

Submersible Motor Pumps with and without Explosion Protection

Amarex N



Product catalogue:

<https://www.ksb.com/en-gb/lc/A31A>

Product benefits

- High operating reliability with optimum motor selection for duty type S1, thermal class F, explosion-proof variant in "ATEX Ex d IIB T4 Gb"
- Long service life with shaft made of corrosion-resistant stainless steel
- Energy-saving design with optimised hydraulic system and high efficiency
- Reliable and non-clogging design with optimised cutter (S impeller)
- Stationary pump sets easy to install and remove with automatic, bolt-free connection; leakage prevented by elastic sealing elements
- Ease of service with wetted hexagon socket head cap screws made of stainless steel which are easy to undo even after years of operation
- Double safety by two bi-directional mechanical seals with oil reservoir filled with environmentally friendly oil
- Only one set of spare parts for all pump sizes thanks to modular design system

Further information

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Product information as per Regulation No. 1907/2006 (REACH)

For information as per European chemicals regulation (EC) No. 1907/2006 (REACH) see <https://www.ksb.com/en-global/company/corporate-responsibility/reach>.

Description / design

Vertical single-stage submersible motor pump for wet installation, with cutter (S), stationary or transportable version. Amarex N pumps are floodable, single-stage, single-entry close-coupled pump sets which are not self-priming. ATEX-compliant version available.

Main applications

- Waste water management
- Drainage systems
- Waste water treatment plants
- Sludge disposal
- Drainage of rooms and areas at risk of flooding on municipal, commercial and industrial premises

Prices

Amarex N G without explosion protection (off-the-shelf programme)

G = material variant grey cast iron (pump casing) / grey cast iron (intermediate casing) / grey cast iron (impeller)

UL = without explosion protection, for fluid temperatures of up to 55 °C

S = cutter

Prices and technical data (50 Hz)

| Size | Impeller diameter | Motor | P ₁ | P _N | I _N | I _A | T ⁹⁾ | MPG | L | [kg] | Mat. No. | GBP |
|--------------|-------------------|-------|----------------|----------------|----------------|----------------|-----------------|-----|---|------|----------|----------|
| | [mm] | | [kW] | [kW] | [A] | [A] | [°C] | | | | | |
| S 32-160/002 | 160 | UL | 2,05 | 1,50 | 3,40 | 18,2 | 40 | 19 | L | 29 | 39190481 | 2.338,77 |
| S 50-172/002 | 120 | UL | 1,83 | 1,30 | 3,58 | 20 | 55 | 19 | L | 47 | 39100017 | 3.066,96 |
| S 50-172/002 | 140 | UL | 1,83 | 1,30 | 3,58 | 20 | 55 | 19 | L | 47 | 39100019 | 3.105,12 |
| S 50-172/012 | 160 | UL | 2,64 | 1,90 | 4,67 | 20 | 55 | 19 | L | 47 | 39100021 | 3.175,88 |
| S 50-222/032 | 175 | UL | 3,90 | 3,10 | 6,90 | 50 | 55 | 19 | L | 58 | 39100041 | 3.271,20 |
| S 50-222/042 | 190 | UL | 5,40 | 4,20 | 9,00 | 50 | 55 | 19 | L | 58 | 39100043 | 3.625,26 |

Amarex N G with explosion protection (off-the-shelf programme)

G = material variant grey cast iron (pump casing) / grey cast iron (intermediate casing) / grey cast iron (impeller)

YL = with explosion protection, for fluid temperatures of up to 40 °C

S = cutter

Prices and technical data (50 Hz)

