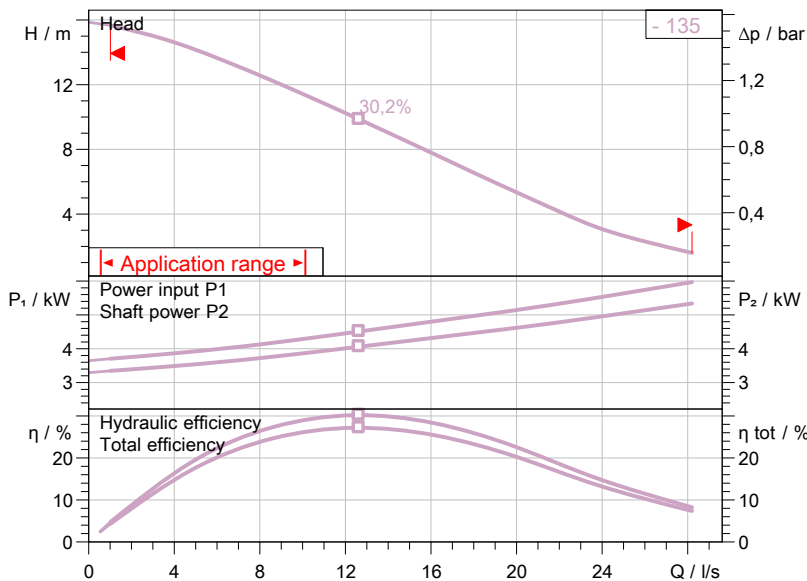
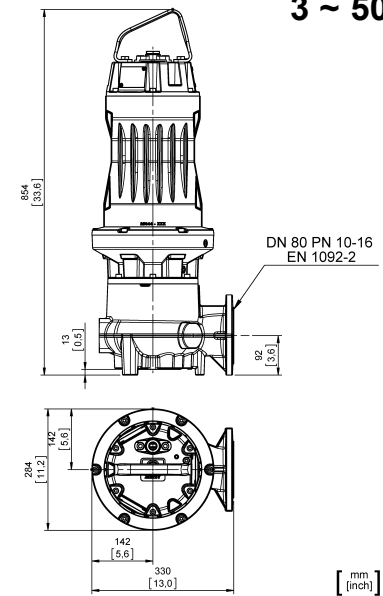


Technical specification



Characteristic curves according to UNI EN ISO 9906:2012


3 ~ 50 Hz

High efficiency 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 Efficiency (IE3) class according to EN 60034-30.

Pump

Series	UNIQA
Pump name	ZUG V080A 5.5/2AW 135
Configuration	PAAABB104Y5T0EXNN
Standard	ATEX 94/9/CE
ATEX mark	II 2GD Ex db k IIB T4 Ex tb IIIC T135°C

Motor data

Rated voltage	400 V
Frequency	50 Hz
Motor phases	3
Number of poles	2
Rated power P2	5,5 kW
Incoming power P1	6,2 kW
Rated current	10,2 A
rpm	2900 1/min
Efficiency	89,2 %
cos ϕ	0,87
Rated torque	18,1 Nm
Start	Star-delta
Starting current	29,0 A
Starting torque	19,9 Nm
Degree of protection	IP 68
Insulation class	H
Motor efficiency class ref	IE3

Hydraulic

Type	V 080A - 2p
Free passage	80 mm
Impeller type	Vortex impeller
N° of vanes	
Nominal impeller size	
Max. hydraulic efficiency	30,2 %
Suction	DN 80 UNDRILLED
Discharge	DN 80 EN 1092-2
Curve tolerance	UNI EN ISO 9906:2012

Operating limits (standard pumps)

Max. ambient temperature	40 °C
Max. density treated liquid	1100 kg/m ³
Max. immersion depth	20 m
pH treated liquid	6 ÷ 14
Max. start per hour	20 V
Wet/dry use	WET
Max. acoustic pressure level	70 dB
Operating mode	S1 - Continuous use

Construction materials

Case	Cast iron EN-GJL 250
Shaft	AISI 431
Hydraulic	Cast iron EN-GJL 250
Impeller	Cast iron EN-GJL 250
Painting	Bi-epoxy 120 μ m
Screws	Stainless steel A2-70
Gaskets	NBR

Construction features

Cooling jacket	-
Main cable	7G1,5 + 3x1
Cable length	10 m
Mechanical seals	n.2 in silicon carbide (SiC) in oil chamber
Flushing valve - drilling	-
Drilling variant	PA
Weight*	124,9 kg

