

# KVC - KVCX

## INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS



### TECHNICAL DATA

**Operating range:**

from 50 to 200 l/min with head up to 113 m.

**Pumped liquid:** clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

**Pumped liquid temperature range:** from 0 °C to +35 °C for domestic use (EN 60335-2-41 safety standards).

From 0°C to +40°C for other uses.

**Maximum ambient temperature:** +40 °C.

**Maximum operating pressure:** 12 bar (1200 kPa).

**Protection class:** IP 55

**Insulation class:** F

**Standard voltage:** single-phase 220-240 V / 50 Hz

three-phase 230-400 V / 50 Hz IE3 ≥ 0.75 kW for EU countries

IE2 ≥ 0.75 kW for extre EU countries

**Installation:** fixed, vertical or horizontal position, provided that the motor is always above the pump.

**Special executions on requests:** alternative voltages and frequencies.

### APPLICATIONS

Vertical multistage centrifugal pump suitable for small to medium user water systems. Suitable for pressurization units, filling of pressure vessels, sprinkler and watering systems, fire-fighting and washing systems, channelling of condensate and cooling water. Innovative and robust design.

### CONSTRUCTION FEATURES OF THE PUMP

KVC: Technopolymer delivery and suction bodies, and in-line suction and delivery ports with threaded metal insert.

KVCX: technopolymer suction body with threaded metal insert; stainless steel threaded delivery port on pump liner.

Impellers, diffuser bodies and diffusers in technopolymer, fully rust-proof. AISI 304 stainless steel pump liner, adjustment rings and seal disc. Carbon/ceramic mechanical seal, fitted on the AISI 303 stainless-steel drive shaft extension.

### CONSTRUCTION FEATURES OF THE MOTOR

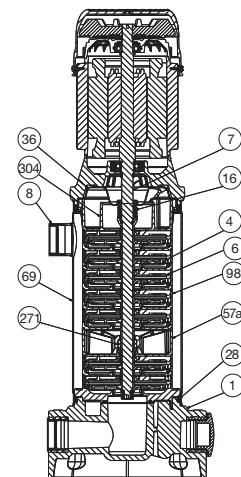
Closed asynchronous type, external ventilation cooling. Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability. Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions.

Overload protection to be provided by the user for the three-phase version. Construction according to CEI 2-3 / CEI 61-69 (EN 60335-2-41).

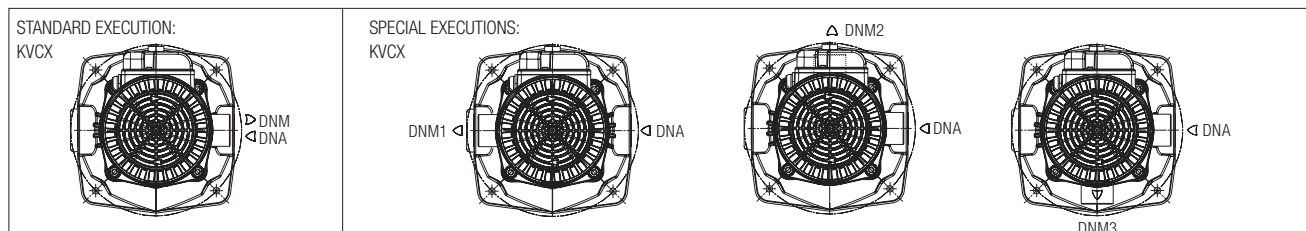
### MATERIALS

| No. | PARTS*                       | MATERIALS  |
|-----|------------------------------|--|
| 1   | PUMP BODY                    | TECHNOPOLYMER A                                      |
| 4   | IMPELLER                     | TECHNOPOLYMER B                                      |
| 6   | DIFFUSER                     | TECHNOPOLYMER B                                      |
| 7   | SHAFT WITH ROTOR             | AISI 303 STAINLESS STEEL X10 CrNi S 1089 UNI 6900/71 |
| 16  | MECHANICAL SEAL              | SILICON CARBIDE/SILICON                              |
| 28  | OR RING                      | EPDM RUBBER  |
| 36  | SEAL HOLDING DISC            | AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71    |
| 57a | INTERMEDIATE STAGE           | TECHNOPOLYMER B                                      |
| 69  | LINER                        | AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71    |
| 98  | DIFFUSER BODY                | TECHNOPOLYMER B                                      |
| 271 | CENTERING BUSHING            | BRONZE B14   |
| 304 | CONVEYOR                     | TECHNOPOLYMER B                                      |
| 8   | DNM (standard for KVCX only) |  |

\* In contact with the liquid.



