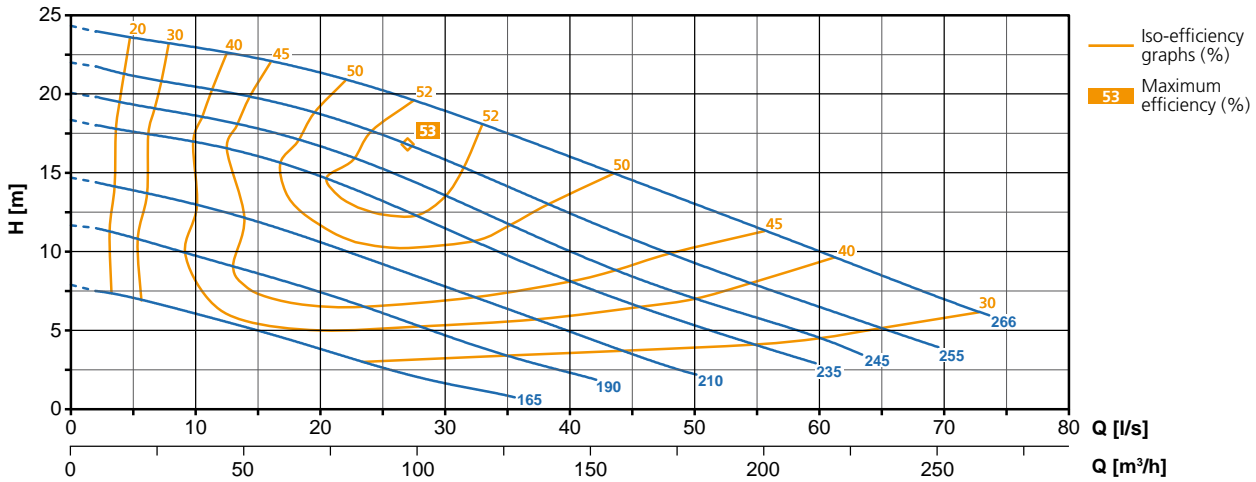
Vortex impeller

Discharge	DN100
Free passage	100 mm
Power	4 ÷ 15 kW
Poles	4

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG V100B	4/4 AW (D)	400	3	Y Δ	8.45	4.5	4.0	88.7
	5.5/4 AW (D)	400	3	Y Δ	11.65	6.14	5.5	89.6
	7.5/4 AW (D)	400	3	Y Δ	14.5	8.3	7.5	90.4
	9/4 AW (D)	400	3	Y Δ	17.2	9.9	9.0	90.9
	11/4 AW (D)	400	3	Y Δ	21.2	12.0	11.0	91.4
	15/4 AW (D)	400	3	Y Δ	28.5	16.3	15.0	92.2

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

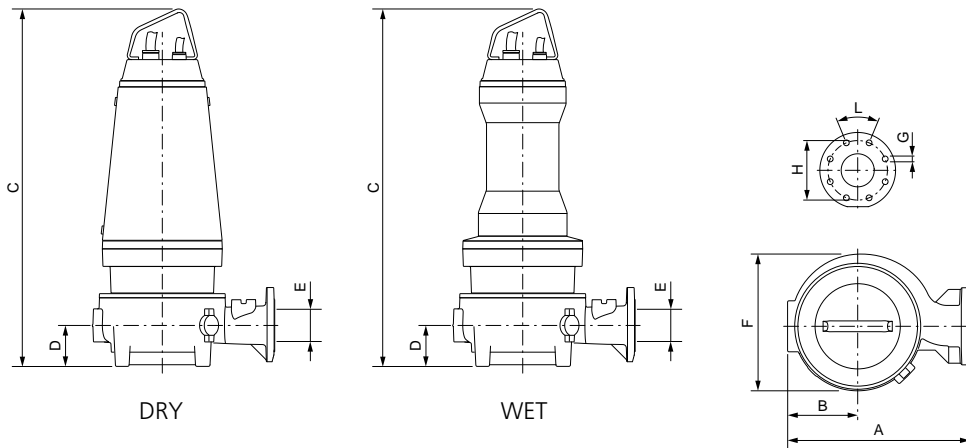


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•			•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Packaging dimensions



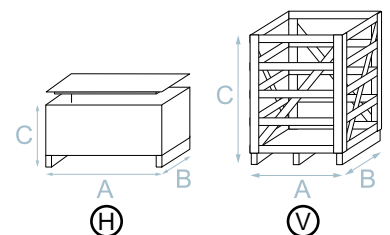
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG V 100B 4/4 AW (D)	500	195	1000	1080	110	100	375	8x17.5	180	45	172	241
ZUG V 100B 5.5/4 AW (D)	500	195	1000	1080	110	100	375	8x17.5	180	45	176	245
ZUG V 100B 7.5/4 AW (D)	500	195	1080	1080	110	100	375	8x17.5	180	45	215	252
ZUG V 100B 9/4 AW (D)	500	195	1170	1170	110	100	375	8x17.5	180	45	238	271
ZUG V 100B 11/4 AW (D)	505	200	1220	1220	110	100	405	8x17.5	180	45	288	334
ZUG V 100B 15/4 AW (D)	505	200	1220	1220	110	100	405	8x17.5	180	45	301	348

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG V 100B 4/4 A	1270	725	670	H	770	620	1400	V
ZUG V 100B 5.5/4 A	1270	725	670	H	770	620	1400	V
ZUG V 100B 7.5/4 A	1270	725	670	H	770	620	1400	V
ZUG V 100B 9/4 A	1270	725	670	V	770	620	1400	V
ZUG V 100B 11/4 A	1270	725	670	V	770	620	1400	V
ZUG V 100B 15/4 A	1270	725	670	V	770	620	1400	V

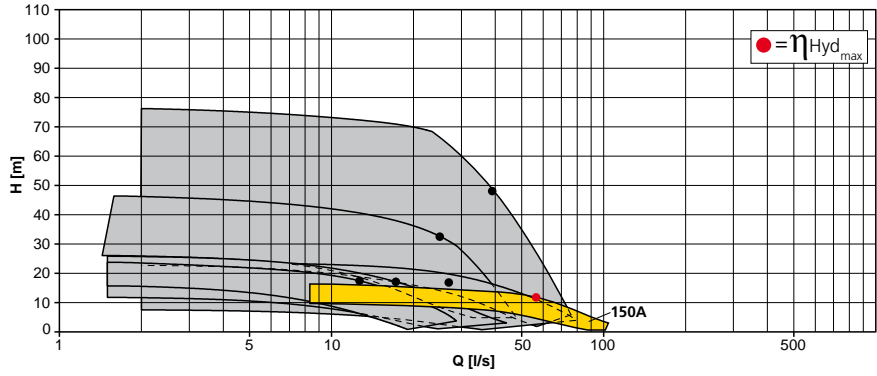


ZUG V 150A - 4 poles

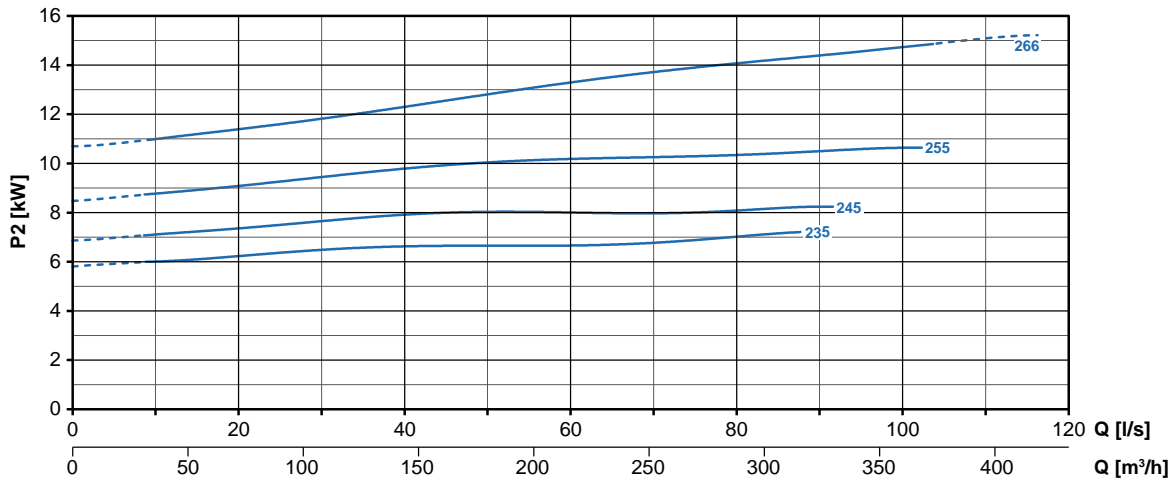
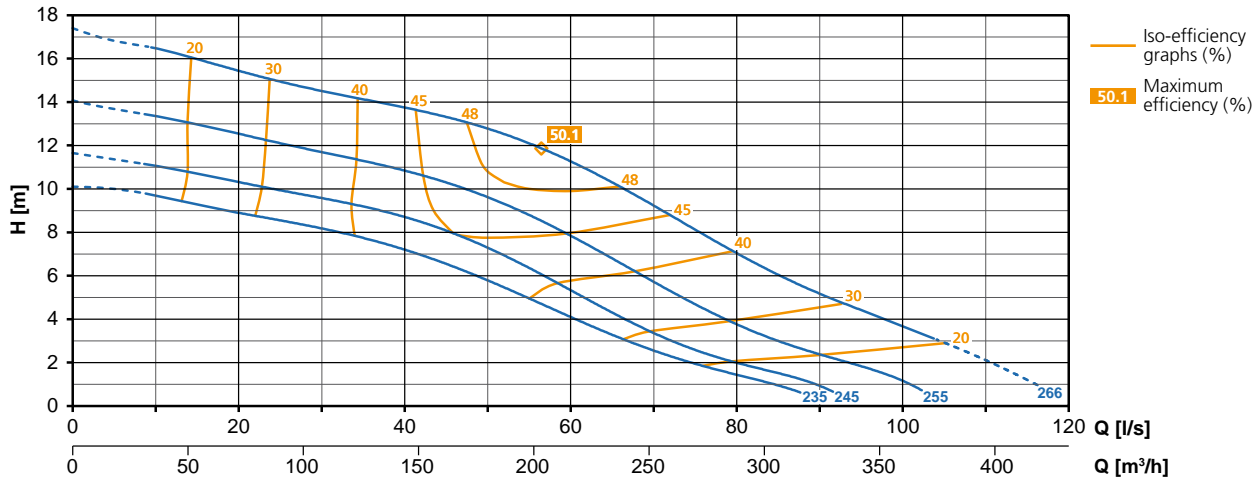
Vortex impeller

Discharge	DN150
Free passage	125 mm
Power	7.5 ÷ 15 kW
Poles	4

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG V 150A	7.5/4 AW (D)	400	3	Y Δ	14.5	8.3	7.5	90.4
	9/4 AW (D)	400	3	Y Δ	18.3	9.9	9.0	90.8
	11/4 AW (D)	400	3	Y Δ	21.2	12.0	11.0	91.4
	15/4 AW (D)	400	3	Y Δ	28.5	16.3	15.0	92.2

W: WET version (submerged operation - S1 duty type)
D: DRY version (dry operation - S1 duty type)

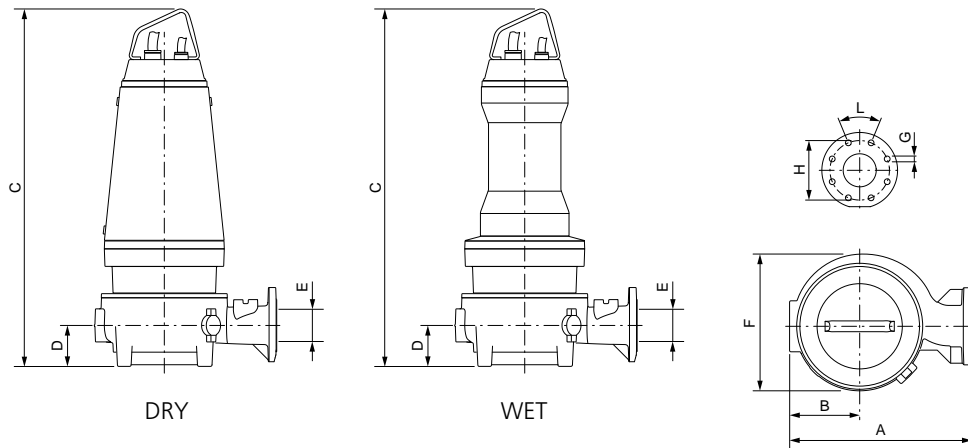


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•			•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Packaging dimensions



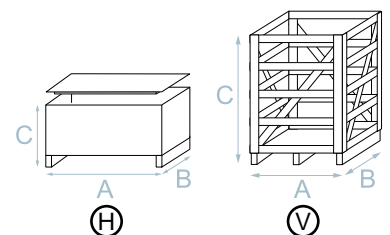
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG V 150A 7.5/4 AW (D)	555	210	1090	1090	150	150	400	8x22	240	45	235	272
ZUG V 150A 9/4 AW (D)	555	210	1180	1180	150	150	400	8x22	240	45	258	291
ZUG V 150A 11/4 AW (D)	555	210	1230	1230	150	150	400	8x22	240	45	308	354
ZUG V 150A 15/4 AW (D)	555	210	1230	1230	150	150	400	8x22	240	45	321	368

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG V 150A 7.5/4 A	1270	725	670	H	770	620	1400	V
ZUG V 150A 9/4 A	1270	725	670	H	770	620	1400	V
ZUG V 150A 11/4 A	1270	725	670	H	770	620	1400	V
ZUG V 150A 15/4 A	1270	725	670	H	770	620	1400	V