* cable's weight not included

Monitoring features

n.3 bimetal thermal protectors (Klixon) in series
 n.1 double leakage sensor, mechanical seals chamber and stator housing



water technology

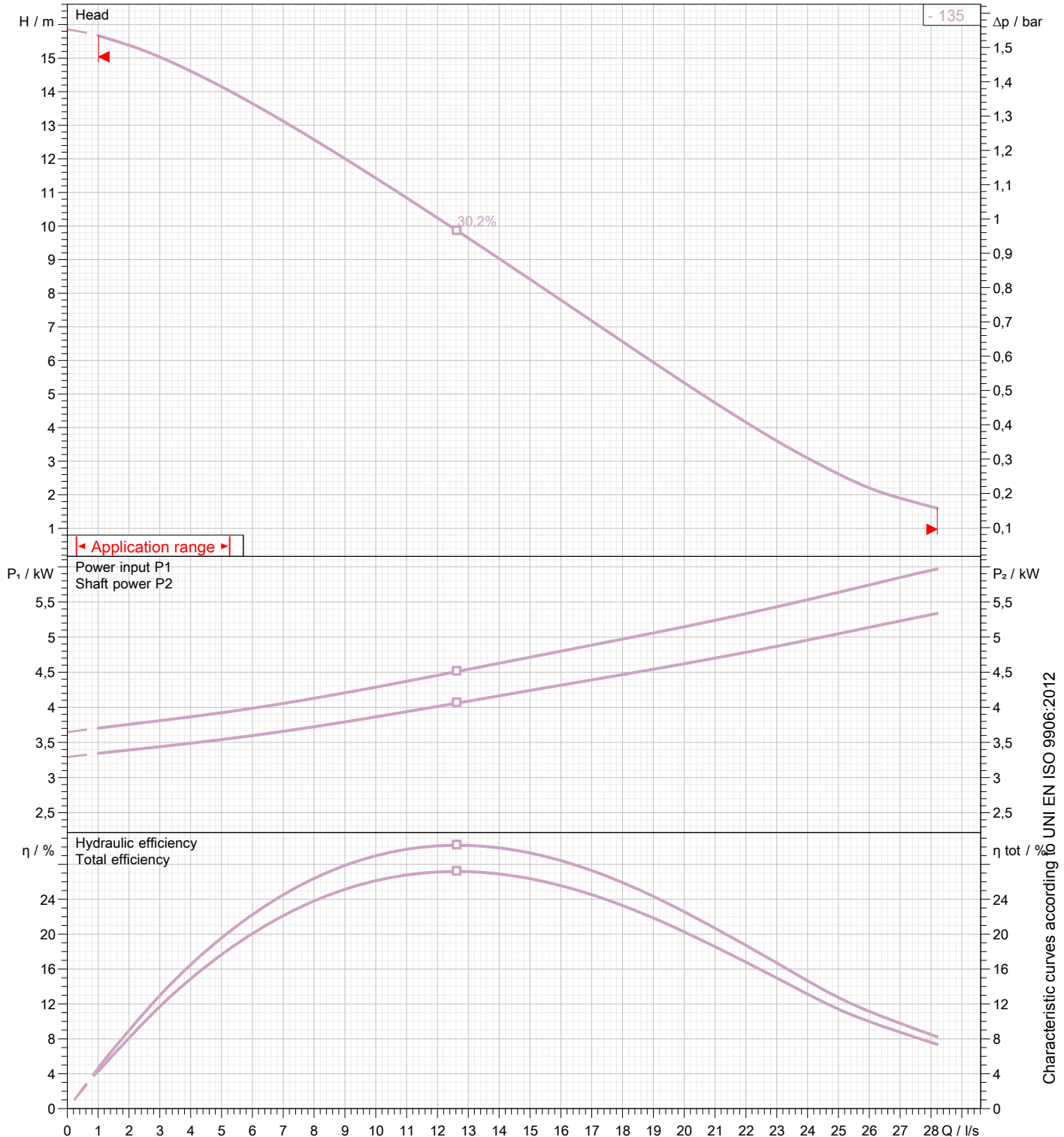
Data sheet ZUG V080A 5.5/2AW 135



Pump performance curves

3 ~ 50 Hz

Hydraulic type V 080A - 2p		Nominal impeller size		Impeller type Vortex impeller		Free passage 80 mm		Created by LB	
Density 998,3 kg/m ³		Viscosity 1,005 mm ² /s		N° of vanes		Discharge DN 80		Suction DN 80	
DUTY POINT									
Flow	Head	Shaft power P2	Power input P1	Hydraulic efficiency	Total efficiency	NPSH			



Characteristic curves according to UNI EN ISO 9906:2012

Rev. 1 - 01-05-2015

All data shown are not binding. Zenit reserves the right to change data and dimensions without notice.

