



## Submersible motor pump for installation in discharge tubes with axial propeller

50 Hz  
Standard range

Other versions on request

### Applications

Irrigation and drainage pumping stations, stormwater pumping stations, raw and clean water pumps in water works and in sewage treatment plants, cooling water pumps in power stations, and industry, industrial water supply and flood control, aquaculture.

### Operating data

|                     |                |       |          |
|---------------------|----------------|-------|----------|
| Heads               | H              | up to | 12 m     |
| Capacity            | Q              | up to | 7000 l/s |
| Motor power         | P <sub>2</sub> | up to | 470 kW   |
| Product temperature |                | up to | 40 °C    |

### Design

Close-coupled unit with axial propeller in ECB version in wet-well installation, single stage, single flow, for installation in discharge tube.

### Drive

Three-phase asynchronous motor;  
explosion-proof Ex d II B T3, depending on pump size  
400 V, (variants 500 V, 690 V);  
Starting method: d. o. l., star-delta (for some pump sizes)

### Shaft sealing

2 mechanical seals independent of the direction of rotation, lubricated with non-toxic oil

### Bearings

Grease lubricated ball bearings

### Material

|                  |                       |
|------------------|-----------------------|
| Diffuser casing  | JL 1030               |
| Motor housing    | JL 1040               |
| Pump shaft       | 1.4021/1.4057         |
| Propeller        | 1.4517 (Duplex steel) |
| Casing wear ring | Stainless steel       |
| Nuts and bolts   | A 4                   |

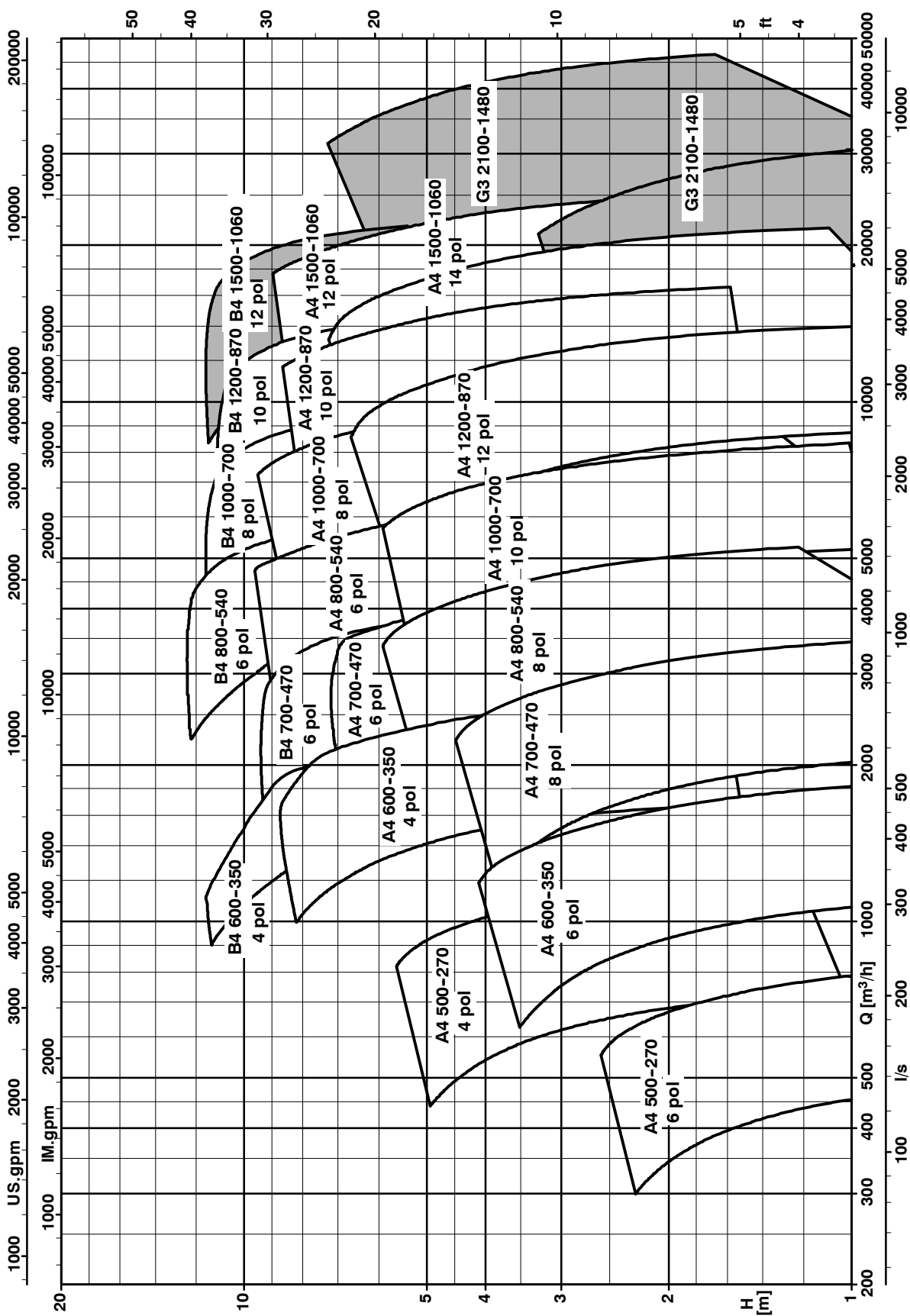
### Designation

|                                |                                      |
|--------------------------------|--------------------------------------|
|                                | <b>Amacan PA4 800- 540/120 6UTG1</b> |
| Pump type                      | _____                                |
| Propeller                      | _____ <b>B</b> _____                 |
| Pressure stage                 | _____                                |
| Number of blades z =           | _____                                |
| DN of discharge tube           | _____                                |
| Propeller diameter [mm]        | _____                                |
| Motor size                     | _____                                |
| Number of poles                | _____                                |
| Motor version (UA, XA, UT, XT) | _____                                |
| Material variant (G1, G3)      | _____                                |

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Selection diagram 50 Hz (standard programme and engineered programme)



**Product advantages**

Example: Amacan PA4 1000- 700/160 8 UTG1

Specially designed lug for receiving crane hook allows installation and removal even when intake chamber is flooded.  
(No need to enter the discharge tube.)

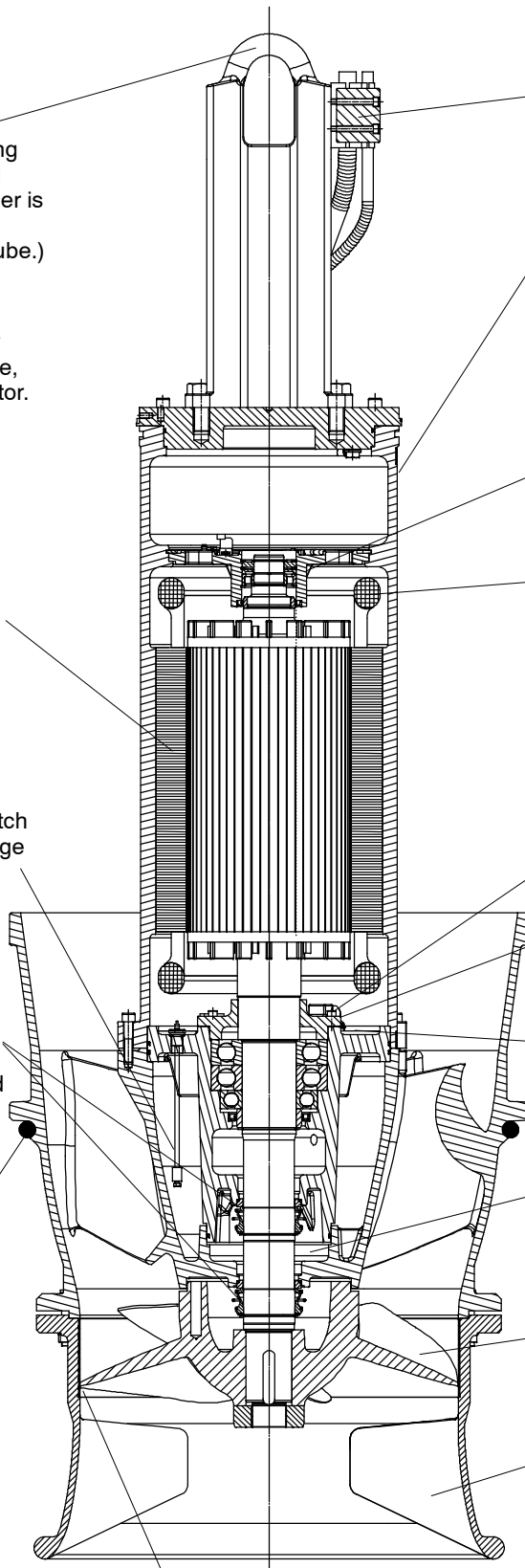
Absolutely water-tight cable entry  
Even in the event of cable damage, no fluid can penetrate into the motor.

Motor optimally adapted to pump characteristics with low starting currents.

Early failure detection by float switch installed in mechanical seal leakage chamber

Mechanical seals in tandem arrangement.  
Long service life due to liquid feed and high quality, wear resistant contact face materials.

The pump's own weight ensures self-centering seating in the discharge tube.  
Sealing ensured by an O-ring. No additional anchoring or anti-rotation elements required. Fast installation and removal of pump as disconnection of pipes and cables is not necessary.



Cable mounted with strain relief.

Extremely small flow losses in the discharge tube due to slim motor,  
 • therefore cheaper,  
 • smaller discharge tubes,  
 • smaller building structure.

Early failure detection by bearing temperature monitoring.  
(optional on UTG/XTG motors)

Thermal protection prevents motor damage due to overheating.

Very good pump efficiency curve allows a wide operating range.

Early failure detection by bearing temperature monitoring.

Early failure detection by vibration sensor.  
(optional on UTG/XTG motors).

Standard moisture sensor as additional safety device (motor protection).

High operational reliability due to protected seal chamber.

Fibre-repellent, self-cleaning ECB blades. (Ever Clean Blade)

Vortex-free inflow due to anti-vortex vanes.

Bellmouth with casing wear ring as standard design against cavitation and wear.  
A special casing wear ring is available for heavy duty applications.

## Production programme

- Size 500-270 up to 1500-1060 as described in this type series booklet.
- All other pump sizes on request (engineered programme).
- Motor power as per motor catalogue 1580.505/..., larger motors possible on request.

## Scope of supply

### Basic version:

- Pump unit complete and ready for installation, 400 V / 50 Hz, supplied with 10 m power cable, without performance test (deviations from the basic version will result in extra charges and longer delivery period)

### Accessories available / required:

- Steel discharge tubes in various designs (GFRP discharge tubes on request)
- Lifting rope complete with cable protection (if free cable length in discharge tube exceeds **3.5 m**, a cable guide is recommended)
- Monitoring unit
- Floor-mounted flow-straightening vane to prevent floor vortices

## General comments

Our pump units comply with enclosure type IP 68 in accordance with IEC 60 034-5.

During production the pumps and motors are subjected to functional tests both independently and as a unit.

Head and power rating apply to pumped liquids with a density of  $\rho = 1 \text{ kg/dm}^3$  and a kinematic viscosity  $\nu$  up to  $20 \text{ mm}^2/\text{s}$ .

**Motor ratings P<sub>2</sub> should have a safety factor which is adequate for a particular pumping application.**  
(see selection example on page 16)

Applicable drawing numbers are indicated below the drawings.

## Order data

- Designation of pump unit according to "Designation" / "Selection example"
- Capacity Q
- Total head H ( $H_{\text{geo}}$  and plant losses)
- Liquid handled and liquid temperature
- Voltage, frequency, starting method, length of cable
- Accessories required
  - for carrier cable, indicate dimension "L" – according to last page, number of lifting rings (depending on lifting height of davit), as well as elevations and mode of installation
  - for discharge tubes, indicate all necessary elevations and the mode of installation
- Quantity and language of operating instructions

### List of liquids handled

The table below is a guide, based on the experience of KSB over many years. The details given cannot be taken as generally binding recommendation. More detailed advice is available from your local KSB sales office or our technical departments. Make use of the experience of KSB's material laboratories when selecting the most suitable material.

| Fluid handled <sup>1)</sup>  | Notes, recommendations<br>(Standard - Material variant G1)   |                                    |
|--|--|------------------------------------|
| The end user must decide whether explosion-proof motors are necessary    |  |                                    |
| Dirty water (like waste water)   | Precleaning by screen.   |                                    |
| River water  |  |                                    |
| Storm water  |  |                                    |
| Waste water  |  |                                    |
| Domestic waste water with low dilution<br>Q ≤2 m <sup>3</sup> /s         | Distance between screen bars ≤15 mm  |                                    |
| Domestic waste water with low dilution<br>Q ≥2 m <sup>3</sup> /s         | Distance between screen bars ≤20 mm  |                                    |
| Domestic waste water in 8 % dilution (min.)                              | 500 - 270  | Distance between screen bars 30 mm |
|  | 600 - 350  | 30 mm                              |
| Waste water with fibrous substances <sup>2)</sup>                        | 700 - 470  | 40 mm                              |
|  | 800 - 540  | 60 mm                              |
| Flood water containing different substances <sup>2)</sup>                | 900 - 540  | 60 mm                              |
|  | 1000 - 700   | 80 mm                              |
| Rainwater, surface water with fibrous substances <sup>2)</sup>           | 1200 - 870   | 80 mm                              |
|  | 1500 - 1060  | 80 mm                              |
| Activated sludge <sup>2)</sup>   | max. 2 % dry substance content   |                                    |
| Seawater <sup>3)</sup>   | Material variant <b>G3</b> up to t = 25 °C;<br>>25 °C consult KSB (Stainless steel - variant)<br>check anodes every 6 to 12 months |                                    |
| Industrial effluent, contaminated, with paint suspension, solvent-free   |  |                                    |
| Industrial effluent, contaminated, with varnish suspension, solvent-free | consult KSB for silicone-free version  |                                    |
| Industrial effluent, contaminated, with abrasive substances              | Max. solids content: 0.5 g/l   |                                    |
| Industrial effluent, slightly acid                                       | ph-value ≥6: <b>G1</b> -variant and special coating<br>ph-value <6: consult KSB (Stainless steel - variant)                        |                                    |

1) Pumped products not listed here require higher-grade materials in most cases. (Contact KSBI)

2) A special wear ring is required (reduction of efficiency by 2-3 %).

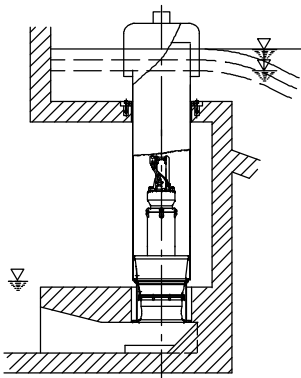
3) Anodes are required (reduction of efficiency by 2-3 %).

### Propeller design

ECB propeller for contaminated liquids with solids and fibrous matter.

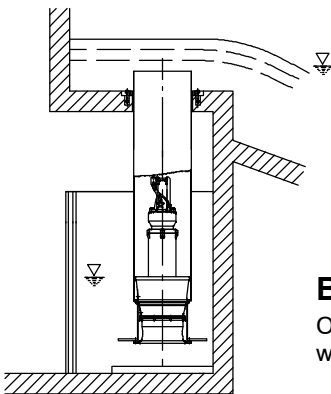


Types of installation



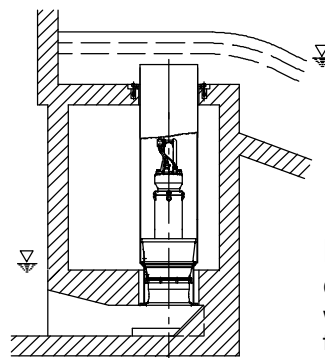
**KH Coaxial siphon (KSB patent)**

Regaining the height of fall from shaft tube outlet to upper water level for plants with fluctuations of the upper water level amounting to up to 0.5 m



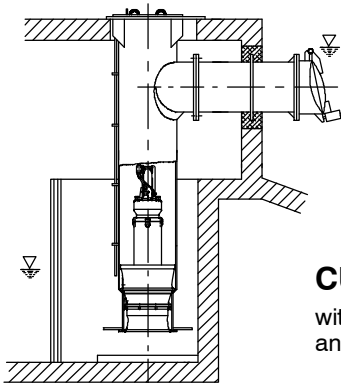
**BU Discharge tube**

Overflow design with open intake chamber



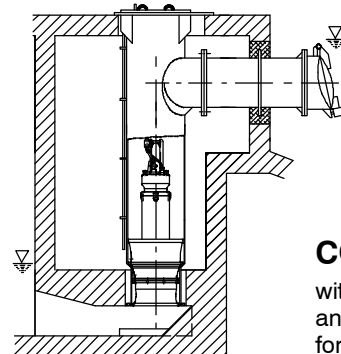
**BG Discharge tube**

Overflow design with covered intake chamber for low suction water levels



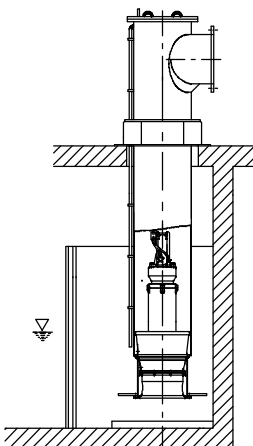
**CU Discharge tube**

with underfloor discharge and open intake chamber



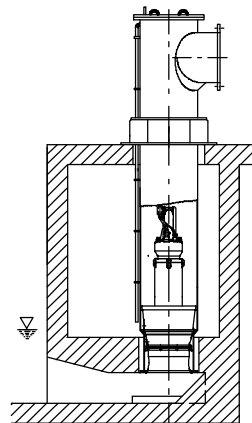
**CG Discharge tube**

with underfloor discharge and covered intake chamber for low suction water levels



**DU Discharge tube**

with discharge nozzle above floor and open intake chamber



**DG Discharge tube**

with discharge nozzle above floor and covered intake chamber for low suction water levels

**Pump / Motor combinations**

| Motor   | Typical sectional drawing<br>(see pages 12/13) | Size                 |                                      |  |                               |                         |   |  |                                      |
|---------|--|----------------------|--------------------------------------|--|-------------------------------|-------------------------|---|--|--------------------------------------|
|         |  | 500-270              | 600-350                              | 700-470                                | 800-540                       | 900-540                 | 1000-700                                  | 1200-870   | 1500-1060                            |
| 4-pole  | 1  | 10 4<br>16 4<br>20 4 | 20 4<br>32 4<br>40 4<br>60 4<br>70 4 |  |                               |                         |   |  |                                      |
|         | 2  |                      |                                      | 47 6<br>60 6<br>80 6<br>100 6<br>120 6 | 80 6<br>100 6<br>120 6        | 155 6<br>180 6<br>205 6 |   |  |                                      |
| 6-pole  | 1  | 6 6                  | 10 6<br>16 6<br>25 6                 |  |                               |                         |   |  |                                      |
|         | 2  |                      |                                      | 30 8<br>40 8                           | 40 8<br>55 8<br>70 8<br>100 8 |                         | 120 8<br>160 8<br>205 8<br>250 8<br>290 8 |  |                                      |
| 8-pole  | 1  |                      |                                      |  |                               |                         |   |  |                                      |
|         | 2  |                      |                                      |  |                               |                         | 60 10<br>90 10<br>120 10                  | 200 10<br>250 10<br>310 10<br>365 10<br>420 10<br>470 10 |                                      |
| 10-pole | 1  |                      |                                      |  |                               |                         |   |  |                                      |
|         | 2  |                      |                                      |  |                               |                         |   | 130 12<br>190 12<br>251 12                               | 250 12<br>320 12<br>370 12<br>410 12 |
| 12-pole | 1  |                      |                                      |  |                               |                         |   |  |                                      |
|         | 2  |                      |                                      |  |                               |                         |   |  | 210 14<br>270 14<br>340 14           |
| 14-pole | 1  |                      |                                      |  |                               |                         |   |  |                                      |
|         | 2  |                      |                                      |  |                               |                         |   |  |                                      |



## Guarantee, tests / inspections and quality assurance

Each pump is subjected to a functional test to KSB standard ZN 56 535. Pump performance is guaranteed to ISO 9906/A. Acceptance inspections conforming to ISO / DIN or another comparable standard are possible at a surcharge. The quality is assured under a tested and certified quality assurance system to DIN EN ISO 9001.

## Material variants

| Part No.  | Description                       | G1   | G3*)   |
|-----------|-----------------------------------|--|--------|
| 112       | Diffuser casing                   | JL 1030  |        |
| 138       | Bellmouth                         | JL 1030  |        |
| 230       | Propeller                         | 1.4517   |        |
| 350 / 330 | Bearing housing / Bearing bracket | JL 1040  |        |
| 360       | Bearing cover                     | JL 1040  |        |
| 412       | O-ring                            | NBR <sup>1)</sup><br>(Viton - FPM) <sup>2)</sup>                         |        |
| 421       | Shaft seal ring                   | NBR <sup>1)</sup>  |        |
| 433       | Mechanical seal                   | SiC / SiC, Balg NBR <sup>1)</sup><br>(SiC / SiC, Balg FPM) <sup>2)</sup> |        |
| 502       | Casing wear ring                  | Stainless steel  |        |
| 571       | Lifting lug                       | JS 1030 / S235JRG2 <sup>3)</sup>   |        |
| 811       | Motor housing                     | JL 1040  |        |
| 812       | Motor housing cover               | JL 1040  |        |
| 818       | Shaft (rotor)                     | 1.4021   | 1.4057 |
| div.      | Bolts                             | A4   |        |
|           | Anodes                            | -  | Zn     |

\*) Pump unit with cathodic protection (check anodes every 6 up to 12 months) and top coat 250 µm

1) Nitrile rubber (Perbunan)

2) Fluorocarbon rubber FPM design option possible at extra charge

3) JS 1030 on motors 80 6 ... 205 6,  
55 8 ... 160 8,  
40 10 ... 120 10,  
all other motors: S235JRG2

For other materials please contact KSB!

## Material comparison

| EN       | ASTM equivalent |
|----------|-----------------|
| JL 1030  | A 48 Class 30 B |
| JL 1040  | A 48 Class 40 B |
| 1.4517   | A 890 CD 4 MCu  |
| 1.4021   | A 276 Type 420  |
| 1.4057   | A 276 Type 431  |
| NBR      | NBR             |
| FPM      | FKM             |
| JS 1030  | A 536: 60-40-18 |
| S235JRG2 | A 284 B         |

## Propeller material

**Duplex Steel**  
Cast Stainless Steel  
(1.4517 or a technically equivalent material)

The resistance to pitting of this ferritic-austenitic stainless cast steel makes it particularly suitable to pump waste water containing substantial amounts of chlorides and acids or sea- and brackish water. Its good chemical resistance, even against waste water containing phosphorus and sulphuric acid, has ensured its wide application in the chemical and process industries. Pumps made from duplex steel have been used very successfully to pump brine, chemical effluents (pH 1 - 12), foul water and seepage from waste disposal sites.

**Technical data - pump set**
**Material variant (G1, G3)**

| <b>Motor size / Motor version</b>       | <b>UA / XA</b>  | <b>UT / XT</b>                                |                  |                   |                   |
|---|---|---|------------------|-------------------|-------------------|
| 4-pole                                  | 10 4 ... 70 4   | -   | -                | -                 | -                 |
| 6-pole                                  | 6 6 ... 25 6  | 47 6 ... 120 6                                | 155 6 ... 205 6  | -                 | -                 |
| 8-pole                                  | -   | 30 8 ... 100 8                                | 120 8 ... 160 8  | 205 8 ... 290 8   | -                 |
| 10-pole                                 | -   | -   | 40 10 ... 120 10 | 200 10 ... 250 10 | 310 10 ... 470 10 |
| 12-pole                                 | -   | -   | -                | 130 12 ... 190 12 | 250 12 ... 410 12 |
| 14 pole                                 | -   | -   | -                | -                 | 210 14 ... 340 14 |
| <b>Explosion protection</b>             |   |   |                  |                   |                   |
| Version U..                             | standard, non-flameproof  |   |                  |                   |                   |
| Version X..                             | flameproof: ATEX II 2G T3, motor Ex d II B  |   |                  |                   |                   |
| <b>Motor</b>                            |   |   |                  |                   |                   |
| Starting method                         | direct  | direct or star-delta (690 V only direct)      |                  |                   |                   |
| Voltage                                 | 400 V (Var.: 500 V, 690 V)  |   |                  |                   |                   |
| Cooling                                 | by surrounding pumped liquid  |   |                  |                   |                   |
| Immersion depth                         | max. 12 m   |   |                  |                   |                   |
| Power cable                             | Rubber-sheathed, type see motor catalogue<br>(Var.: EMC cable)                          |   |                  |                   |                   |
| Length                                  | 10 m<br>(Var.: up to 50 m)  |   |                  |                   |                   |
| Entry                                   | sealed over its entire length   |   |                  |                   |                   |
| <b>Sealing</b>                          |   |   |                  |                   |                   |
| Elastomers                              | nitrile rubber NBR<br>(Var. Viton = fluororubber FPM)                                   |   |                  |                   |                   |
| Shaft sealing                           | bellows-type mechanical seal  |   |                  |                   |                   |
| <b>Monitoring</b>                       |   |   |                  |                   |                   |
| Winding temperature                     | one limiting circuit,<br>i. e. cut-out when reaching the admissible winding temperature |   |                  |                   |                   |
| Bearing temp.                           | pump side PT100<br>motor side PT100   | pump side PT100<br>(Option: motor side PT100) |                  |                   |                   |
| Moisture                                | moisture electrode in motor chamber   |   |                  |                   |                   |
| Mechanical seal leakage                 | float switch in leakage area  |   |                  |                   |                   |
| Vibration sensor                        | -   | option  |                  |                   |                   |
| <b>Paint coat</b>                       | non-toxic standard KSB coating, colour RAL 5002<br>(Var.: 250 µm)                       |   |                  |                   |                   |
| <b>Installation</b>                     | Types of installation see p. 7 and p. 36-47   |   |                  |                   |                   |
| <b>Max. temperature of pumped fluid</b> |   |   |                  |                   |                   |
| all versions                            | 40 °C   |   |                  |                   |                   |
| <b>Tests</b>                            |   |   |                  |                   |                   |
| Hydraulic tests                         | ZN 56525  |   |                  |                   |                   |
| General accep. test                     | ZN 56525 (Var.: with test report EN 10 204-2.2)   |   |                  |                   |                   |

## Coatings

Surface preparation: SA 2 1/2 (SIS 055900) AN 1865

Primer coat: raw castings primer 0.025 mm up to 0.035 mm

Top coat: environmentally friendly standard KSB coating (RAL 5002)

## Special coating

Available on request with manufacturer, plus surcharge and extended delivery period.

## Monitoring equipment

See motor catalogue.

## General information

### Advice for pump selection

The guaranteed point for the discharge tube-mounted pump is at 0.5 m above the motor (DIN 1184).

Documented curves are designed for this reference level. This must be taken into account when calculating system losses.

Head and capacity data apply to fluids with a density  $\rho=1 \text{ kg/dm}^3$  and a kinematic viscosity  $\nu$  up to  $20 \text{ mm}^2/\text{s}$ .

If necessary correct the required power according to the density of the pumped fluid:

$$P_{2\text{req.}} = \rho_{\text{fluid}} [\text{kg/dm}^3] \times P_{2\text{docu}}$$

The decisive factor in establishing an operating range is always the duty point with the greatest power input.

Impellers are turned down to the duty point. When ordering, always indicate HQ data.

To balance the inevitable tolerances of the characteristic curves of the plant, the pump, the motor etc., we recommend to select a motor size with sufficient power reserve.

### Recommended minimum reserves:

| Power consumption of pump | Motor power reserve |                         |
|---------------------------|---------------------|-------------------------|
|                           | mains operation     | with frequency inverter |
| <30 kW                    | 10 %                | 15 %                    |
| >30 kW                    | 5 %                 | 10 %                    |

Should local regulations or uncertainties regarding plant calculation demand higher reserves, then these will supersede the above values!

### Intake chamber

Determine the min. water level  $t_{1\text{min}}$  (diagram in general arrangement drawing):

The min. water level  $t_{1\text{min}}$  is the water level required in the pump's suction chamber to ensure:

- that there is a sufficient liquid cover above the hydraulic system (propeller) (shown in diagram depending on pump size)
- that the pump does not draw in air-entraining vortices (shown in diagram depending on flow rate)
- that there is no cavitation in the hydraulic system (check against the NPSH<sub>pump</sub> value indicated in the technical literature!)