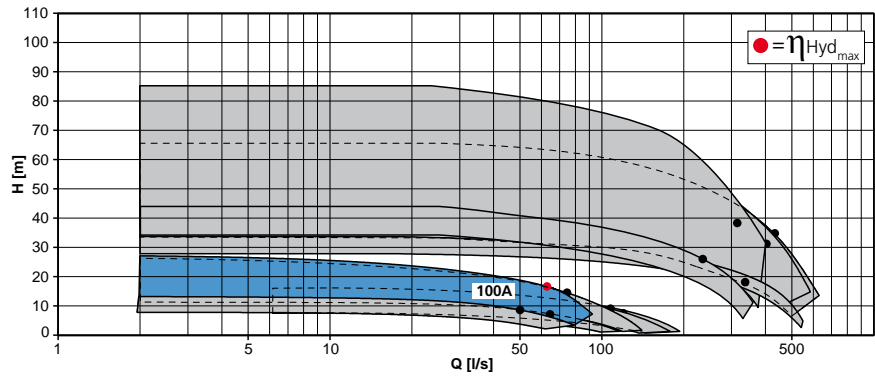


ZUG OC 100A - 4 poles

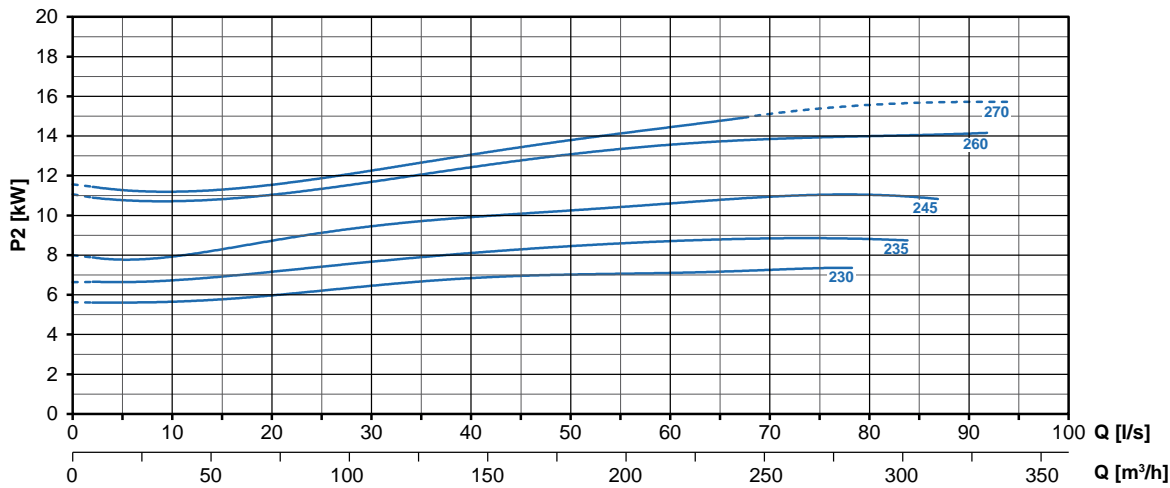
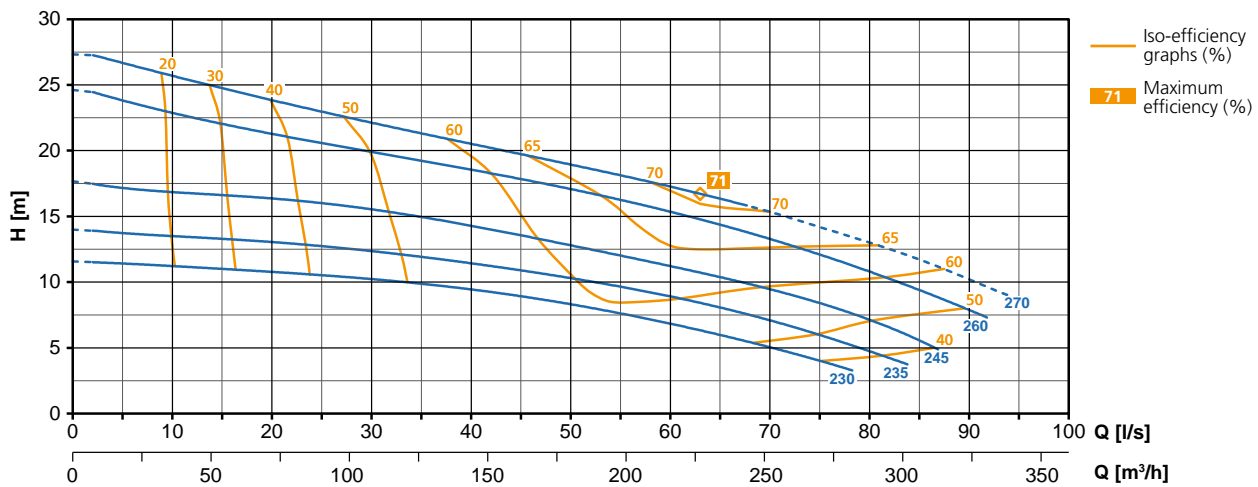
Open channels Impeller

Discharge	DN100
Free passage	80 mm
Power	7.5 ÷ 15 kW
Poles	4

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 100A	7.5/4 AW (D)	400	3	Y Δ	14.5	8.3	7.5	90.4
	9/4 AW (D)	400	3	Y Δ	17.2	9.9	9.0	90.9
	11/4 AW (D)	400	3	Y Δ	21.2	12.0	11.0	91.4
	15/4 AW (D)	400	3	Y Δ	28.5	16.3	15.0	92.2

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

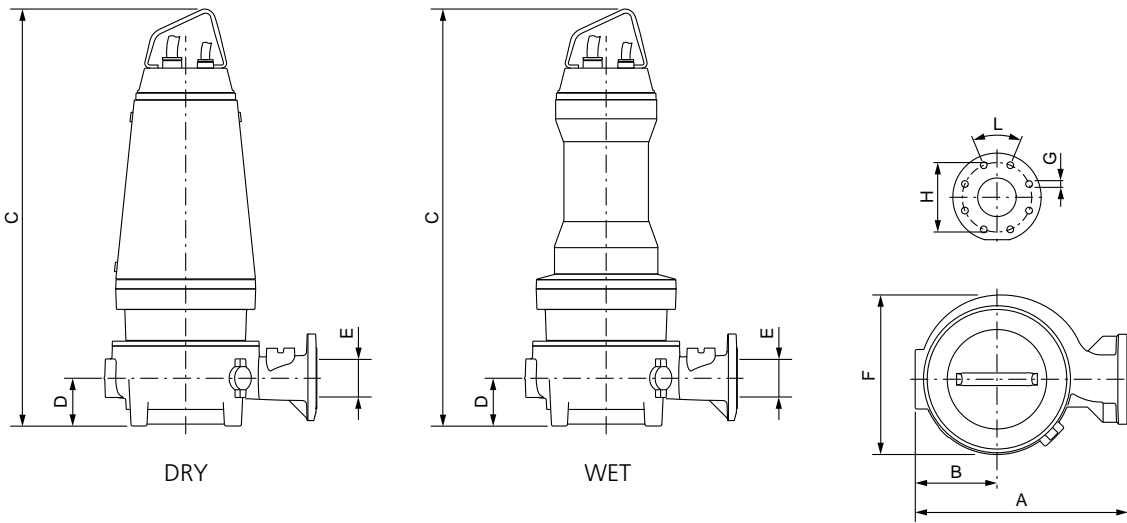


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•			•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



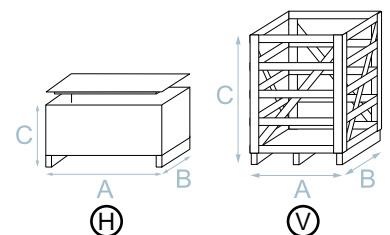
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 100A 7.5/4 AW (D)	550	210	1025	1025	125	100	415	8x17.5	180	45	240	275
ZUG OC 100A 9/4 AW (D)	550	210	1120	1120	125	100	415	8x17.5	180	45	261	294
ZUG OC 100A 11/4 AW (D)	550	210	1170	1170	125	100	420	8x17.5	180	45	314	352
ZUG OC 100A 15/4 AW (D)	550	210	1170	1170	125	100	420	8x17.5	180	45	327	375

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 100A 7.5/4 A	1270	725	670	H	770	620	1400	V
ZUG OC 100A 9/4 A	1270	725	670	H	770	620	1400	V
ZUG OC 100A 11/4 A	1270	725	670	H	770	620	1400	V
ZUG OC 100A 15/4 A	1270	725	670	H	770	620	1400	V

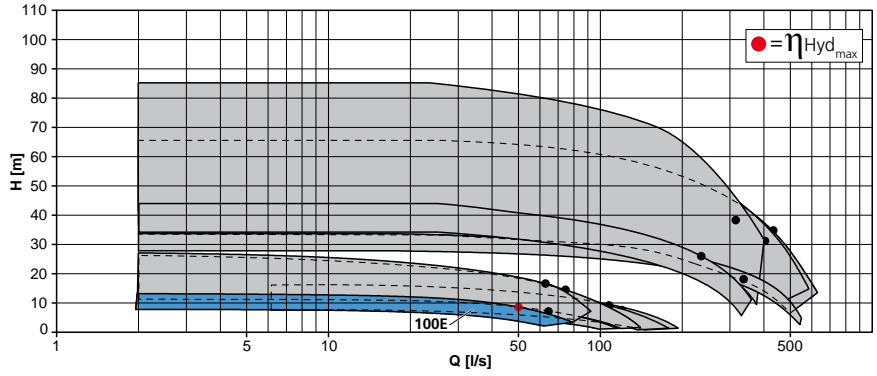


ZUG OC 100E - 4 poles

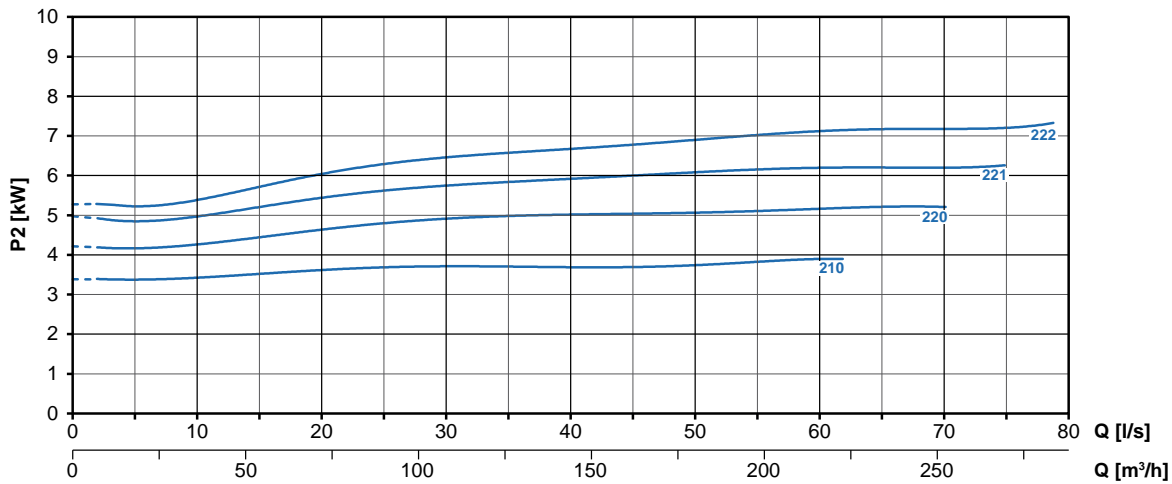
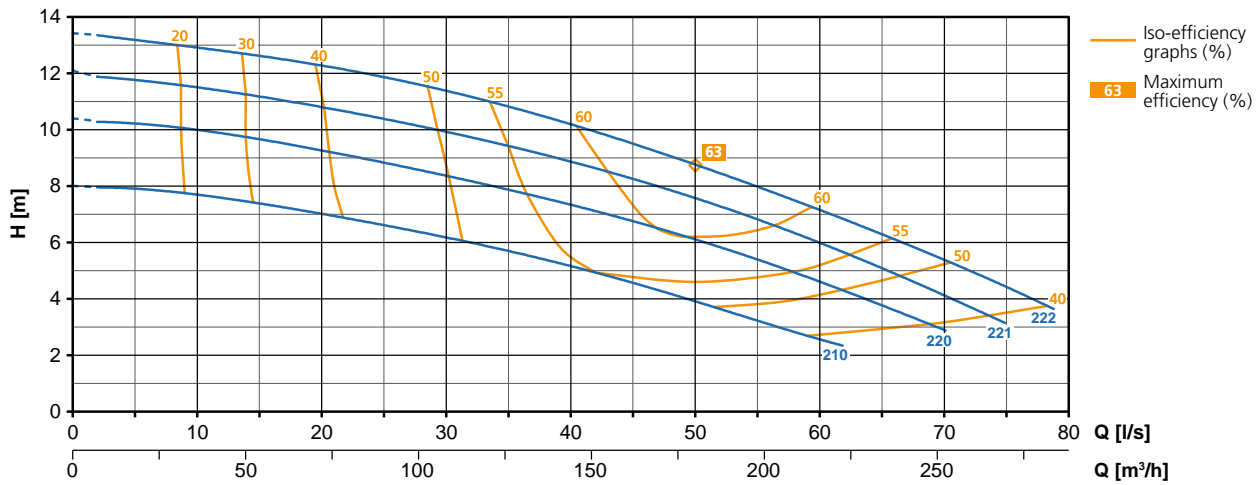
Open channels Impeller

Discharge	DN100
Free passage	80 mm
Power	4 ÷ 7.5 kW
Poles	4

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 100E	4/4 AW (D)	400	3	Y Δ	8.45	4.5	4.0	88.7
	5.5/4 AW (D)	400	3	Y Δ	11.65	6.14	5.5	89.6
	7.5/4 AW (D)	400	3	Y Δ	14.5	8.3	7.5	90.4