Created on: 2015-08-27



water technology

Data sheet

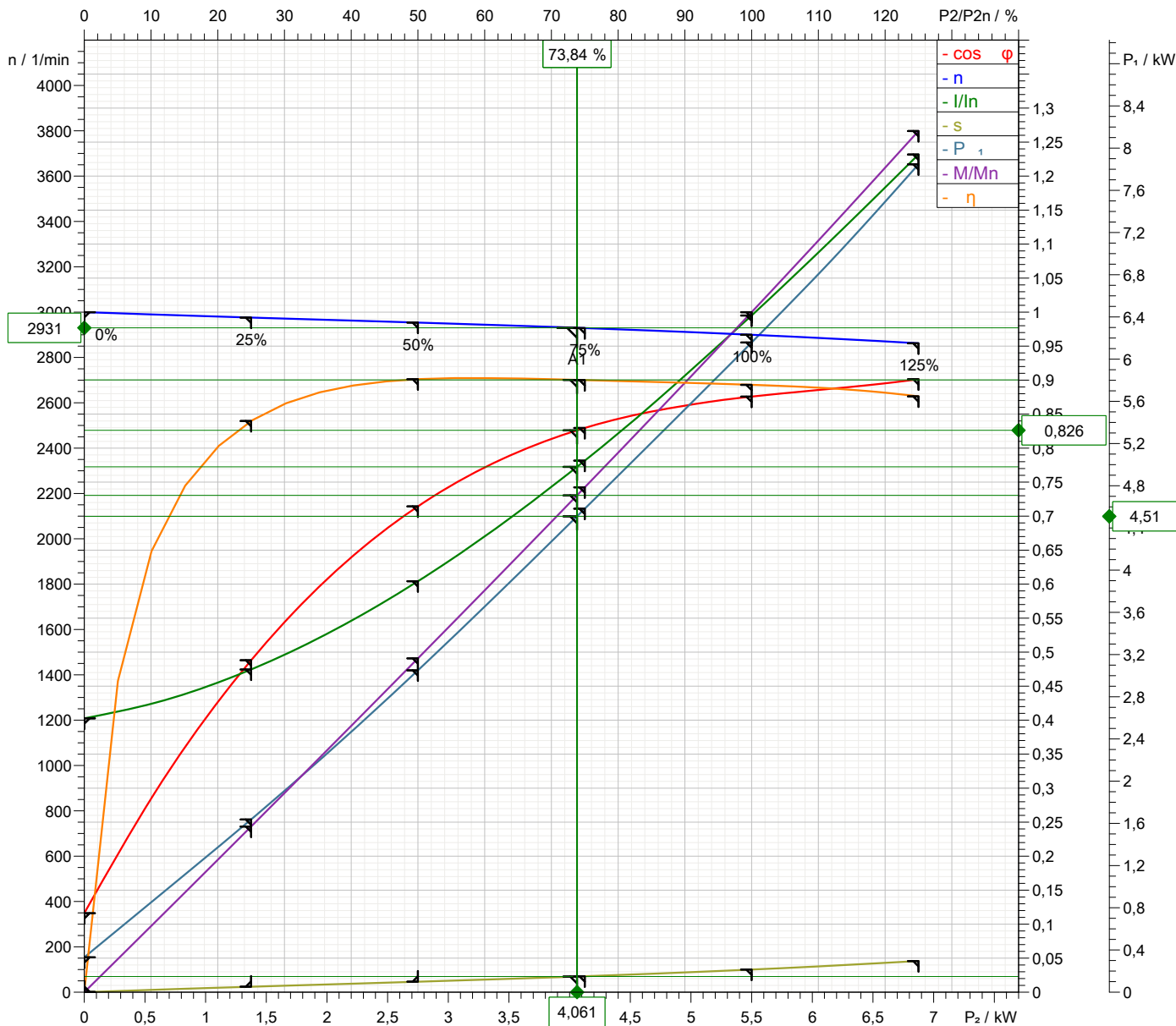
ZUG V080A 5.5/2AW 135



Motor performance curves

3 ~ 50 Hz

Motor ZU 5.5/2 AW	Rated power 5,5 kW	Rated voltage 400 V	Motor efficiency 89,2 %	Number of poles 2	Created by LB
Nominal Speed 2900 1/min	Rated current 10,2 A	cos φ 0,87	Rated torque 18,1 Nm	Starting current 29,0 A	Data version 01-06-2016



Symbol	No load	25 %	50 %	75 %	100 %	125 %
P / kW	0	1,375	2,75	4,125	5,5	6,875
P / kW	0,3306	1,637	3,051	4,583	6,158	7,847
I / A	4,108	4,84	6,164	7,973	10,15	12,56
cos φ	0,1162	0,4881	0,7144	0,8297	0,8758	0,9014
n / 1/min	3000	2976	2954	2930	2900	2862
s / %	0	0,8	1,54	2,347	3,33	4,583
M / Nm	0	4,412	8,89	13,45	18,11	22,93
η / %	0	84	90,14	90,01	89,31	87,61