The following conditions must be met:

- NPSH<sub>avail.</sub> > NPSH<sub>pump</sub> + safety allowance

- NPSH<sub>avail.</sub> =  $10.0 + (t_1 - t_3 - h_7/2)$

- Safety allowance: - up to  $Q_{\text{opt}} \Rightarrow 0.5 \text{ m}$   
- above  $Q_{\text{opt}} \Rightarrow 1.0 \text{ m}$

### Discharge head ( $H_{\text{total}}$ )

The total discharge head of the pump is composed of:

$$H_{\text{total}} = H_{\text{geo}} + \Delta H_V$$

$H_{\text{geo}}$  (static head)

- w/o discharge elbow - difference between suction-end water level and overflow edge
- with discharge elbow - difference between suction-end and discharge-end water level

$\Delta H_V$  (plant losses)

- **starting 0.5 m behind the pump:** e. g. friction losses, elbows, non-return valves etc.

### “ESK losses”

These are losses produced by inlet, riser pipe and elbow (or free discharge).

Riser pipe losses are contained in the curve documentation up to the above reference level (0.5 m above the motor).

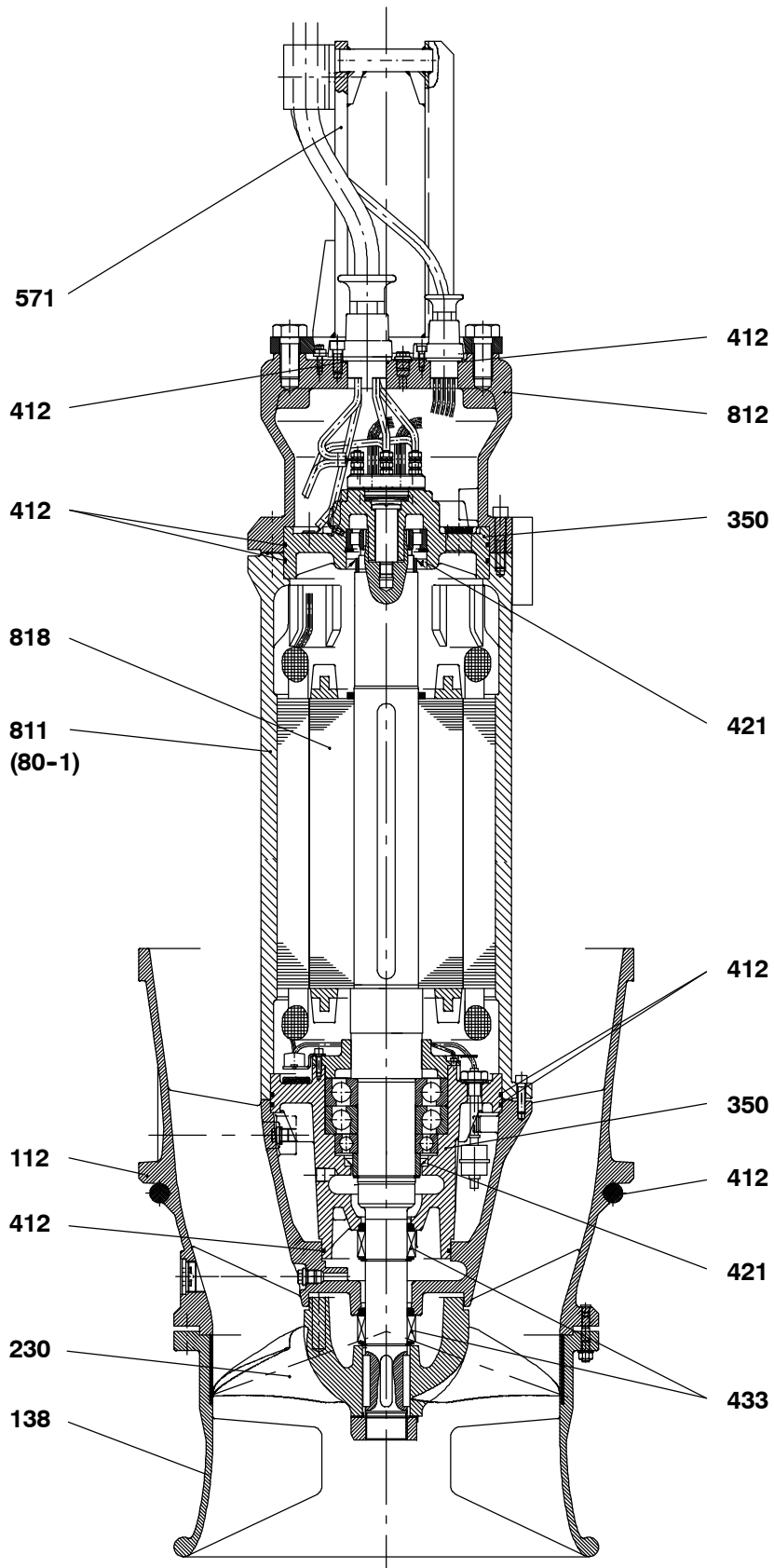
Inlet and elbow losses are system losses and must be taken into account for selection.

For information on structural requirements, pump installation and pump sump design please refer to the KSB know-how brochure “Planning information: Amacan submersible pumps in discharge tubes” (ref. No. 0118.55).

Typical sectional drawing 1

UA/XA-motors

Motors: 10 4 ... 70 4  
6 6 ... 25 6

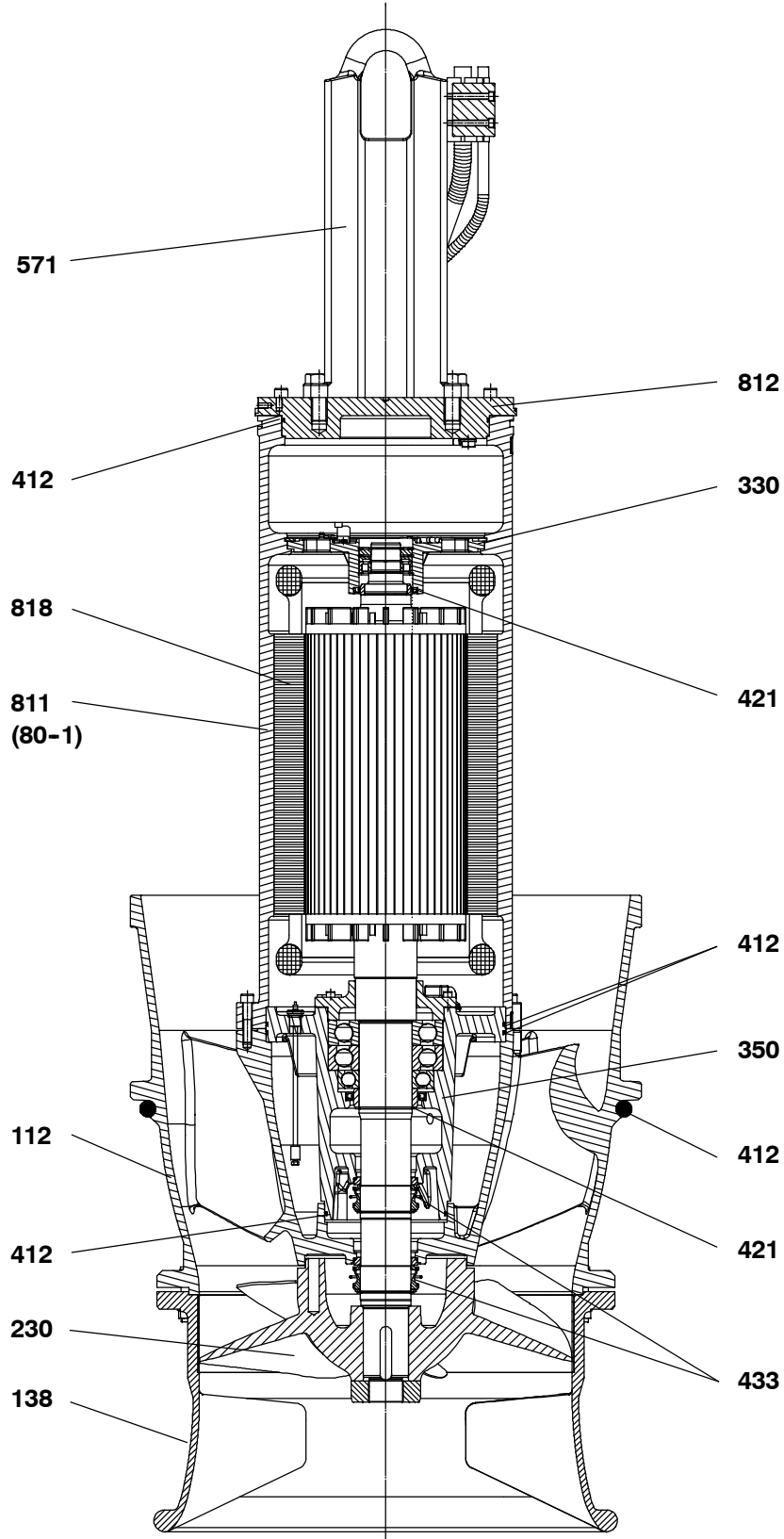


OW 380 600-00

Typical sectional drawing 2

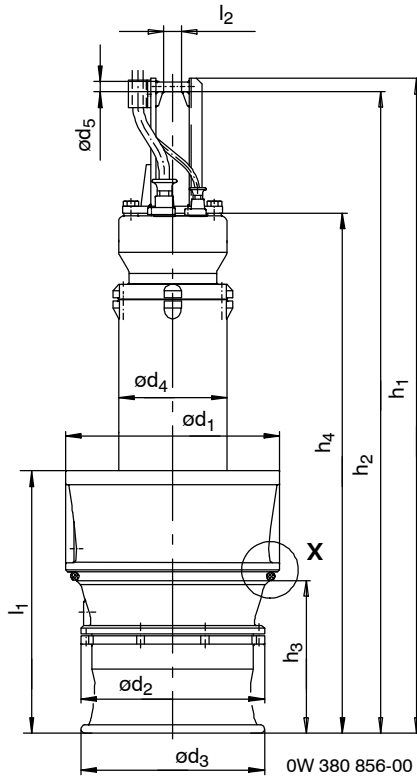
UTG/XTG-motors

Motors: 47 6 ... 205 6  
 30 8 ... 290 8  
 40 10 ... 470 10  
 130 12 ... 410 12  
 210 14 ... 340 14

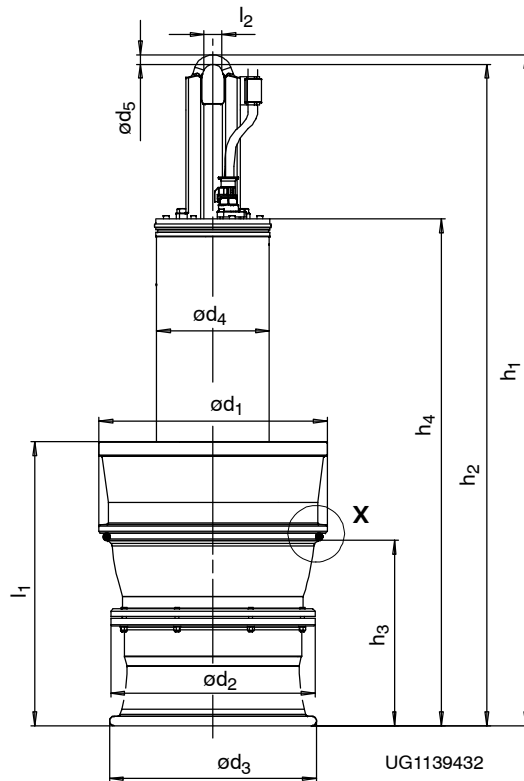


Dimension table of pump and pump support area in discharge tube

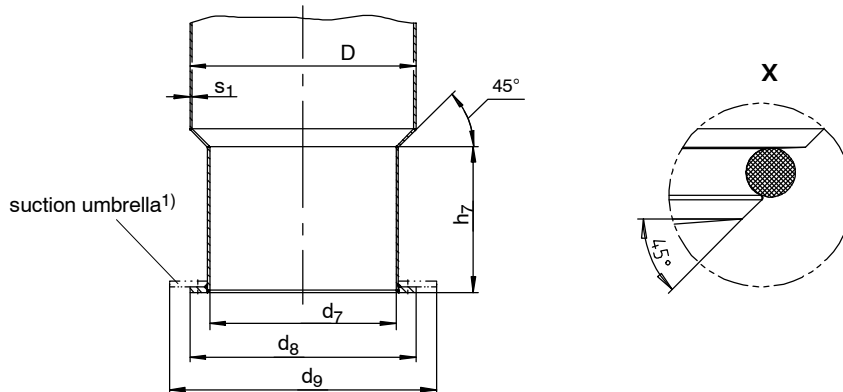
UAG / XAG motors (DKA motor)



UTG / XTG motors (R motor)



Steel discharge tube version



1) Option for decreasing min. water level  $t_1$

| Amacan P<br>...-.../ ... .AG |    | $h_1$ | $h_2$ | $h_3$ | $h_4$ | $l_1$ | $l_2$ | $d_1$ | $d_2$ | $d_3$ | $d_4$ | $d_5$ | D  | $d_7$ | $h_7$ | $d_8$ | $d_9$ | $s_1$ | Weight<br>(*) |      |
|------------------------------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|-------|-------|-------|-------|-------|---------------|------|
|                              |    | [mm]  |       |       |       |       |       |       |       |       |       |       |    |       |       |       |       |       |               | [kg] |
| A 500-270/                   | 10 | 4     | 1550  | 1500  | 305   | 1150  | 500   | 70    | 470   | 380   | 380   | 280   | 30 | 508   | 400   | 295   | 505   | 650   | 7             | 365  |
|                              | 16 |       |       |       |       |       |       |       |       |       |       |       |    |       |       |       |       |       |               | 370  |
|                              | 20 |       | 1710  | 1660  |       | 1310  |       |       |       |       |       |       |    |       |       |       |       |       |               | 410  |
|                              | 6  | 6     | 1550  | 1500  |       | 1150  |       |       |       |       |       |       |    |       |       |       |       |       |               | 360  |
| A 600-350/                   | 20 | 4     | 1825  | 1775  | 555   | 1425  | 820   | 70    | 570   | 485   | 485   | 280   | 30 | 610   | 500   | 540   | 610   | 900   | 7             | 515  |
|                              | 32 |       |       |       |       |       |       |       |       |       |       |       |    |       |       |       |       |       |               | 555  |
|                              | 40 |       |       |       |       |       |       |       |       |       |       |       |    |       |       |       |       |       |               | 560  |
|                              | 60 |       | 2010  | 1960  |       | 1610  |       |       |       |       |       |       |    |       |       |       |       |       |               | 620  |
|                              | 70 |       |       |       |       |       |       |       |       |       |       |       |    |       |       |       |       |       |               | 650  |
|                              | 10 | 6     | 1665  | 1615  |       | 1265  |       |       |       |       |       |       |    |       |       |       |       |       |               | 465  |
|                              | 16 |       |       |       |       |       |       |       |       |       |       |       |    |       |       |       |       |       |               | 480  |
|                              | 25 |       | 1825  | 1775  |       | 1425  |       |       |       |       |       |       |    |       |       |       |       |       |               | 530  |

Table continued on next page

**Dimension table of pump and pump support area in discharge tube (cont'd)**

| Amacan P<br>...-.../ ... .TG |     |    | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | h <sub>4</sub> | l <sub>1</sub> | l <sub>2</sub> | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | d <sub>5</sub> | D    | d <sub>7</sub> | h <sub>7</sub> | d <sub>8</sub> | d <sub>9</sub> | s <sub>1</sub> | Weight<br>(*) |      |
|------------------------------|-----|----|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|----------------|----------------|----------------|----------------|----------------|---------------|------|
| [mm]                         |     |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                |               | [kg] |
| A 700-470/                   | 47  | 6  | 2190           | 2150           | 430            | 1500           | 735            | 80             | 675            | 585            | 585            | 385            | 40             | 711  | 600            | 420            | 710            | 1100           | 8              | 885           |      |
|                              | 60  |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 925           |      |
|                              | 80  |    | 2390           | 2350           |                | 1700           |                |                |                |                |                |                |                |      |                |                |                |                |                | 1015          |      |
|                              | 100 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 1070          |      |
|                              | 30  | 8  | 2190           | 2150           |                | 1500           |                |                |                |                |                |                |                |      |                |                |                |                |                | 905           |      |
|                              | 40  |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 910           |      |
| B 700-470/                   | 60  | 6  | 2190           | 2150           | 430            | 1500           | 735            | 80             | 675            | 585            | 585            | 385            | 40             | 711  | 600            | 420            | 710            | 1100           | 8              | 955           |      |
|                              | 80  |    | 2390           | 2350           |                | 1700           |                |                |                |                |                |                |                |      |                |                |                |                |                | 1045          |      |
|                              | 100 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 1100          |      |
|                              | 120 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 1170          |      |
| A 800-540/                   | 80  | 6  | 2445           | 2405           | 550            | 1755           | 945            | 80             | 770            | 660            | 660            | 385            | 40             | 813  | 680            | 525            | 810            | 1250           | 8              | 1165          |      |
|                              | 100 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 1220          |      |
|                              | 120 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 1290          |      |
|                              | 40  | 8  | 2245           | 2205           |                | 1555           |                |                |                |                |                |                |                |      |                |                |                |                |                | 1060          |      |
|                              | 55  |    | 2445           | 2405           |                | 1755           |                |                |                |                |                |                |                |      |                |                |                |                |                | 1165          |      |
|                              | 70  |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 1165          |      |
|                              | 100 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 1290          |      |
| B 800-540/                   | 120 | 6  | 2445           | 2405           | 550            | 1755           | 945            | 80             | 770            | 660            | 660            | 385            | 40             | 813  | 680            | 525            | 810            | 1250           | 8              | 1315          |      |
| A 900-540/                   | 155 | 6  | 2615           | 2575           | 570            | 1925           | 1045           | 80             | 860            | 660            | 660            | 475            | 40             | 914  | 700            | 515            | 910            | 1250           | 8              | 1555          |      |
|                              | 180 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 1655          |      |
| B 900-540/                   | 155 | 6  | 2615           | 2575           | 570            | 1925           | 1045           | 80             | 860            | 660            | 660            | 475            | 40             | 914  | 700            | 515            | 910            | 1250           | 8              | 1580          |      |
|                              | 180 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 1680          |      |
|                              | 205 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 1735          |      |
| A 1000-700/                  | 120 | 8  | 2820           | 2780           | 780            | 2130           | 1195           | 80             | 960            | 860            | 870            | 475            | 40             | 1016 | 880            | 765            | 1015           | 1600           | 10             | 1990          |      |
|                              | 160 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 2160          |      |
|                              | 205 |    | 3230           | 3170           |                | 2630           |                | 90             |                |                |                | 555            | 50             |      |                |                |                |                |                | 2765          |      |
|                              | 250 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 2895          |      |
|                              | 290 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 3060          |      |
|                              | 60  | 10 | 2820           | 2780           |                | 2130           | 1195           | 80             |                |                |                | 475            | 40             |      |                |                |                |                |                | 1910          |      |
|                              | 90  |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 2010          |      |
| 120                          |     |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                | 2095           |               |      |
| B 1000-700/                  | 160 | 8  | 2820           | 2780           | 780            | 2130           | 1195           | 80             | 960            | 860            | 870            | 475            | 40             | 1016 | 880            | 765            | 1015           | 1600           | 10             | 2200          |      |
|                              | 205 |    | 3230           | 3170           |                | 2630           |                | 90             |                |                |                | 555            | 50             |      |                |                |                |                |                | 2805          |      |
|                              | 250 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 2935          |      |
|                              | 290 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 3100          |      |
| A 1200-870/                  | 200 | 10 | 3290           | 3230           | 1015           | 2690           | 1405           | 90             | 1150           | 1050           | 1050           | 555            | 50             | 1220 | 1070           | 1000           | 1220           | 2000           | 12             | 3340          |      |
|                              | 250 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 3590          |      |
|                              | 310 |    | 3740           | 3665           |                | 3040           |                |                |                |                |                | 650            | 60             |      |                |                |                |                |                | 4360          |      |
|                              | 365 |    | 3965           | 3890           |                | 3265           |                |                |                |                |                |                |                |      |                |                |                |                |                | 4730          |      |
|                              | 420 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 4990          |      |
|                              | 130 | 12 | 3290           | 3230           |                | 2690           |                |                |                |                |                | 555            | 50             |      |                |                |                |                |                | 3140          |      |
|                              | 190 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 3560          |      |
|                              | 251 |    | 3740           | 3665           |                | 3040           |                |                |                |                |                | 650            | 60             |      |                |                |                |                |                | 4360          |      |
| B 1200-870/                  | 250 | 10 | 3290           | 3230           | 1015           | 2690           | 1405           | 90             | 1150           | 1050           | 1050           | 555            | 50             | 1220 | 1070           | 1000           | 1220           | 2000           | 12             | 3710          |      |
|                              | 310 |    | 3740           | 3665           |                | 3040           |                |                |                |                |                | 650            | 60             |      |                |                |                |                |                | 4480          |      |
|                              | 365 |    | 3965           | 3890           |                | 3265           |                |                |                |                |                |                |                |      |                |                |                |                |                | 4850          |      |
|                              | 420 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 5110          |      |
|                              | 470 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 5290          |      |
| A 1500-1060/                 | 250 | 12 | 3775           | 3700           | 1475           | 3075           | 1860           | 90             | 1430           | 1300           | 1300           | 650            | 60             | 1525 | 1330           | 1460           | 1520           | 2450           | 12             | 5220          |      |
|                              | 320 |    | 4000           | 3925           |                | 3330           |                |                |                |                |                |                |                |      |                |                |                |                |                | 5680          |      |
|                              | 370 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 5840          |      |
|                              | 410 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 6020          |      |
|                              | 210 | 14 |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 5530          |      |
|                              | 270 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 5730          |      |
|                              | 340 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 5970          |      |
| B 1500-1060/                 | 370 | 12 | 4000           | 3925           | 1475           | 3330           | 1860           | 90             | 1430           | 1300           | 1300           | 650            | 60             | 1525 | 1330           | 1460           | 1520           | 2450           | 12             | 6020          |      |
|                              | 410 |    |                |                |                |                |                |                |                |                |                |                |                |      |                |                |                |                |                | 6200          |      |

\*) complete unit, with 10-metre cable (400 V) and 5-metre wire

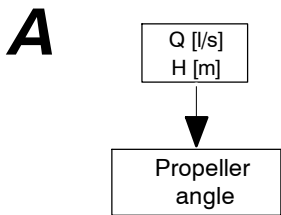
**Selection table - Example**

The following steps lead to a correct selection of pump:

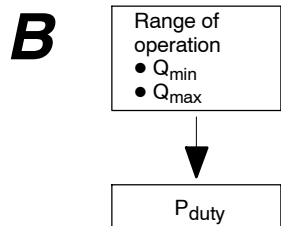
**Given data:**

- Capacity  $Q = 1450$  l/s
- Head  $H = 5$  m
- Liquid temp.  $t = 40$  °C
- Material variant G1
- VFD in use: no
- Explosion-proof: no

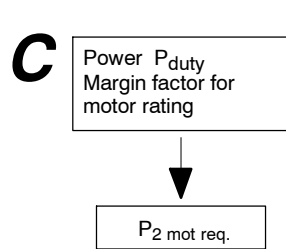
Range of operation:  
 $Q_{min} = 1370$  l/s up to  
 $Q_{max} = 1500$  l/s



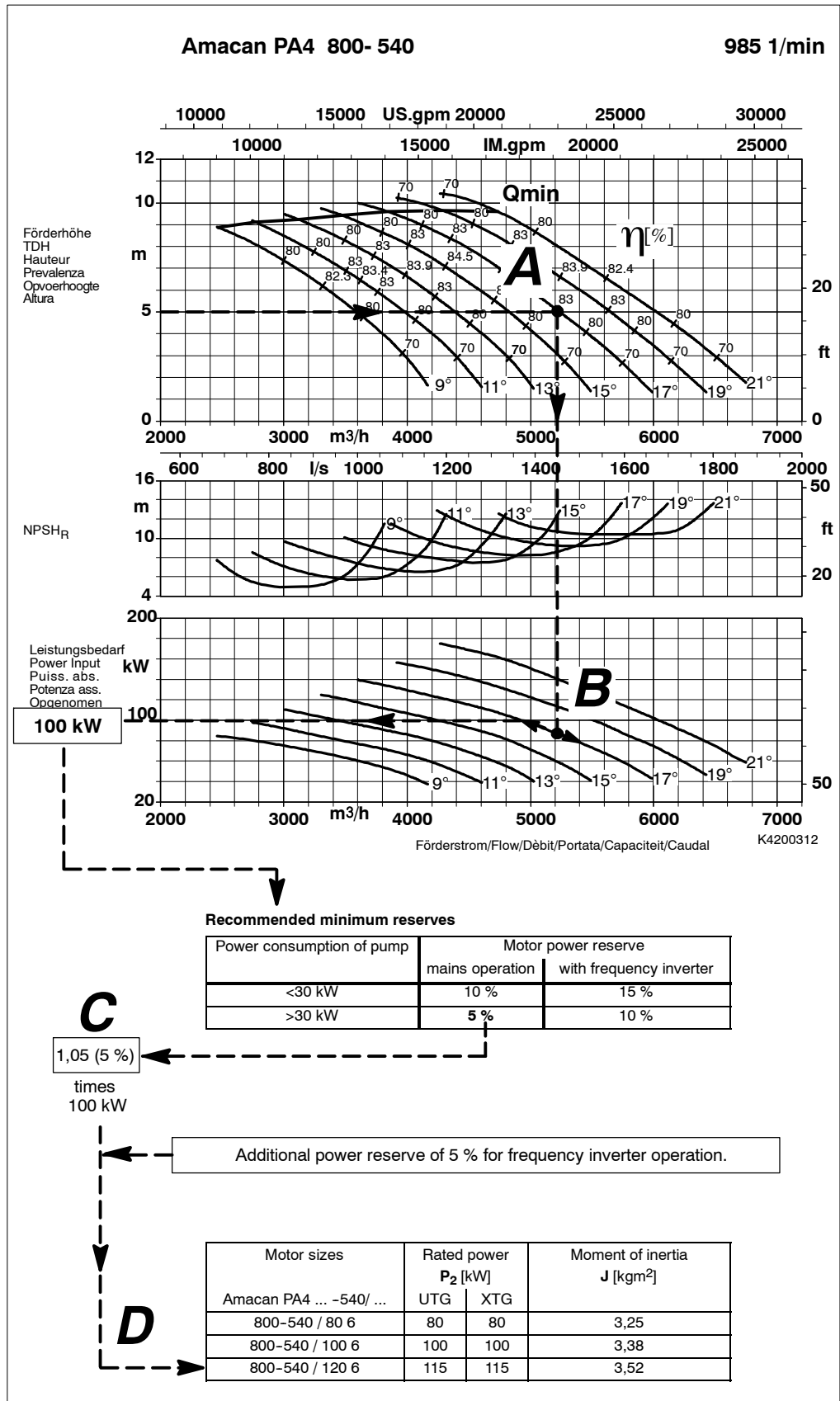
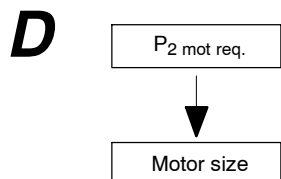
With the given HQ-data the propeller angle 17° and power at the duty point are defined ( $P_{duty}$  point).