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

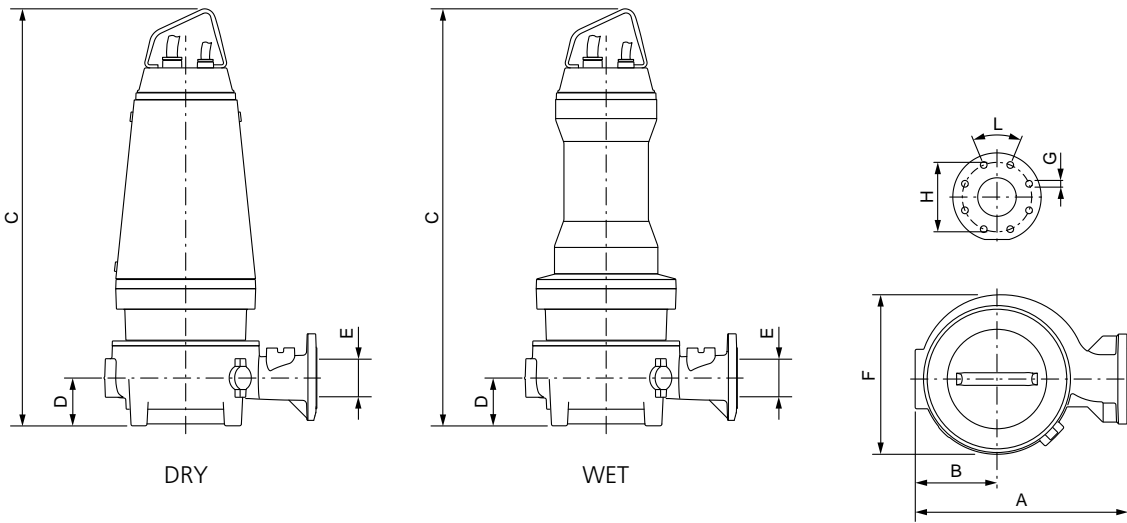


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•			•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



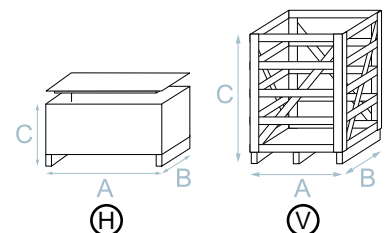
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 100E 4/4 AW (D)	550	210	950	1025	125	100	415	8x17.5	180	45	190	259
ZUG OC 100E 5.5/4 AW (D)	550	210	950	1025	125	100	415	8x17.5	180	45	194	263
ZUG OC 100E 7.5/4 AW (D)	550	210	1025	1025	125	100	415	8x17.5	180	45	233	266

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 100E 4/4 A	1270	725	670	H	770	620	1400	V
ZUG OC 100E 5.5/4 A	1270	725	670	H	770	620	1400	V
ZUG OC 100E 7.5/4 A	1270	725	670	H	770	620	1400	V

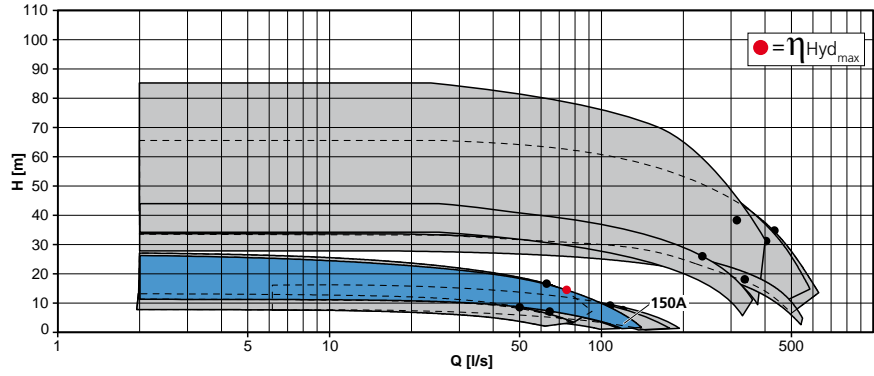


ZUG OC 150A - 4 poles

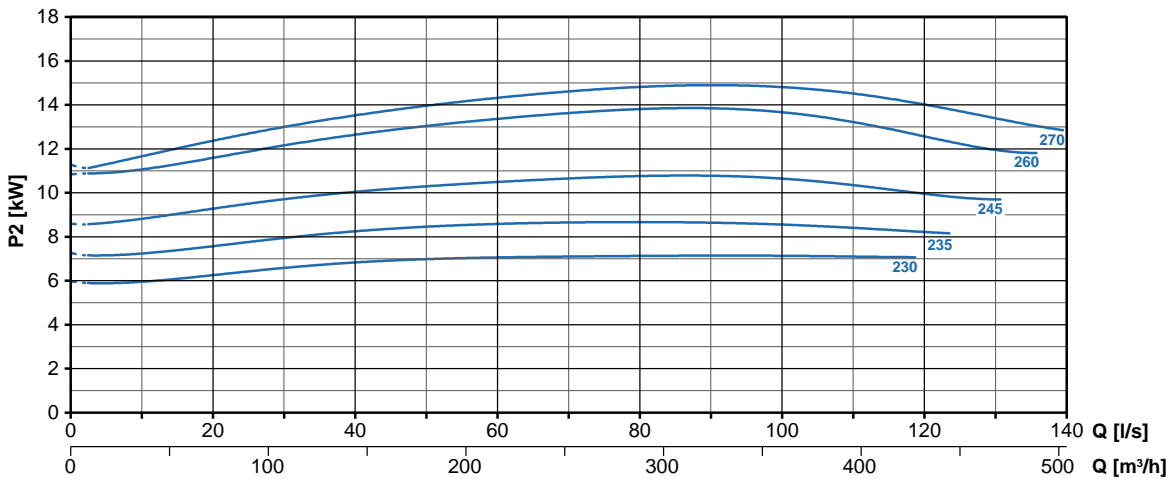
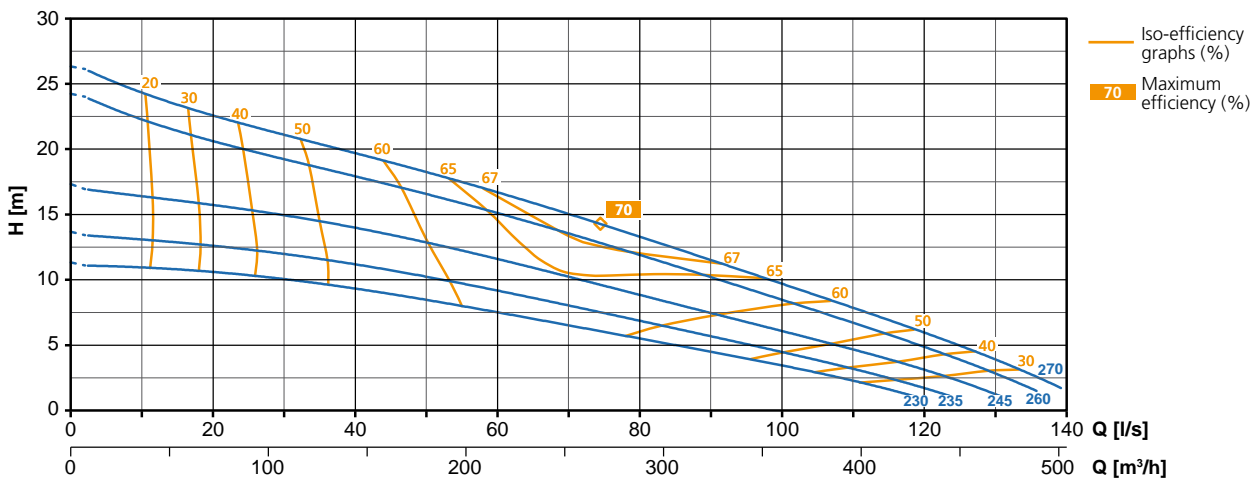
Open channels Impeller

Discharge	DN150
Free passage	80 mm
Power	7.5 ÷ 15 kW
Poles	4

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 150A	7.5/4 AW (D)	400	3	Y Δ	14.5	8.3	7.5	90.4
	9/4 AW (D)	400	3	Y Δ	17.2	9.9	9.0	90.9
	11/4 AW (D)	400	3	Y Δ	21.2	12.0	11.0	91.4
	15/4 AW (D)	400	3	Y Δ	28.5	16.3	15.0	92.2

W: WET version (submerged operation - S1 duty type)
D: DRY version (dry operation - S1 duty type)

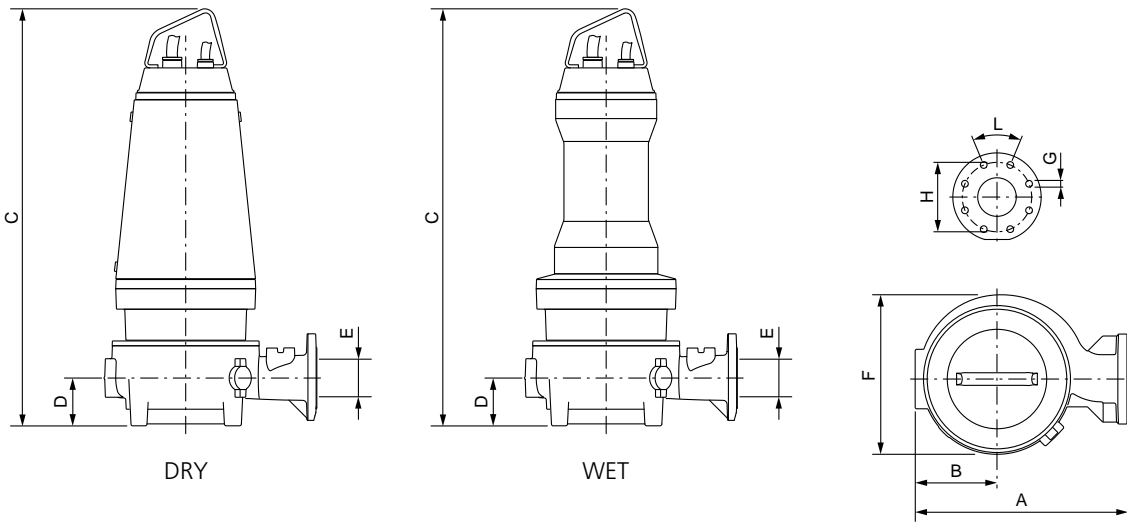


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•			•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



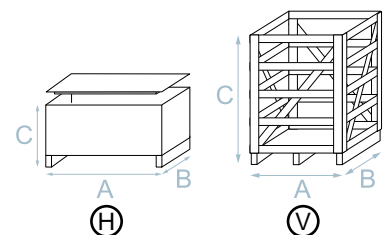
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 150A 7.5/4 AW (D)	615	225	1030	1030	130	150	450	8x22	240	45	258	295
ZUG OC 150A 9/4 AW (D)	615	225	1120	1120	130	150	450	8x22	240	45	281	314
ZUG OC 150A 11/4 AW (D)	615	225	1170	1170	130	150	450	8x22	240	45	331	377
ZUG OC 150A 15/4 AW (D)	615	225	1170	1170	130	150	450	8x22	240	45	344	391

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 150A 7.5/4 A	1270	725	670	H	770	620	1400	V
ZUG OC 150A 9/4 A	1270	725	670	H	770	620	1400	V
ZUG OC 150A 11/4 A	1270	725	670	H	770	620	1400	V
ZUG OC 150A 15/4 A	1270	725	670	H	770	620	1400	V

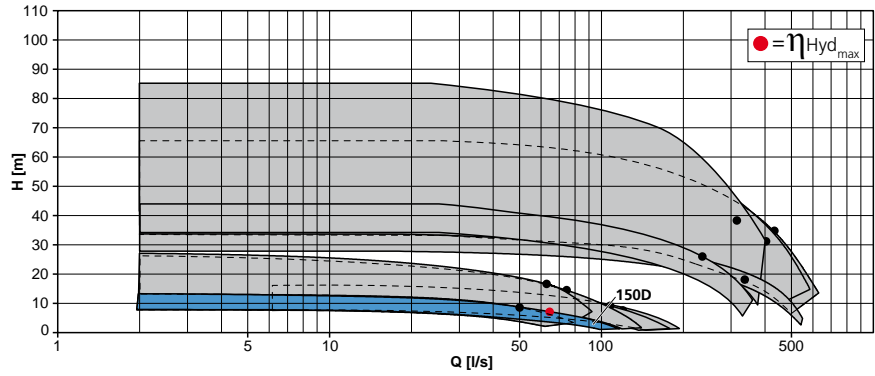


ZUG OC 150D - 4 poles

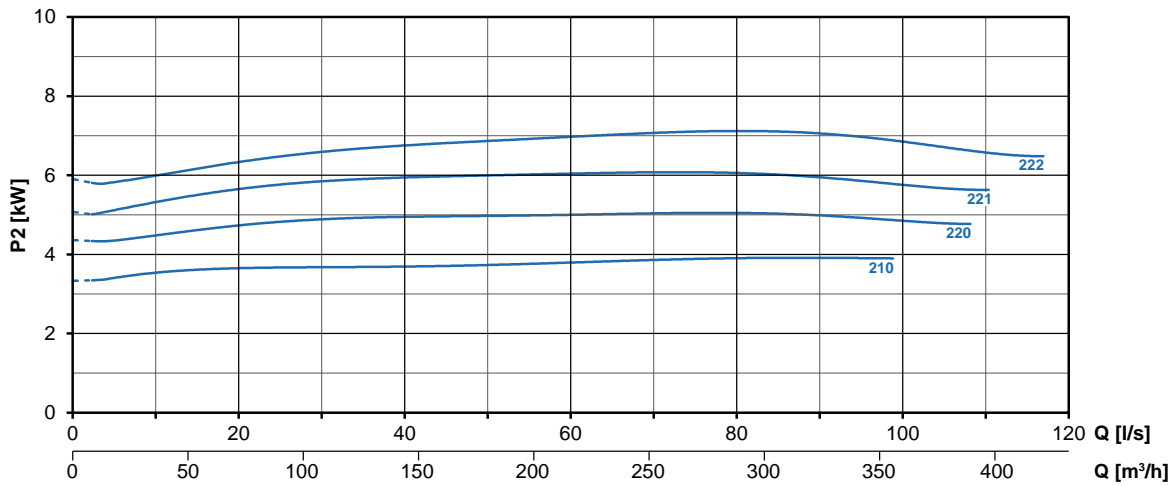
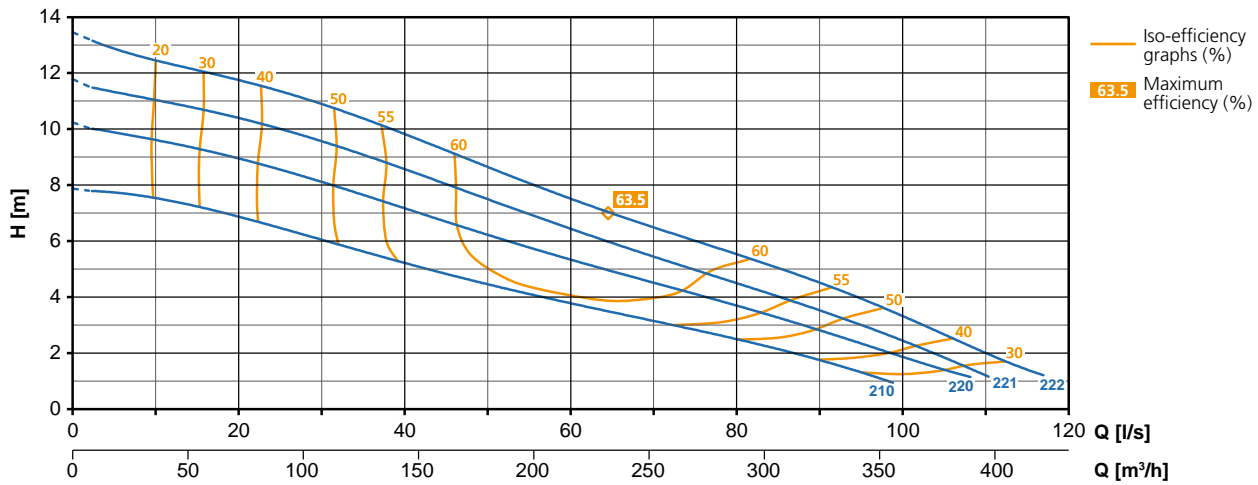
Open channels Impeller