### KVCX SUCTION AND DELIVERY PORT ORIENTATION



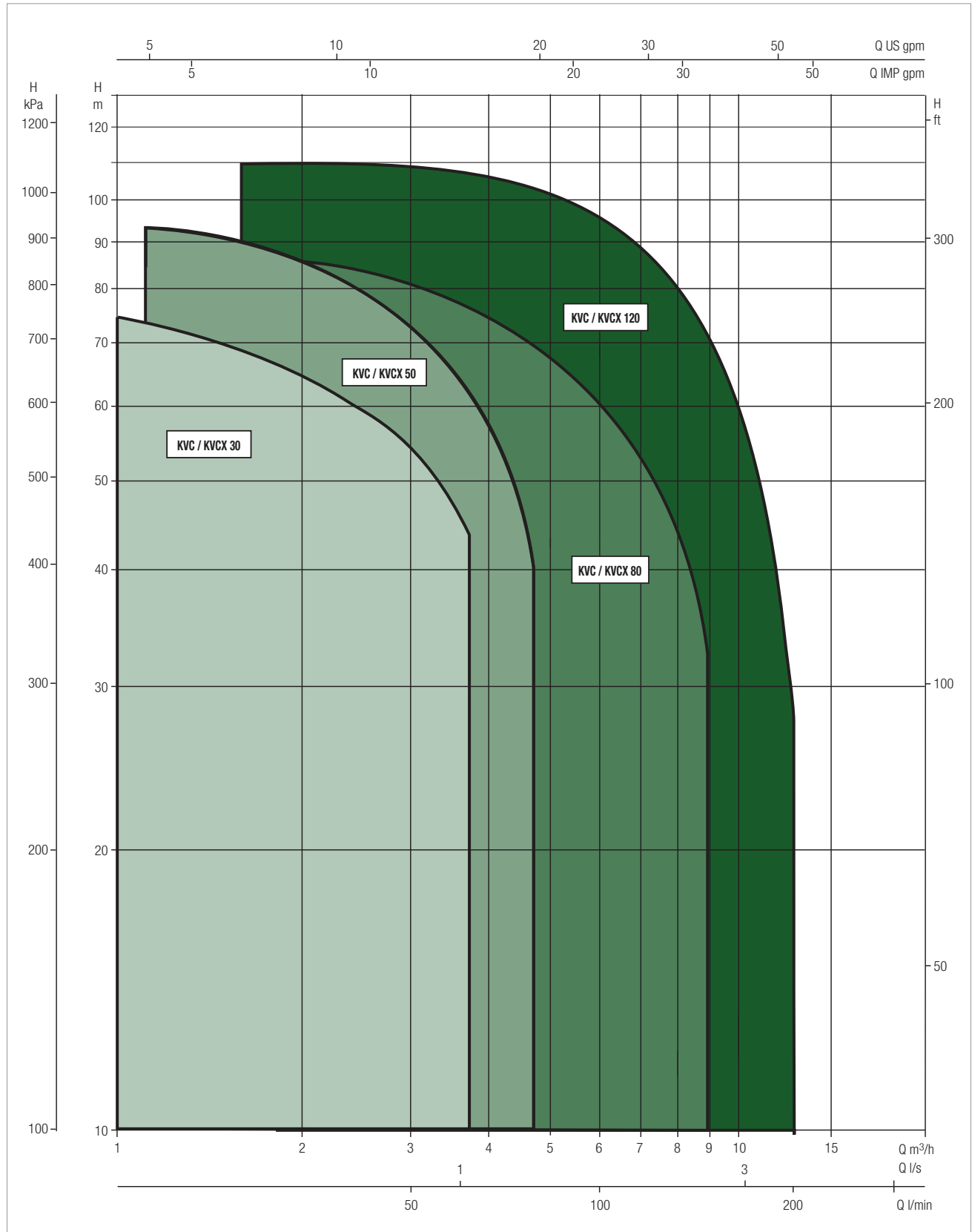
# KVC - KVCX RANGE

## INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS

### PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm<sup>2</sup>/s and density equal to 1000 kg/m<sup>3</sup>. Curve tolerance according to ISO 9906.

### GRAPHIC SELECTION TABLE



### SELECTION TABLE - KVC / KVCX 30

| MODEL                | Q=m <sup>3</sup> /h | 0    | 0.6  | 1.2  | 1.8  | 2.4  | 3    | 3.6  | 3.9  |
|----------------------|---------------------|------|------|------|------|------|------|------|------|
|                      | Q=l/min             | 0    | 10   | 20   | 30   | 40   | 50   | 60   | 65   |
| KVC/KVCX 15/30 M / T | H<br>(m)            | 21.5 | 21.3 | 20.5 | 19.0 | 16.9 | 14.2 | 10.8 | 8.9  |
| KVC/KVCX 25/30 M / T |                     | 29.0 | 28.6 | 27.4 | 25.3 | 22.4 | 18.5 | 13.6 | 10.7 |
| KVC/KVCX 35/30 M / T |                     | 40.2 | 39.3 | 37.3 | 34.1 | 29.8 | 24.3 | 17.4 | 13.5 |
| KVC/KVCX 45/30 M     |                     | 49.7 | 48.7 | 46.5 | 43.1 | 38.4 | 32.1 | 24.2 | 19.6 |
| KVC/KVCX 45/30 T     |                     | 47.1 | 45.9 | 43.5 | 39.8 | 34.7 | 28.0 | 19.6 | 14.7 |
| KVC/KVCX 50/30 M / T |                     | 61.5 | 59.9 | 56.8 | 52.2 | 46.0 | 38.0 | 28.3 | 22.7 |
| KVC/KVCX 60/30 M / T |                     | 69.6 | 67.6 | 64.0 | 58.5 | 51.1 | 41.8 | 30.3 | 23.8 |
| KVC/KVCX 65/30 M / T |                     | 78.4 | 76.8 | 73.5 | 68.4 | 61.2 | 51.9 | 40.1 | 33.3 |