The operating range results in the maximum motor power required of 100 kW.




i. e.:  
 $100 \text{ kW} \times 1,05 = 105 \text{ kW}$

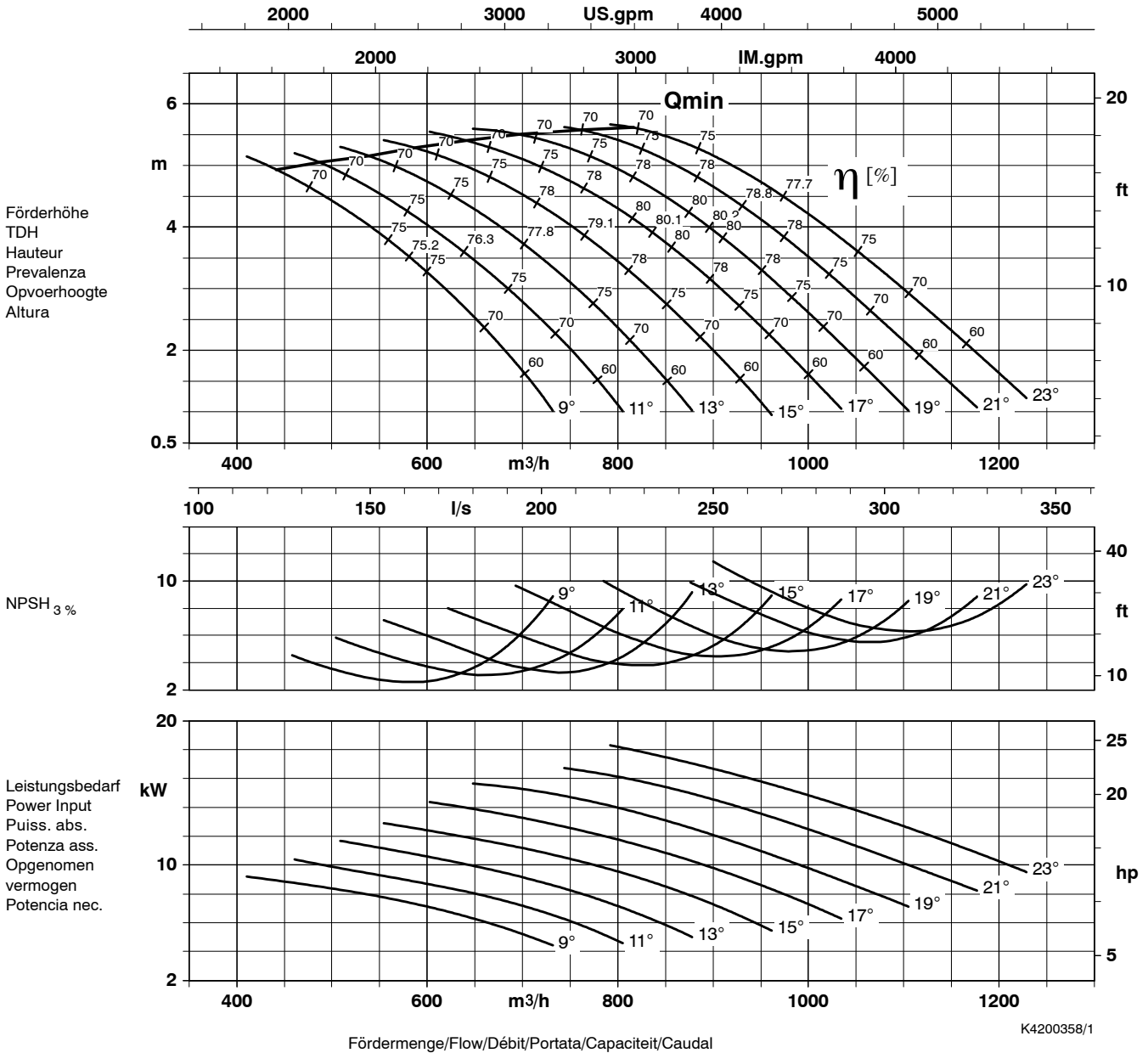


**Selected:**

- **Motor version "U"** (non-flameproof) - motor with 115 kW, 6-pole
- Designation of complete pump set: **Amacan PA 4 800- 540/ 120 6 UTG1**
- Motor data see Motor Data Booklet 1580.505/...



|                                       |                                 |  |   |  |                                   |   |
|---------------------------------------|---------------------------------|--|---|--|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennzahl<br>Nom. speed<br>Vitesse nom.         | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Laufrad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 500-270A4</b>             |                                 | <b>1460 1/min</b>                              |   | <b>270 mm</b>                                  |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.             | N° pos.<br>Pos. nr.<br>N° de art  |   |




K4200358/1

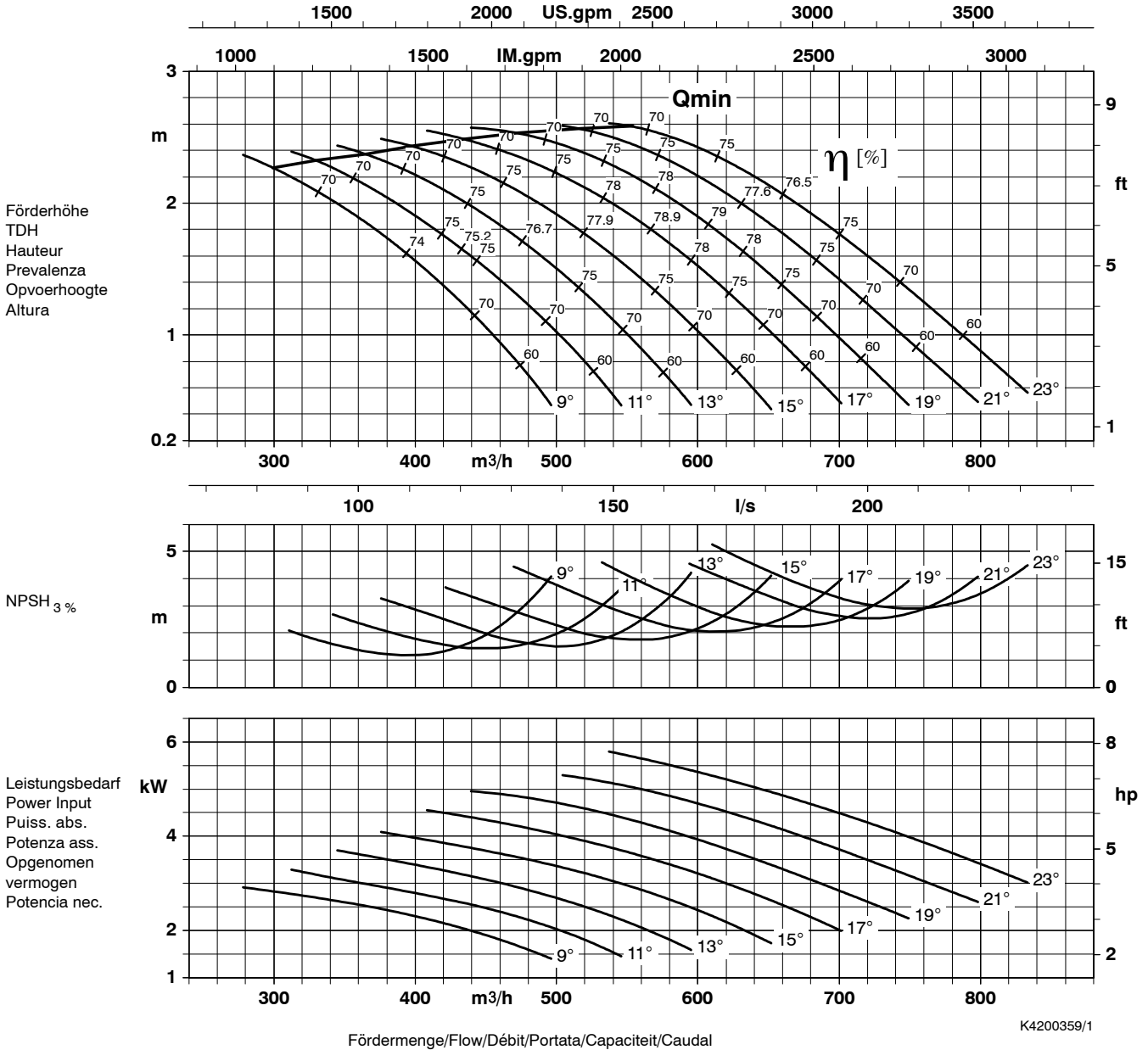
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|--|--|-----|--|
|  | UAG  | XAG |  |
| Amacan PA4 500-270 / ...   |  |     |  |
| ... / 10 4   | 10   | 10  | 0,16   |
| ... / 16 4   | 16   | 13  | 0,16   |
| ... / 20 4   | 25   | 25  | 0,19   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 23  | 70  |
| 21  | 65  |
| 19  | 60  |
| 17  | 55  |
| 15  | 50  |
| 13  | 45  |
| 11  | 40  |
| 9   | 35  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom.    | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf rad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 500-270A4</b>             |                                 | <b>945 1/min</b>                               |   | <b>270 mm</b>                                   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos<br>Pos. nr.<br>N° de art   |   |




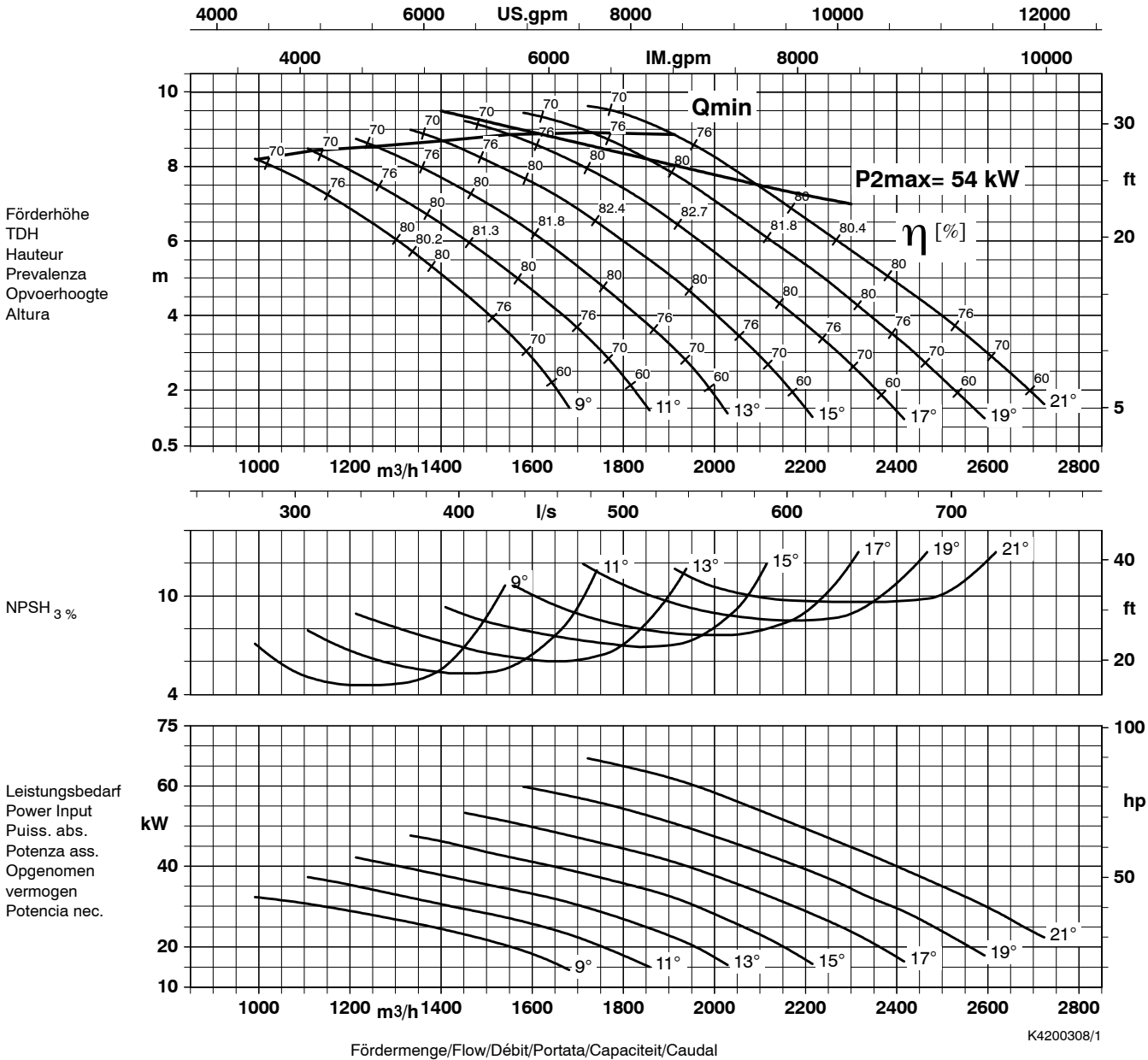
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | $P_2$ [kW]   |     | $J$ [kgm <sup>2</sup> ]  |
| Amacan PA4 500-270 / ...  | UAG  | XAG | 0,17   |
| ... / 6 6   | 7,5  | 7,5 |  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 23  | 70  |
| 21  | 65  |
| 19  | 60  |
| 17  | 55  |
| 15  | 50  |
| 13  | 45  |
| 11  | 40  |
| 9   | 35  |

|                                       |                                 |  |   |  |                                   |   |
|---------------------------------------|---------------------------------|--|---|--|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennrehzahl<br>Nom. speed<br>Vitesse nom.      | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Laufrad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| Amacan P 600-350A4                    |                                 | 1460 1/min                                     |   | 350 mm   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.             | N° pos.<br>Pos. nr.<br>N° de art  |   |




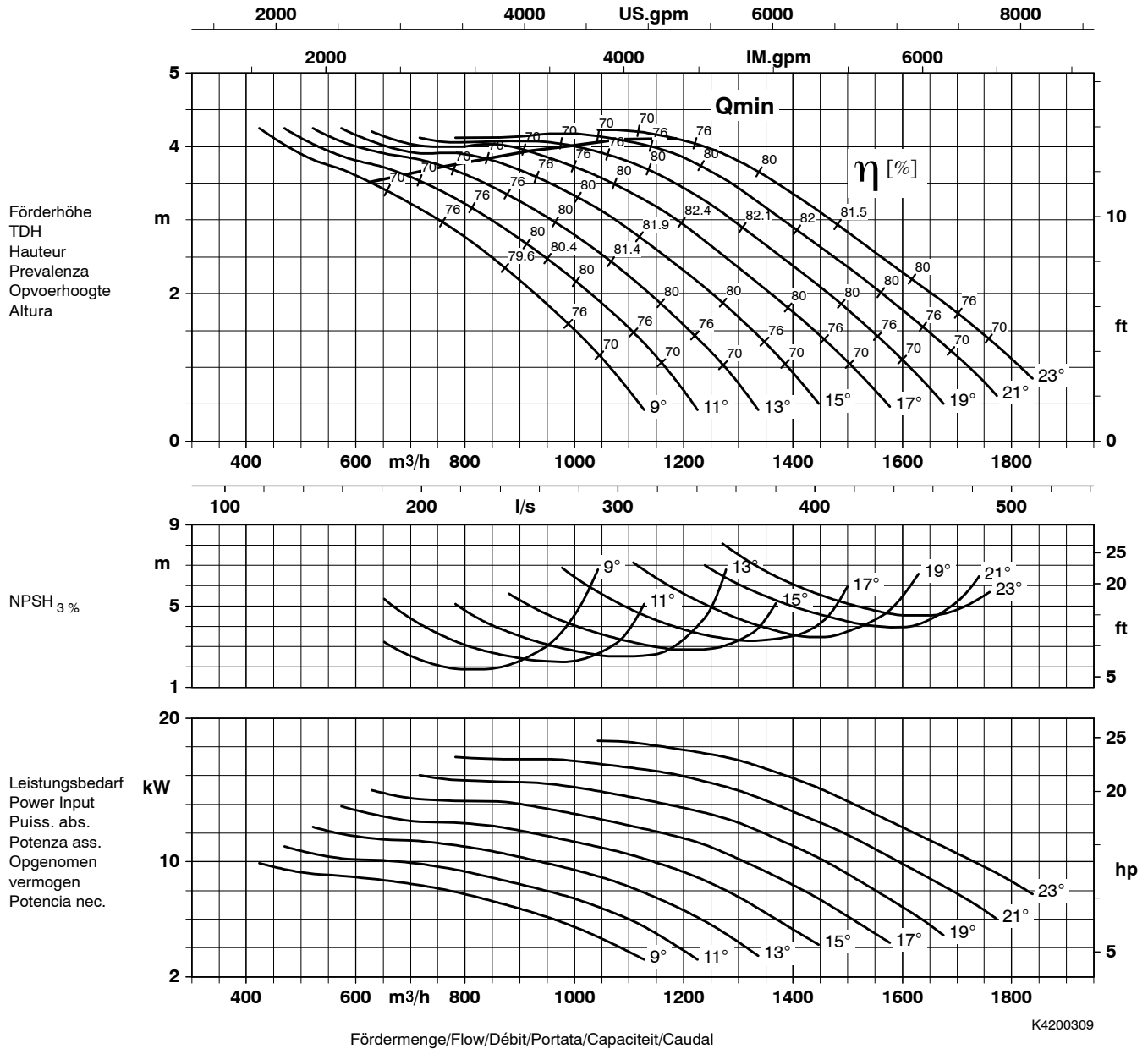
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|--|--|-----|--|
|  | UAG  | XAG |  |
| Amacan PA4 600-350 / ...   |  |     |  |
| ... / 20 4   | 25   | 25  | 0,40   |
| ... / 32 4   | 32   | 32  | 0,44   |
| ... / 40 4   | 40   | 40  | 0,44   |
| ... / 60 4   | 50   | 50  | 0,50   |
| ... / 70 4   | 57   | 57  | 0,51   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 21  | 80  |
| 19  | 75  |
| 17  | 70  |
| 15  | 65  |
| 13  | 60  |
| 11  | 55  |
| 9   | 50  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom.    | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf rad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 600-350A4</b>             |                                 | <b>945 1/min</b>                               |   | <b>350 mm</b>                                   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos<br>Pos. nr.<br>N° de art   |   |




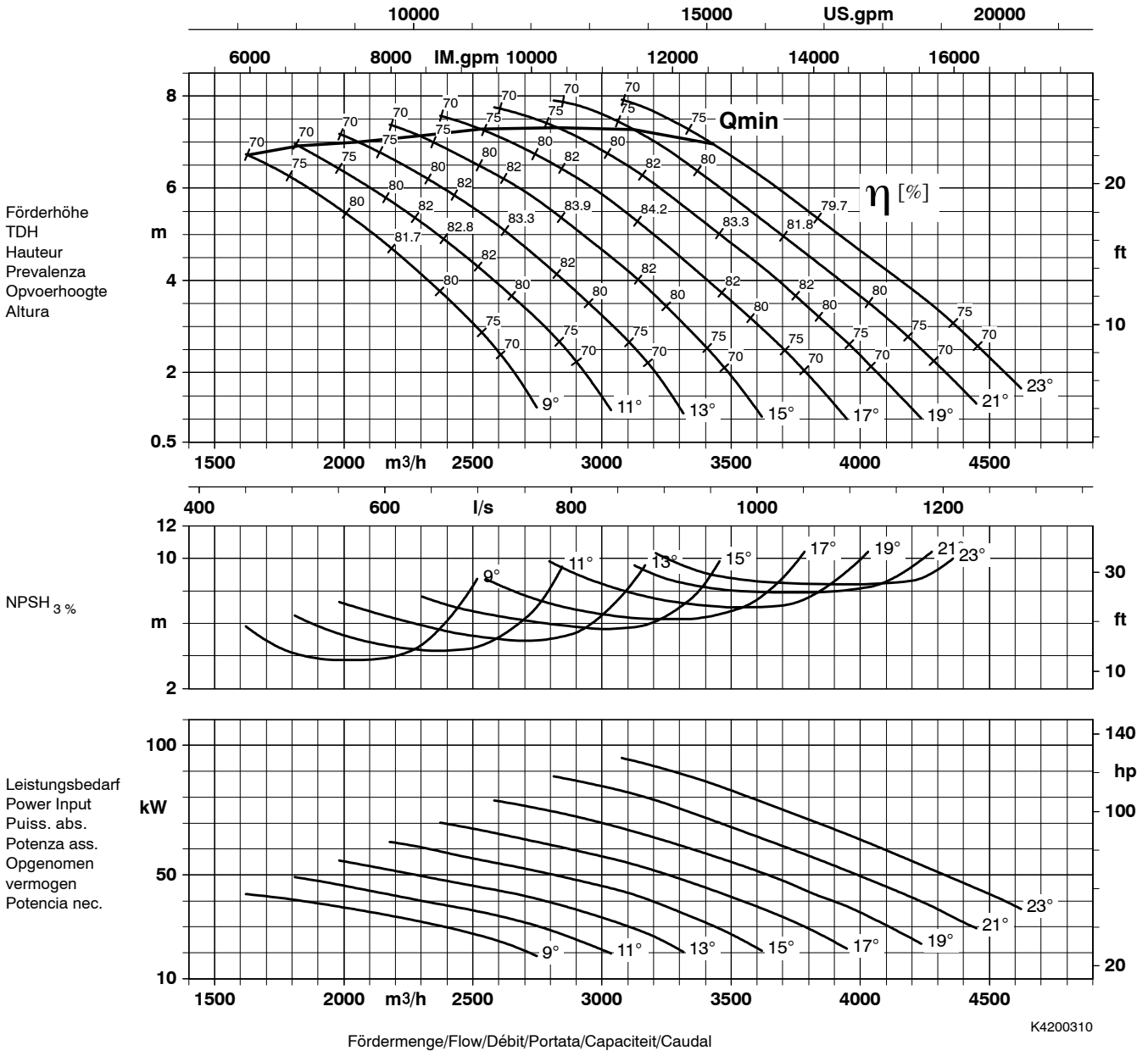
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristica secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia<br>J [kgm <sup>2</sup> ] |
|---|--|-----|---|
|   | UAG  | XAG |   |
| Amacan PA4 600-350 / ...  |  |     |   |
| ... / 10 6  | 12   | 12  | 0,38  |
| ... / 16 6  | 18   | 18  | 0,41  |
| ... / 25 6  | 28   | 28  | 0,47  |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 23  | 85  |
| 21  | 80  |
| 19  | 75  |
| 17  | 70  |
| 15  | 65  |
| 13  | 60  |
| 11  | 55  |
| 9   | 50  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennzahl<br>Nom. speed<br>Vitesse nom.         | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Laufgrad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 700-470A4</b>             |                                 | <b>985 1/min</b>                               |   | <b>470 mm</b>                                   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos.<br>Pos. nr.<br>N° de art  |   |




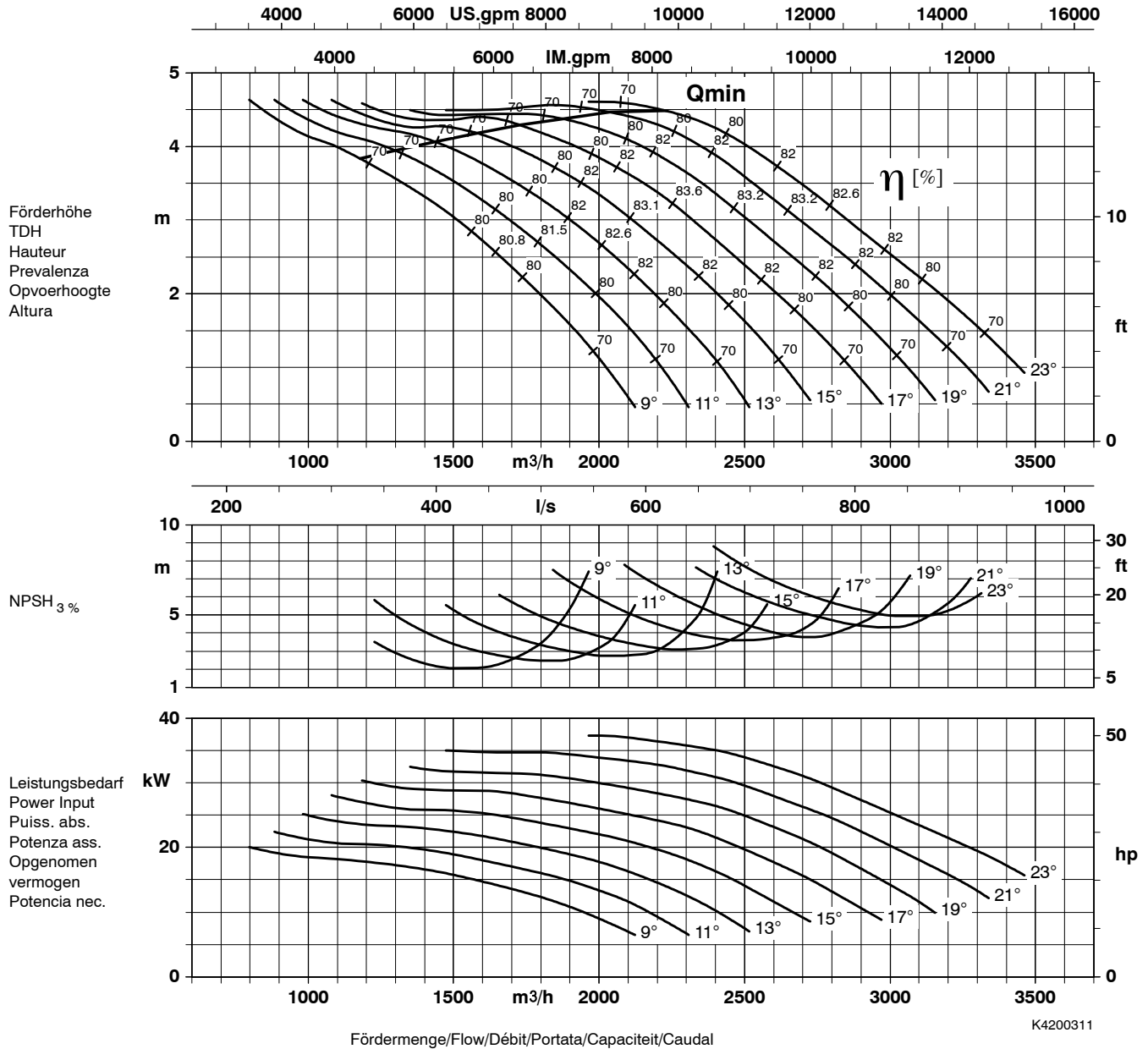
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | UTG  | XTG |  |
| Amacan PA4 700-470 / ...  |  |     |  |
| ... / 47 6  | 47   | 47  | 1,73   |
| ... / 60 6  | 60   | 60  | 1,82   |
| ... / 80 6  | 80   | 80  | 1,95   |
| ... / 100 6   | 100  | 100 | 2,08   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 23  | 120   |
| 21  | 110   |
| 19  | 100   |
| 17  | 93  |
| 15  | 85  |
| 13  | 75  |
| 11  | 68  |
| 9   | 60  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennzahl<br>Nom. speed<br>Vitesse nom.         | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf-rad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 700-470A4</b>             |                                 | <b>735 1/min</b>                               |   | <b>470 mm</b>                                   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos<br>Pos. nr.<br>N° de art   |   |




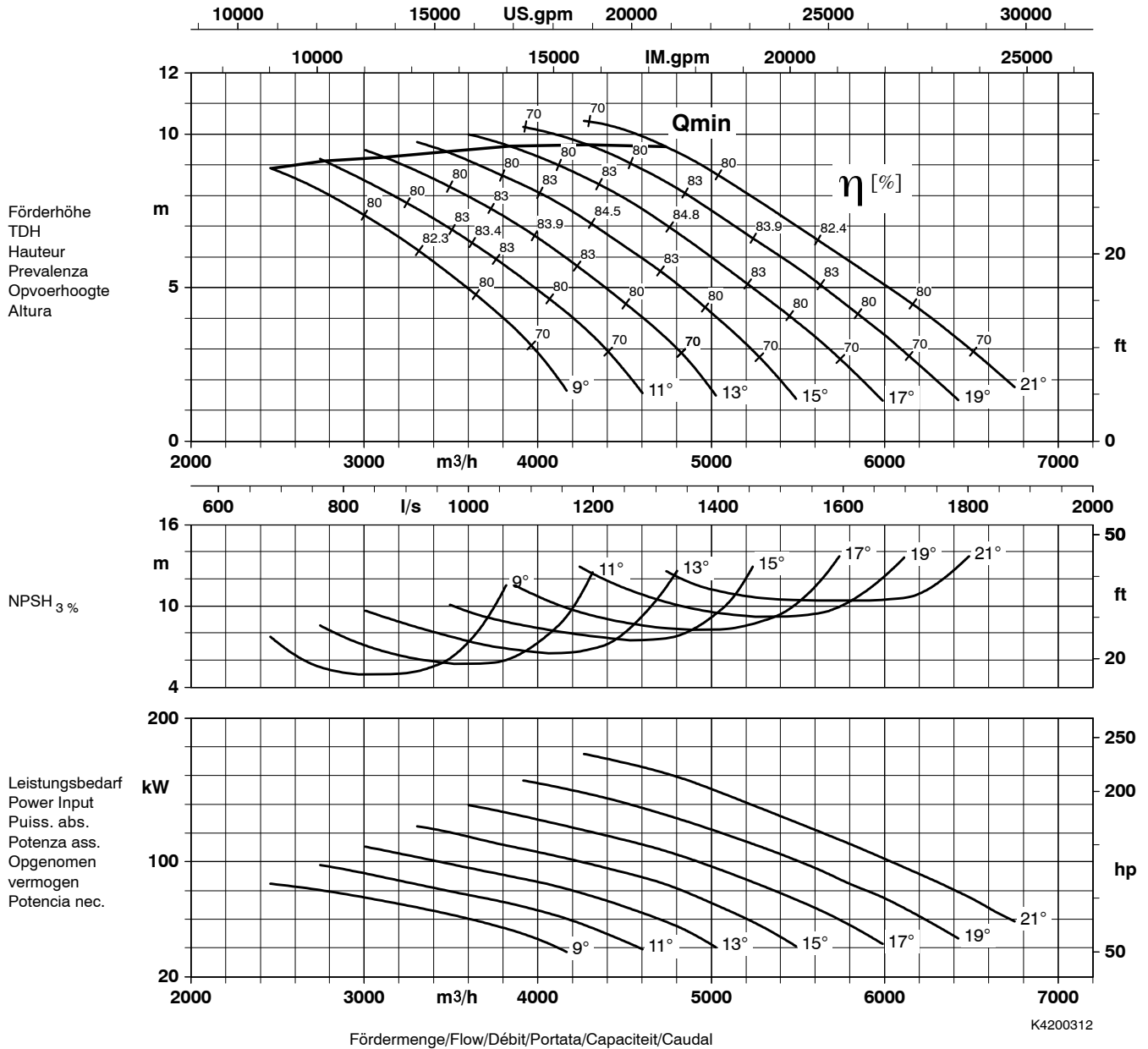
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | P <sub>2</sub> [kW]  |     | J [kgm <sup>2</sup> ]  |
| Amacan PA4 700-470 / ...  | UTG  | XTG |  |
| ... / 30 8  | 30   | 30  | 1,78   |
| ... / 40 8  | 40   | 40  | 1,78   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 23  | 120   |
| 21  | 110   |
| 19  | 100   |
| 17  | 93  |
| 15  | 85  |
| 13  | 75  |
| 11  | 68  |
| 9   | 60  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|  |                                 |  |   |  |                                   |   |
|--|---------------------------------|--|---|--|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle    | Tipo<br>Serie<br>Tipo           | Nennrehzahl<br>Nom. speed<br>Vitesse nom.      | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Laufrad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| Amacan P 800-540A4<br>Amacan P 900-540A4 |                                 | <b>985 1/min</b>                               |   | <b>540 mm</b>                                  |                                   |   |
| Projekt<br>Project<br>Projet             | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.             | N° pos.<br>Pos. nr.<br>N° de art  |   |