Discharge	DN150
Free passage	80 mm
Power	4 ÷ 7.5 kW
Poles	4

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 150D	4/4 AW (D)	400	3	Y Δ	8.45	4.5	4.0	88.7
	5.5/4 AW (D)	400	3	Y Δ	11.65	6.14	5.5	89.6
	7.5/4 AW (D)	400	3	Y Δ	14.5	8.3	7.5	90.4

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

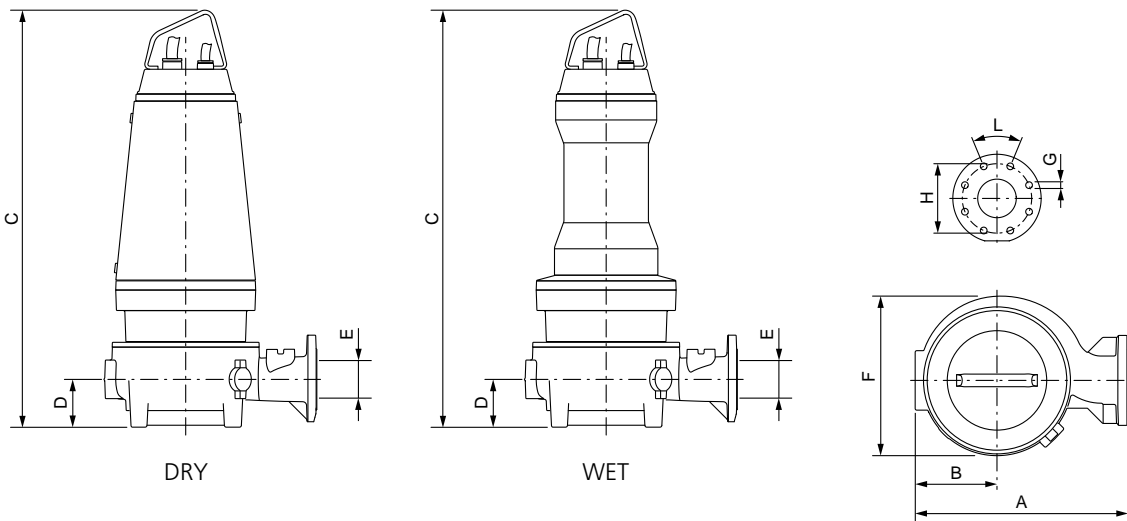


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•	•		•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



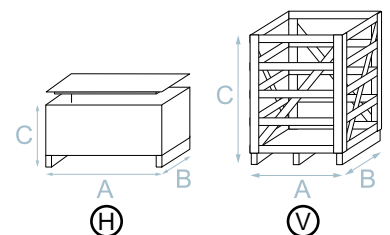
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 150D 4/4 AW (D)	615	225	955	1030	130	150	450	8x22	240	45	211	280
ZUG OC 150D 5.5/4 AW (D)	615	225	955	1030	130	150	450	8x22	240	45	215	284
ZUG OC 150D 7.5/4 AW (D)	615	225	1030	1030	130	150	450	8x22	240	45	254	291

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 150D 4/4 A	1270	725	670	H	770	620	1400	V
ZUG OC 150D 5.5/4 A	1270	725	670	H	770	620	1400	V
ZUG OC 150D 7.5/4 A	1270	725	670	H	770	620	1400	V

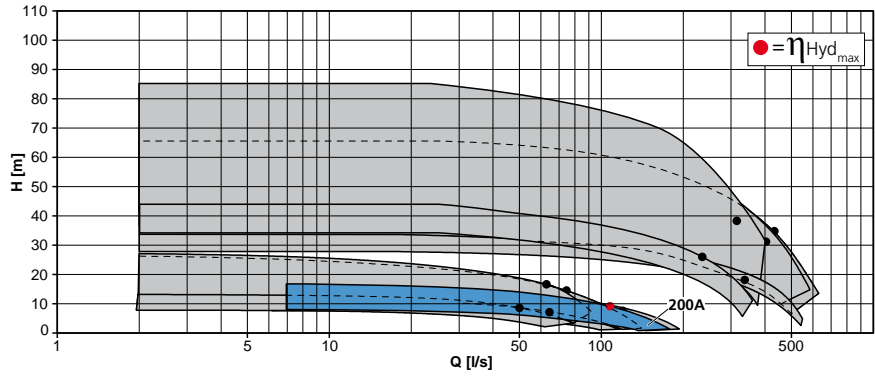


ZUG OC 200A - 6 poles

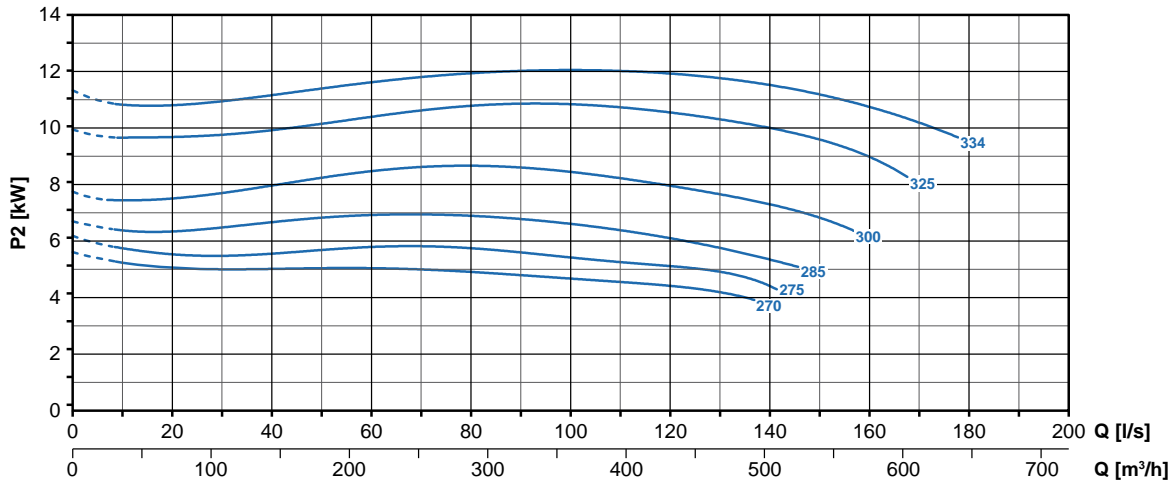
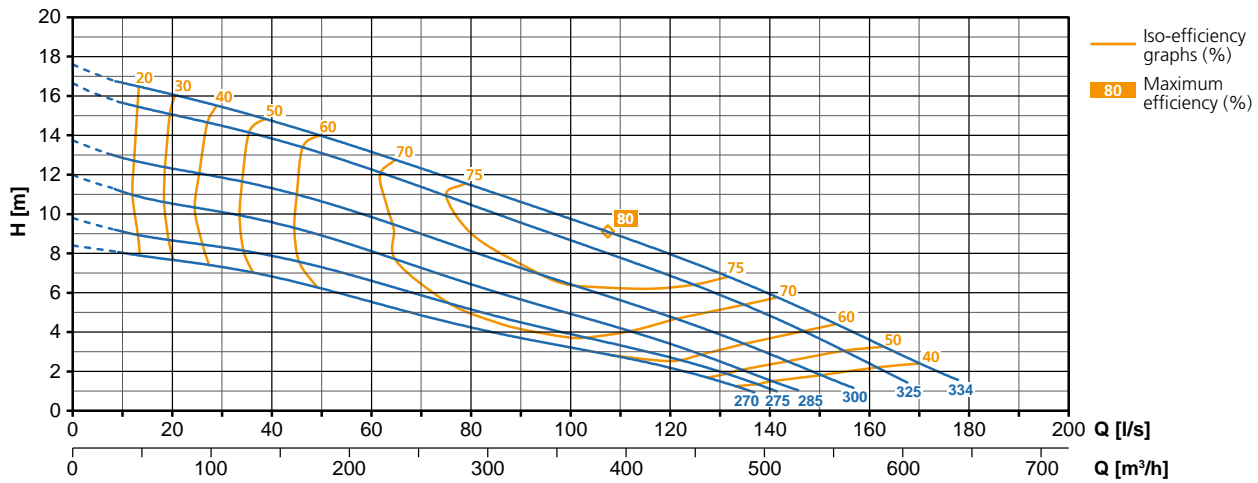
Open channels Impeller

Discharge	DN200
Free passage	100x70 mm
Power	7.5 ÷ 13 kW
Poles	6

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 200A	7.5/6 AW (D)	400	3	Y Δ	16.2	8.4	7.5	89.1
	9/6 AW (D)	400	3	Y Δ	19.8	10.0	9.0	89.7
	11/6 AW (D)	400	3	Y Δ	22.7	12.2	11.0	90.3
	13/6 HW (D)	400	3	Y Δ	25.9	14.6	13.0	89.2

W: WET version (submerged operation - S1 duty type)
D: DRY version (dry operation - S1 duty type)

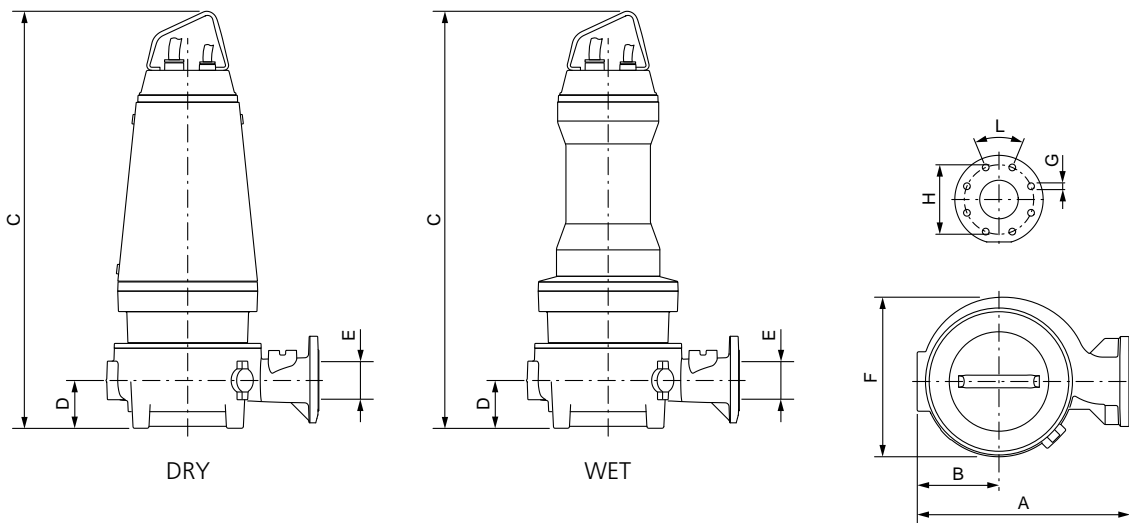


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10-16)	EN 1092-2 Tab.8 (PN10-16)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•	•		•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



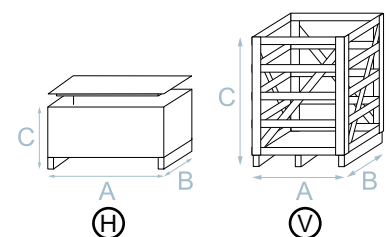
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 200A 7.5/6 AW (D)	695	275	1265	1265	205	200	540	8x22	295	45	364	411
ZUG OC 200A 9/6 AW (D)	695	275	1265	1265	205	200	540	8x22	295	45	373	420
ZUG OC 200A 11/6 AW (D)	695	275	1265	1265	205	200	540	8x22	295	45	382	429
ZUG OC 200A 13/6 HW (D)	695	275	1265	1265	205	200	540	8x22	295	45	382	429

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 200A 7.5/6 A	1170	975	1505	V	1170	975	1505	V
ZUG OC 200A 9/6 A	1170	975	1505	V	1170	975	1505	V
ZUG OC 200A 11/6 A	1170	975	1505	V	1170	975	1505	V
ZUG OC 200A 13/6 H	1170	975	1505	V	1170	975	1505	V