### SELECTION TABLE - KVC / KVCX 50

| MODEL                | Q=m <sup>3</sup> /h | 0    | 0.6  | 1.2  | 1.8  | 2.4  | 3    | 3.3  | 3.9  | 4.8  |
|----------------------|---------------------|------|------|------|------|------|------|------|------|------|
|                      | Q=l/min             | 0    | 10   | 20   | 30   | 40   | 50   | 55   | 65   | 80   |
| KVC/KVCX 20/50 M / T | H<br>(m)            | 27.4 | 26.9 | 26.0 | 24.9 | 23.1 | 21.1 | 19.8 | 16.9 | 11.4 |
| KVC/KVCX 30/50 M / T |                     | 41.1 | 40.3 | 39.0 | 37.3 | 34.7 | 31.6 | 29.7 | 25.3 | 17.1 |
| KVC/KVCX 40/50 M / T |                     | 54.9 | 53.7 | 52.0 | 49.7 | 46.3 | 42.1 | 39.6 | 33.7 | 22.9 |
| KVC/KVCX 55/50 M / T |                     | 68.6 | 67.1 | 65.0 | 62.1 | 57.9 | 52.7 | 49.5 | 42.1 | 28.6 |
| KVC/KVCX 65/50 M / T |                     | 82.3 | 80.6 | 78.0 | 74.6 | 69.4 | 63.2 | 59.4 | 50.6 | 34.3 |
| KVC/KVCX 75/50 M / T |                     | 96.0 | 94.0 | 91.0 | 87.0 | 81.0 | 73.8 | 69.3 | 59.0 | 40.0 |

### SELECTION TABLE - KVC / KVCX 80

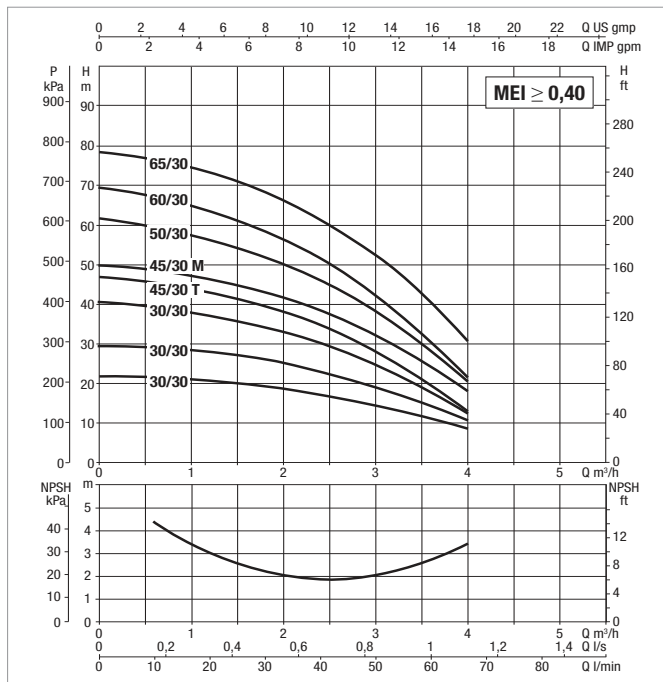
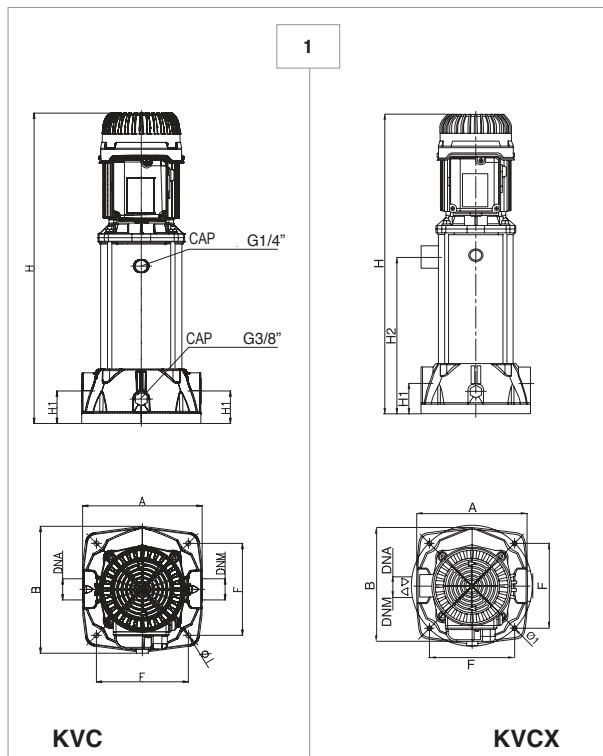
| MODEL           | Q=m <sup>3</sup> /h | 0    | 0.6  | 1.2  | 1.8  | 2.4  | 3    | 3.6  | 4.2  | 5.4  | 7.2  | 8.4  | 9    |
|-----------------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                 | Q=l/min             | 0    | 10   | 20   | 30   | 40   | 50   | 60   | 70   | 90   | 120  | 140  | 150  |
| KVC 20/80 M / T | H<br>(m)            | 25.0 | 24.8 | 24.4 | 23.8 | 23.1 | 22.3 | 21.3 | 20.1 | 17.3 | 11.9 | 7.4  | 4.8  |
| KVC 30/80 M / T |                     | 36.9 | 36.9 | 36.6 | 36.1 | 35.3 | 34.3 | 33.1 | 31.6 | 27.8 | 20.3 | 14.2 | 10.7 |
| KVC 40/80 M / T |                     | 50.1 | 49.7 | 49.0 | 48.0 | 46.7 | 45.1 | 43.2 | 41.0 | 35.7 | 25.5 | 17.1 | 12.5 |
| KVC 45/80 M / T |                     | 64.6 | 64.5 | 63.9 | 63.0 | 61.7 | 60.0 | 57.9 | 55.5 | 49.3 | 37.1 | 26.8 | 21.1 |
| KVC 55/80 M / T |                     | 76.1 | 75.8 | 75.1 | 73.9 | 72.2 | 70.0 | 67.4 | 64.3 | 56.7 | 41.8 | 29.5 | 22.7 |
| KVC 65/80 M / T |                     | 88.6 | 88.0 | 86.9 | 85.5 | 83.5 | 81.2 | 78.3 | 75.0 | 67.0 | 51.1 | 37.9 | 30.5 |