| Size | Impeller diameter | Motor | P ₁ | P _N | I _N | I _A | T ¹⁰⁾ | MPG | L | [kg] | Mat. No. | GBP |
|-----------------------------|-------------------|-------|----------------|----------------|----------------|----------------|------------------|-----|---|------|----------|----------|
| | [mm] | | [kW] | [kW] | [A] | [A] | [°C] | | | | | |
| S 32-160/002 ¹¹⁾ | 160 | YL | 2,05 | 1,50 | 3,40 | 18,2 | 40 | 19 | L | 29 | 39100380 | 2.434,51 |
| S 32-160/002 ¹²⁾ | 160 | YL | 2,05 | 1,50 | 3,40 | 18,2 | 40 | 19 | L | 33 | 39190252 | 2.679,49 |
| S 50-172/002 | 120 | YL | 1,83 | 1,30 | 3,58 | 20 | 40 | 19 | L | 47 | 39100018 | 3.486,33 |
| S 50-172/002 | 140 | YL | 1,83 | 1,30 | 3,58 | 20 | 40 | 19 | L | 47 | 39100020 | 3.568,08 |
| S 50-172/012 | 160 | YL | 2,64 | 1,90 | 4,67 | 20 | 40 | 19 | L | 47 | 39100022 | 3.649,78 |
| S 50-222/032 | 175 | YL | 3,90 | 3,10 | 6,90 | 50 | 40 | 19 | L | 58 | 39100042 | 3.758,76 |
| S 50-222/042 | 190 | YL | 5,40 | 4,20 | 9,00 | 50 | 40 | 19 | L | 58 | 39100044 | 4.167,29 |

⁹ Fluid temperature

¹⁰ Fluid temperature

¹¹ Cable length 10 m




¹² Cable length 20 m

Accessories

Installation parts for stationary pump sets



Installation parts for stationary pump sets

| Item | Description | Connection | Installation depth | MPG | L | [kg] | Mat. No. | GBP | | |
|------|---|---|--|--|----|------|----------|---------------|---------------|---------------|
| | | | [m] | | | | | | | |
| | P2 + P5 Installation parts for stationary wet installation (guide hoop arrangement) Comprising: duckfoot bend DN 50, stainless steel anchor bolts, guide hoop, claw with stainless steel screws/bolts | Amarex N DN 32 / DN 50 DN3: DIN / ISO / ASME straight claw | 1,5 | BZ | - | 9 | 39022210 | 294,53 | | |
| | | | 1,8 | BZ | - | 10 | 39022211 | 323,43 | | |
| | | | 2,1 | BZ | - | 11 | 39022212 | 352,25 | | |
| | | | Amarex N DN 32 / DN 50 DN3: 50 DIN / ISO / ASME inclined claw | 1,5 | BZ | - | 9 | 39023102 | 337,84 | |
| | | | | 1,8 | BZ | - | 10 | 39023103 | 366,70 | |
| | | | | 2,1 | BZ | - | 11 | 39023104 | 395,57 | |
| | | | Amarex N DN 50 DN3: DIN / ISO / ASME inclined claw | 1,5 | BZ | - | 14 | 39022213 | 337,84 | |
| | | | | 1,8 | BZ | - | 15 | 39022214 | 366,70 | |
| | | | | 2,1 | BZ | - | 14 | 39022215 | 395,57 | |
| | P4 + P5 Installation parts for stationary wet installation (guide wire installation) Consisting of: flanged duckfoot bend, stainless steel anchor bolts, suspension bracket, mounting bracket, 10 m guide wire, claw with stainless steel screws/bolts | Amarex N DN 32 / DN 50 DN3: DIN / ISO / ASME straight claw | - | BZ | - | 10,5 | 39022196 | 363,51 | | |
| | | | | Amarex N DN 32 / DN 50 DN3: 50 DIN / ISO / ASME inclined claw | - | BZ | - | 18 | 39023105 | 402,72 |
| | | | | | - | BZ | - | 18 | 39022200 | 406,81 |
| | P4 + P5 Installation parts for stationary wet installation (single guide rail arrangement) Consisting of: flanged duckfoot bend, stainless steel anchor bolts, mounting bracket, claw with stainless steel screws/bolts (guide rail not included in KSB's scope of supply) | Amarex N DN 32 / DN 50 DN3: DIN / ISO / ASME straight claw | - | BZ | - | 12,5 | 39022204 | 359,43 | | |
| | | | | Amarex N DN 32 / DN 50 DN3: 50 DIN / ISO / ASME inclined claw | - | BZ | - | 18,5 | 39023107 | 402,72 |
| | | | | | - | BZ | - | 18,5 | 39022207 | 402,72 |
| | P4 + P5 Installation parts for stationary wet installation (twin guide rail arrangement) Consisting of: duckfoot bend, stainless steel anchor bolts, mounting bracket, adapter, claw with stainless steel screws/bolts (guide rails not included in KSB's scope of supply) | Amarex N DN 32 / DN 50 DN3: DIN / ISO / ASME inclined claw | - | BZ | - | 15,2 | 39023002 | 406,81 | | |
| | P5 Claw for Amarex N EN-GJL-250 with stainless steel screws/bolts Guide hoop arrangement for DN 50 and DN 65; guide wire and single guide rail arrangement for all DN | Amarex N DN 32 / DN 50 straight claw | - | BZ | - | 1,2 | 39022248 | 49,57 | | |
| | | | | Amarex N DN 32 inclined claw | - | BZ | - | 7 | 39023108 | 87,75 |
| | | | | | - | BZ | - | 7 | 39022252 | 90,08 |
| | P5 Claw for Amarex N EN-GJL-250 with stainless steel screws/bolts Twin guide rail arrangement | Amarex N DN 32 / DN 50 inclined claw | - | BZ | - | 6 | 39022990 | 90,08 | | |