Tolerances according to EN 60034-1

Rev. 1 - 01-05-2015

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Created on: 2015-08-27

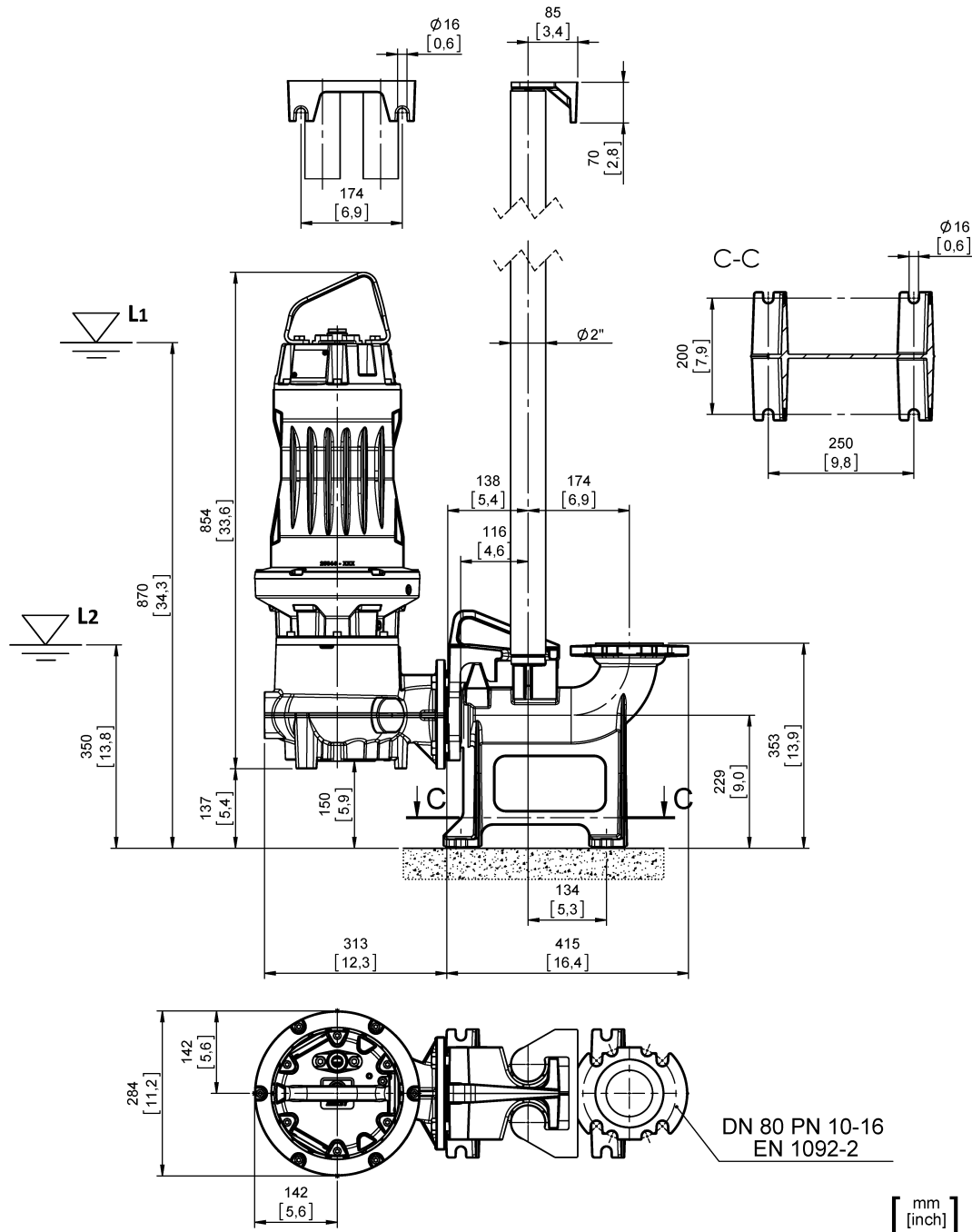
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Dimensional drawing

3 ~ 50 Hz

Installation type P: bottom coupling device - vertical discharge DN80 - guide pipes 2"		
Wet/dry use WET	Drilling variant PA	Flushing valve - drilling -
Discharge DN 80 EN 1092-2	Suction: DN 80 UNDRILLED	Pressure rating (suction/discharge) -/PN 10
Accessory DAC 80/80V+KAF 116-2" EN (P)		Accessory code 9001.032
Note: Accessory must be ordered separately		



L1: Minimum operating level for continuous use

L2: Minimum operating level for discontinuous use ("WET" version only)

* clearance from bottom suggested