### SELECTION TABLE - KVC / KVCX 120

| MODEL                 | Q=m <sup>3</sup> /h | 0     | 0.6   | 1.2   | 1.8   | 2.4   | 3     | 3.3   | 3.9   | 4.8  | 5.4  | 6    | 7.2  | 8.4  | 9.6  | 10.8 | 12   |
|-----------------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
|                       | Q=l/min             | 0     | 10    | 20    | 30    | 40    | 50    | 55    | 65    | 80   | 90   | 100  | 120  | 140  | 160  | 180  | 200  |
| KVC/KVCX 25/120 M / T | H<br>(m)            | 30.4  | 30.3  | 30.2  | 30.0  | 29.9  | 29.6  | 29.3  | 28.7  | 27.7 | 26.9 | 25.9 | 23.2 | 19.9 | 16.4 | 12.0 | 7.0  |
| KVC/KVCX 35/120 M / T |                     | 46.2  | 46.1  | 45.7  | 45.3  | 44.8  | 44.0  | 43.7  | 42.7  | 40.9 | 39.3 | 37.4 | 33.7 | 29.4 | 24.2 | 18.0 | 11.0 |
| KVC/KVCX 45/120 M / T |                     | 62.4  | 62.0  | 61.4  | 60.8  | 60.1  | 59.1  | 58.6  | 57.5  | 55.3 | 53.4 | 51.4 | 46.2 | 40.6 | 34.0 | 26.3 | 17.0 |
| KVC/KVCX 60/120 T     |                     | 78.0  | 77.5  | 76.7  | 75.9  | 75.1  | 73.9  | 73.3  | 71.5  | 68.3 | 65.9 | 63.2 | 58.0 | 51.0 | 43.4 | 35.0 | 24.5 |
| KVC/KVCX 70/120 T     |                     | 95.0  | 94.3  | 93.4  | 92.5  | 91.4  | 89.8  | 88.9  | 86.8  | 83.2 | 80.5 | 77.9 | 71.7 | 63.9 | 54.7 | 44.0 | 31.0 |
| KVC/KVCX 85/120 T     |                     | 112.7 | 111.6 | 110.3 | 109.0 | 107.6 | 105.7 | 104.5 | 101.9 | 97.5 | 94.1 | 89.9 | 81.6 | 72.1 | 61.2 | 48.9 | 34.0 |