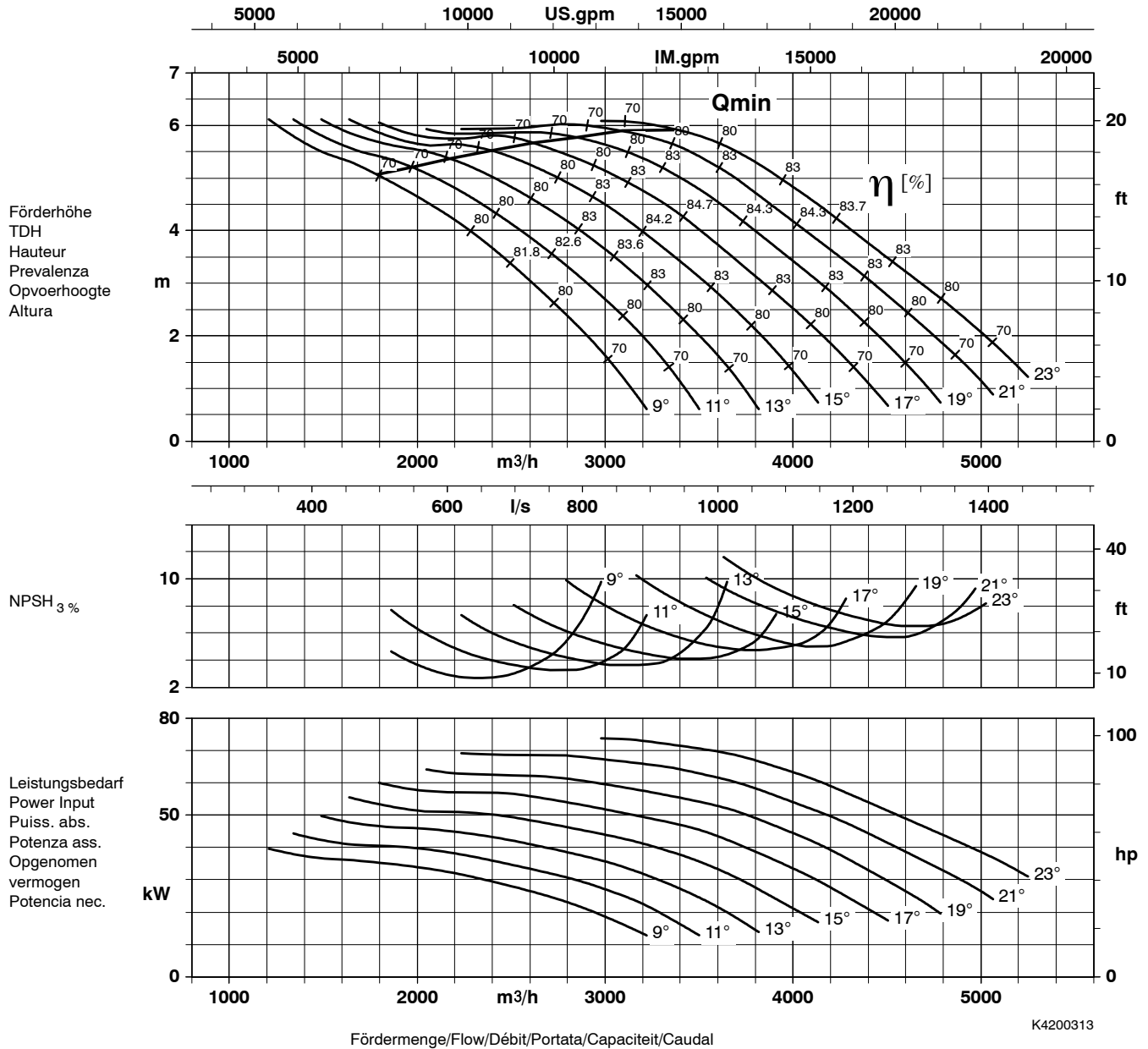
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | $P_2$ [kW]   |     |  |
| Amacan PA4 ... -540 / ...   | UTG  | XTG |  |
| 800-540 / 80 6  | 80   | 80  | 3,25   |
| 800-540 / 100 6   | 100  | 100 | 3,38   |
| 800-540 / 120 6   | 115  | 115 | 3,52   |
| 900-540 / 155 6   | 155  | 155 | 4,53   |
| 900-540 / 180 6   | 180  | 180 | 4,80   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 21  | 125   |
| 19  | 115   |
| 17  | 108   |
| 15  | 100   |
| 13  | 90  |
| 11  | 80  |
| 9   | 75  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom.    | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf rad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P800-540A4</b>              |                                 | <b>735 1/min</b>                               |   | <b>540 mm</b>                                   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos<br>Pos. nr.<br>N° de art   |   |




Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

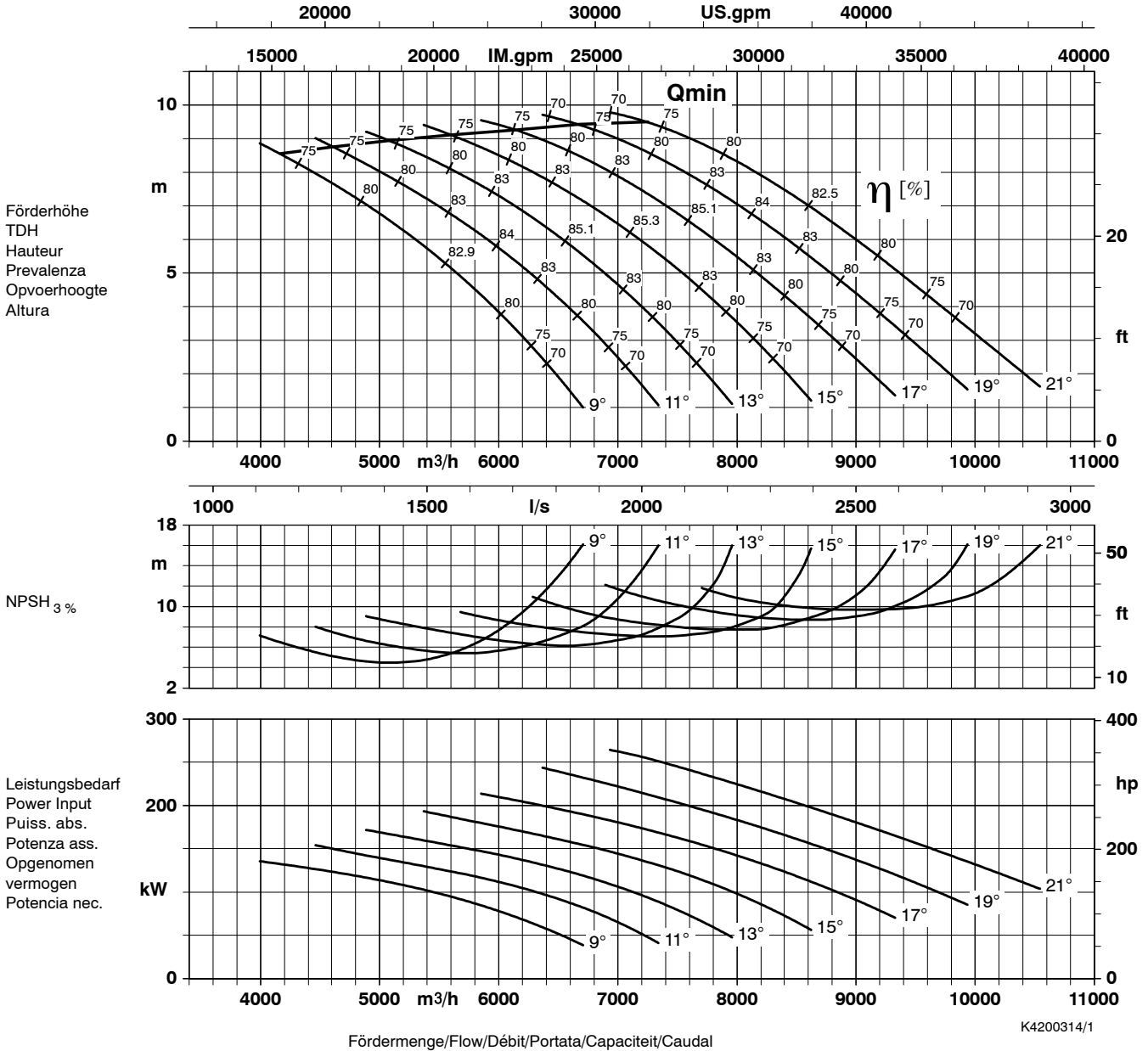
| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | P <sub>2</sub> [kW]  |     |  |
| Amacan PA4 800-540 / ...  | UTG  | XTG | J [kgm <sup>2</sup> ]  |
| ... / 40 8  | 40   | 40  | 3,09   |
| ... / 55 8  | 55   | 55  | 3,25   |
| ... / 70 8  | 70   | 70  | 3,25   |
| ... / 100 8   | 95   | 95  | 3,52   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 23  | 135   |
| 21  | 125   |
| 19  | 115   |
| 17  | 108   |
| 15  | 100   |
| 13  | 90  |
| 11  | 80  |
| 9   | 75  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s



|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom.    | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf rad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 1000-700A4</b>            |                                 | <b>735 1/min</b>                               |   | <b>700 mm</b>                                   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos.<br>Pos. nr.<br>N° de art  |   |




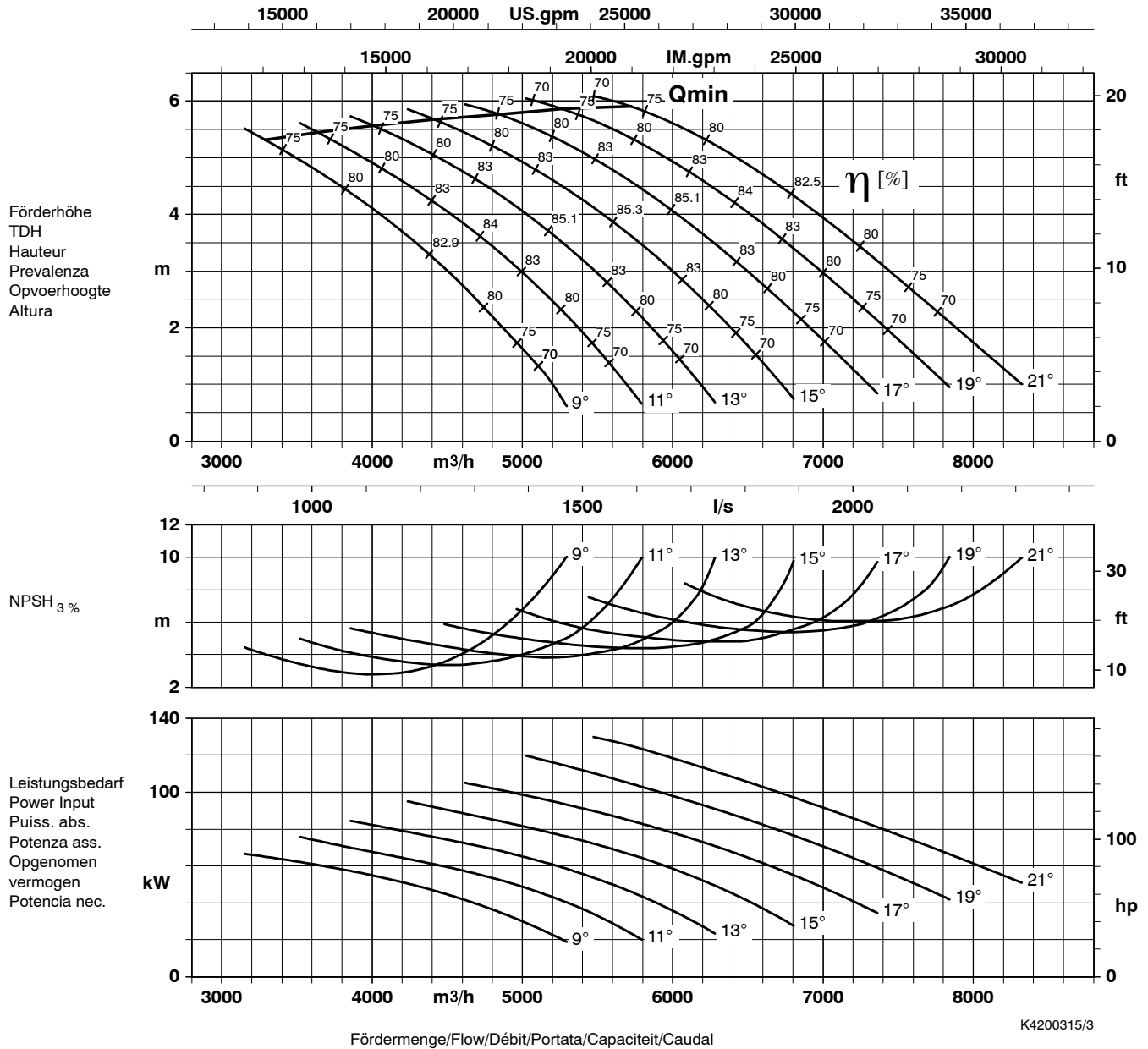
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|--|--|-----|--|
|  | P <sub>2</sub> [kW]  |     |  |
| Amacan PA4 1000-700 / ...  | UTG  | XTG |  |
| ... / 120 8  | 120  | 120 | 11,0   |
| ... / 160 8  | 160  | 160 | 11,6   |
| ... / 205 8  | 205  | --  | 16,3   |
| ... / 250 8  | 250  | --  | 17,6   |
| ... / 290 8  | 290  | --  | 18,9   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 21  | 160   |
| 19  | 150   |
| 17  | 140   |
| 15  | 130   |
| 13  | 120   |
| 11  | 110   |
| 9   | 100   |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom.    | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf rad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 1000-700A4</b>            |                                 | <b>590 1/min</b>                               |   | <b>700 mm</b>                                   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos<br>Pos. nr.<br>N° de art   |   |




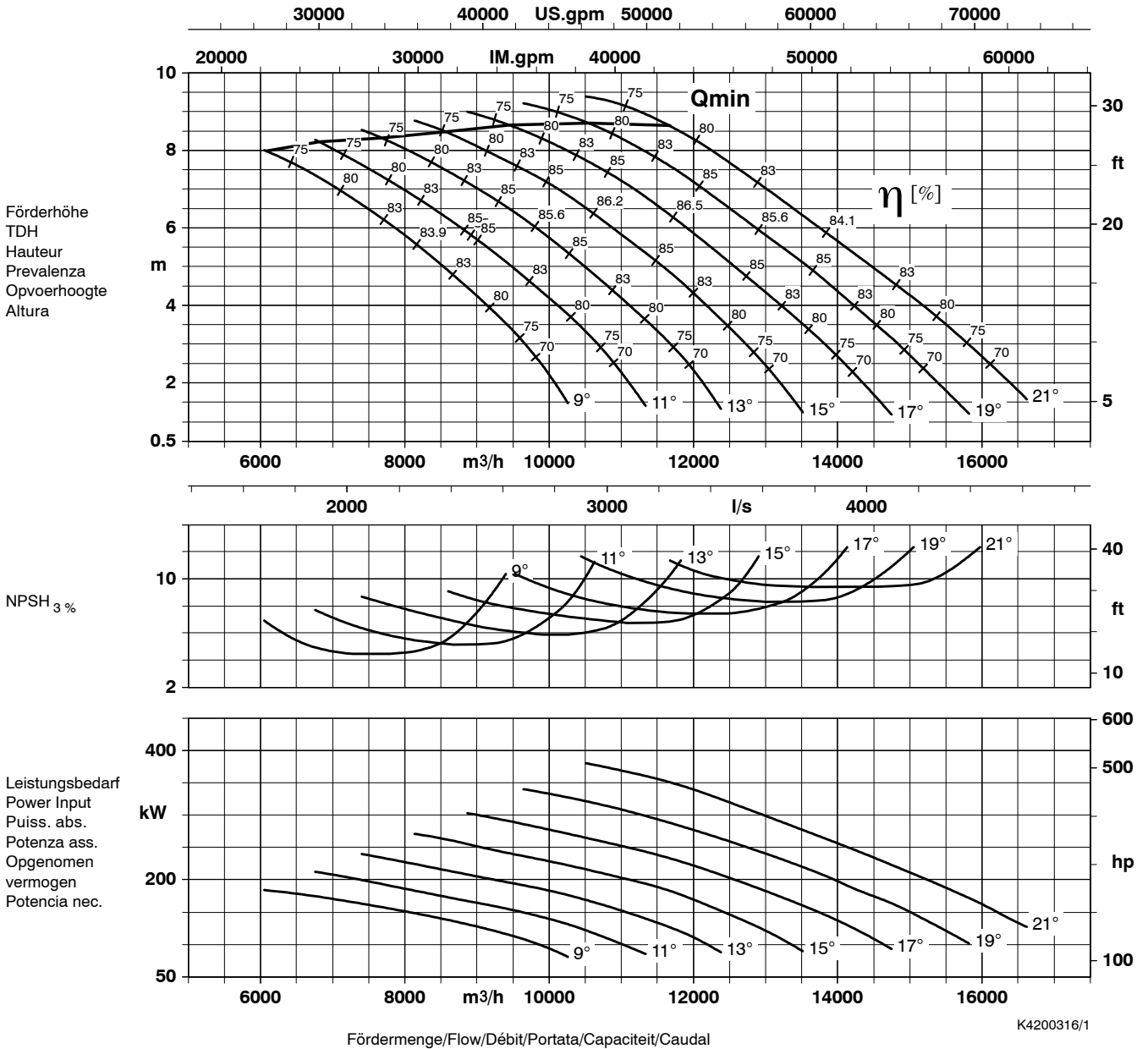
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | P <sub>2</sub> [kW]  |     | J [kgm <sup>2</sup> ]  |
| Amacan PA4 1000-700 / ...   | UTG  | XTG |  |
| ... / 60 10   | 60   | 60  | 10,8   |
| ... / 90 10   | 90   | 90  | 11,2   |
| ... / 120 10  | 120  | 120 | 11,5   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 21  | 160   |
| 19  | 150   |
| 17  | 140   |
| 15  | 130   |
| 13  | 120   |
| 11  | 110   |
| 9   | 100   |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |  |                                   |   |
|---------------------------------------|---------------------------------|--|---|--|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennrehzahl<br>Nom. speed<br>Vitesse nom.      | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Laufrad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 1200-870A4</b>            |                                 | <b>580 1/min</b>                               |   | <b>870 mm</b>                                  |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.             | N° pos.<br>Pos. nr.<br>N° de art  |   |




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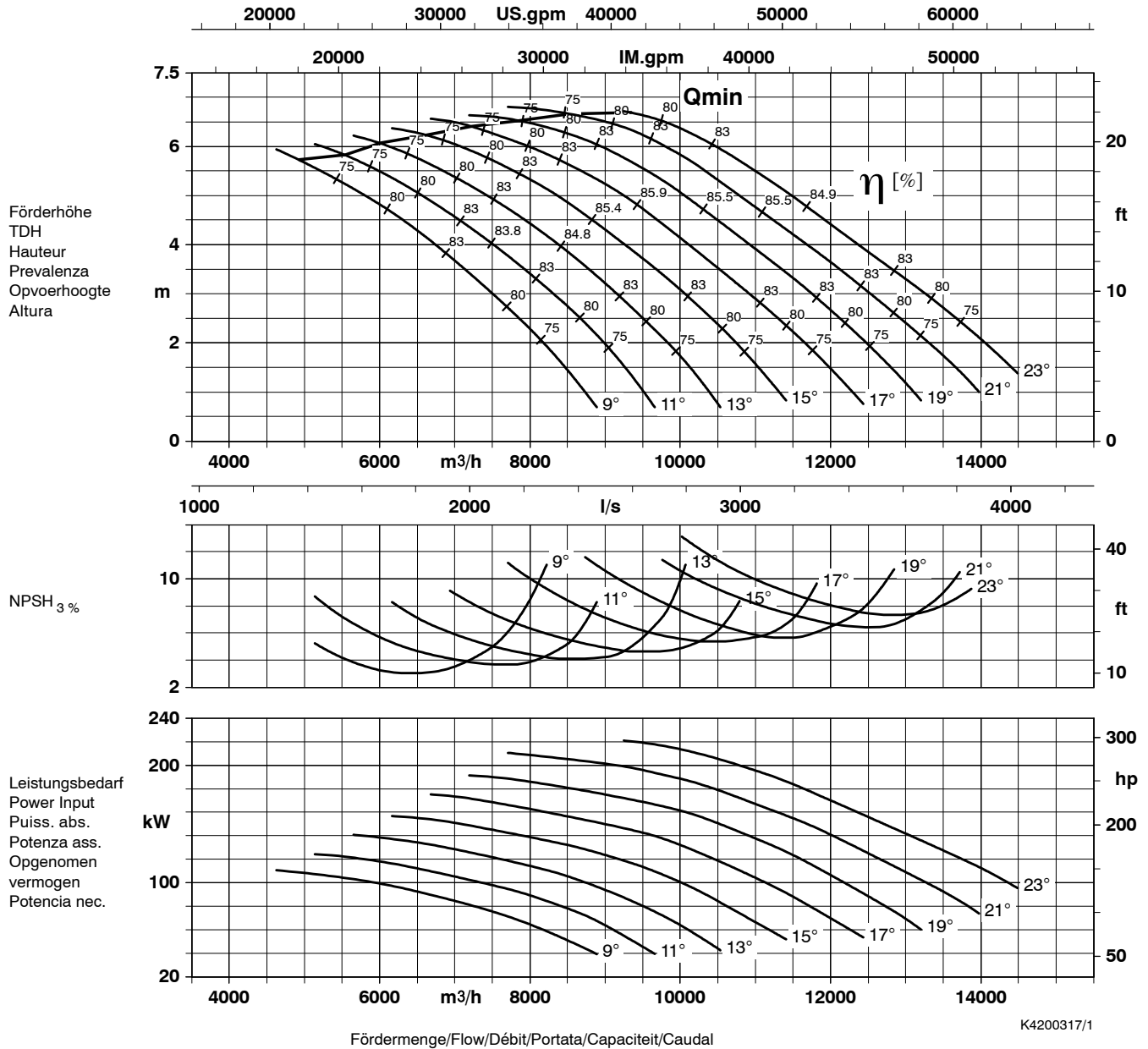
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|--|--|-----|--|
|  | P <sub>2</sub> [kW]  |     |  |
| Amacan PA4 1200-870 / ...  | UTG  | XTG |  |
| ... / 200 10   | 200  | 200 | 36,9   |
| ... / 250 10   | 250  | 250 | 39,1   |
| ... / 310 10   | 310  | --  | 45,0   |
| ... / 365 10   | 365  | --  | 47,8   |
| ... / 420 10   | 420  | --  | 50,5   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 21  | 200   |
| 19  | 185   |
| 17  | 175   |
| 15  | 160   |
| 13  | 145   |
| 11  | 135   |
| 9   | 125   |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom.    | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf rad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 1200-870A4</b>            |                                 | <b>485 1/min</b>                               |   | <b>870 mm</b>                                   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos<br>Pos. nr.<br>N° de art   |   |




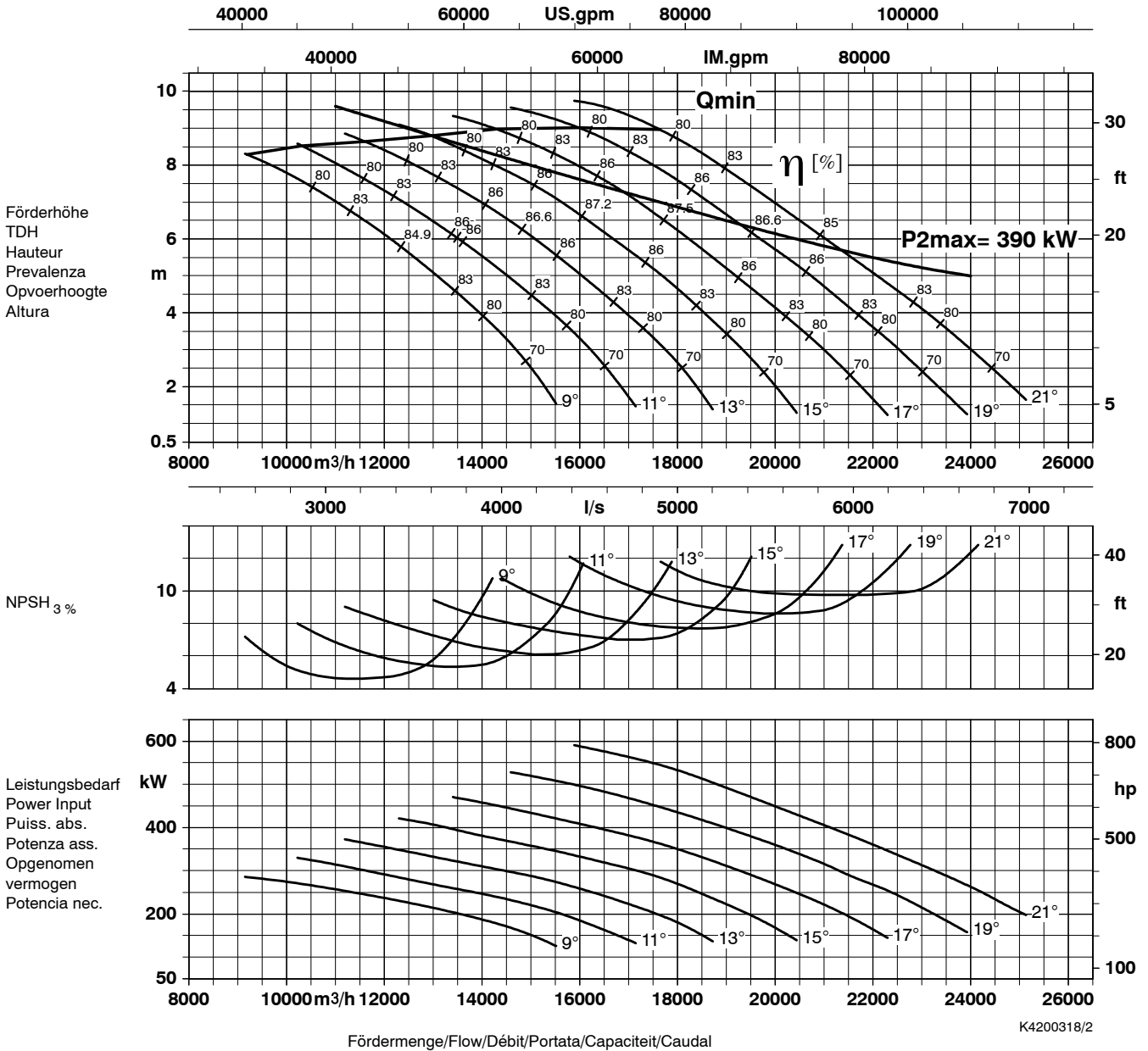
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | $P_2$ [kW]   |     | $J$ [kgm <sup>2</sup> ]  |
| Amacan PA4 1200-870 / ...   | UTG  | XTG |  |
| ... / 130 12  | 130  | 130 | 35,2   |
| ... / 190 12  | 190  | 190 | 39,1   |
| ... / 251 12  | 250  | --  | 45,0   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 23  | 215   |
| 21  | 200   |
| 19  | 185   |
| 17  | 175   |
| 15  | 160   |
| 13  | 145   |
| 11  | 135   |
| 9   | 125   |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |  |                                   |   |
|---------------------------------------|---------------------------------|--|---|--|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennzahl<br>Nom. speed<br>Vitesse nom.         | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Laufrad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 1500-1060A4</b>           |                                 | <b>485 1/min</b>                               |   | <b>1060 mm</b>                                 |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.             | N° pos.<br>Pos. nr.<br>N° de art  |   |