| Item | Description | Connection | Installation depth | MPG | L | [kg] | Mat. No. | GBP |
|---|---|---------------------------|--------------------|-----|---|------|----------|---------------|
| | | | [m] | | | | | |
|  | - Lifting bail made of stainless steel 1.4306 with A4-70 bolts, for lowering the pump set at an angle | Amarex N DN 50 | - | BZ | - | 0,6 | 39022395 | 105,30 |
|  | - Lifting bail made of stainless steel 1.4306 With A4-70 screws/bolts, for lowering the pump set in a vertical position | Amarex N DN 50 | - | BZ | - | 0,9 | 39023593 | 106,01 |
|  | - Parts for conversion to twin guide rail arrangement, consisting of: mounting bracket, stainless steel screws/bolts, adapter, anchor bolts Note: required for conversion of guide hoop, guide wire or single guide rail arrangement to twin guide rail arrangement For twin guide rail arrangements a claw is mandatory. | Amarex N DN 32 / DN 50 | - | BZ | - | 1 | 39022984 | 118,95 |



Installation parts for transportable pump sets

Installation parts for transportable pump sets

| Item | Description | Size | MPG | L | [kg] | Mat. No. | GBP |
|---|---|--------------------|-----|---|------|----------|--------------|
|  | P6 3 feet | Amarex N DN 32 | BZ | - | 0,3 | 39023085 | 35,14 |
| | | Amarex N DN 50 | BZ | - | 0,4 | 39022260 | 36,06 |
|  | Footplate incl. bolts (only for uneven mounting surfaces and in combination with feet) | Amarex N DN 32, 50 | BZ | - | 0,9 | 39022262 | 39,02 |

Chain for stationary and transportable pump sets














Chain for stationary and transportable pump sets

| Item | Description | Load | Length | DN | | MPG | L | [kg] | Mat. No. | GBP |
|---|--|------|--------|-----|----|-----|---|------|----------|---------------|
| | | Max. | | 32 | 50 | | | | | |
| | | [kg] | | [m] | | | | | | |
|  | P7 Chain (1.4404) short-linked, tested and duly labelled to Directive 2006/42/EC (Machinery Directive), hook (1.4301), shackle (1.4404) | 200 | 2 | X | X | BZ | - | 1,2 | 39024056 | 175,42 |
| | | 200 | 3 | X | X | BZ | - | 1,6 | 39024057 | 242,18 |
| | | 200 | 5 | X | X | BZ | - | 2,4 | 39024058 | 255,52 |
| | | 200 | 10 | X | X | BZ | - | 4,4 | 39024059 | 377,56 |
|  | - Lifting rope made of polypropylene, with shackle 1.4401 and hook 1.4571 ¹³⁾ | - | 5 | X | X | BZ | - | 2,5 | 39021975 | 74,56 |

¹³ Increase quantity for larger installation depths.