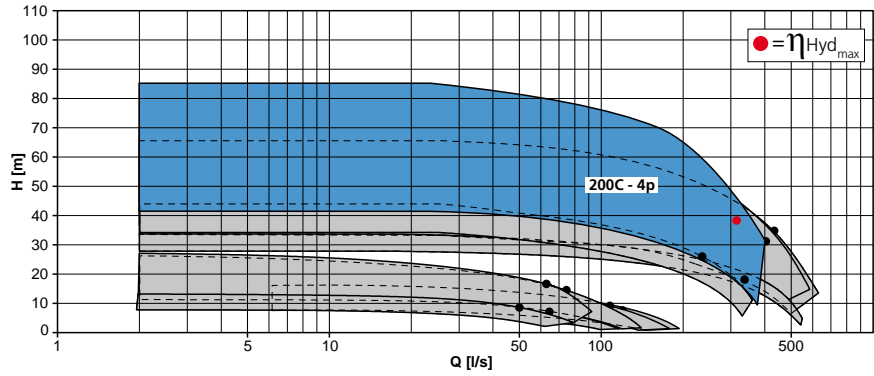


ZUG OC 200C - 4 poles

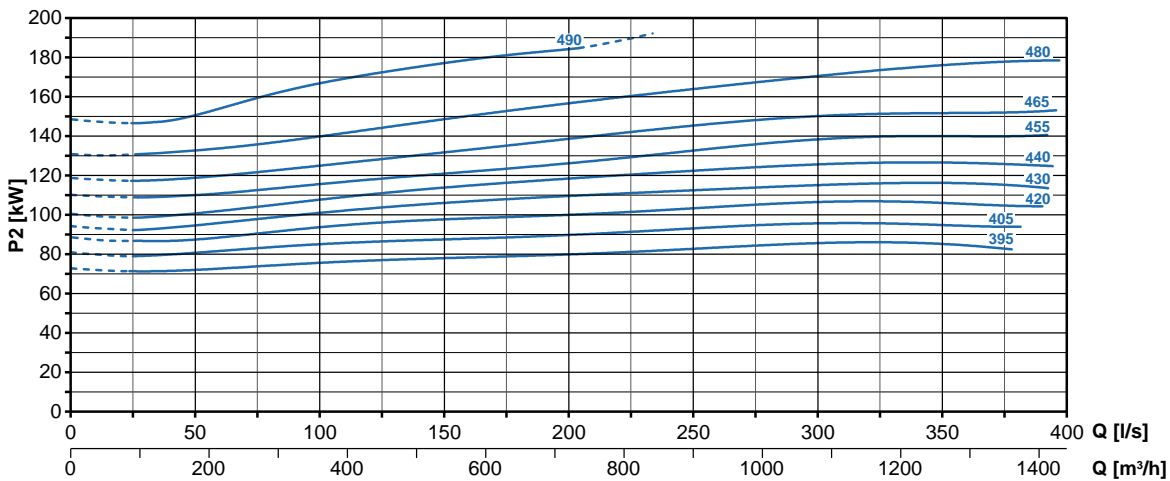
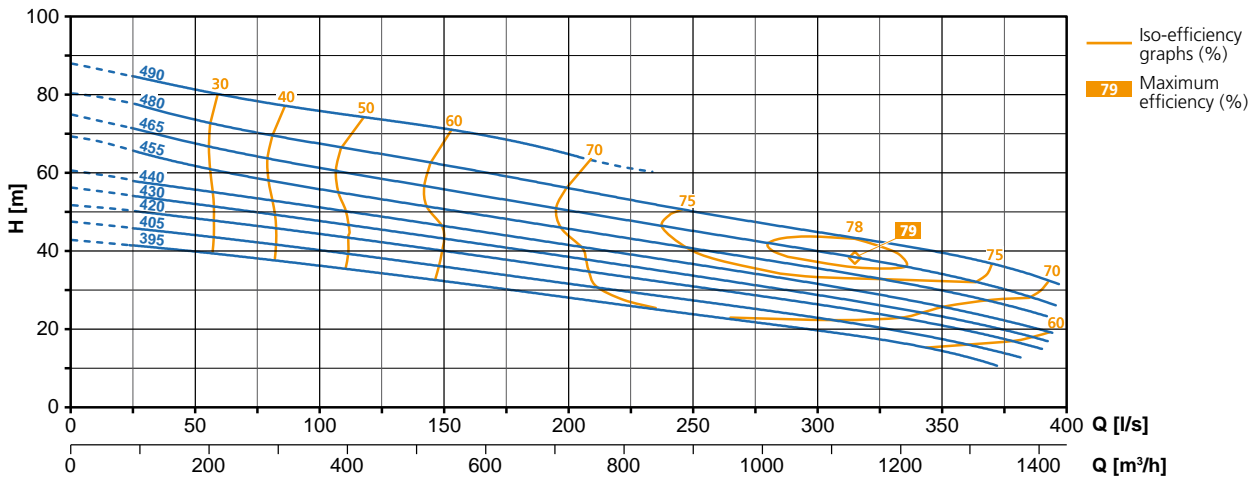
Open channels Impeller

Discharge	DN200
Free passage	100 mm
Power	90 ÷ 185 kW
Poles	4

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 200C	90/4 AW (D)	400	3	Y Δ	160	94.5	90	95.2
	110/4 AW (D)	400	3	Y Δ	198	115.3	110	95.4
	132/4 AW (D)	400	3	Y Δ	238	138	132	95.6
	160/4 AW (D)	400	3	Y Δ	299	167	160	95.8
	185/4 HW	400	3	Y Δ	342	194.5	185	95.1

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

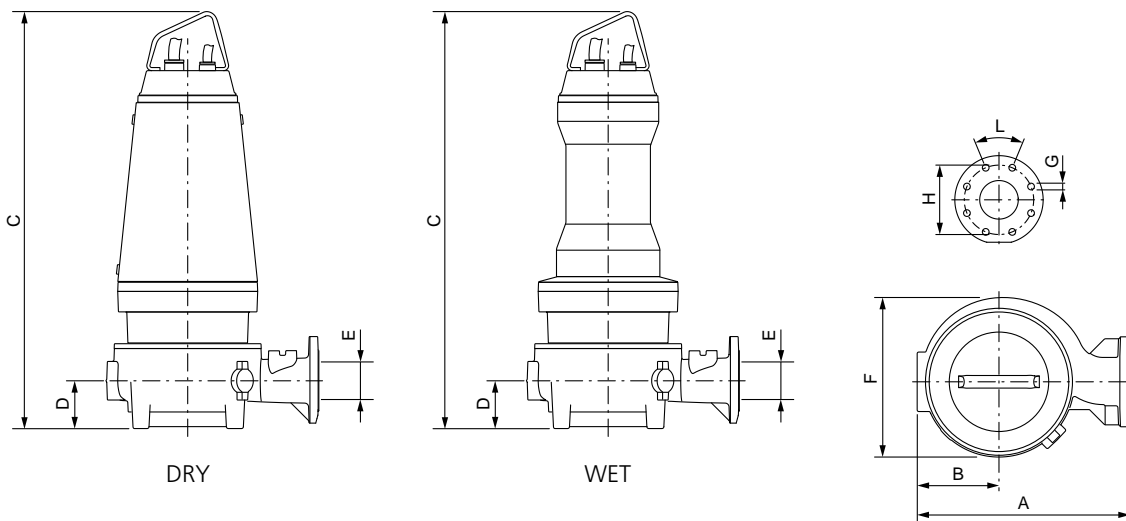


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10)	EN 1092-2 Tab.8 (PN10)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•	•		•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



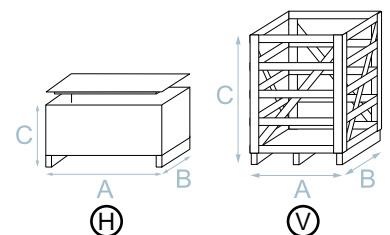
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 200C 90/4 AW (D)	1075	415	1870	1870	170	200	815	8x22	295	45	1530	1700
ZUG OC 200C 110/4 AW (D)	1075	415	1870	1870	170	200	815	8x22	295	45	1572	1759
ZUG OC 200C 132/4 AW (D)	1075	415	2060	2060	170	200	815	8x22	295	45	1730	1944
ZUG OC 200C 160/4 AW (D)	1075	415	2060	2060	170	200	815	8x22	295	45	1875	2090
ZUG OC 200C 185/4 HW	1075	415	2060	-	170	200	815	8x22	295	45	1880	-

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 200C 90/4 A	1630	1140	2225	V	1630	1140	2225	V
ZUG OC 200C 110/4 A	1630	1140	2225	V	1630	1140	2225	V
ZUG OC 200C 132/4 A	1630	1140	2520	V	1630	1140	2520	V
ZUG OC 200C 160/4 A	1630	1140	2520	V	1630	1140	2520	V
ZUG OC 200C 185/4 H	1630	1140	2520	V	-	-	-	-

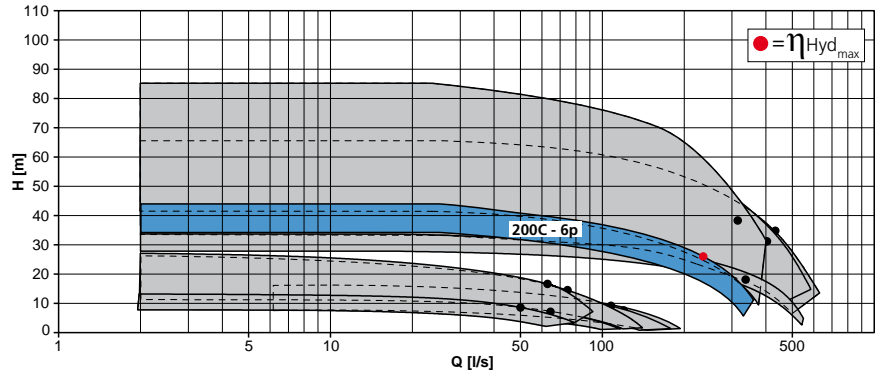


ZUG OC 200C - 6 poles

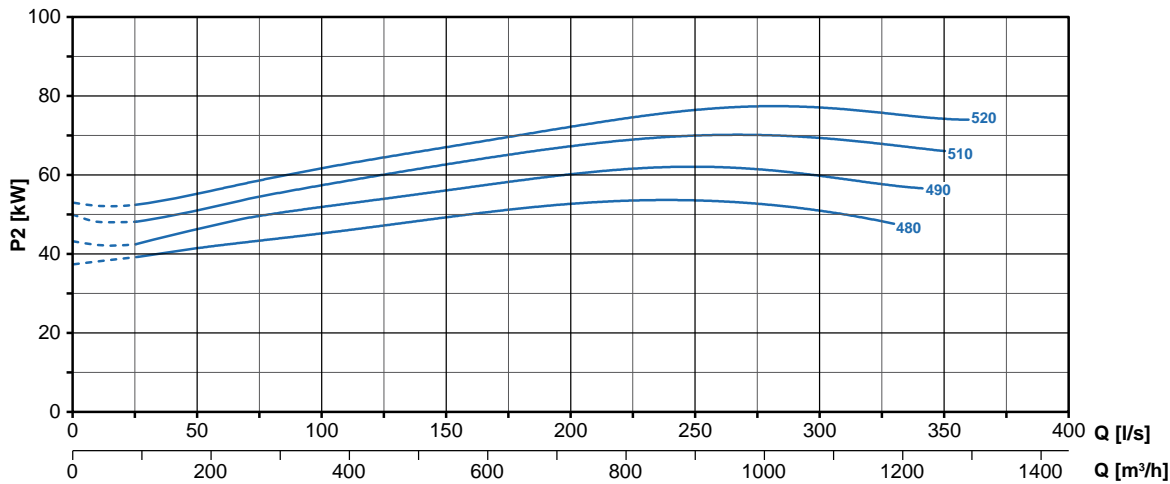
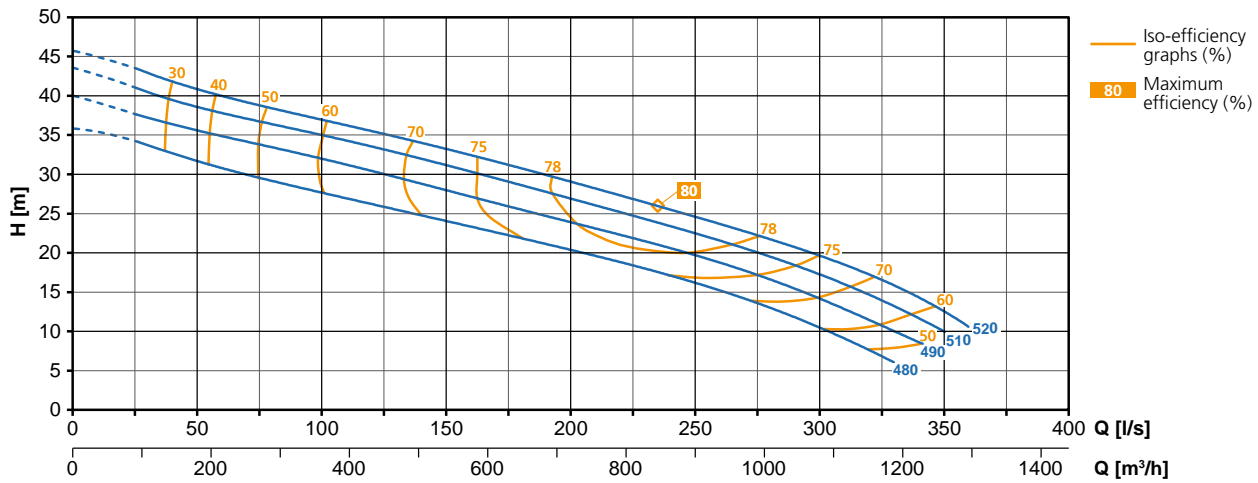
Open channels Impeller

Discharge	DN200
Free passage	100 mm
Power	75 - 90 kW
Poles	6

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 200C	75/6 AW (D)	400	3	Y Δ	149	79.3	75	94.6
	90/6 AW (D)	400	3	Y Δ	175.5	94.8	90	94.9

W: WET version (submerged operation - S1 duty type)
D: DRY version (dry operation - S1 duty type)