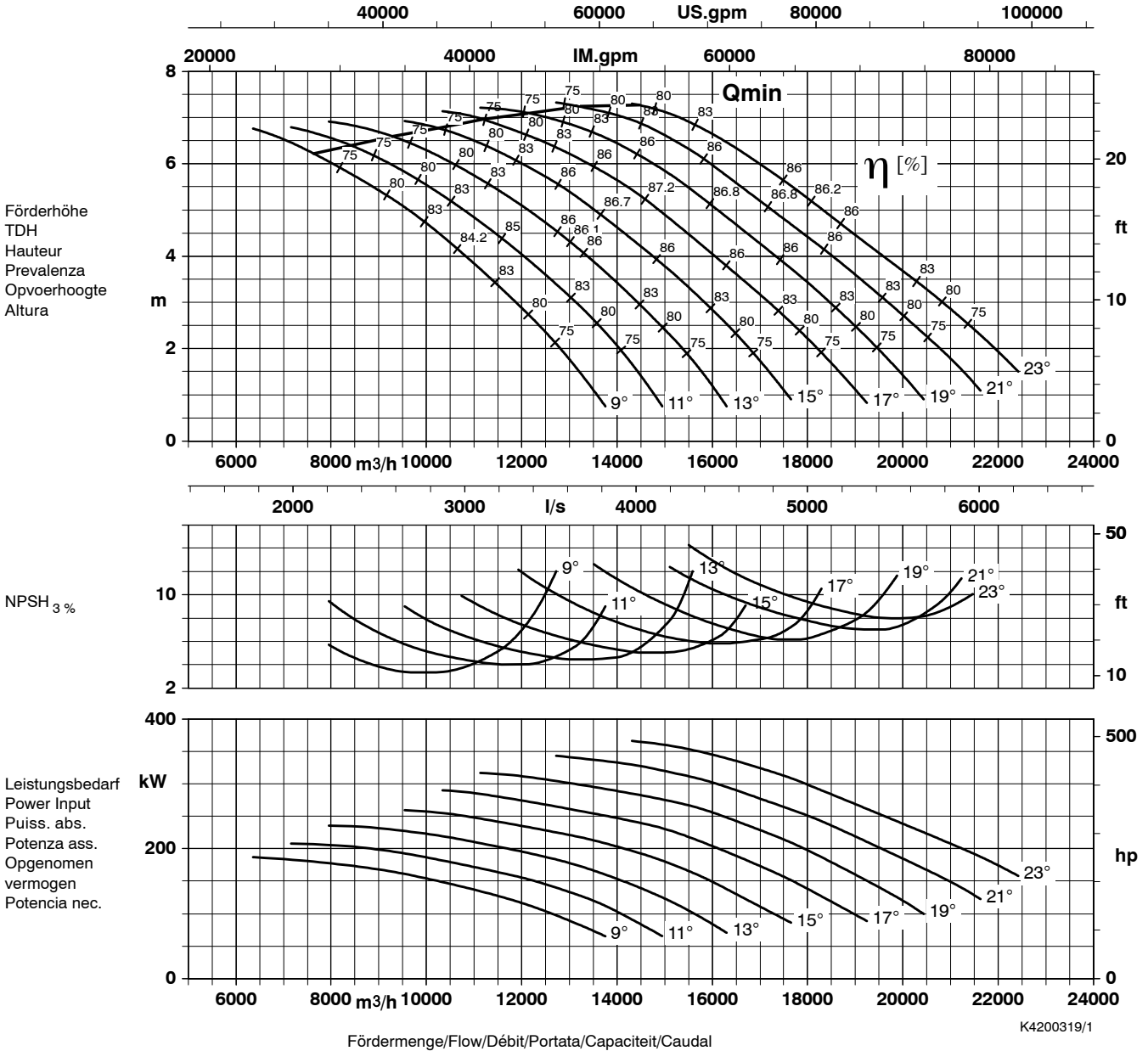
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|--|--|-----|--|
|  | P <sub>2</sub> [kW]  |     |  |
| Amacan PA4 1500-1060 / ...   | UTG  | XTG | J [kgm <sup>2</sup> ]  |
| ... / 250 12   | 250  | 250 | 93   |
| ... / 320 12   | 320  | 320 | 96   |
| ... / 370 12   | 370  | 370 | 98   |
| ... / 410 12   | 410  | 410 | 101  |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 21  | 240   |
| 19  | 225   |
| 17  | 210   |
| 15  | 195   |
| 13  | 180   |
| 11  | 165   |
| 9   | 150   |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom.    | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf rad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 1500-1060A4</b>           |                                 | <b>415 1/min</b>                               |   | <b>1060 mm</b>                                  |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos<br>Pos. nr.<br>N° de art   |   |




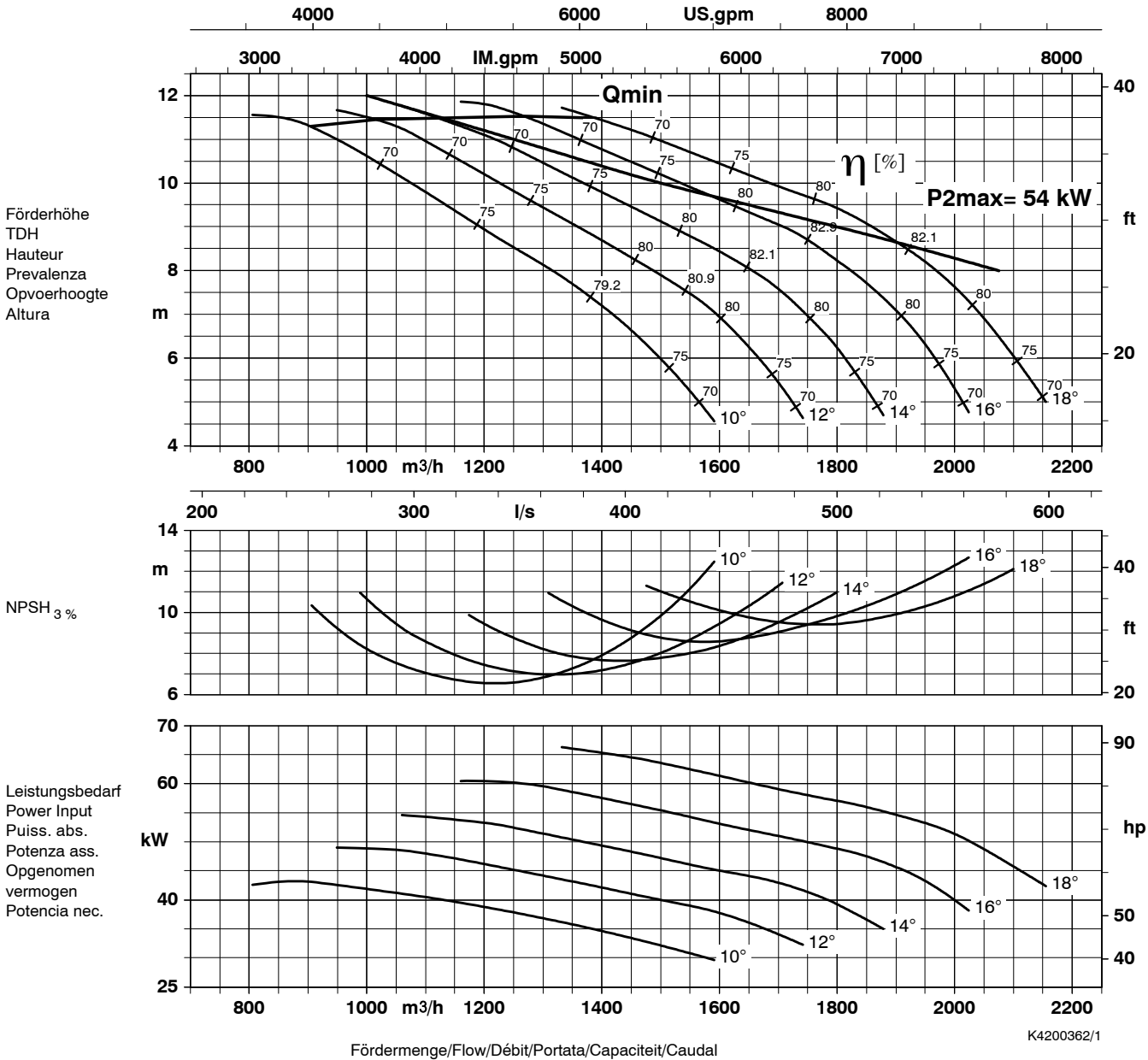
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | P <sub>2</sub> [kW]  |     | J [kgm <sup>2</sup> ]  |
| Amacan PA4 1500-1060 / ...  | UTG  | XTG |  |
| ... / 210 14  | 210  | 210 | 96   |
| ... / 270 14  | 270  | 270 | 99   |
| ... / 340 14  | 330  | 330 | 101  |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 23  | 255   |
| 21  | 240   |
| 19  | 225   |
| 17  | 210   |
| 15  | 195   |
| 13  | 180   |
| 11  | 165   |
| 9   | 150   |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom.    | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf rad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 600-350B4</b>             |                                 | <b>1460 1/min</b>                              |   | <b>350 mm</b>                                   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos<br>Pos. nr.<br>N° de art   |   |




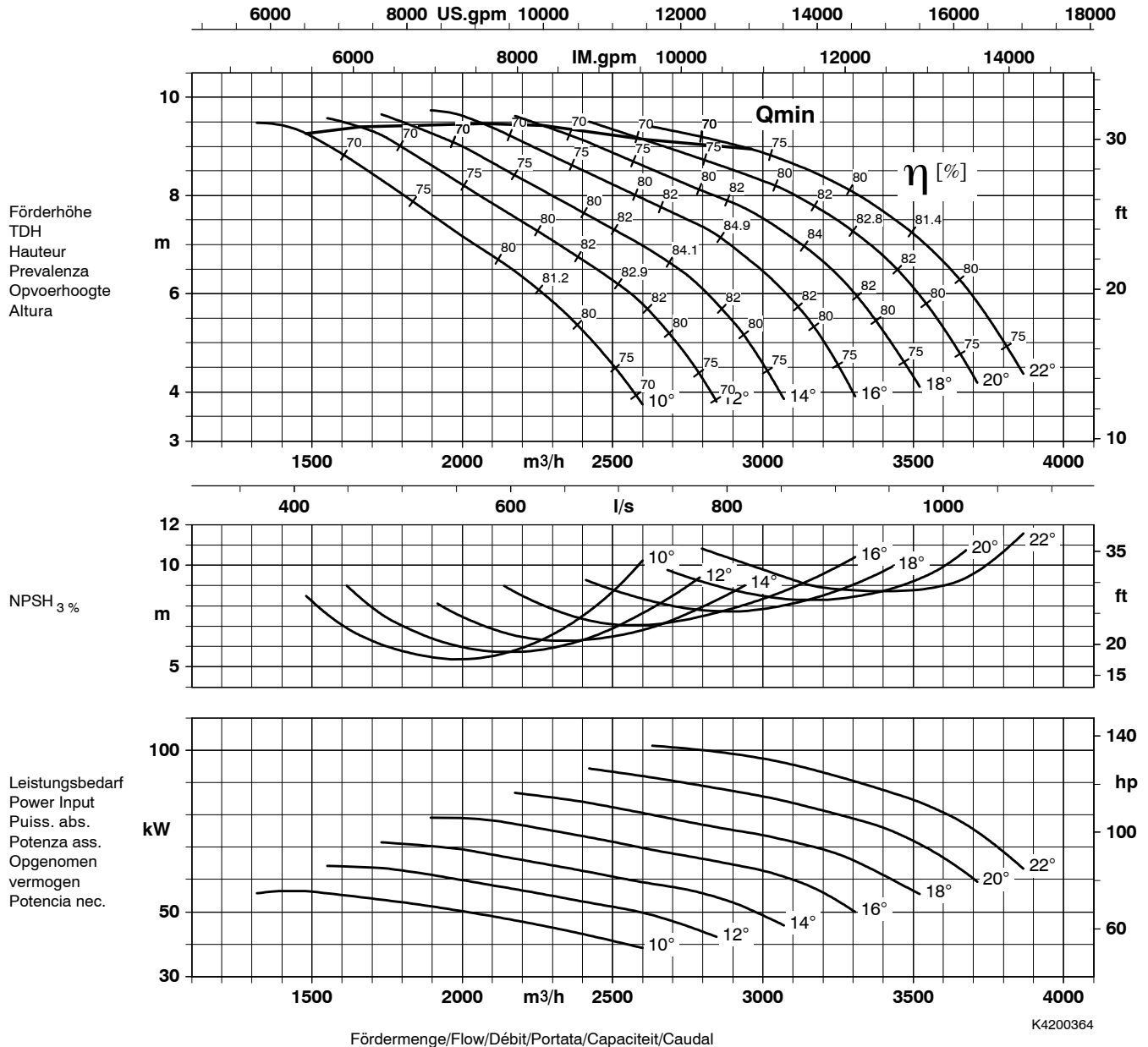
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | UAG  | XAG |  |
| Amacan PB4 600-350 / ...  |  |     |  |
| ... / 32 4  | 32   | 32  | 0,44   |
| ... / 40 4  | 40   | 40  | 0,44   |
| ... / 60 4  | 50   | 50  | 0,50   |
| ... / 70 4  | 57   | 57  | 0,51   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 18  | 75  |
| 16  | 70  |
| 14  | 65  |
| 12  | 60  |
| 10  | 55  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |  |                                   |   |
|---------------------------------------|---------------------------------|--|---|--|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennrehzahl<br>Nom. speed<br>Vitesse nom.      | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Laufrad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 700-470B4</b>             |                                 | <b>985 1/min</b>                               |   | <b>470 mm</b>                                  |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.             | N° pos<br>Pos. nr.<br>N° de art   |   |




Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

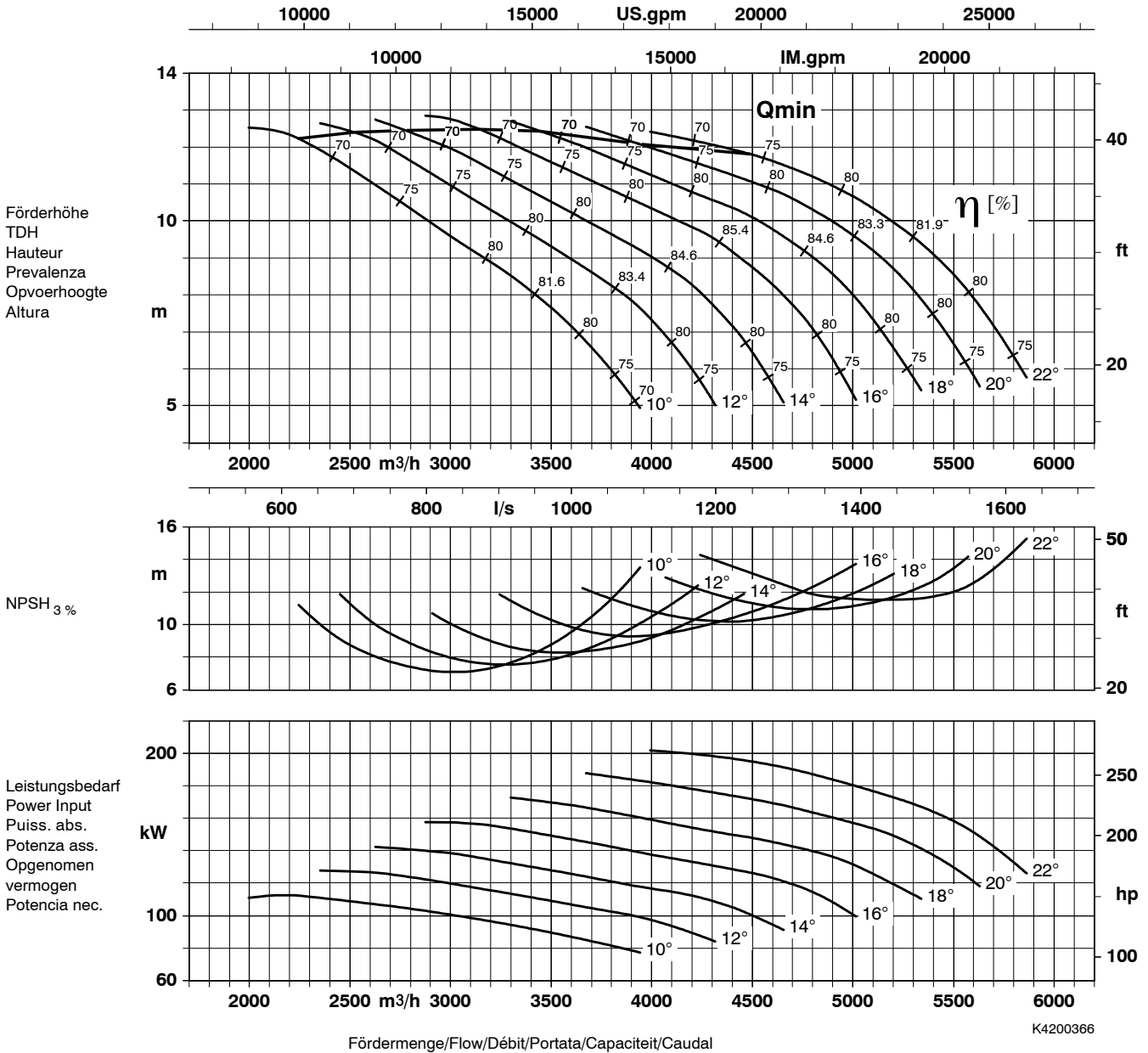
| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | $P_2$ [kW]   |     | $J$ [kgm <sup>2</sup> ]  |
| Amacan PB4 700-470 / ...  | UTG  | XTG |  |
| ... / 60 6  | 60   | 60  | 1,82   |
| ... / 80 6  | 80   | 80  | 1,95   |
| ... / 100 6   | 100  | 100 | 2,08   |
| ... / 120 6   | 115  | 115 | 2,22   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 22  | 115   |
| 20  | 108   |
| 18  | 100   |
| 16  | 94  |
| 14  | 87  |
| 12  | 80  |
| 10  | 73  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s



|  |                                 |  |   |   |                                   |   |
|--|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle    | Tipo<br>Serie<br>Tipo           | Nennzahl<br>Nom. speed<br>Vitesse nom.         | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Laufgrad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| Amacan P 800-540B4<br>Amacan P 900-540B4 |                                 | 985 1/min                                      |   | 540 mm  |                                   |   |
| Projekt<br>Project<br>Projet             | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos.<br>Pos. nr.<br>N° de art  |   |




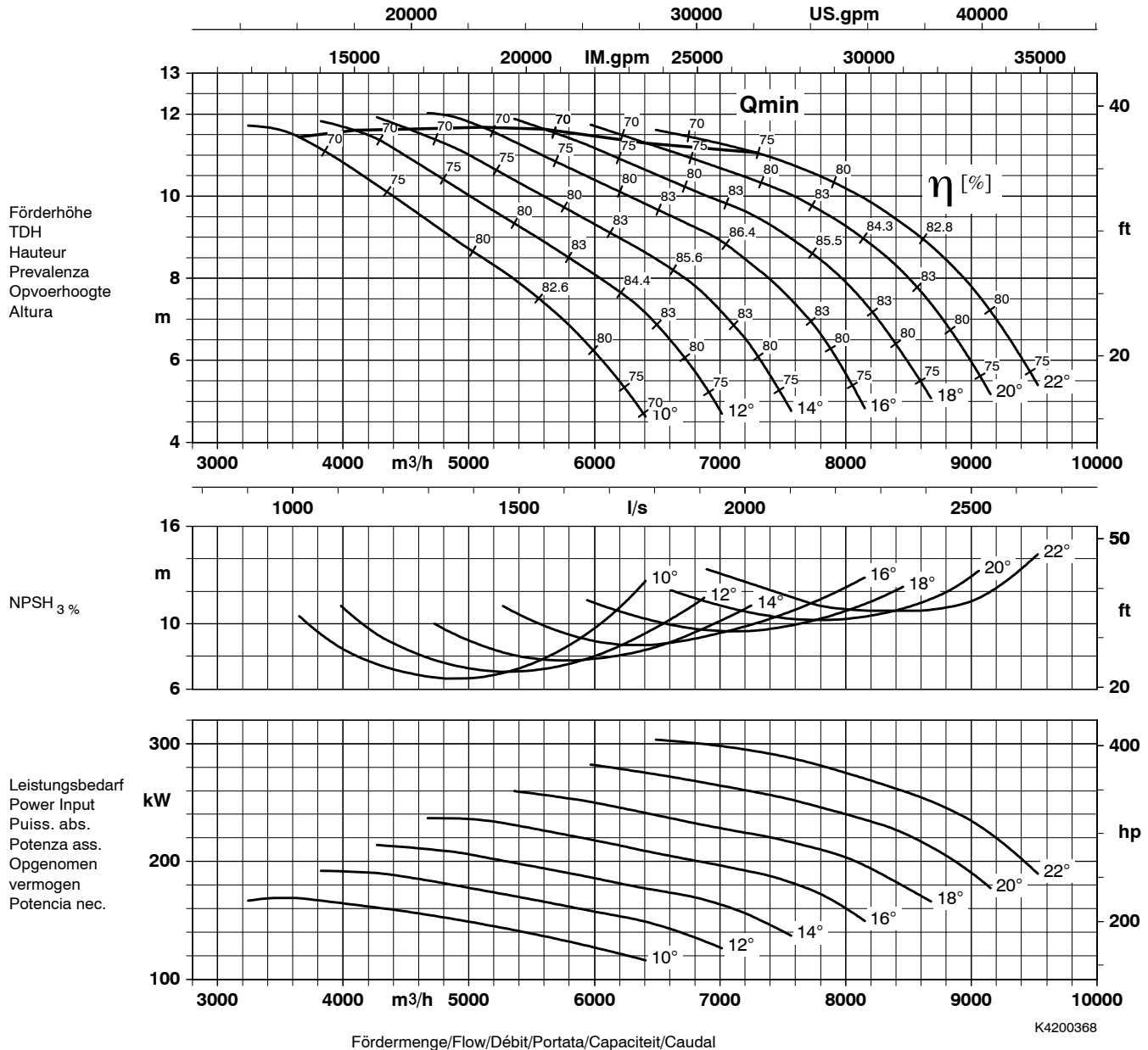
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|--|--|-----|--|
|  | $P_2$ [kW]   |     |  |
| Amacan PB4 ... -540 / ...  | UTG  | XTG |  |
| 800-540 / 120 6  | 115  | 115 | 3,52   |
| 900-540 / 155 6  | 155  | 155 | 4,53   |
| 900-540 / 180 6  | 180  | 180 | 4,80   |
| 900-540 / 205 6  | 205  | 205 | 5,10   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 22  | 130   |
| 20  | 123   |
| 18  | 115   |
| 16  | 108   |
| 14  | 100   |
| 12  | 92  |
| 10  | 85  |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou <20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |   |                                   |   |
|---------------------------------------|---------------------------------|--|---|---|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom.    | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf rad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| <b>Amacan P 1000-700B4</b>            |                                 | <b>735 1/min</b>                               |   | <b>700 mm</b>                                   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offertenr.<br>N° oferta                                 | Pos.-Nr.<br>Item No.<br>N° de pos.              | N° pos<br>Pos. nr.<br>N° de art   |   |




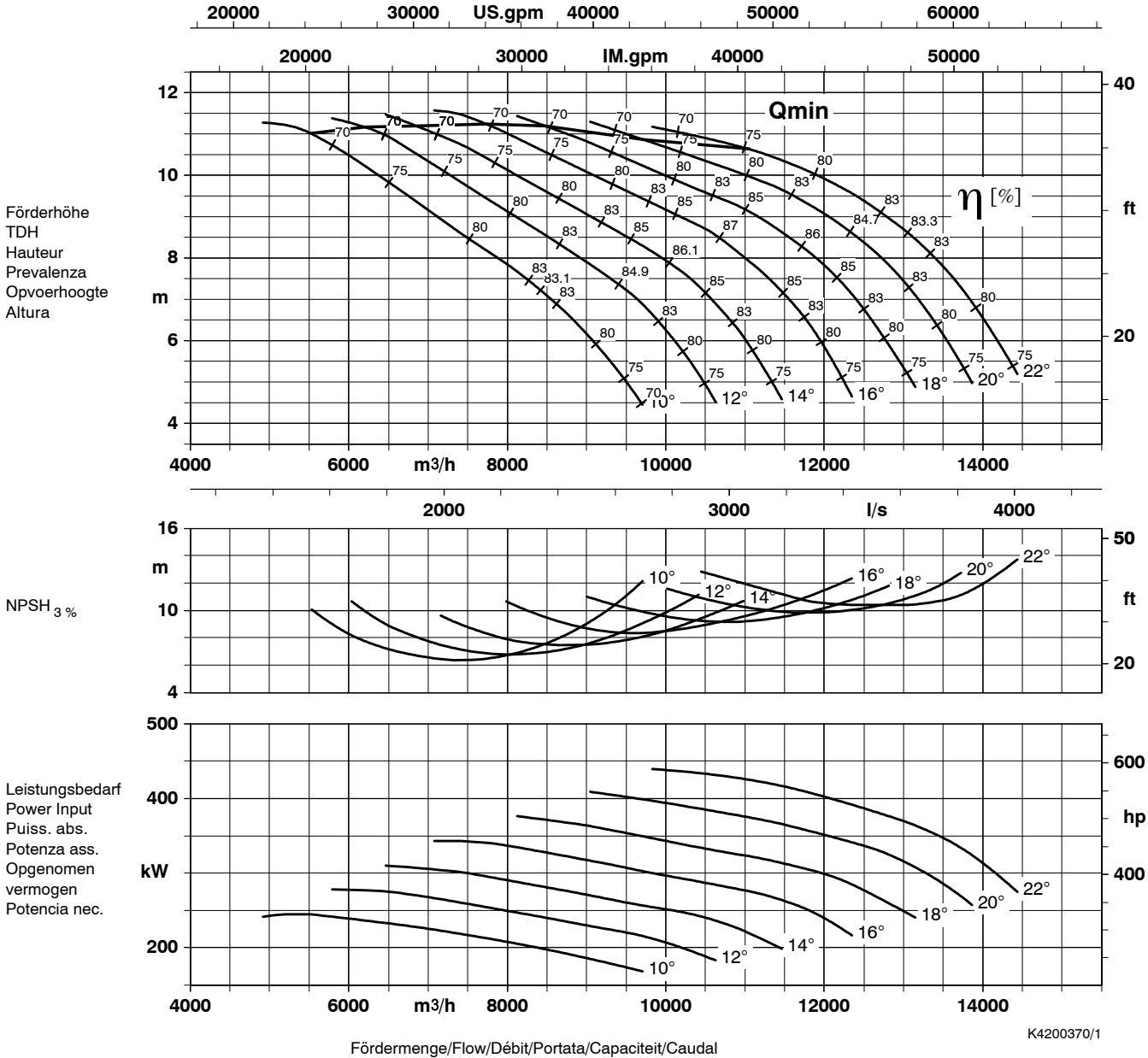
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgrößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|---|--|-----|--|
|   | $P_2$ [kW]   | XTG |  |
| Amacan PB4 1000-700 / ...   | UTG  | XTG |  |
| ... / 160 8   | 160  | 160 | 11,6   |
| ... / 205 8   | 205  | --  | 16,3   |
| ... / 250 8   | 250  | --  | 17,6   |
| ... / 290 8   | 290  | --  | 18,9   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 22  | 170   |
| 20  | 160   |
| 18  | 150   |
| 16  | 140   |
| 14  | 130   |
| 12  | 120   |
| 10  | 110   |