# KVC / KVCX 30 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

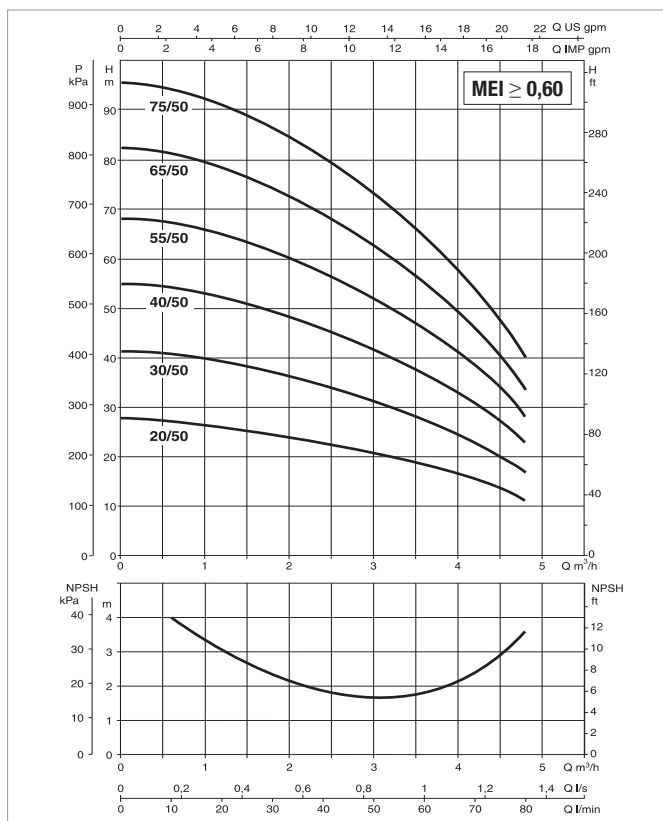
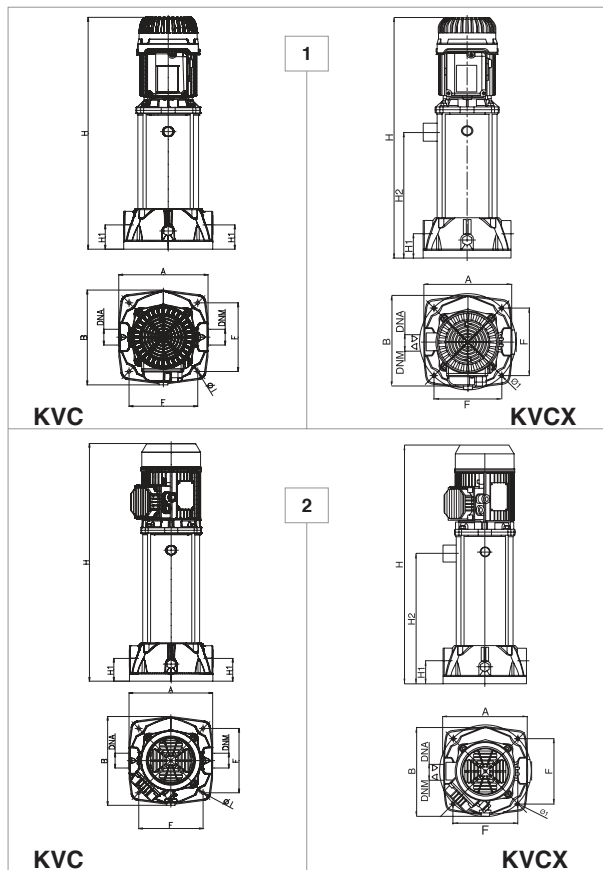
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL                | NO. OF IMPELLERS | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL |      | In A      | MOTOR TYPE | I st. A   | 1/min. | CAPACITOR |     |
|----------------------|------------------|-------------------|-----------|------------|------|-----------|------------|-----------|--------|-----------|-----|
|                      |                  |                   |           | kW         | HP   |           |            |           |        | µF        | Vc  |
|                      |                  |                   |           |            |      |           |            |           |        |           |     |
| KVC/KVCX 15/30 M     | 2                | 1x220-240V ~      | 0.56      | 0.25       | 0.34 | 2.8       | -          | 11.7      | 2800   | 14        | 450 |
| KVC/KVCX 15/30 T     |                  | 3x230/400V ~      | 0.52      | 0.25       | 0.34 | 2.2 - 1.2 | -          | 3.1 - 1.8 | 2800   | -         | -   |
| KVC/KVCX 25/30 M     | 3                | 1x220-240V ~      | 0.73      | 0.37       | 0.5  | 3.4       | -          | 11.8      | 2800   | 14        | 450 |
| KVC/KVCX 25/30 T     |                  | 3x230/400V ~      | 0.67      | 0.37       | 0.5  | 2.4 - 1.4 | -          | 3.3 - 1.9 | 2800   | -         | -   |
| KVC/KVCX 35/30 M     | 4                | 1x220-240V ~      | 0.89      | 0.45       | 0.6  | 4.1       | -          | 12.5      | 2800   | 14        | 450 |
| KVC/KVCX 35/30 T     |                  | 3x230/400V ~      | 0.85      | 0.45       | 0.6  | 2.8 - 1.6 | -          | 3.6 - 2.1 | 2800   | -         | -   |
| KVC/KVCX 45/30 M     | 5                | 1x220-240V ~      | 1.11      | 0.65       | 0.88 | 5.2       | -          | 19.3      | 2800   | 20        | 450 |
| KVC/KVCX 45/30 T     |                  | 3x230/400V ~      | 0.97      | 0.65       | 0.88 | 3 - 1.7   | -          | 3.5 - 1.9 | 2800   | -         | -   |
| KVC/KVCX 50/30 M     | 6                | 1x220-240V ~      | 1.29      | 0.75       | 1.0  | 5.9       | -          | 20.8      | 2800   | 20        | 450 |
| KVC/KVCX 50/30 T     |                  | 3x230/400V ~      | 1.15      | 0.75       | 1.0  | 4.1 - 2.4 | IE2        | 5.5 - 3.2 | 2800   | -         | -   |
| KVC/KVCX 50/30 T IE3 |                  | 3x230/400V ~      | 1.08      | 0.75       | 1.0  | 3.5 - 2   | IE3        | 5.2 - 3   | 2800   | -         | -   |
| KVC/KVCX 60/30 M     | 7                | 1x220-240V ~      | 1.45      | 0.9        | 1.2  | 6.7       | -          | 24.3      | 2800   | 25        | 450 |
| KVC/KVCX 60/30 T     |                  | 3x230/400V ~      | 1.30      | 0.9        | 1.2  | 4.4 - 2.5 | IE2        | 5.9 - 3.4 | 2800   | -         | -   |
| KVC/KVCX 60/30 T IE3 |                  | 3x230/400V ~      | 1.22      | 0.9        | 1.2  | 3.8 - 2.2 | IE3        | 4.7 - 2.7 | 2800   | -         | -   |
| KVC/KVCX 65/30 M     | 8                | 1x220-240V ~      | 1.56      | 1          | 1.36 | 7         | -          | 24.3      | 2800   | 25        | 450 |
| KVC/KVCX 65/30 T     |                  | 3x230/400V ~      | 1.44      | 1          | 1.36 | 4.9 - 2.8 | IE2        | 6.9 - 4   | 2800   | -         | -   |
| KVC/KVCX 65/30 T IE3 |                  | 3x230/400V ~      | 1.38      | 1          | 1.36 | 4.3 - 2.5 | IE3        | 4.5 - 2.6 | 2800   | -         | -   |