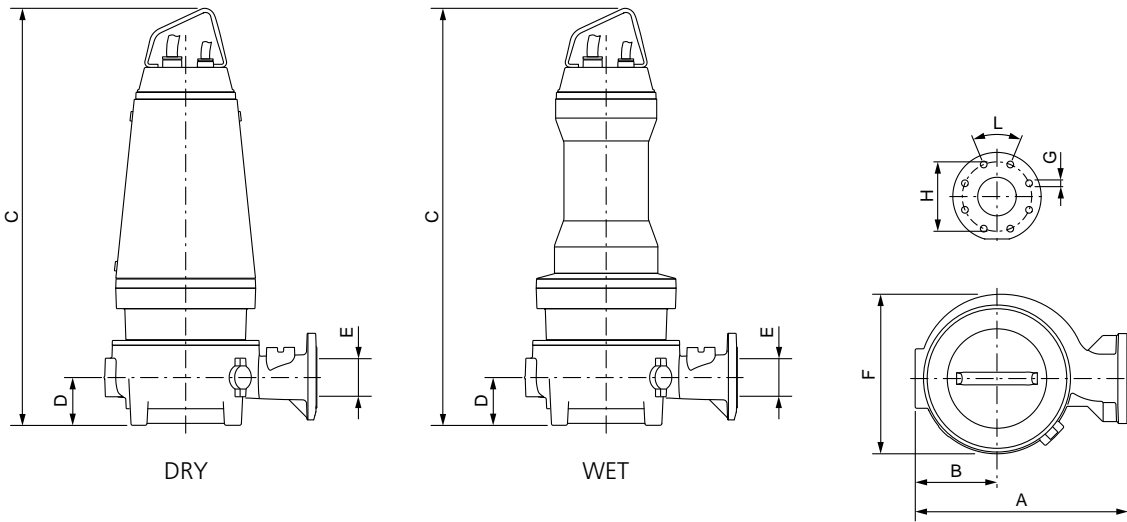


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10)	EN 1092-2 Tab.8 (PN10)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•			•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



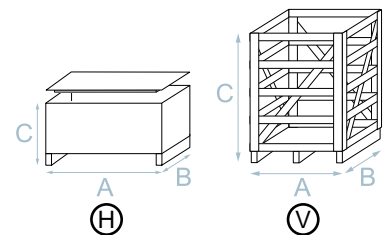
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 200C 75/6 AW (D)	1075	415	1870	1870	170	200	815	8x22	295	45	1565	1735
ZUG OC 200C 90/6 AW (D)	1075	415	1870	1870	170	200	815	8x22	295	45	1595	1765

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 200C 75/6 A	1630	1140	2225	V	1630	1140	2225	V
ZUG OC 200C 90/6 A	1630	1140	2225	V	1630	1140	2225	V

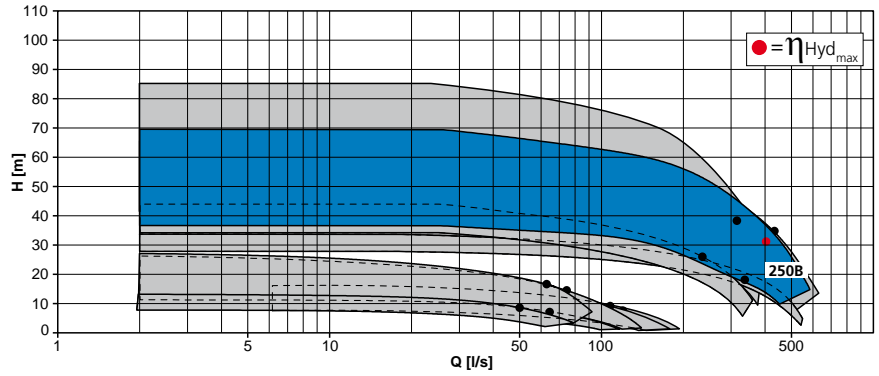


ZUG OC 250B - 4 poles

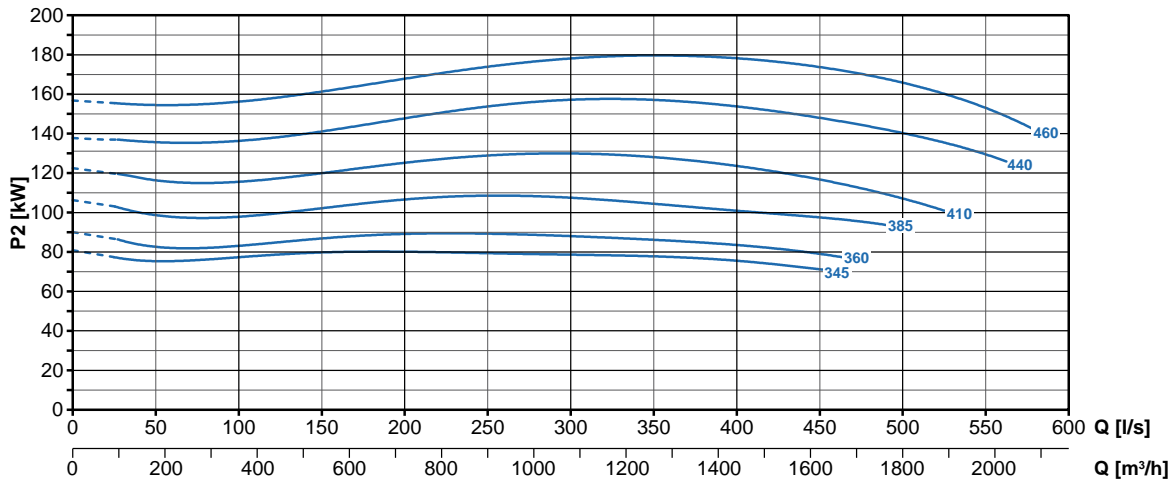
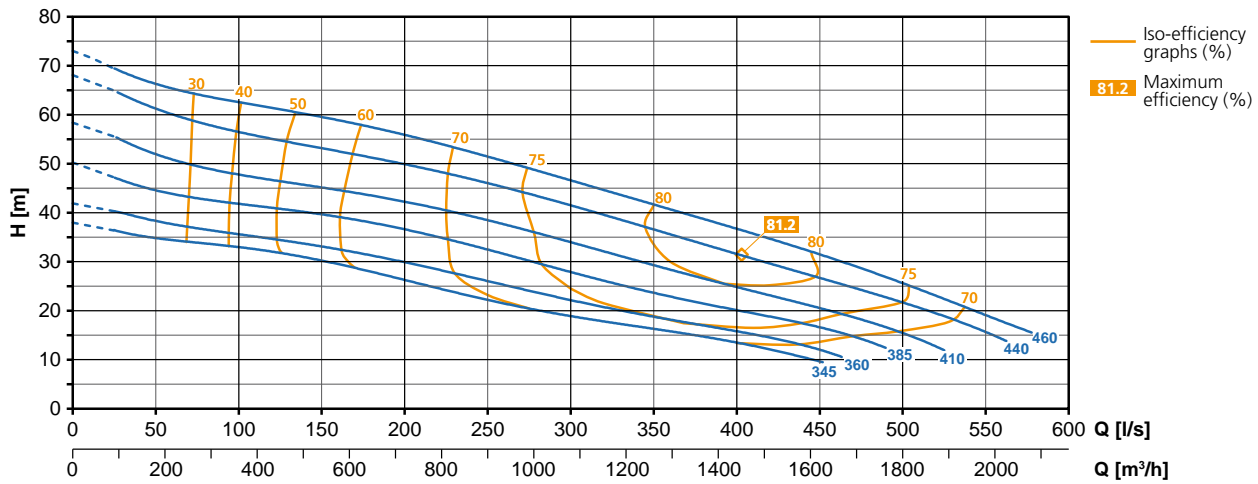
Open channels Impeller

Discharge	DN250
Free passage	110 mm
Power	90 ÷ 185 kW
Poles	4

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 250B	90/4 AW (D)	400	3	Y Δ	160	94.5	90	95.2
	110/4 AW (D)	400	3	Y Δ	198	115.3	110	95.4
	132/4 AW (D)	400	3	Y Δ	238	138.0	132	95.6
	160/4 AW (D)	400	3	Y Δ	299	167.0	160	95.8
	185/4 HW	400	3	Y Δ	342	194.5	185	95.1

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

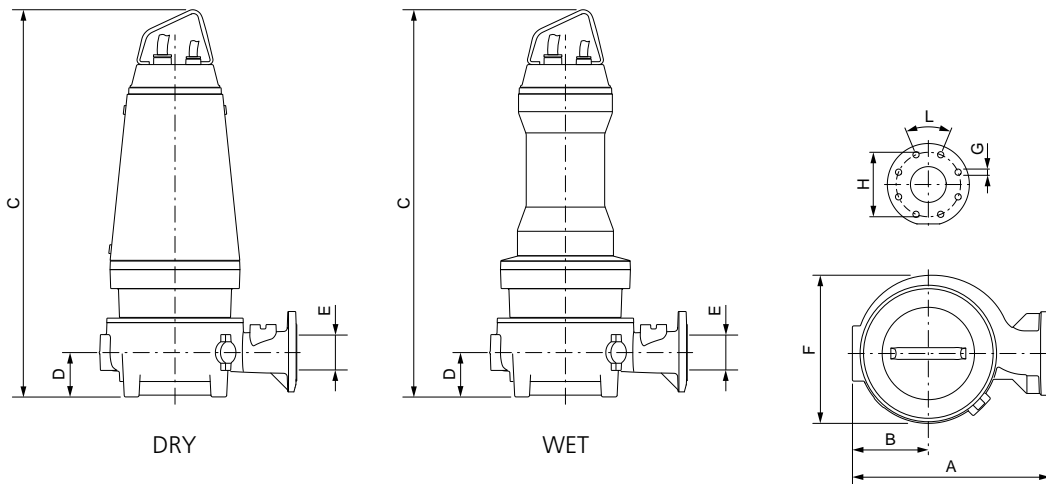


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10)	EN 1092-2 Tab.8 (PN10)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•			•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



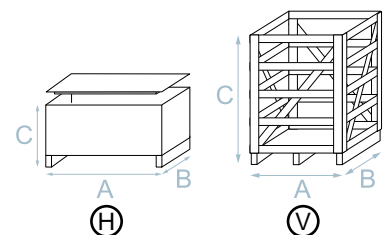
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L °	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 250B 90/4 AW (D)	1055	440	1925	1925	205	250	825	12x22	350	30	1463	1650
ZUG OC 250B 110/4 AW (D)	1055	440	1925	1925	205	250	825	12x22	350	30	1504	1691
ZUG OC 250B 132/4 AW (D)	1055	440	2115	2115	205	250	825	12x22	350	30	1663	1877
ZUG OC 250B 160/4 AW (D)	1055	440	2115	2115	205	250	825	12x22	350	30	1814	2028
ZUG OC 250B 185/4 HW	1055	440	2115	-	205	250	825	12x22	350	30	1814	-

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 250B 90/4 A	1630	1140	2225	V	1630	1140	2225	V
ZUG OC 250B 110/4 A	1630	1140	2225	V	1630	1140	2225	V
ZUG OC 250B 132/4 A	1630	1140	2520	V	1630	1140	2520	V
ZUG OC 250B 160/4 A	1630	1140	2520	V	1630	1140	2520	V
ZUG OC 250B 185/4 H	1630	1140	2520	V	-	-	-	-