Angaben gültig für Dichte = 1 kg/dm<sup>3</sup> und kinematische Zähigkeit bis max. 20 mm<sup>2</sup>/s  
 Data applies to a density of 1 kg/dm<sup>3</sup> and a kinematic viscosity of up to max. 20 mm<sup>2</sup>/s  
 Caractéristiques données pour une densité = 1 kg/dm<sup>3</sup> et une viscosité cinématique = ou < 20 mm<sup>2</sup>/s.  
 Datos válidos para densidad = 1 kg/dm<sup>3</sup> y viscosidad cinemática máx. de 20 mm<sup>2</sup>/s  
 Indicazioni valide per densità = 1 kg/dm<sup>3</sup> e viscosità cinemática fino a max. 20 mm<sup>2</sup>/s

|                                       |                                 |  |   |  |                                   |   |
|---------------------------------------|---------------------------------|--|---|--|-----------------------------------|---|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennrehzahl<br>Nom. speed<br>Vitesse nom.      | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Laufrad-ø<br>Impeller dia.<br>Diamètre de roue | ø girante<br>Waaier ø<br>ø rodete | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>Postfach 200743<br>06008 Halle (Saale)<br>Turmstraße 92<br>06110 Halle (Saale) |
| Amacan P 1200-870B4                   |                                 | 580 1/min                                      |   | 870 mm   |                                   |   |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Quotation No.<br>N° de l'offre | N° offerta<br>Offerten.<br>N° oferta                                  | Pos.-Nr.<br>Item No.<br>N° de pos.             | N° pos<br>Pos. nr.<br>N° de art   |   |



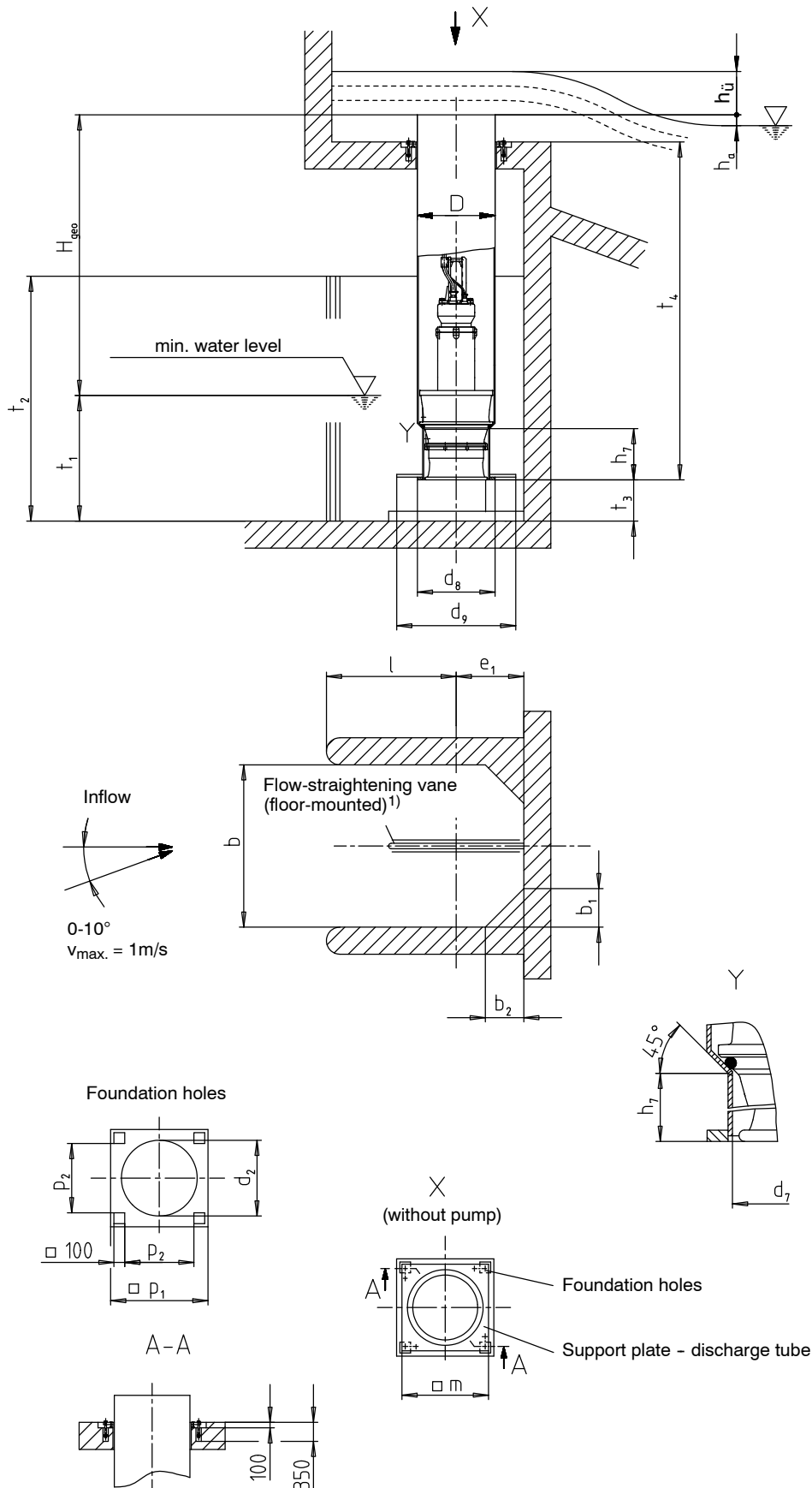
Kennlinien nach ISO 9906/A. Sie entsprechen der effektiven Motordrehzahl. / Curves as per ISO 9906/A. They correspond to the effective motor speed.  
 Courbes selon ISO 9906/A. Elles correspondent à la vitesse de moteur effective / Curvas según ISO 9906/A. Corresponden a las r.p.m. efectivas del motor.  
 Curve caratteristiche secondo ISO 9906/A. Esse corrispondono alla velocità effettiva del motore.

| Motorgößen / Motor sizes<br>Taille moteur / Motor tamaño<br>Grandezza del motore | Nennleistung / Rated power<br>Puissance nom. / Potencia del motor<br>Potenza nominale del motore |     | Massenträgheitsmoment / Moment of inertia<br>Moment d'inertie / Momento de inercia<br>Momento di inerzia |
|--|--|-----|--|
|  | UTG  | XTG |  |
| Amacan PB4 1200-870 / ...  |  |     |  |
| ... / 250 10   | 250  | 250 | 39,1   |
| ... / 310 10   | 310  | --  | 45,0   |
| ... / 365 10   | 365  | --  | 47,8   |
| ... / 420 10   | 420  | --  | 50,5   |
| ... / 470 10   | 470  | --  | 53,1   |

| Winkel<br>Angle<br>Angle<br>ángulo<br>Angolo<br>[°] | freier Kugeldurchgang<br>free passage<br>section de passage<br>paso libre<br>passaggio libero<br>[mm] |
|---|---|
| 22  | 210   |
| 20  | 200   |
| 18  | 185   |
| 16  | 175   |
| 14  | 160   |
| 12  | 145   |
| 10  | 135   |

Angaben gültig für Dichte = 1 kg/dm³ und kinematische Zähigkeit bis max. 20 mm²/s  
 Data applies to a density of 1 kg/dm³ and a kinematic viscosity of up to max. 20 mm²/s  
 Caractéristiques données pour une densité = 1 kg/dm³ et une viscosité cinématique = ou <20 mm²/s.  
 Datos válidos para densidad = 1 kg/dm³ y viscosidad cinemática máx. de 20 mm²/s  
 Indicazioni valide per densità = 1 kg/dm³ e viscosità cinemática fino a max. 20 mm²/s

**General arrangement drawing**  
**Type of installation BU**



1) Dimensions of flow-straightening vane - see page 50

**Main dimensions of discharge tube without intermediate flange and structure BU**

Dimensions [mm]

| Pump size | D    | d <sub>7</sub> | h <sub>7</sub> | t <sub>4 min.</sub> <sup>2)</sup> | t <sub>3</sub> <sup>1)</sup> | d <sub>8</sub> | d <sub>9</sub> | h <sub>a</sub> | d <sub>2</sub> | e <sub>1</sub> <sup>1)</sup> |   |
|-----------|------|----------------|----------------|-----------------------------------|------------------------------|----------------|----------------|----------------|----------------|------------------------------|---|
|           |      |                |                |                                   |                              |                |                |                |                | standard (d <sub>8</sub> )   | with suction umbrella (d <sub>9</sub> ) |
| 500- 270  | 508  | 400            | 295            | 1600                              | 200                          | 505            | 650            | 100            | 550            | 350                          | 400                                     |
| 600- 350  | 610  | 500            | 540            | 1900                              | 320                          | 610            | 800            |                | 650            | 400                          | 500                                     |
| 700- 470  | 711  | 600            | 420            | 2300                              | 380                          | 710            | 1100           |                | 750            | 450                          | 650                                     |
| 800- 540  | 813  | 680            | 525            | 2350                              | 440                          | 810            | 1250           |                | 850            | 500                          | 700                                     |
| 900- 540  | 914  | 700            | 515            | 2500                              | 440                          | 910            | 1250           |                | 970            | 550                          | 700                                     |
| 1000- 700 | 1016 | 880            | 765            | 3050                              | 560                          | 1015           | 1600           |                | 1070           | 600                          | 900                                     |
| 1200- 870 | 1220 | 1070           | 1000           | 3750                              | 680                          | 1220           | 2000           |                | 1280           | 700                          | 1100                                    |
| 1500-1060 | 1524 | 1330           | 1460           | 3800                              | 860                          | 1520           | 2450           |                | 1590           | 850                          | 1300                                    |

| Pump size | b    | b <sub>1</sub>             |   | b <sub>2</sub>             |   | p <sub>1</sub> | p <sub>2</sub> | m    | l <sub>min.</sub> |
|-----------|------|----------------------------|---|----------------------------|---|----------------|----------------|------|-------------------|
|           |      | standard (d <sub>8</sub> ) | with suction umbrella (d <sub>9</sub> ) | standard (d <sub>8</sub> ) | with suction umbrella (d <sub>9</sub> ) |                |                |      |                   |
| 500- 270  | 750  | 150                        | --                                      | 150                        | --                                      | 700            | 440            | 600  | 400               |
| 600- 350  | 1250 | 250                        | --                                      | 250                        | --                                      | 800            | 540            | 700  | 850               |
| 700- 470  | 1500 | 300                        | --                                      | 300                        | --                                      | 900            | 640            | 800  | 1050              |
| 800- 540  | 1800 | 360                        | --                                      | 360                        | --                                      | 1000           | 740            | 900  | 1300              |
| 900- 540  | 1800 | 360                        | --                                      | 360                        | --                                      | 1120           | 860            | 1050 | 1300              |
| 1000- 700 | 2300 | 460                        | --                                      | 460                        | --                                      | 1220           | 960            | 1150 | 1700              |
| 1200- 870 | 2800 | 560                        | --                                      | 560                        | --                                      | 1420           | 1160           | 1360 | 2100              |
| 1500-1060 | 3500 | 700                        | --                                      | 700                        | --                                      | 1750           | 1480           | 1680 | 2650              |

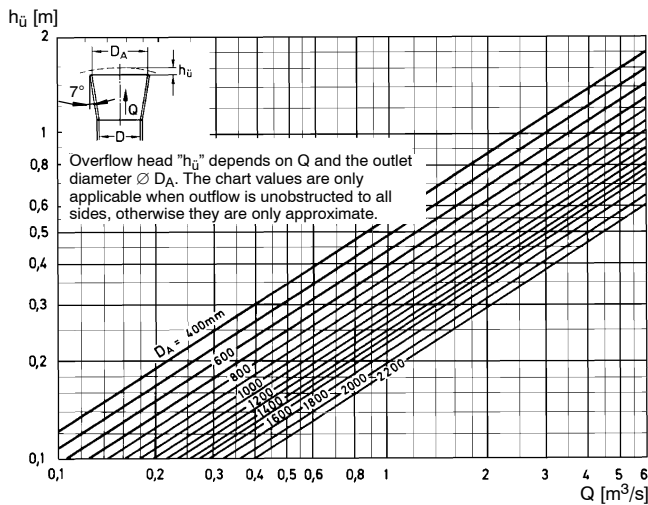
 t<sub>2</sub> = 1.1 x water level, max. 2 x t<sub>1</sub>

 Height of corner fillets (b<sub>1</sub> and b<sub>2</sub>) same as t<sub>2</sub>

- 1) Dimensions e<sub>1</sub> and t<sub>2</sub> must be complied with  
 2) for max. motor length

Dimensional tolerances:

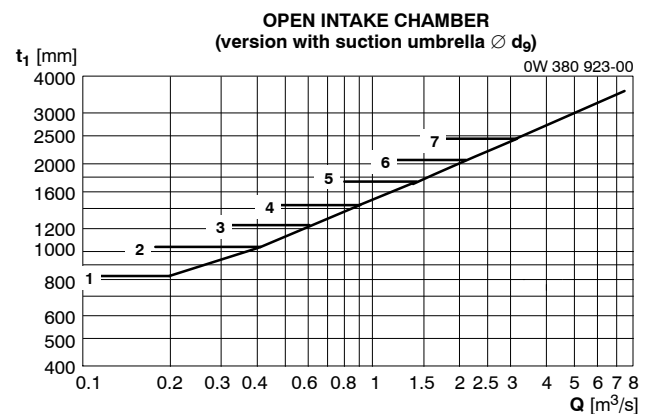
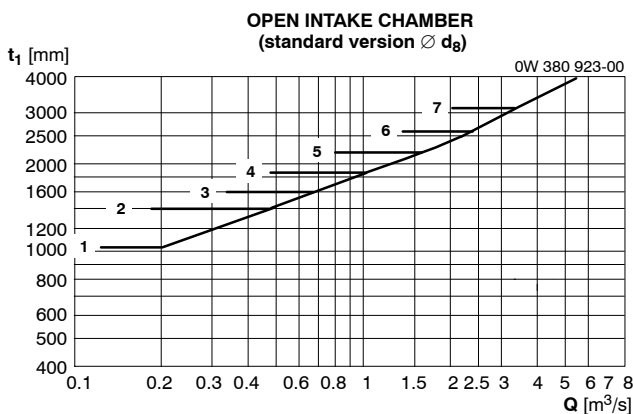
- Tolerances for building dimensions to DIN 18202, Part 4, Group B
- Welded constructions: B/F to DIN EN ISO 13920
- Tolerances for conical seat (detail Y): ISO 2768-m

**Loss diagram**


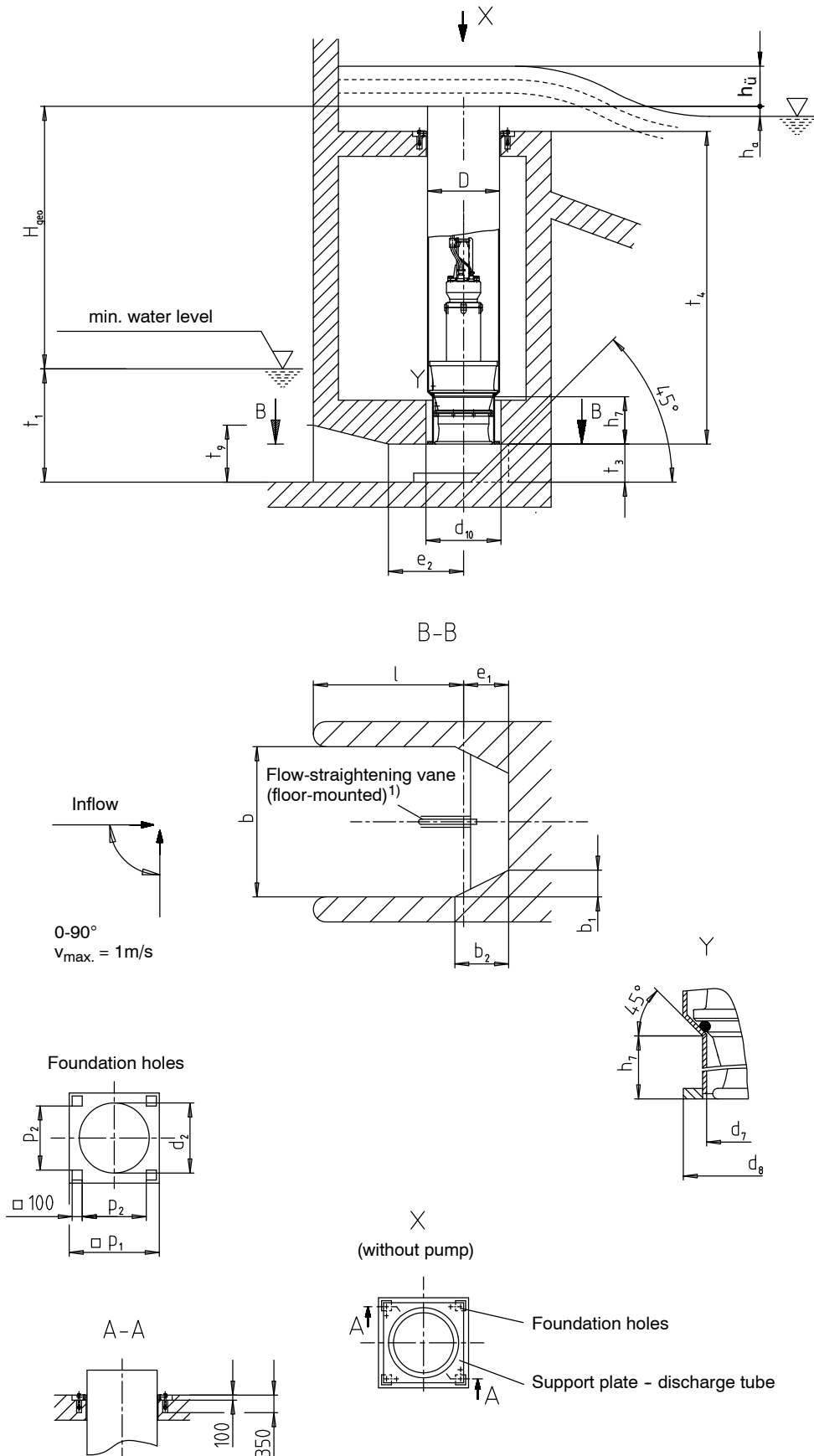
$$H = H_{geo} + \Delta H_V$$

- ∆ H<sub>V</sub> - Overflow h<sub>u</sub> (see diagram)  
 - riser pipe losses (pipe friction)  
 - outlet losses v<sup>2</sup>/2g (v refers to D<sub>A</sub>)

- 1 Amacan P .. 500 - 270
- 2 Amacan P .. 600 - 350
- 3 Amacan P .. 700 - 470
- 4 Amacan P .. 800/900 - 540
- 5 Amacan P .. 1000 - 700
- 6 Amacan P .. 1200 - 870
- 7 Amacan P .. 1500 - 1060

**Diagram for minimum water level t<sub>1</sub>**


**General arrangement drawing**  
**Type of installation BG**



1) Dimensions of flow-straightening vane - see page 50

**Main dimensions of discharge tube without intermediate flange and structure BG** Dimensions [mm]

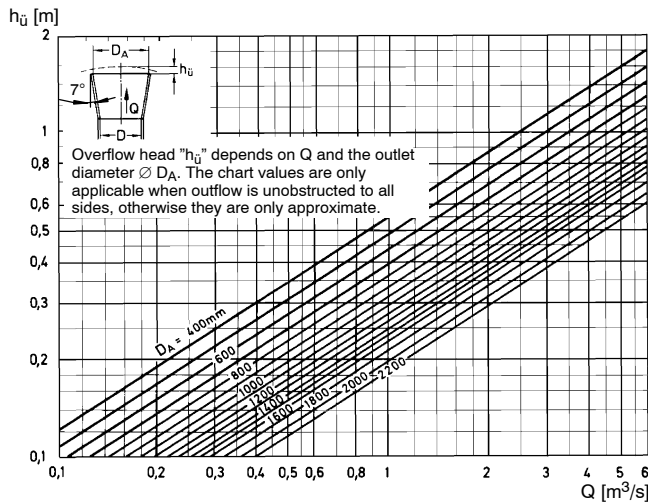
| Pump size | D    | d <sub>7</sub> | h <sub>7</sub> | t <sub>4 min.</sub> <sup>2)</sup> | t <sub>3</sub> <sup>1)</sup> | d <sub>8</sub> | d <sub>10</sub> | t <sub>9</sub> | l <sub>min.</sub> | b    | b <sub>1</sub> | b <sub>2</sub> |
|-----------|------|----------------|----------------|-----------------------------------|------------------------------|----------------|-----------------|----------------|-------------------|------|----------------|----------------|
| 500- 270  | 508  | 400            | 295            | 1600                              | 200                          | 505            | 540             | 280            | 750               | 750  | 150            | 300            |
| 600- 350  | 610  | 500            | 540            | 1900                              | 320                          | 610            | 640             | 470            | 1250              | 1250 | 250            | 500            |
| 700- 470  | 711  | 600            | 420            | 2300                              | 380                          | 710            | 740             | 570            | 1500              | 1500 | 300            | 600            |
| 800- 540  | 813  | 680            | 525            | 2350                              | 440                          | 810            | 860             | 660            | 1800              | 1800 | 360            | 720            |
| 900- 540  | 914  | 700            | 515            | 2500                              | 440                          | 910            | 960             | 660            | 1800              | 1800 | 360            | 720            |
| 1000- 700 | 1016 | 880            | 765            | 3050                              | 560                          | 1015           | 1080            | 850            | 2300              | 2300 | 460            | 920            |
| 1200- 870 | 1220 | 1070           | 1000           | 3750                              | 680                          | 1220           | 1290            | 1050           | 2800              | 2800 | 560            | 1120           |
| 1500-1060 | 1524 | 1330           | 1460           | 3800                              | 860                          | 1520           | 1600            | 1320           | 3500              | 3500 | 700            | 1400           |

| Pump size | d <sub>2</sub> | e <sub>1</sub> <sup>1)</sup> | e <sub>2</sub> | m    | p <sub>1</sub> | p <sub>2</sub> | h <sub>a</sub> |
|-----------|----------------|------------------------------|----------------|------|----------------|----------------|----------------|
| 500- 270  | 550            | 259                          | 375            | 600  | 700            | 440            | 100            |
| 600- 350  | 650            | 375                          | 625            | 700  | 800            | 540            |                |
| 700- 470  | 750            | 450                          | 750            | 800  | 900            | 640            |                |
| 800- 540  | 850            | 519                          | 900            | 900  | 1000           | 740            |                |
| 900- 540  | 970            | 519                          | 900            | 1050 | 1120           | 860            |                |
| 1000- 700 | 1070           | 673                          | 1150           | 1150 | 1220           | 960            |                |
| 1200- 870 | 1280           | 833                          | 1400           | 1360 | 1420           | 1160           |                |
| 1500-1060 | 1590           | 1048                         | 1750           | 1680 | 1750           | 1480           |                |

<sup>1)</sup> Dimensions e<sub>1</sub> and t<sub>2</sub> must be complied with  
<sup>2)</sup> for max. motor length

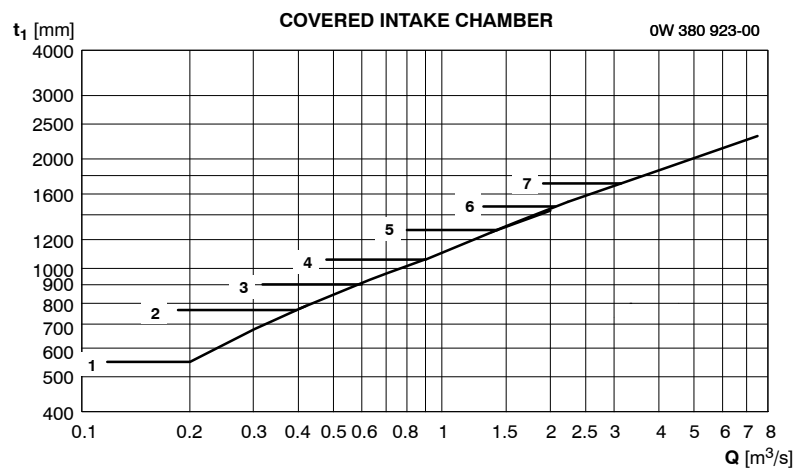
Dimensional tolerances:

- Tolerances for building dimensions to DIN 18202, Part 4, Group B
- Welded constructions: B/F to DIN EN ISO 13920
- Tolerances for conical seat (detail Y): ISO 2768-m

**Loss diagram**


$$H = H_{geo} + \Delta H_V$$

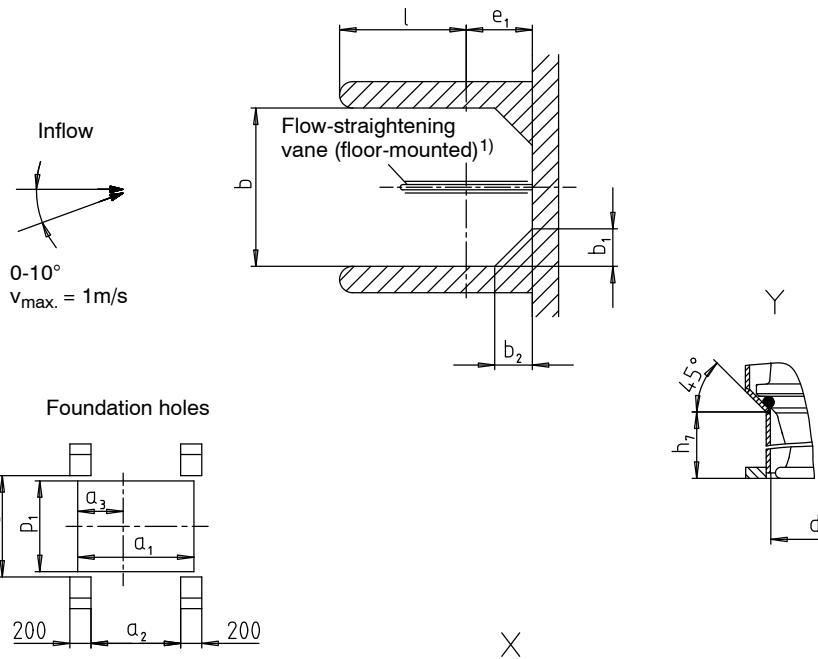
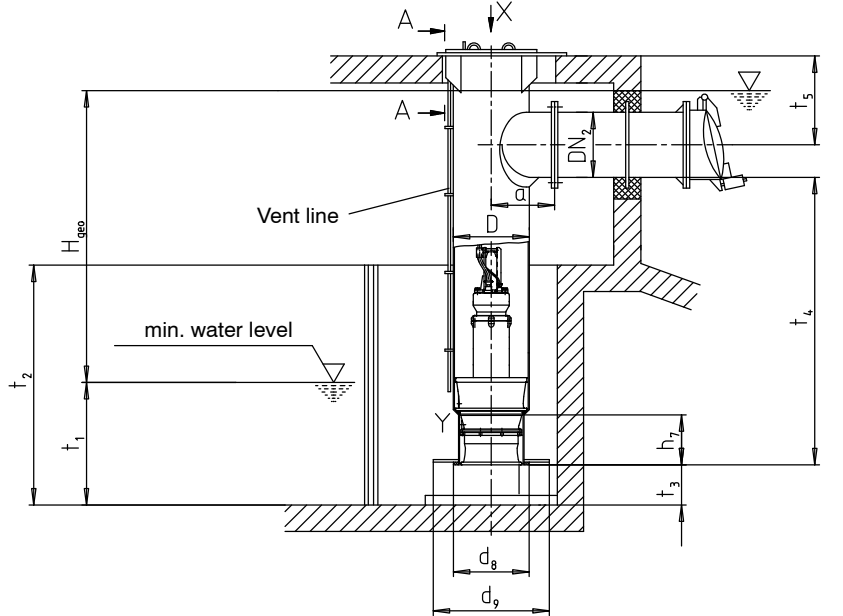
- $\Delta H_V$  - Overflow h<sub>ü</sub> (see diagram)  
 - riser pipe losses (pipe friction)  
 - outlet losses  $v^2/2g$  (v refers to D<sub>A</sub>)

**Diagram for minimum water level t<sub>1</sub>**


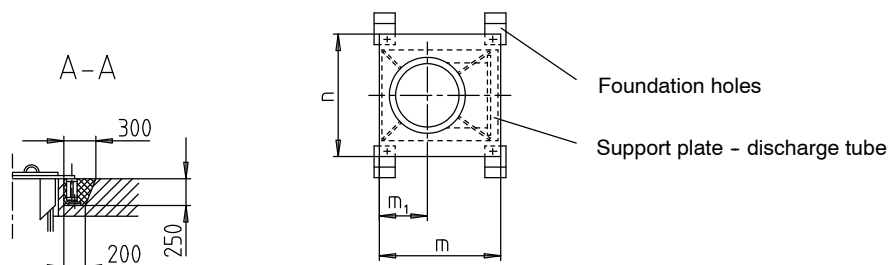
- |               |               |
|---------------|---------------|
| 1 Amacan P .. | 500 - 270     |
| 2 Amacan P .. | 600 - 350     |
| 3 Amacan P .. | 700 - 470     |
| 4 Amacan P .. | 800/900 - 540 |
| 5 Amacan P .. | 1000 - 700    |
| 6 Amacan P .. | 1200 - 870    |
| 7 Amacan P .. | 1500 - 1060   |

**General arrangement drawing**  
**Type of installation CU**

The discharge pipe must be connected to the discharge tube without transmitting any stresses or strains.