Pump accessories

Pump accessories


| Item | Description | Con- nec- tion | Length | | DN | | MPG | L | [kg] | Mat. No. | GBP |
|---|--|----------------------|--------|---|----|----|-----|-----|----------|----------|-----|
| | | | [m] | | 32 | 50 | | | | | |
|  P8 | Flange for pipe coupling PN 10, at the flanged elbow, mating dimensions to PN 16 | DN 50 / R 2 | - | - | X | 24 | L | 1,2 | 19551111 | 50,06 | |
|  P9 | PVC adapter for hose connection, with 1 hose clip | R2 | - | - | X | 24 | - | 0,3 | 11191498 | 103,27 | |
|  P14 | Angle with internal thread / external thread, galvanised grey cast iron (flange connection see P27 and P30) | R 2 | - | - | X | 24 | - | 0,3 | 00241966 | 116,23 | |
|  P16 | Storz hose coupling 2 hose clips, item 20, are required for hose mounting (for plastic hoses B 75 and A 110, item 19) | C 52 (DIN 14321) | - | - | X | 24 | L | 0,3 | 00524551 | 63,95 | |
|  P17 | Storz rigid coupling | C 52 / G 2 | - | - | X | 24 | L | 0,2 | 00524370 | 72,12 | |
|  P18 | Plastic hose DN 50, DIN 14811, with integrated C couplings | C 52-5 m | - | - | X | 24 | L | 2,3 | 00522262 | 282,98 | |
| | | C 52-10 m | - | - | X | 24 | L | 4,2 | 00522263 | 468,93 | |
| | | C 52-20 m | - | - | X | 24 | L | 5,7 | 00522264 | 779,72 | |
|  P19 | Plastic hose without coupling, DIN 14811 | 63 ¹⁴⁾ | 5 | - | X | 24 | - | 1,7 | 39018688 | 196,99 | |
| | | 63 ¹⁴⁾ | 10 | - | X | 24 | - | 3,4 | 39018689 | 391,27 | |
| | | 63 ¹⁴⁾ | 20 | - | X | 24 | - | 6,8 | 39018690 | 779,72 | |
|  P20 | Hose clip DIN 3017, chrome steel | B 50 ¹⁵⁾ | - | - | X | 24 | - | 0 | 39000515 | 7,47 | |
|  P23 | KSB check valve, grey cast iron, with full port, lifting device, flanges drilled to DIN 2501, PN 16 (not for lifting units) | DN 50 | - | - | X | 24 | - | 8,3 | 49709571 | 360,41 | |
|  P25 | Set of installation accessories for a flange connection, discharge nozzle; item 13, 14 or 15 Consisting of: 4 hexagon head bolts with nuts and 1 sealing element | - | - | - | X | 24 | L | 0,8 | 39021944 | 13,89 | |
|  P27 | Threaded flange for guide hoop arrangement (P2) and guide wire arrangement (P4) Consisting of: flange, 4 hexagon head bolts with nuts and washers and 1 sealing element | DN 32 / Rp 1 1/4 | - | X | - | 24 | - | 1,7 | 39023087 | 194,39 | |
| | | DN 50 / Rp 2 | - | - | X | 24 | - | 2 | 19551353 | 199,77 | |
|  P28 | Hand pump, wall mounting, grey cast iron, suction-side connection Rp 1 1/2 | Rp 1 1/2 | - | X | X | 24 | L | 12 | 00520485 | 391,26 | |
|  P30 | Adapter with reduced external thread M4 EN 1042K | 2 x Rp 1 1/4 | - | X | - | 24 | - | 0,4 | 01135663 | 117,19 | |