| MODEL      | EXTERNAL DESIGN | A   | B   | F   | H   | H1 | H2  | Ø I | DNA      | DNM      | PACKING DIMENSIONS |     |     | VOLUME (m³) | WEIGHT kg    |             |
|------------|-----------------|-----|-----|-----|-----|----|-----|-----|----------|----------|--------------------|-----|-----|-------------|--------------|-------------|
|            |                 |     |     |     |     |    |     |     |          |          | L/A                | L/B | H   |             | single-phase | three-phase |
| KVC 15/30  | 1               | 221 | 250 | 170 | 505 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 600 | 0.065       | 14.7         | 14.7        |
| KVC 25/30  | 1               | 221 | 250 | 170 | 505 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 600 | 0.065       | 14.7         | 14.7        |
| KVC 35/30  | 1               | 221 | 250 | 170 | 560 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 600 | 0.065       | 14.5         | 14.5        |
| KVC 45/30  | 1               | 221 | 250 | 170 | 560 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 600 | 0.065       | 14.9         | 14.9        |
| KVC 50/30  | 1               | 221 | 250 | 170 | 652 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 745 | 0.08        | 17.5         | 17.5        |
| KVC 60/30  | 1               | 221 | 250 | 170 | 652 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 745 | 0.08        | 17.3         | 17.3        |
| KVC 65/30  | 1               | 221 | 250 | 170 | 679 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 745 | 0.08        | 18.9         | 18.5        |
| KVCX 15/30 | 1               | 235 | 250 | 170 | 505 | 60 | 184 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 745 | 0.08        | 14.7         | 14.7        |
| KVCX 25/30 | 1               | 235 | 250 | 170 | 505 | 60 | 184 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 745 | 0.08        | 14.7         | 14.7        |
| KVCX 35/30 | 1               | 235 | 250 | 170 | 560 | 60 | 239 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 745 | 0.08        | 14.5         | 14.5        |
| KVCX 45/30 | 1               | 235 | 250 | 170 | 560 | 60 | 239 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 745 | 0.08        | 14.9         | 14.9        |
| KVCX 50/30 | 1               | 235 | 250 | 170 | 652 | 60 | 332 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 745 | 0.08        | 17.5         | 17.5        |
| KVCX 60/30 | 1               | 235 | 250 | 170 | 652 | 60 | 332 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 745 | 0.08        | 17.3         | 17.3        |
| KVCX 65/30 | 1               | 235 | 250 | 170 | 679 | 60 | 358 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 745 | 0.08        | 18.9         | 18.5        |