(without discharge tube cover, without pump)



1) Dimensions of flow-straightening vane - see page 50



**Main dimensions of discharge tube without intermediate flange and structure CU**

Dimensions [mm]

| Pump size | D    | d <sub>7</sub> | h <sub>7</sub> | t <sub>4 min.</sub> <sup>2)</sup> | t <sub>5 min.</sub> <sup>3)</sup> | a    | DN <sub>2 min.</sub> | DN <sub>2 max.</sub> | t <sub>3</sub> <sup>1)</sup> | d <sub>8</sub> | d <sub>9</sub> | e <sub>1</sub> <sup>1)</sup> |   | l <sub>min.</sub> |
|-----------|------|----------------|----------------|-----------------------------------|-----------------------------------|------|----------------------|----------------------|------------------------------|----------------|----------------|------------------------------|---|-------------------|
|           |      |                |                |                                   |                                   |      |                      |                      |                              |                |                | standard (d <sub>8</sub> )   | with suction umbrella (d <sub>9</sub> ) |                   |
| 500- 270  | 508  | 400            | 295            | 1700                              | 670                               | 350  | 300                  | 500                  | 200                          | 505            | 650            | 350                          | 400                                     | 400               |
| 600- 350  | 610  | 500            | 540            | 2000                              | 695                               | 580  | 350                  | 600                  | 320                          | 610            | 800            | 400                          | 500                                     | 850               |
| 700- 470  | 711  | 600            | 420            | 2400                              | 720                               | 650  | 400                  | 700                  | 380                          | 710            | 1100           | 450                          | 650                                     | 1050              |
| 800- 540  | 813  | 680            | 525            | 2400                              | 835                               | 700  | 500                  | 800                  | 440                          | 810            | 1250           | 500                          | 700                                     | 1300              |
| 900- 540  | 914  | 700            | 515            | 2650                              | 925                               | 760  | 600                  | 900                  | 440                          | 910            | 1250           | 550                          | 700                                     | 1300              |
| 1000- 700 | 1016 | 880            | 765            | 3250                              | 980                               | 810  | 700                  | 1000                 | 560                          | 1015           | 1600           | 600                          | 900                                     | 1700              |
| 1200- 870 | 1220 | 1070           | 1000           | 4000                              | 1090                              | 910  | 900                  | 1200                 | 680                          | 1220           | 2000           | 700                          | 1100                                    | 2100              |
| 1500-1060 | 1524 | 1330           | 1460           | 4050                              | 1300                              | 1060 | 1200                 | 1500                 | 860                          | 1520           | 2450           | 850                          | 1300                                    | 2650              |

| Pump size | b    | b <sub>1</sub>             |   | b <sub>2</sub>             |   | a <sub>1</sub> | a <sub>2</sub> | a <sub>3</sub> | p <sub>1</sub> | p <sub>2</sub> | m    | m <sub>1</sub> | n    |
|-----------|------|----------------------------|---|----------------------------|---|----------------|----------------|----------------|----------------|----------------|------|----------------|------|
|           |      | standard (d <sub>8</sub> ) | with suction umbrella (d <sub>9</sub> ) | standard (d <sub>8</sub> ) | with suction umbrella (d <sub>9</sub> ) |                |                |                |                |                |      |                |      |
| 500- 270  | 750  | 150                        | --                                      | 150                        | --                                      | 880            | 630            | 325            | 760            | 860            | 930  | 350            | 1060 |
| 600- 350  | 1250 | 250                        | --                                      | 250                        | --                                      | 1000           | 750            | 380            | 860            | 960            | 1050 | 405            | 1160 |
| 700- 470  | 1500 | 300                        | --                                      | 300                        | --                                      | 1120           | 870            | 430            | 960            | 1060           | 1170 | 455            | 1260 |
| 800- 540  | 1800 | 360                        | --                                      | 360                        | --                                      | 1220           | 970            | 480            | 1075           | 1175           | 1270 | 505            | 1375 |
| 900- 540  | 1800 | 360                        | --                                      | 360                        | --                                      | 1330           | 1070           | 530            | 1180           | 1280           | 1390 | 560            | 1480 |
| 1000- 700 | 2300 | 460                        | --                                      | 460                        | --                                      | 1430           | 1160           | 580            | 1280           | 1380           | 1520 | 625            | 1620 |
| 1200- 870 | 2800 | 560                        | --                                      | 560                        | --                                      | 1630           | 1360           | 680            | 1510           | 1610           | 1720 | 725            | 1850 |
| 1500-1060 | 3500 | 700                        | --                                      | 700                        | --                                      | 1960           | 1690           | 850            | 1840           | 1940           | 2050 | 895            | 2180 |

 $t_2 = 1.1 \times \text{water level, max. } 2 \times t_1$ 

 Height of corner fillets (b<sub>1</sub> and b<sub>2</sub>) same as t<sub>2</sub>

 1) Dimensions e<sub>1</sub> and t<sub>2</sub> must be complied with

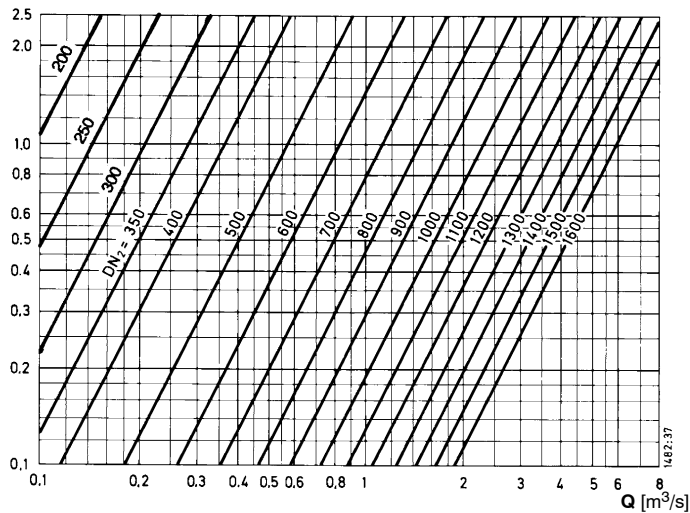
2) for max. motor length

 3) designed for DN<sub>2 min.</sub>

Dimensional tolerances:

- Tolerances for building dimensions to DIN 18202, Part 4, Group B
- Welded constructions: B/F to DIN EN ISO 13920
- Tolerances for conical seat (detail Y): ISO 2768-m
- Discharge flanges to ISO 7005/2, DIN 2 501 PN6

**Loss diagram**

 H<sub>V total</sub> [m]


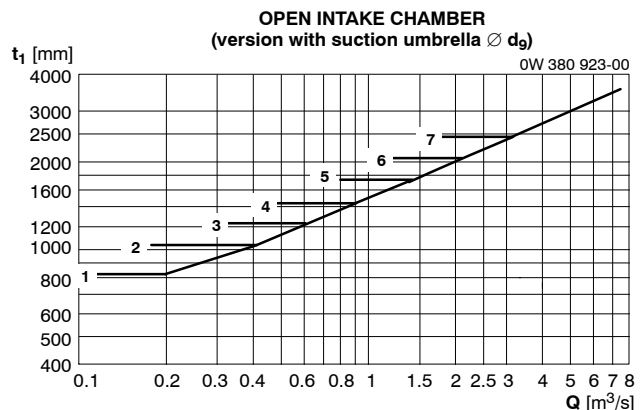
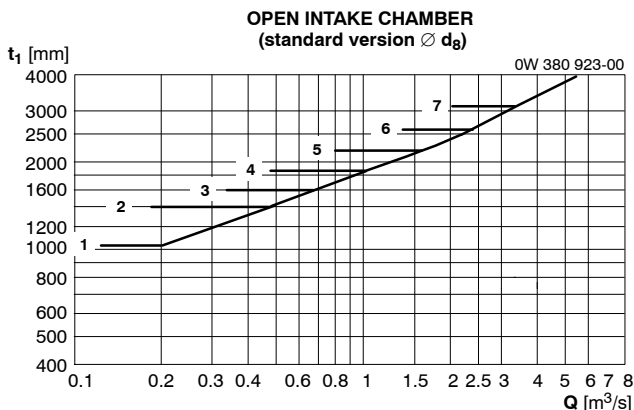
$$H = H_{\text{geo}} + \Delta H_V$$

 $\Delta H_V$  - riser pipe losses (pipe friction)  
 - H<sub>V total</sub> (see diagram)

 H<sub>V total</sub> includes:

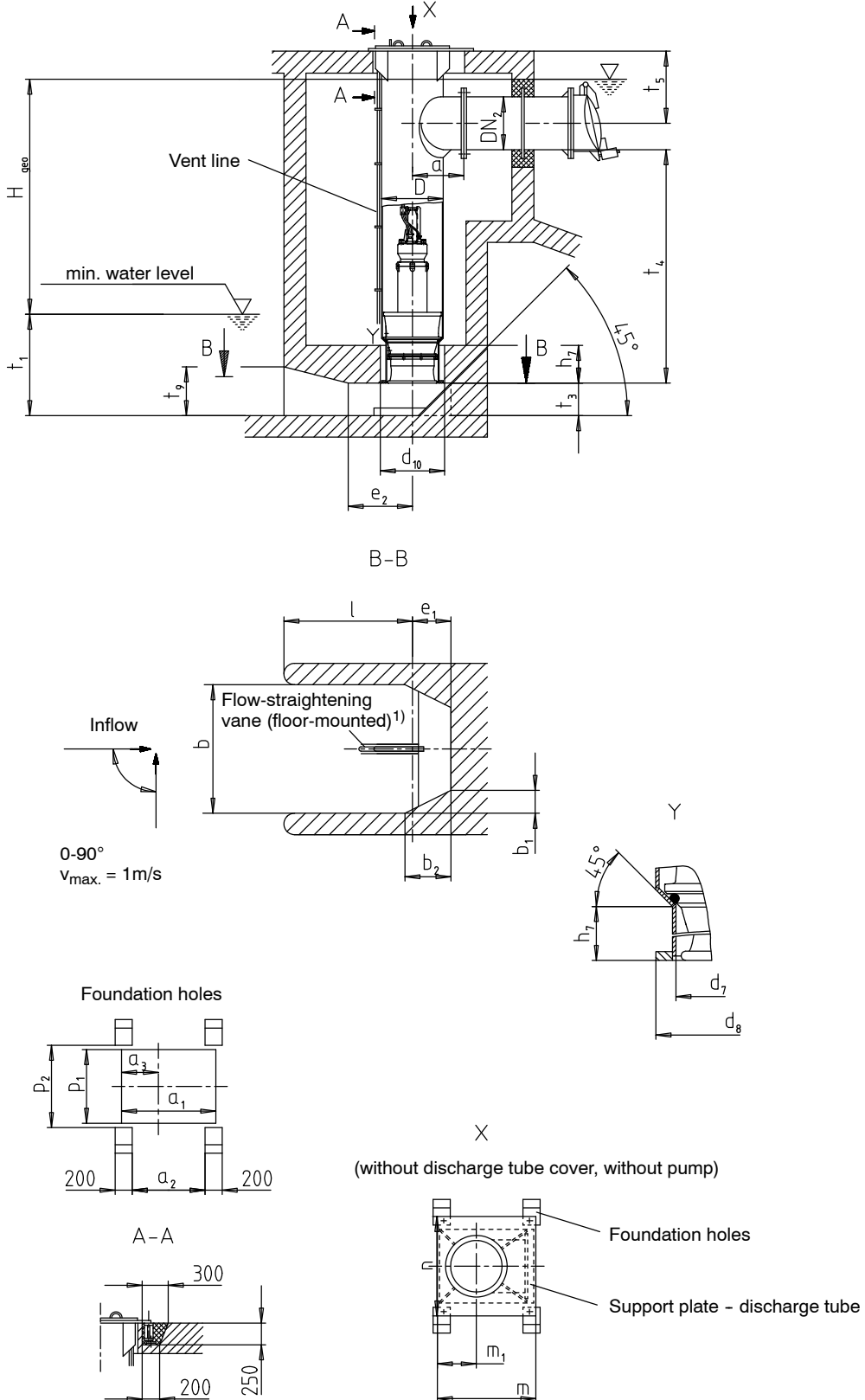
- Elbow
- Discharge pipe length = 5 x DN<sub>2</sub>
- Check valve
- Outlet losses  $v^2/2g$

- |               |               |
|---------------|---------------|
| 1 Amacan P .. | 500 - 270     |
| 2 Amacan P .. | 600 - 350     |
| 3 Amacan P .. | 700 - 470     |
| 4 Amacan P .. | 800/900 - 540 |
| 5 Amacan P .. | 1000 - 700    |
| 6 Amacan P .. | 1200 - 870    |
| 7 Amacan P .. | 1500 - 1060   |

**Diagram for minimum water level t<sub>1</sub>**


**General arrangement drawing**  
**Type of installation CG**

The discharge pipe must be connected to the discharge tube without transmitting any stresses or strains.



<sup>1)</sup> Dimensions of flow-straightening vane - see page 50

**Main dimensions of discharge tube without intermediate flange and structure CG** Dimensions [mm]

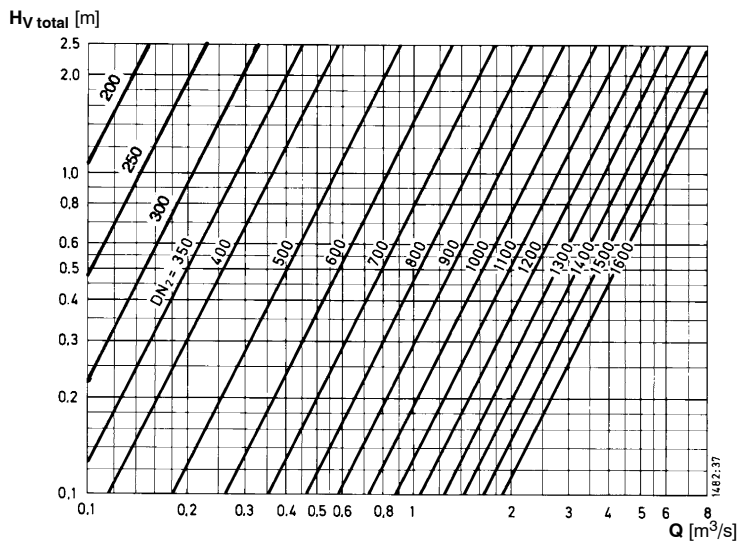
| Pump size | D    | d <sub>7</sub> | h <sub>7</sub> | t <sub>4 min.</sub> <sup>2)</sup> | t <sub>5 min.</sub> <sup>3)</sup> | a    | DN <sub>2 min.</sub> | DN <sub>2 max.</sub> | d <sub>8</sub> | d <sub>10</sub> | t <sub>3</sub> <sup>1)</sup> | d <sub>9</sub> |
|-----------|------|----------------|----------------|-----------------------------------|-----------------------------------|------|----------------------|----------------------|----------------|-----------------|------------------------------|----------------|
| 500- 270  | 508  | 400            | 295            | 1700                              | 670                               | 350  | 300                  | 500                  | 505            | 540             | 200                          | 280            |
| 600- 350  | 610  | 500            | 540            | 2000                              | 695                               | 580  | 350                  | 600                  | 610            | 640             | 320                          | 470            |
| 700- 470  | 711  | 600            | 420            | 2400                              | 720                               | 650  | 400                  | 700                  | 710            | 740             | 380                          | 570            |
| 800- 540  | 813  | 680            | 525            | 2450                              | 835                               | 700  | 500                  | 800                  | 810            | 860             | 440                          | 660            |
| 900- 540  | 914  | 700            | 515            | 2650                              | 925                               | 760  | 600                  | 900                  | 910            | 960             | 440                          | 660            |
| 1000- 700 | 1016 | 880            | 765            | 3250                              | 980                               | 810  | 700                  | 1000                 | 1015           | 1080            | 560                          | 850            |
| 1200- 870 | 1220 | 1070           | 1000           | 4000                              | 1090                              | 910  | 900                  | 1200                 | 1220           | 1290            | 680                          | 1050           |
| 1500-1060 | 1524 | 1330           | 1460           | 4050                              | 1300                              | 1060 | 1200                 | 1500                 | 1520           | 1600            | 860                          | 1320           |

| Pump size | b    | b <sub>1</sub> | b <sub>2</sub> | l <sub>min.</sub> | e <sub>1</sub> <sup>1)</sup> | e <sub>2</sub> | a <sub>1</sub> | a <sub>2</sub> | a <sub>3</sub> | p <sub>1</sub> | p <sub>2</sub> | m    | m <sub>1</sub> | n    |
|-----------|------|----------------|----------------|-------------------|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|------|----------------|------|
| 500- 270  | 750  | 150            | 300            | 750               | 259                          | 375            | 880            | 630            | 325            | 760            | 860            | 930  | 350            | 1060 |
| 600- 350  | 1250 | 250            | 500            | 1250              | 375                          | 325            | 1000           | 750            | 380            | 860            | 960            | 1050 | 405            | 1160 |
| 700- 470  | 1500 | 300            | 600            | 1500              | 450                          | 750            | 1200           | 870            | 430            | 960            | 1060           | 1170 | 455            | 1260 |
| 800- 540  | 1800 | 360            | 720            | 1800              | 519                          | 900            | 1220           | 970            | 480            | 1075           | 1175           | 1270 | 505            | 1375 |
| 900- 540  | 1800 | 360            | 720            | 1800              | 519                          | 900            | 1330           | 1070           | 530            | 1180           | 1280           | 1390 | 560            | 1480 |
| 1000- 700 | 2300 | 460            | 920            | 2300              | 673                          | 1150           | 1430           | 1160           | 580            | 1280           | 1380           | 1520 | 625            | 1620 |
| 1200- 870 | 2800 | 560            | 1120           | 2800              | 833                          | 1450           | 1630           | 1360           | 680            | 1510           | 1610           | 1720 | 725            | 1850 |
| 1500-1060 | 3500 | 700            | 1400           | 3500              | 1048                         | 1750           | 1960           | 1690           | 850            | 1840           | 1940           | 2050 | 895            | 2180 |

- 1) Dimensions e<sub>1</sub> and t<sub>2</sub> must be complied with  
 2) for max. motor length  
 3) designed for DN<sub>2 min.</sub>

## Dimensional tolerances:

- Tolerances for building dimensions to DIN 18202, Part 4, Group B
- Welded constructions: B/F to DIN EN ISO 13920
- Tolerances for conical seat (detail Y): ISO 2768-m
- Discharge flanges to ISO 7005/2, DIN 2 501 PN6

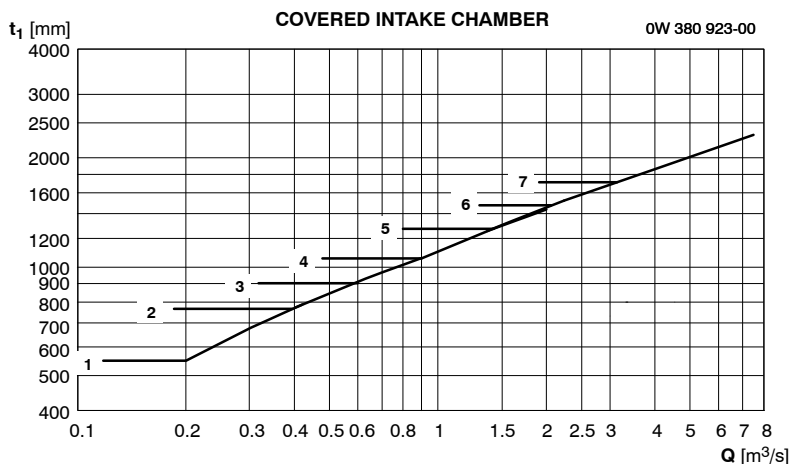
**Loss diagram**


$$H = H_{\text{geo}} + \Delta H_V$$

- $\Delta H_V$  - riser pipe losses (pipe friction)
- $H_V$  total (see diagram)

 $H_V$  total includes:

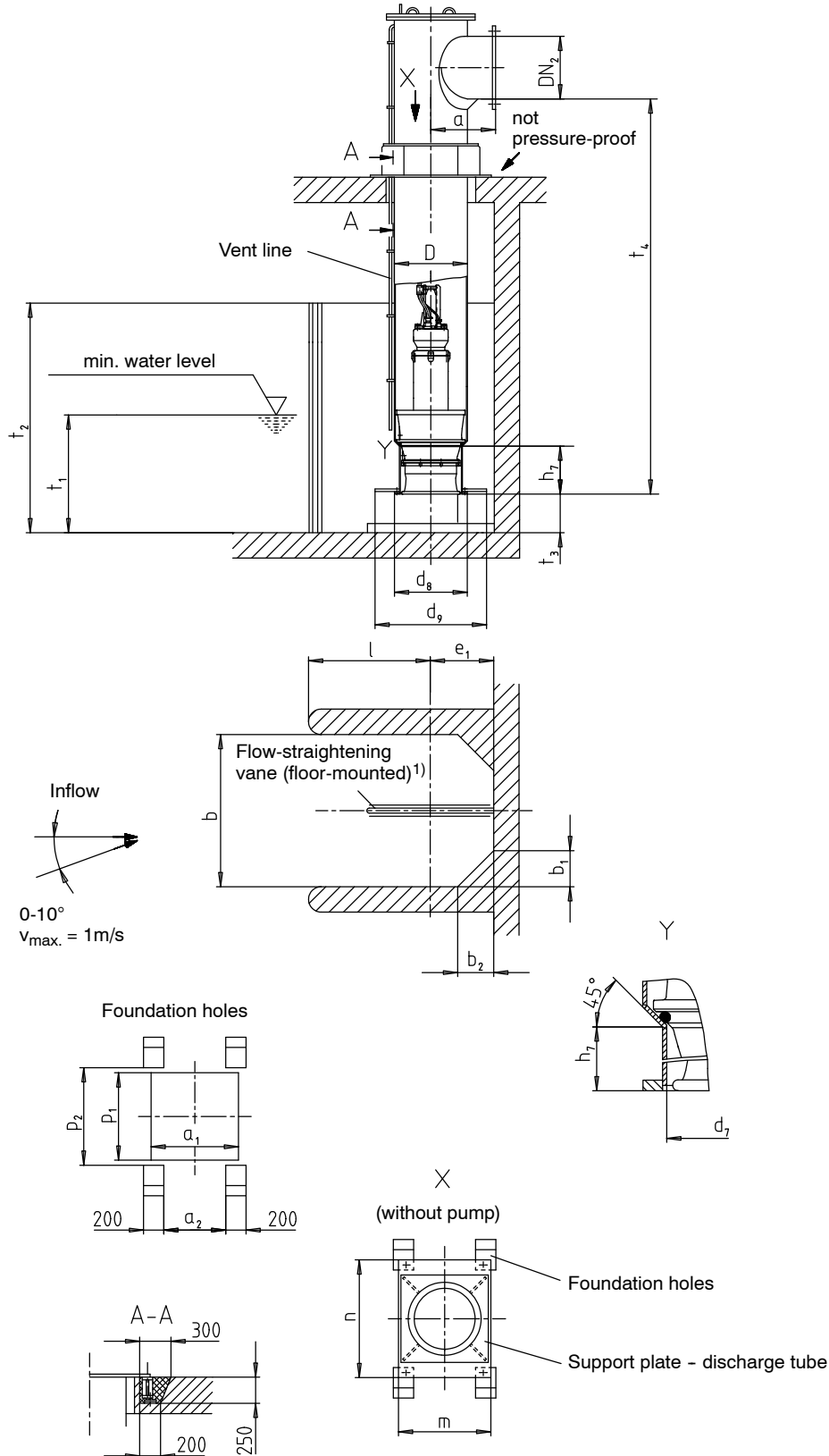
- Elbow
- Discharge pipe length = 5 x DN<sub>2</sub>
- Check valve
- Outlet losses  $v^2/2g$

**Diagram for minimum water level t<sub>1</sub>**


- 1 Amacan P .. 500 - 270
- 2 Amacan P .. 600 - 350
- 3 Amacan P .. 700 - 470
- 4 Amacan P .. 800/900 - 540
- 5 Amacan P .. 1000 - 700
- 6 Amacan P .. 1200 - 870
- 7 Amacan P .. 1500 - 1060

**General arrangement drawing**  
**Type of installation DU**

The discharge pipe must be connected to the discharge tube without transmitting any stresses or strains.



1) Dimensions of flow-straightening vane - see page 50

**Main dimensions of discharge tube without intermediate flange and structure DU**

Dimensions [mm]

| Pump size | D    | d <sub>7</sub> | h <sub>7</sub> | t <sub>4 min.</sub> <sup>2)</sup> | a    | DN <sub>2 min.</sub> | DN <sub>2 max.</sub> | t <sub>3</sub> <sup>1)</sup> | d <sub>8</sub> | d <sub>9</sub> | e <sub>1</sub> <sup>1)</sup> |   | l <sub>min.</sub> |
|-----------|------|----------------|----------------|-----------------------------------|------|----------------------|----------------------|------------------------------|----------------|----------------|------------------------------|---|-------------------|
|           |      |                |                |                                   |      |                      |                      |                              |                |                | standard (d <sub>8</sub> )   | with suction umbrella (d <sub>9</sub> ) |                   |
| 500- 270  | 508  | 400            | 295            | 1700                              | 350  | 300                  | 500                  | 200                          | 505            | 650            | 350                          | 400                                     | 400               |
| 600- 350  | 610  | 500            | 540            | 2000                              | 580  | 350                  | 600                  | 320                          | 610            | 800            | 400                          | 500                                     | 850               |
| 700- 470  | 711  | 600            | 420            | 2400                              | 650  | 400                  | 700                  | 380                          | 710            | 1100           | 450                          | 650                                     | 1050              |
| 800- 540  | 813  | 680            | 525            | 2450                              | 700  | 500                  | 800                  | 440                          | 810            | 1250           | 500                          | 700                                     | 1300              |
| 900- 540  | 914  | 700            | 515            | 2650                              | 760  | 600                  | 900                  | 440                          | 910            | 1250           | 550                          | 700                                     | 1300              |
| 1000- 700 | 1016 | 880            | 765            | 3250                              | 810  | 700                  | 1000                 | 560                          | 1015           | 1600           | 600                          | 900                                     | 1700              |
| 1200- 870 | 1220 | 1070           | 1000           | 4000                              | 910  | 900                  | 1200                 | 680                          | 1220           | 2000           | 700                          | 1100                                    | 2100              |
| 1500-1060 | 1524 | 1330           | 1460           | 4050                              | 1060 | 1200                 | 1500                 | 860                          | 1520           | 2450           | 850                          | 1300                                    | 2650              |

| Pump size | b    | b <sub>1</sub>             |   | b <sub>2</sub>             |   | a <sub>1</sub> | a <sub>2</sub> | p <sub>1</sub> | p <sub>2</sub> | m    | n    |
|-----------|------|----------------------------|---|----------------------------|---|----------------|----------------|----------------|----------------|------|------|
|           |      | standard (d <sub>8</sub> ) | with suction umbrella (d <sub>9</sub> ) | standard (d <sub>8</sub> ) | with suction umbrella (d <sub>9</sub> ) |                |                |                |                |      |      |
| 500- 270  | 750  | 150                        | --                                      | 150                        | --                                      | 650            | 400            | 650            | 750            | 720  | 950  |
| 600- 350  | 1250 | 250                        | --                                      | 250                        | --                                      | 760            | 510            | 760            | 860            | 830  | 1060 |
| 700- 470  | 1500 | 300                        | --                                      | 300                        | --                                      | 860            | 610            | 860            | 960            | 930  | 1160 |
| 800- 540  | 1800 | 360                        | --                                      | 360                        | --                                      | 960            | 710            | 960            | 1060           | 1030 | 1260 |
| 900- 540  | 1800 | 360                        | --                                      | 360                        | --                                      | 1060           | 810            | 1060           | 1160           | 1130 | 1360 |
| 1000- 700 | 2300 | 460                        | --                                      | 460                        | --                                      | 1160           | 910            | 1160           | 1260           | 1240 | 1500 |
| 1200- 870 | 2800 | 560                        | --                                      | 560                        | --                                      | 1360           | 1110           | 1360           | 1460           | 1440 | 1700 |
| 1500-1060 | 3500 | 700                        | --                                      | 700                        | --                                      | 1670           | 1420           | 1670           | 1770           | 1760 | 2010 |

 $t_2 = 1.1 \times \text{water level, max. } 2 \times t_1$ 

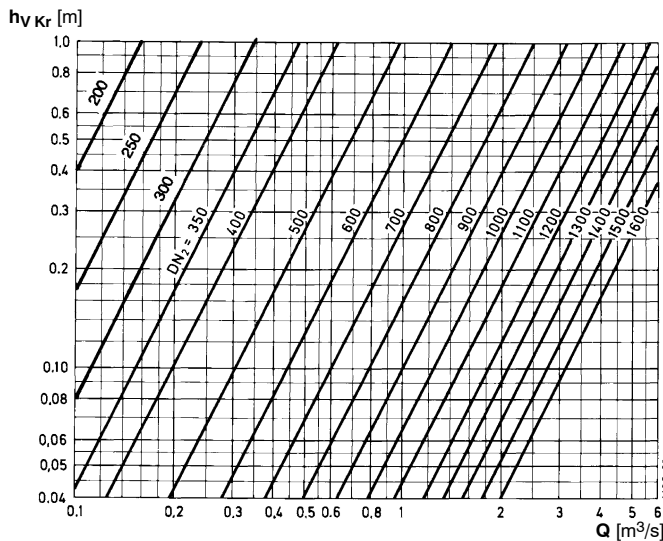
 Height of corner fillets (b<sub>1</sub> and b<sub>2</sub>) same as t<sub>2</sub>

 1) Dimensions e<sub>1</sub> and t<sub>2</sub> must be complied with

2) for max. motor length

Dimensional tolerances:

- Tolerances for building dimensions to DIN 18202, Part 4, Group B
- Welded constructions: B/F to DIN EN ISO 13920
- Tolerances for conical seat (detail Y): ISO 2768-m
- Discharge flanges to ISO 7005/2, DIN 2 501 PN6

**Loss diagram**


$$H = H_{\text{geo}} + \Delta H_V$$

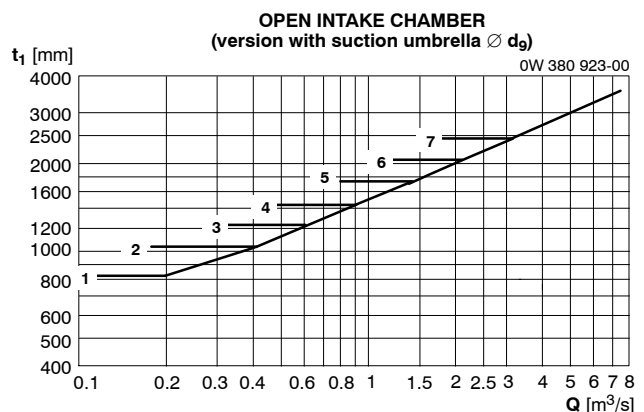
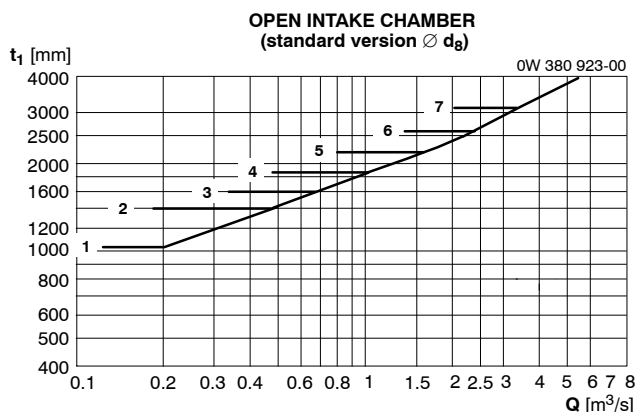
 $\Delta H_V$  - elbow losses  $h_{vKr}$  (see diagram)

- riser pipe losses (pipe friction)

 -  $H_{V \text{ plant}}$  (valves, ...)