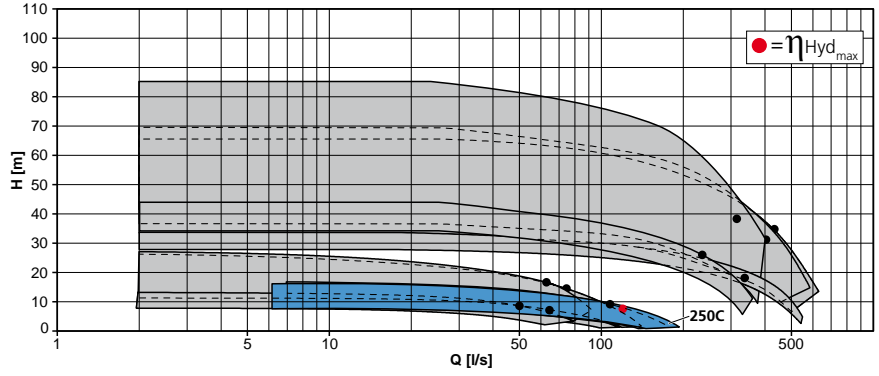


ZUG OC 250C - 6 poles

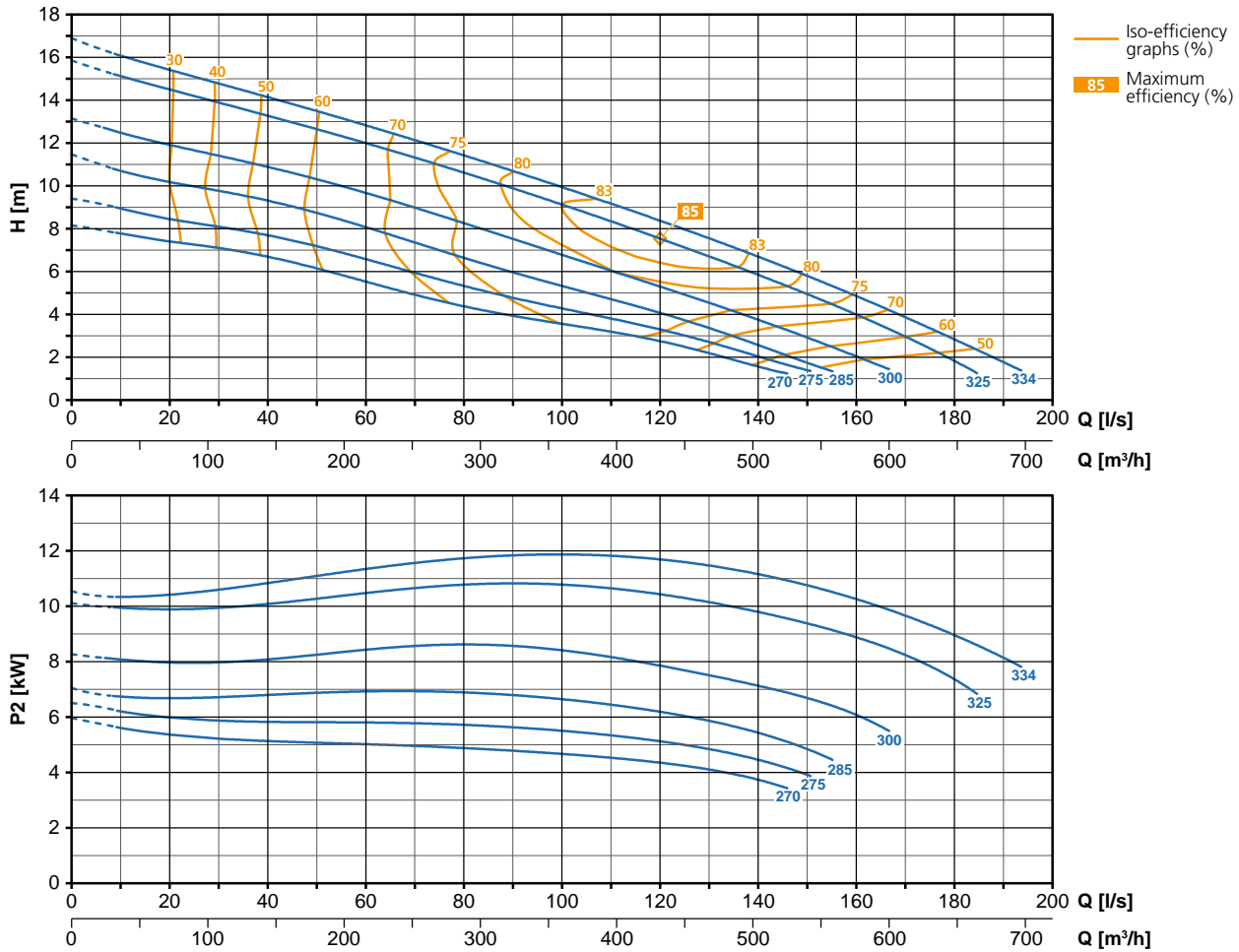
Open channels Impeller

Discharge	DN250
Free passage	100x70 mm
Power	7.5 ÷ 13 kW
Poles	6

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 250C	7.5/6 AW (D)	400	3	Y Δ	16.2	8.4	7.5	89.1
	9/6 AW (D)	400	3	Y Δ	19.8	10.0	9.0	89.7
	11/6 AW (D)	400	3	Y Δ	22.7	12.2	11.0	90.3
	13/6 AW (D)	400	3	Y Δ	25.9	14.6	13.0	89.2

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

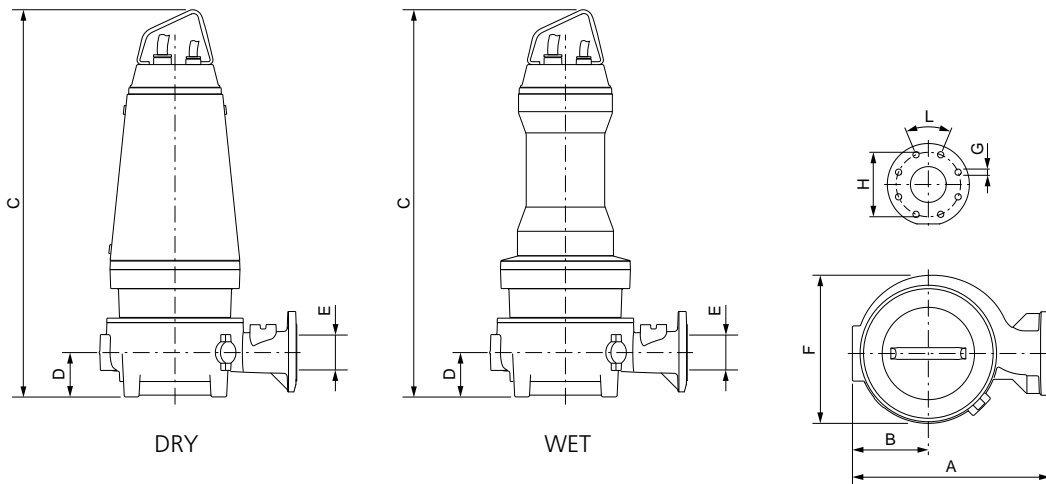


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10)	EN 1092-2 Tab.8 (PN10)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ		KBC + KBS	•	•	•	
Z	ZA	KBS-H	•	•		•	
	ZJ		KBS-H	•	•		•
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



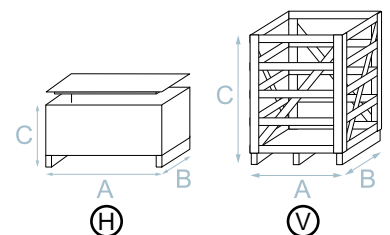
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 250C 7.5/6 AW (D)	810	335	1265	1265	205	250	610	12x22	350	30	386	433
ZUG OC 250C 9/6 AW (D)	810	335	1265	1265	205	250	610	12x22	350	30	395	442
ZUG OC 250C 11/6 AW (D)	810	335	1265	1265	205	250	610	12x22	350	30	404	451
ZUG OC 250C 13/6 AW (D)	810	335	1265	1265	205	250	610	12x22	350	30	404	451

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 250C 7.5/6 A	1170	975	1505	V	1170	975	1505	V
ZUG OC 250C 9/6 A	1170	975	1505	V	1170	975	1505	V
ZUG OC 250C 11/6 A	1170	975	1505	V	1170	975	1505	V
ZUG OC 250C 13/6 A	1170	975	1505	V	1170	975	1505	V

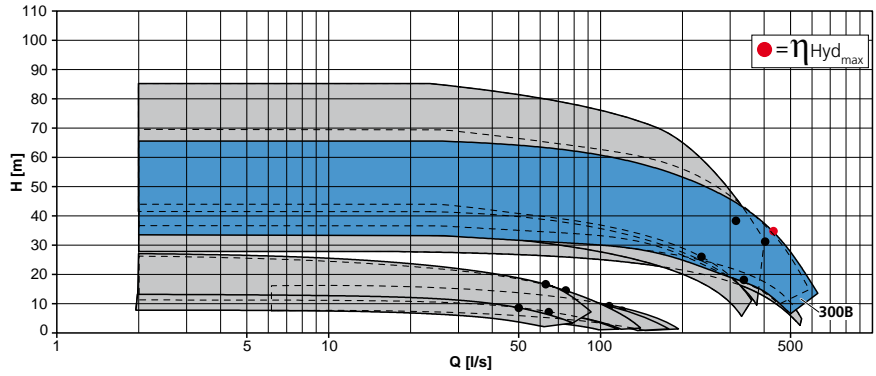


ZUG OC 300B - 4 poles

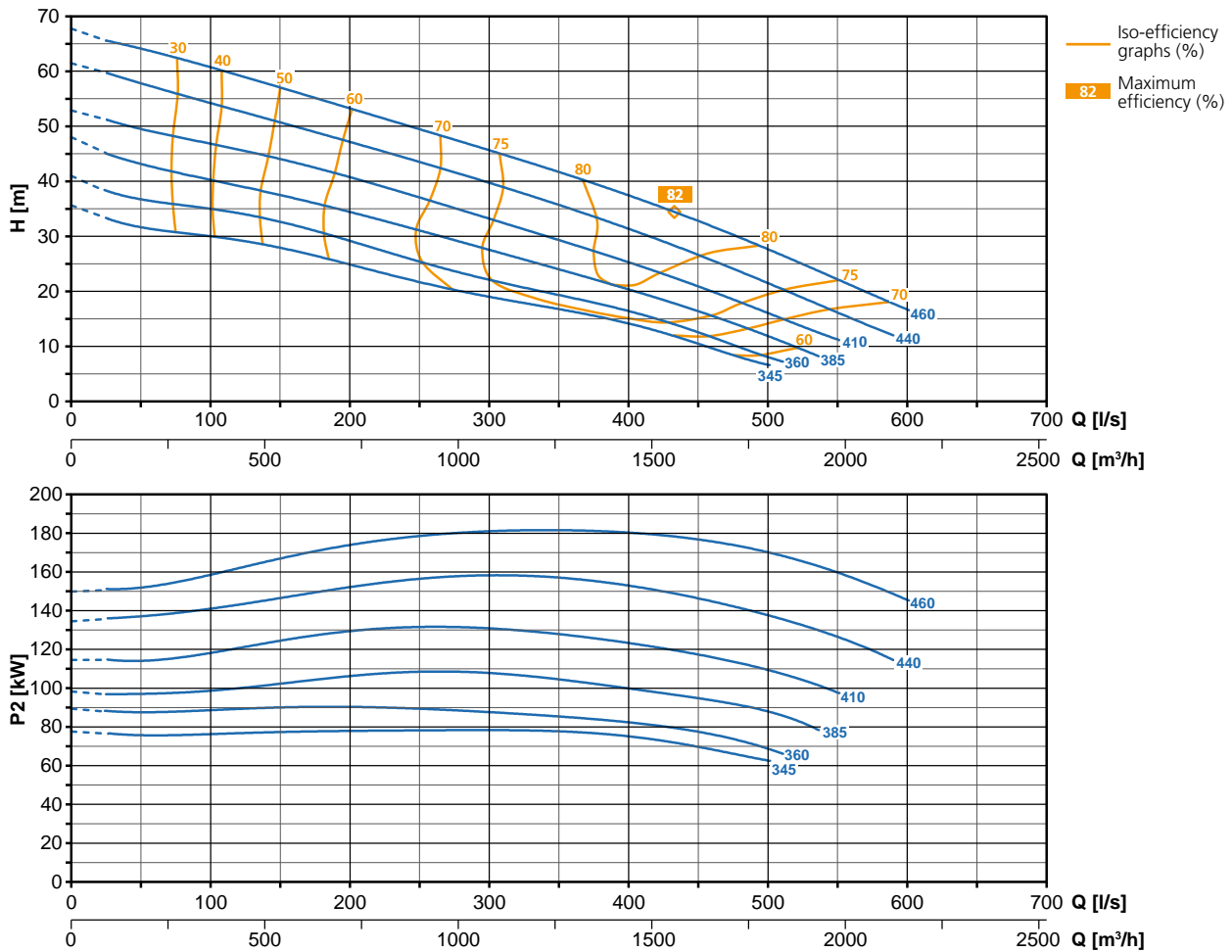
Open channels Impeller

Discharge	DN300
Free passage	110 mm
Power	90 ÷ 185 kW
Poles	4

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 300B	90/4 AW (D)	400	3	Y Δ	160	94.5	90	95.2
	110/4 AW (D)	400	3	Y Δ	198	115.3	110	95.4
	132/4 AW (D)	400	3	Y Δ	238	138.0	132	95.6
	160/4 AW (D)	400	3	Y Δ	299	167.0	160	95.8
	185/4 HW	400	3	Y Δ	342	194.5	185	95.1

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

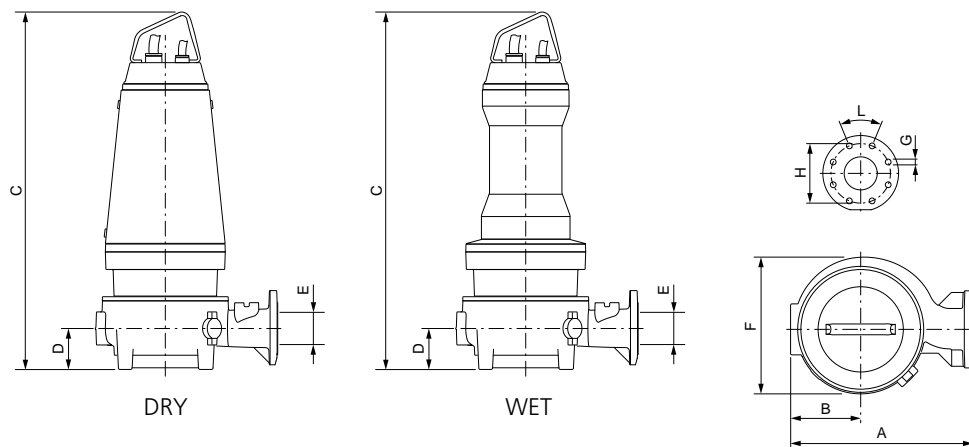


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10)	EN 1092-2 Tab.8 (PN10)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•	•		•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



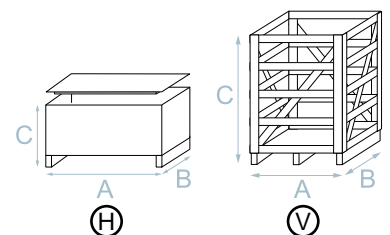
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L °	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 300B 90/4 AW (D)	1170	490	1975	1975	250	300	920	12x22	400	30	1660	1847
ZUG OC 300B 110/4 AW (D)	1170	490	1975	1975	250	300	920	12x22	400	30	1701	1889
ZUG OC 300B 132/4 AW (D)	1170	490	2165	2165	250	300	920	12x22	400	30	1860	2074
ZUG OC 300B 160/4 AW (D)	1170	490	2165	2165	250	300	920	12x22	400	30	2011	2225
ZUG OC 300B 185/4 HW	1170	490	2165	-	250	300	920	12x22	400	30	2011	-

(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 300B 90/4 A	1630	1140	2225	V	1630	1140	2225	V
ZUG OC 300B 110/4 A	1630	1140	2225	V	1630	1140	2225	V
ZUG OC 300B 132/4 A	1630	1140	2520	V	1630	1140	2520	V
ZUG OC 300B 160/4 A	1630	1140	2520	V	1630	1140	2520	V
ZUG OC 300B 185/4 H	1630	1140	2520	V	-	-	-	-