# KVC / KVCX 50 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

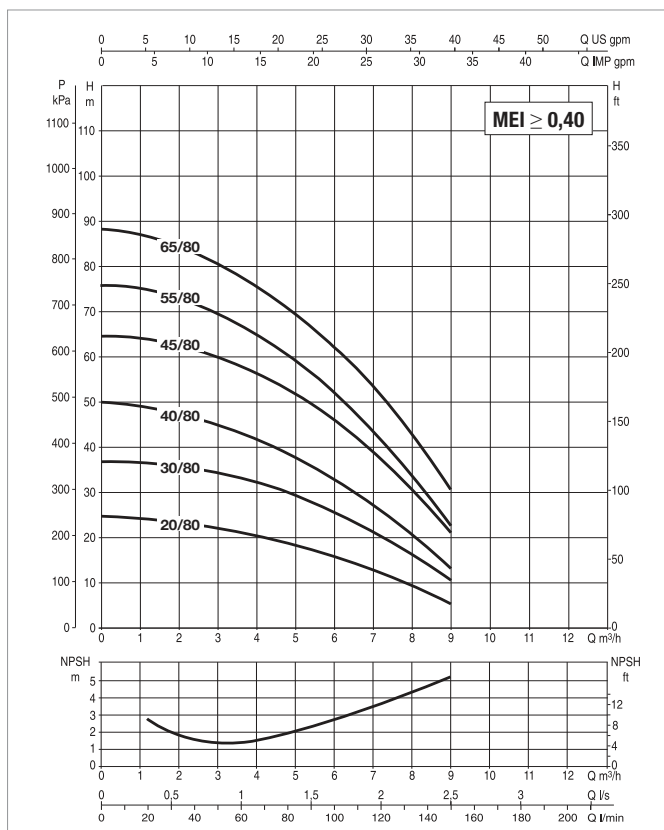
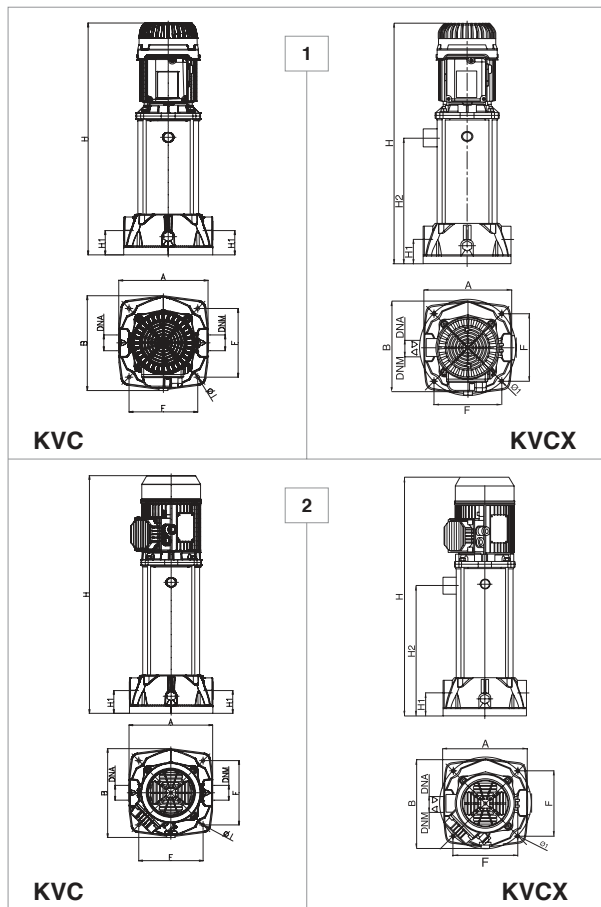
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL                | NO. OF IMPELLERS | POWER INPUT 50 Hz | P1MAX kW | ELECTRICAL DATA |      |         |            |           |        | CAPACITOR |     |
|----------------------|------------------|-------------------|----------|-----------------|------|---------|------------|-----------|--------|-----------|-----|
|                      |                  |                   |          | P2 NOMINAL      |      | In A    | MOTOR TYPE | I st. A   | 1/min. | µF        | Vc  |
|                      |                  |                   |          | kW              | HP   |         |            |           |        |           |     |
| KVC-KVCX 20/50 M     | 2                | 1x220-240 V ~     | 0.55     | 0.37            | 0.5  | 2.5     | -          | 13.7      | 2800   | 14        | 450 |
| KVC-KVCX 20/50 T     |                  | 3x230-400 V ~     | 0.54     | 0.37            | 0.5  | 1.7-1   | -          | 15.9-9.2  | 2800   | -         | -   |
| KVC-KVCX 30/50 M     | 3                | 1x220-240 V ~     | 0.9      | 0.55            | 0.75 | 4       | -          | 13.7      | 2800   | 14        | 450 |
| KVC-KVCX 30/50 T     |                  | 3x230-400 V ~     | 0.75     | 0.55            | 0.75 | 2.4-1.4 | -          | 15.9-9.2  | 2800   | -         | -   |
| KVC-KVCX 40/50 M     | 4                | 1x220-240 V ~     | 1.2      | 0.8             | 1.1  | 5.6     | -          | 28        | 2800   | 20        | 450 |
| KVC-KVCX 40/50 T     |                  | 3x230-400 V ~     | 1.2      | 0.8             | 1.1  | 3.8-2.2 | IE2        | 21.4-12.4 | 2800   | -         | -   |
| KVC-KVCX 40/50 T IE3 |                  | 3x230-400 V ~     | 1.2      | 0.8             | 1.1  | 4.1-2.4 | IE3        | 23.1-13.5 | 2800   | -         | -   |
| KVC-KVCX 55/50 M     | 5                | 1x220-240 V ~     | 1.4      | 1               | 1.36 | 6.4     | -          | 30        | 2800   | 25        | 450 |
| KVC-KVCX 55/50 T     |                  | 3x230-400 V ~     | 1.4      | 1               | 1.36 | 4.4-2.6 | IE2        | 22.1-12.8 | 2800   | -         | -   |
| KVC-KVCX 55/50 T IE3 |                  | 3x230-400 V ~     | 1.5      | 1               | 1.36 | 4.7-2.7 | IE3        | 23.6-13.3 | 2800   | -         | -   |
| KVC-KVCX 65/50 M     | 6                | 1x220-240 V ~     | 1.7      | 1.1             | 1.5  | 7.4     | -          | 29.2      | 2800   | 31.5      | 450 |
| KVC-KVCX 65/50 T     |                  | 3x230-400 V ~     | 1.7      | 1.1             | 1.5  | 7-4     | IE2        | 36.7-21   | 2800   | -         | -   |
| KVC-KVCX 65/50 T IE3 |                  | 3x230-400 V ~     | 1.9      | 1.1             | 1.5  | 5.9-3.4 | IE3        | 30.9-17.8 | 2800   | -         | -   |
| KVC-KVCX 75/50 M     | 7                | 1x220-240 V ~     | 2        | 1.5             | 2    | 9       | -          | 38        | 2800   | 31.5      | 450 |
| KVC-KVCX 75/50 T     |                  | 3x230-400 V ~     | 1.9      | 1.5             | 2    | 7.7-4.3 | IE2        | 39.34-22  | 2800   | -         | -   |
| KVC-KVCX 75/50 T IE3 |                  | 3x230-400 V ~     | 2.1      | 1.5             | 2    | 6.6-3.8 | IE3        | 33.7-19.4 | 2800   | -         | -   |