 $H_{V \text{ plant}}$  have to be determined with regard to the plant

- 1 Amacan P .. 500 - 270
- 2 Amacan P .. 600 - 350
- 3 Amacan P .. 700 - 470
- 4 Amacan P .. 800/900 - 540
- 5 Amacan P .. 1000 - 700
- 6 Amacan P .. 1200 - 870
- 7 Amacan P .. 1500 - 1060

**Diagram for minimum water level t<sub>1</sub>**




**Main dimensions of discharge tube without intermediate flange and structure DG** Dimensions [mm]

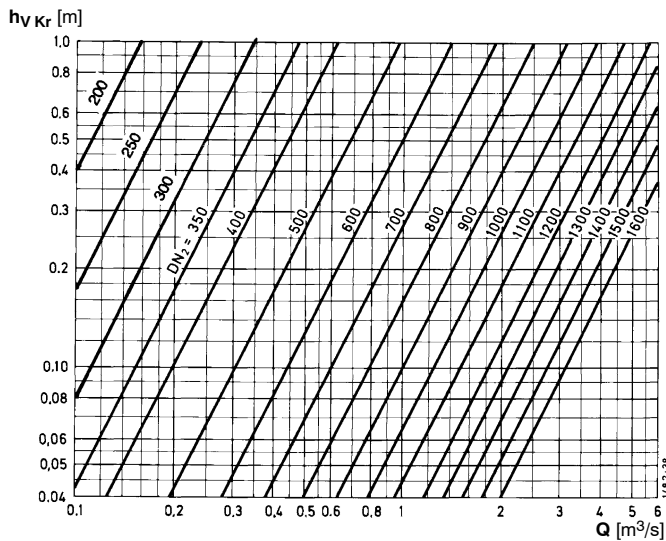
| Pump size | D    | d <sub>7</sub> | h <sub>7</sub> | t <sub>4 min.</sub> <sup>2)</sup> | a    | DN <sub>2 min.</sub> | DN <sub>2 max.</sub> | t <sub>3</sub> <sup>1)</sup> | d <sub>8</sub> | d <sub>10</sub> | t <sub>9</sub> |
|-----------|------|----------------|----------------|-----------------------------------|------|----------------------|----------------------|------------------------------|----------------|-----------------|----------------|
| 500- 270  | 508  | 400            | 295            | 1700                              | 350  | 300                  | 500                  | 200                          | 505            | 540             | 280            |
| 600- 350  | 610  | 500            | 540            | 2000                              | 580  | 350                  | 600                  | 320                          | 610            | 640             | 470            |
| 700- 470  | 711  | 600            | 420            | 2400                              | 650  | 400                  | 700                  | 380                          | 710            | 740             | 570            |
| 800- 540  | 813  | 680            | 525            | 2450                              | 700  | 500                  | 800                  | 440                          | 810            | 860             | 660            |
| 900- 540  | 914  | 700            | 515            | 2650                              | 760  | 600                  | 900                  | 440                          | 910            | 960             | 660            |
| 1000- 700 | 1016 | 880            | 765            | 3250                              | 810  | 700                  | 1000                 | 560                          | 1015           | 1080            | 850            |
| 1200- 870 | 1220 | 1070           | 1000           | 4000                              | 910  | 900                  | 1200                 | 680                          | 1220           | 1290            | 1050           |
| 1500-1060 | 1524 | 1330           | 1460           | 4050                              | 1060 | 1200                 | 1500                 | 860                          | 1520           | 1600            | 1320           |

| Pump size | b    | b <sub>1</sub> | b <sub>2</sub> | l <sub>min.</sub> | e <sub>1</sub> <sup>1)</sup> | e <sub>2</sub> | a <sub>1</sub> | a <sub>2</sub> | p <sub>1</sub> | p <sub>2</sub> | m    | n    |
|-----------|------|----------------|----------------|-------------------|------------------------------|----------------|----------------|----------------|----------------|----------------|------|------|
| 500- 270  | 750  | 150            | 300            | 750               | 259                          | 375            | 650            | 400            | 650            | 750            | 720  | 950  |
| 600- 350  | 1250 | 250            | 500            | 1250              | 375                          | 625            | 760            | 510            | 760            | 860            | 830  | 1060 |
| 700- 470  | 1500 | 300            | 600            | 1500              | 450                          | 750            | 860            | 610            | 860            | 960            | 930  | 1160 |
| 800- 540  | 1800 | 360            | 720            | 1800              | 519                          | 900            | 960            | 710            | 960            | 1060           | 1030 | 1260 |
| 900- 540  | 1800 | 360            | 720            | 1800              | 519                          | 900            | 1060           | 810            | 1060           | 1160           | 1130 | 1360 |
| 1000- 700 | 2300 | 460            | 920            | 2300              | 673                          | 1150           | 1160           | 910            | 1160           | 1260           | 1240 | 1500 |
| 1200- 870 | 2800 | 560            | 1120           | 2800              | 833                          | 1450           | 1360           | 1110           | 1360           | 1460           | 1440 | 1700 |
| 1500-1060 | 3500 | 700            | 1400           | 3500              | 1048                         | 1750           | 1670           | 1420           | 1670           | 1770           | 1760 | 2010 |

1) Dimensions e<sub>1</sub> and t<sub>2</sub> must be complied with  
 2) for max. motor length

Dimensional tolerances:

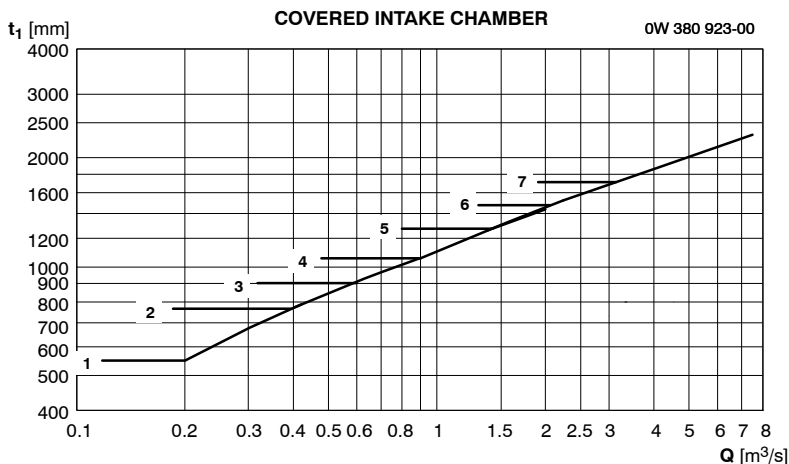
- Tolerances for building dimensions to DIN 18202, Part 4, Group B
- Welded constructions: B/F to DIN EN ISO 13920
- Tolerances for conical seat (detail Y): ISO 2768-m
- Discharge flanges to ISO 7005/2, DIN 2 501 PN8

**Loss diagram**


$$H = H_{geo} + \Delta H_V$$

- $\Delta H_V$  - elbow losses  $h_{V Kr}$  (see diagram)  
 - riser pipe losses (pipe friction)  
 -  $H_{V plant}$  (valves, ...)

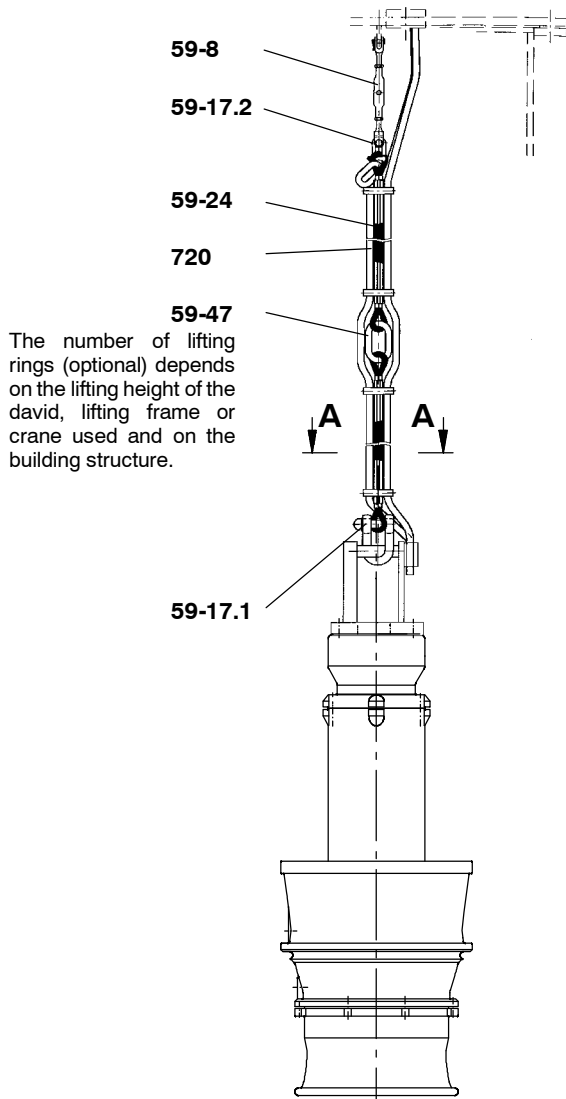
$H_{V plant}$  have to be determined with regard to the plant

**Diagram for minimum water level t<sub>1</sub>**


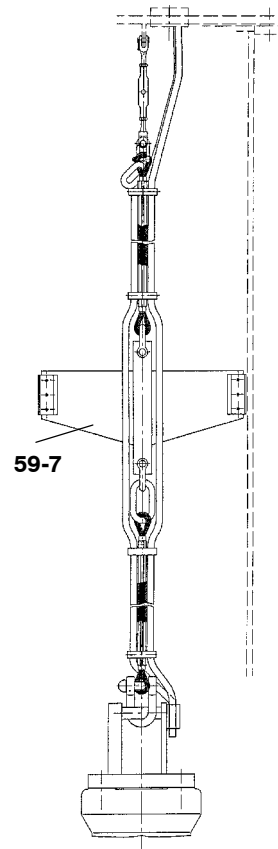
- 1 Amacan P .. 500 - 270
- 2 Amacan P .. 600 - 350
- 3 Amacan P .. 700 - 470
- 4 Amacan P .. 800/900 - 540
- 5 Amacan P .. 1000 - 700
- 6 Amacan P .. 1200 - 870
- 7 Amacan P .. 1500 - 1060

### Pump with support cable and turnbuckle in the discharge tube

For deep installations (with support)



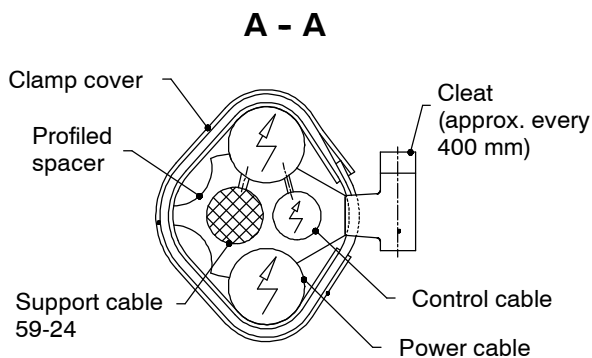
The number of lifting rings (optional) depends on the lifting height of the davit, lifting frame or crane used and on the building structure.



| Part No. | Description                     | Material                        |
|----------|---------------------------------|---------------------------------|
| 59-8     | Turnbuckle                      | Stainless steel                 |
| 59-17.2  | Shackle                         |                                 |
| 59-47    | Carrier cable                   |                                 |
| 59-24    | Cable/Rope to DIN 3088, PK type |                                 |
| 720      | Spacer                          | EPDM                            |
| 59-17.1  | Shackle                         | ST TZN (option Stainless steel) |
| 59-7     | Support                         | Stainless steel                 |

#### Cross-section of cable arrangement

(required where free cable length in discharge tube exceeds 3.5 m)



#### Cable length in the discharge tube from 3.5 m:

Fastening of turnbuckle 59-8

- For closed discharge tubes, attach to the cover of the discharge tube (as illustrated above).
- For open discharge tubes of installation type BU, BG attach to an owner-supplied crossbeam above the water level.

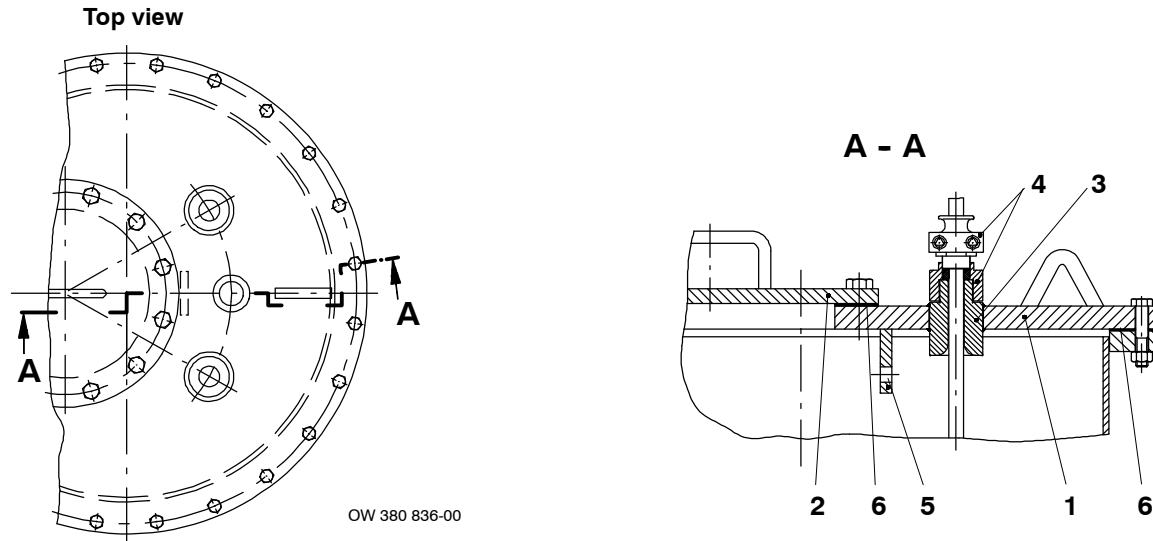
#### Cable length in the discharge tube below 3.5 m:

For open discharge tubes, attach the electric cables to an owner-supplied crossbeam above the water level to prevent any damage caused by movement.



### Discharge tube cover with cable entry

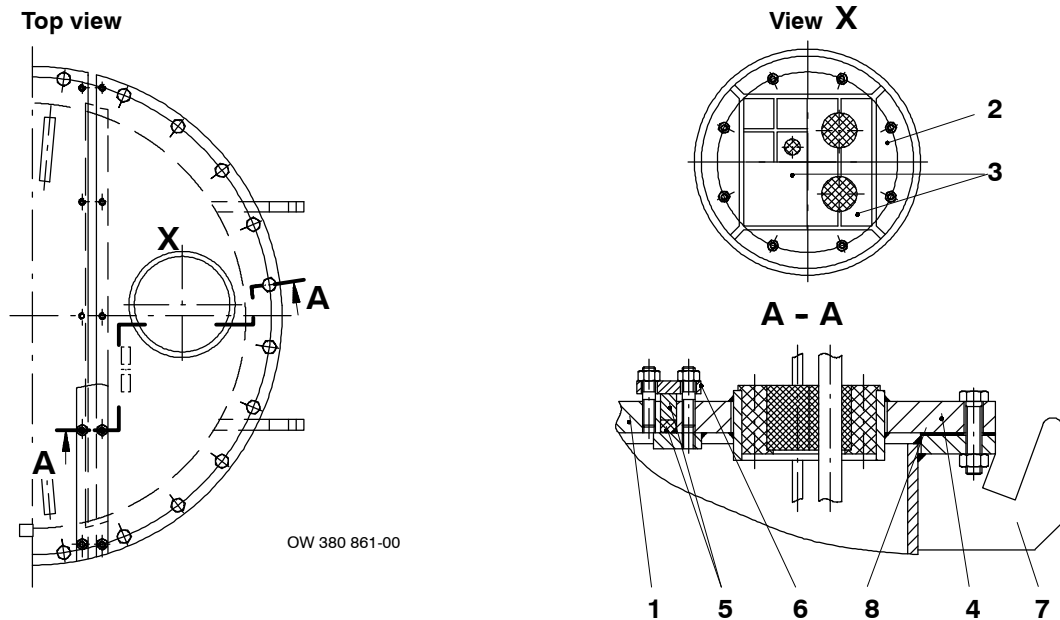
Design variant: with welding sleeve



- 1 Discharge tube cover
- 2 Cover
- 3 Welding sleeve
- 4 Threaded bush with anti-kink bush to DIN 22 419 with strain relief, kink and twist protection
- 5 Eye plate for fixing turnbuckle (wire)
- 6 Gasket, e.g. fabric-reinforced rubber

**Remark:** Discharge tube cover can also be designed in split version

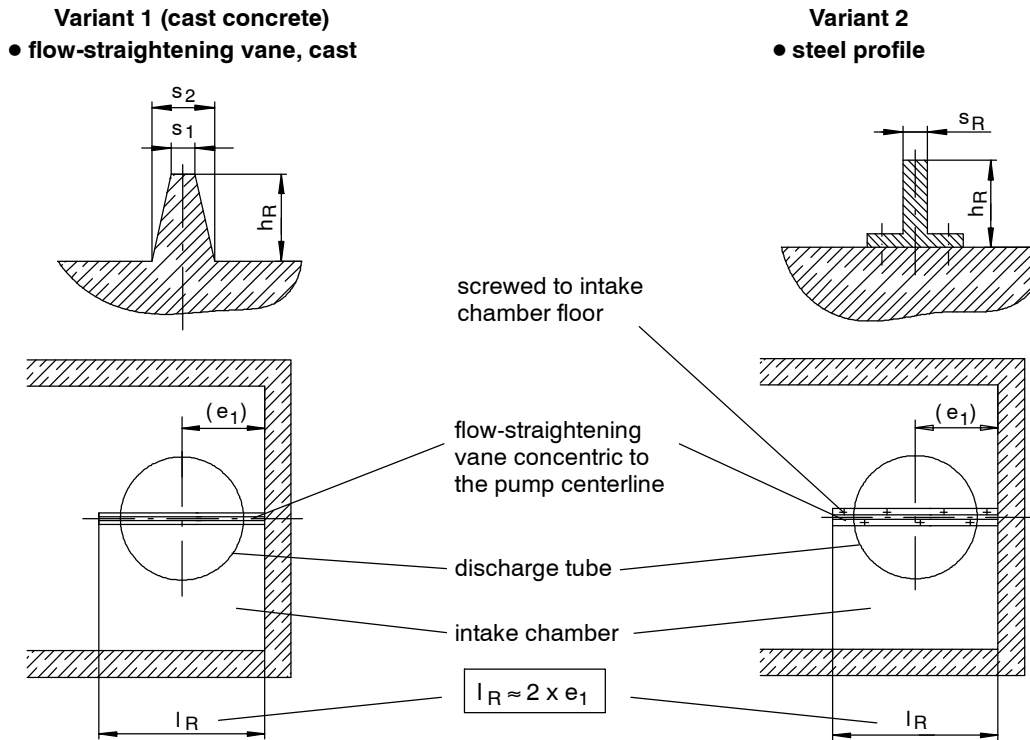
### Design variant: with cable frame (up to 1 bar only)



- 1 Discharge tube cover
- 2 Cable frame (cable gland)
- 3 Packing and filling inserts
- 4 Cover segment with cable transit system
- 5 Sealing of the divided cover with closed cell profile gasket, which may be pre-stressed by inserting an O-ring.
- 6 Gap cover
- 7 Holding brackets for cover segment with cable gland
- 8 Gasket, fabric-reinforced rubber

**Remark:** Discharge tube cover can also be designed in non-split version

**Intake chamber and flow-straightening vane - roughness of wall surfaces**  
**Design variants of flow-straightening vane**



| Pump size<br>Amacan P | $h_R$<br>[mm] | $s_1$<br>[mm] | $s_2$<br>[mm] | $s_R$<br>[mm] |
|-----------------------|---------------|---------------|---------------|---------------|
| 500- 270              | 60            | 20            | 50            | 20            |
| 600- 350              |               |               |               |               |
| 700- 470              | 90            | 25            | 65            | 25            |
| 800/900- 540          |               |               |               |               |
| 1000- 700             | 120           | 30            | 75            | 30            |
| 1200- 870             |               |               |               |               |
| 1500-1060             | 140           | 40            | 110           | 40            |

**Assembly instructions:  
pump - flow-straightening vane**

- The anti-vortex vanes in the bellmouth (part no.138) **must** have the same direction as the flow-straightening vane. The lifting lug is oriented in the same direction as the anti-vortex vanes in the bellmouth.
- For dimension  $e_1$ , see main dimensions of discharge tube and edifice according to general arrangement drawing!

**Design of suction chamber - roughness of wall surfaces (o prevent swirl formation)**

The flow-straightening vane is indispensable in that it ensures adequate inflow conditions for the pump, preventing the formation of a submerged vortex (floor vortex) which, among other things, may reduce pump performance. Also the floor and wall surfaces of the intake chamber should be constructed as a rough concrete surface. Rough surfaces minimise the separation of boundary layers that may cause wall and floor vortices.

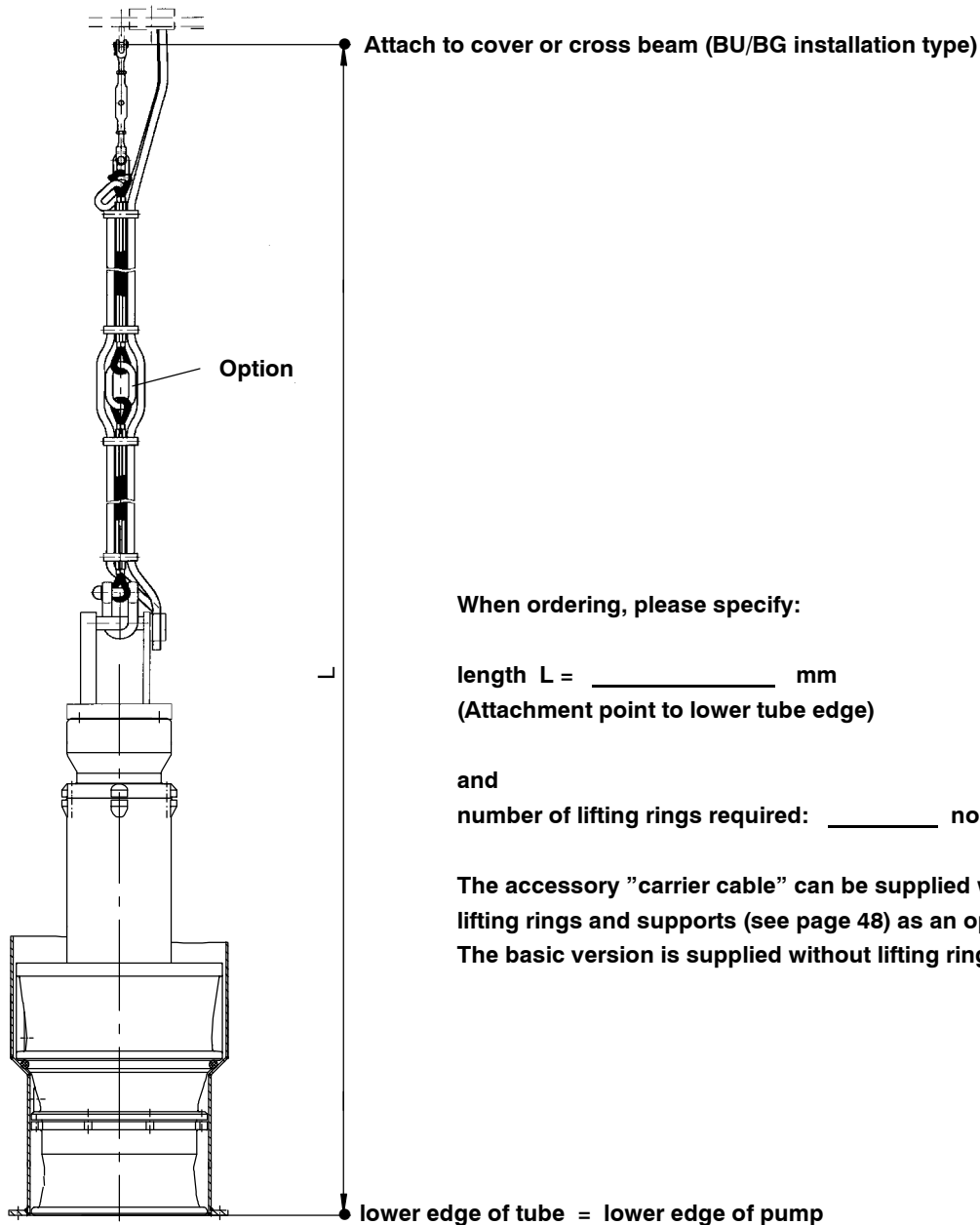


## Order detail - carrier cable length

In order to select the proper length of the carrier cable, it is absolutely necessary to define dimension "L".

When ordering a carrier cable, the lifting height of the crane must be considered!

This determines the number of lifting rings which are required for installation / dismantling of the pump in the discharge tube.



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