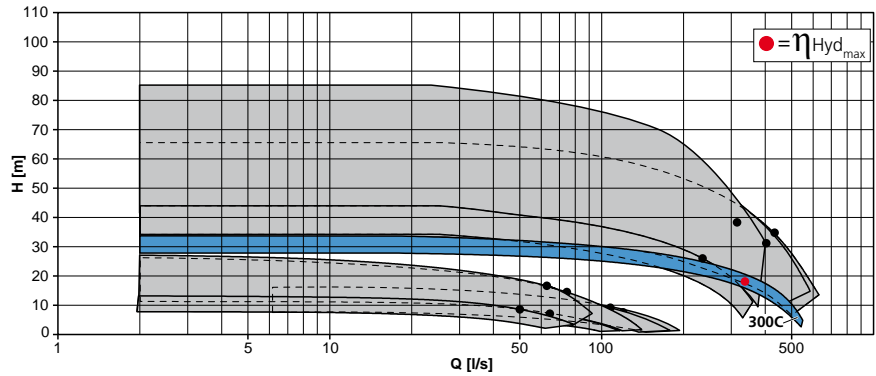


ZUG OC 300C - 6 poles

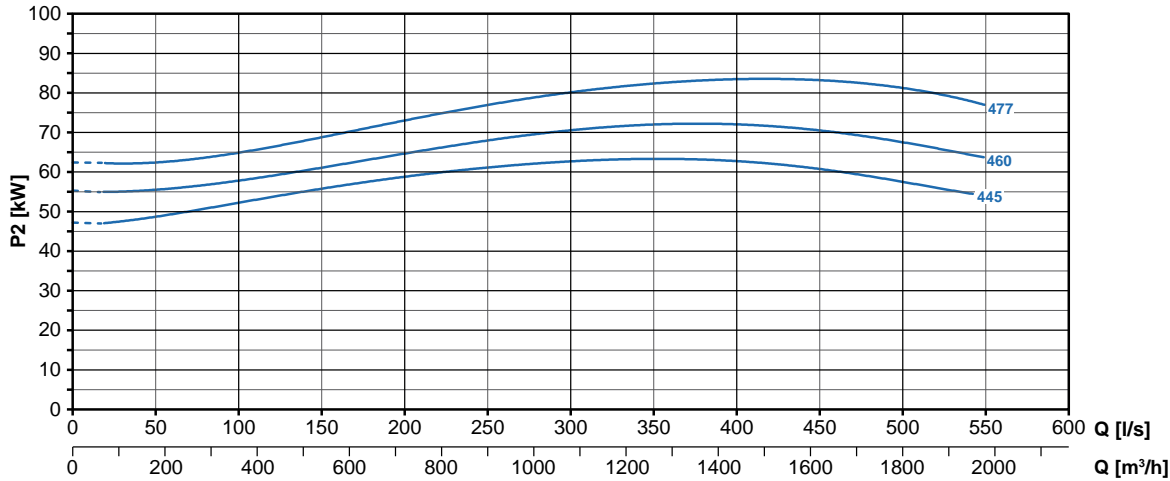
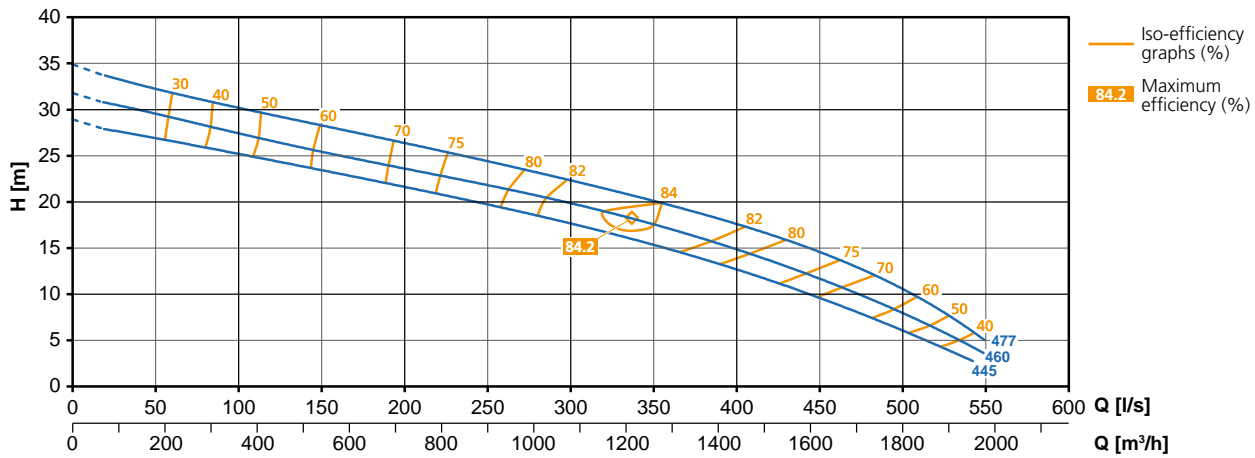
Open channels Impeller

Discharge	DN300
Free passage	150x110 mm
Power	75-90 kW
Poles	6

The documentation for each model as well as the technical data sheets and user manuals are available at www.zenit.com or from **Customer Service**.



Performances



Characteristic curves according to UNI EN ISO 9906

Motor data

Hydraulics	Motor	V	Phases	Start	A	P1 (kW)	P2 (kW)	η mot.
ZUG OC 300C	75/6 AW (D)	400	3	Y Δ	149	79.3	75	94.6
	90/6 AW (D)	400	3	Y Δ	175.5	94.8	90	94.9

W: WET version (submerged operation - S1 duty type)

D: DRY version (dry operation - S1 duty type)

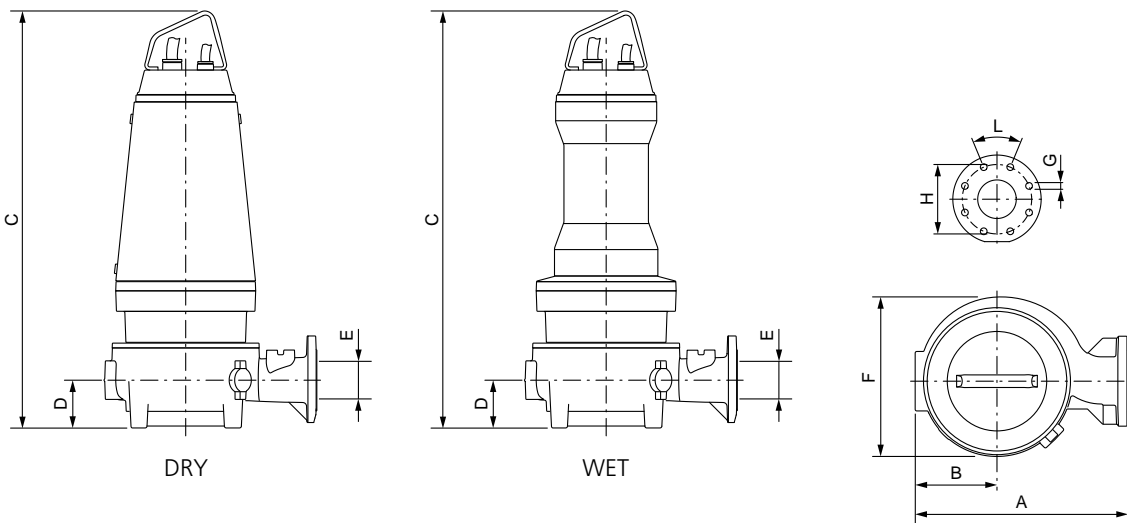


Product image is illustrative. Zenit reserves the right to modify the product without advance notification.

Available drilling variants

Installation type	Drilling variant	Accessory required	Discharge flange	Suction flange	KBS drilling	KBS-H drilling	FLX drilling
			EN 1092-2 Tab.8 (PN10)	EN 1092-2 Tab.8 (PN10)			
P	PA	DAC V	•				
	PF		•				•
	PA	DAC H	•				
	PF		•				•
S	SA	KBS	•		•		
	SF		•		•		•
T	TA	KBC	•	•			
	TJ	KBC + KBS	•	•	•		
Z	ZA	KBS-H	•	•		•	
	ZJ	KBS-H	•			•	
X	XA	DAC-KBC	•	•			
	XB	DAC-KBC-KBS	•	•	•		
	XC	DAC-KBC-KBS-KBS-H	•	•	•	•	
	XE	DAC-KBC-KBS-FLX	•	•	•		•

Overall dimensions and weight



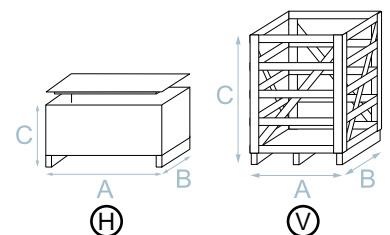
The product's outline is purely illustrative

	A mm	B mm	C mm		D mm	E mm	F mm	G mm	H mm	L°	Kg	
			WET	DRY							WET	DRY (*)
ZUG OC 300C 75/6 AW (D)	1170	490	1975	1975	250	300	920	12x22	400	30	1600	1787
ZUG OC 300C 90/6 AW (D)	1170	490	1975	1975	250	300	920	12x22	400	30	1640	1827

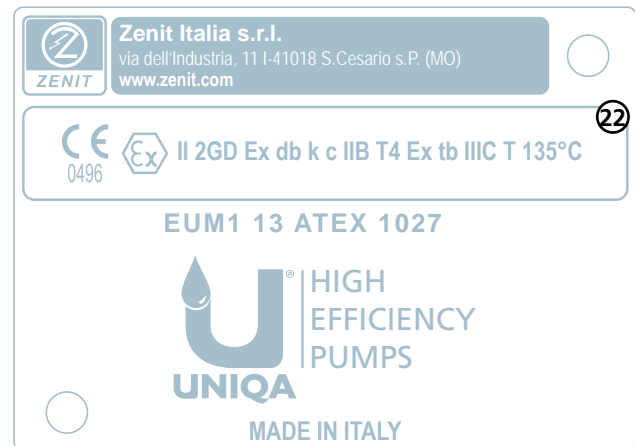
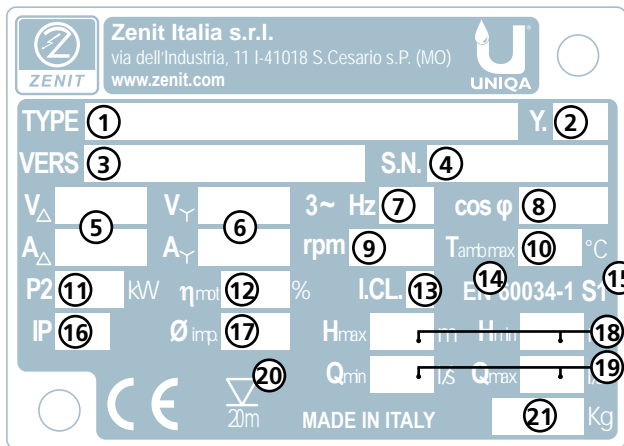
(*) Weight for the DRY version includes cooling fluid

Packaging dimensions

	WET				DRY			
	A mm	B mm	C mm	Type	A mm	B mm	C mm	Type
ZUG OC 300C 75/6 A	1630	1140	2225	V	1630	1140	2225	V
ZUG OC 300C 90/6 A	1630	1140	2225	V	1630	1140	2225	V

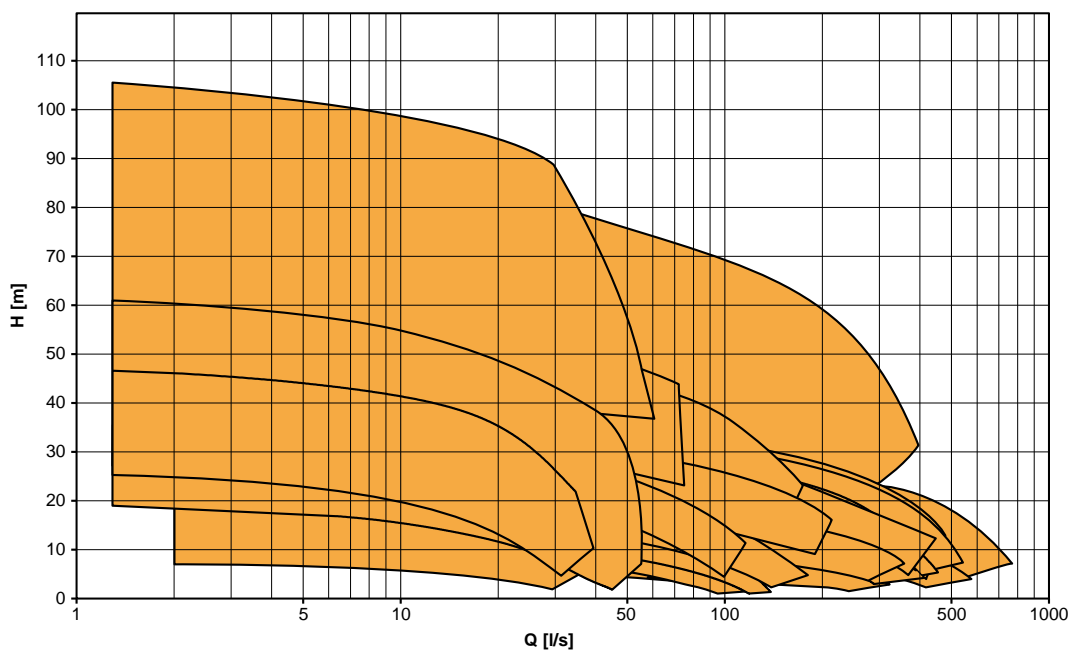


Nameplate



- | | |
|--|---------------------------------|
| ① Product name | ⑫ Motor efficiency |
| ② Year of manufacture | ⑬ Motor insulation class |
| ③ Version | ⑭ Motor reference standards |
| ④ Serial number | ⑮ Duty type |
| ⑤ Voltage and current (delta connection) | ⑯ Casing protection rating |
| ⑥ Voltage and current (Y connection) | ⑰ Nominal diameter of impeller |
| ⑦ Frequency | ⑱ Maximum and minimum head |
| ⑧ Power factor | ⑲ Minimum and maximum flow-rate |
| ⑨ Rpm | ⑳ Maximum immersion depth |
| ⑩ Maximum ambient temperature | ㉑ Weight |
| ⑪ Motor power output | ㉒ -EX mark |

Operating ranges scheduled for issue in 2014





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