¹⁴ Inside diameter

¹⁵ For plastic hose diameter 63 item 19

Control units and switchgear

Switchgear / control units






| Item | Description | I _N | | Type | MPG | L | [kg] | Mat. No. | GBP |
|---|--|----------------|------|-------------|-----|---|------|----------|---------------|
| | | Min. | Max. | | | | | | |
| | | [A] | [A] | | | | | | |
|  | E4 Multi-functional plug, type Hyper, with motor protection relay CEE plug | 2,6 | 3,7 | Hyper 37.1 | 73 | L | 1 | 19071492 | 464,23 |
| | | 3,7 | 5,5 | Hyper 55.1 | 73 | L | 1 | 19071493 | 464,23 |
| | | 5,5 | 8,0 | Hyper 80.1 | 73 | L | 1 | 19071494 | 464,23 |
| | | 8,0 | 11,5 | Hyper 115.1 | 73 | L | 1 | 19071495 | 464,23 |

Dual-pump station with LevelControl Basic 2

For dual-pump stations we recommend using the LevelControl Basic 2 control unit, which controls automatic operation of both pumps (automatic pump changeover after every start, peak load operation function and automatic pump changeover in the case of a pump fault). An alarm function is integrated in LevelControl Basic 2. A separate alarm switchgear is not required in this case. The control unit can be selected in KSB EasySelect.

Alarm switchgears for pumps, non-ATEX-compliant

Alarm switchgears for pumps, non-ATEX-compliant

| Item | Description | MPG | L | [kg] | Mat. No. | GBP |
|---|--|-----|---|------|----------|----------|
|  | <p>E50 Alarm switchgear AS 0</p> <p>With circuit breaker, acoustic signalling device with 85 dB(A), green equipment-on lamp</p> <p>Plastic housing, IP20, H x W x D = 140 x 80 x 57 [mm]. Use float switch, F1 leakage sensor (item E64), M1 alarm contactor or signal relay of control unit as contactor.</p> | 73 | L | 0,5 | 29128401 | 207,95 |
|  | <p>E51 Alarm switchgear AS 2</p> <p>With circuit breaker, acoustic signalling device with 85 dB(A), green equipment-on lamp, volt-free contact for hook-up to a control station</p> <p>Plastic housing, IP20, H x W x D = 140 x 80 x 57 [mm]. Use float switch, F1 leakage sensor (item E64) or signal relay of control unit as contactor.</p> | 73 | L | 0,5 | 29128422 | 597,39 |
|  | <p>E52 Alarm switchgear AS 4</p> <p>With circuit breaker, acoustic signalling device with 85 dB(A), green equipment-on lamp, volt-free contact for hook-up to a control station, self-charging power supply unit for 5 hours of operation in the event of a power failure</p> <p>Plastic housing, IP20, H x W x D = 140 x 80 x 57 [mm]. Use float switch (E60), F1 leakage sensor (item E64) or signal relay of control unit as contactor.</p> | 73 | L | 0,5 | 29128442 | 1.054,45 |
|  | <p>E53 Alarm switchgear AS 5</p> <p>Mains-independent, with self-charging power supply unit for 10 hours of operation in the event of a power failure, mains pilot LED, fault indicator light, acknowledgement button, volt-free contact for hook-up to a control station, ready for connection with 1.8 m power cable and plug.</p> <p>ISO housing, IP41, H x W x D = 190 x 165 x 75 [mm]. Use float switch (E60) or signal relay of control unit as contactor.</p> <p>Acoustic alarm not included in the scope of supply, see horn (E70).</p> | 73 | L | 1,7 | 00530561 | 1.633,81 |
|  | <p>E55 Alarm switchgear AS 1</p> <p>In IP30 ISO plug housing, mains-independent, with self-charging power supply unit for 5 hours of operation in the event of a power failure, acoustic signalling device 70 dB(A) with circuit breaker and integrated signal transmitter with 3-metre power cable, max. 60 °C, not suitable for steam and condensate.</p> <p>1. High water alert by suspending the sensor in a (pump) sump above the pump start-up point.</p> <p>2. Water alert signal at a water level of only 1 mm by placing the sensor on the floor in areas with a flooding or leakage risk, e.g. the cellar or next to the washing machine in the kitchen or bathroom.</p> | 73 | L | 0,9 | 00533740 | 600,88 |