| MODEL      | EXTERNAL DESIGN | A   | B   | F   | H   | H1 | H2  | Ø I | DNA      | DNM      | PACKING DIMENSIONS |     |     | VOLUME (m³) | WEIGHT kg    |             |
|------------|-----------------|-----|-----|-----|-----|----|-----|-----|----------|----------|--------------------|-----|-----|-------------|--------------|-------------|
|            |                 |     |     |     |     |    |     |     |          |          | L/A                | L/B | H   |             | single-phase | three-phase |
| KVC 20/50  | 1               | 221 | 235 | 170 | 450 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 600 | 0.065       | 13.5         | 13.5        |
| KVC 30/50  | 1               | 221 | 235 | 170 | 478 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 600 | 0.065       | 13.7         | 13.7        |
| KVC 40/50  | 1               | 221 | 235 | 170 | 505 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 656 | 0.071       | 15.8         | 15.8        |
| KVC 55/50  | 1               | 221 | 235 | 170 | 533 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 656 | 0.071       | 17.0         | 17.0        |
| KVC 65/50  | 2               | 221 | 235 | 170 | 600 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 735 | 0.079       | 20.2         | 19.8        |
| KVC 75/50  | 2               | 221 | 235 | 170 | 627 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 735 | 0.079       | 21.2         | 20.6        |
| KVCX 20/50 | 1               | 221 | 235 | 170 | 450 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 600 | 0.065       | 13.5         | 13.5        |
| KVCX 30/50 | 1               | 221 | 235 | 170 | 478 | 60 | 184 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 600 | 0.065       | 13.7         | 13.7        |
| KVCX 40/50 | 1               | 221 | 235 | 170 | 505 | 60 | 184 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 656 | 0.071       | 15.8         | 15.8        |
| KVCX 55/50 | 1               | 221 | 235 | 170 | 533 | 60 | 239 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 656 | 0.071       | 17.0         | 17.0        |
| KVCX 65/50 | 2               | 221 | 235 | 170 | 600 | 60 | 239 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 735 | 0.079       | 20.2         | 19.8        |
| KVCX 75/50 | 2               | 221 | 235 | 170 | 627 | 60 | 332 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 735 | 0.079       | 21.2         | 20.6        |

# KVC / KVCX 80 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

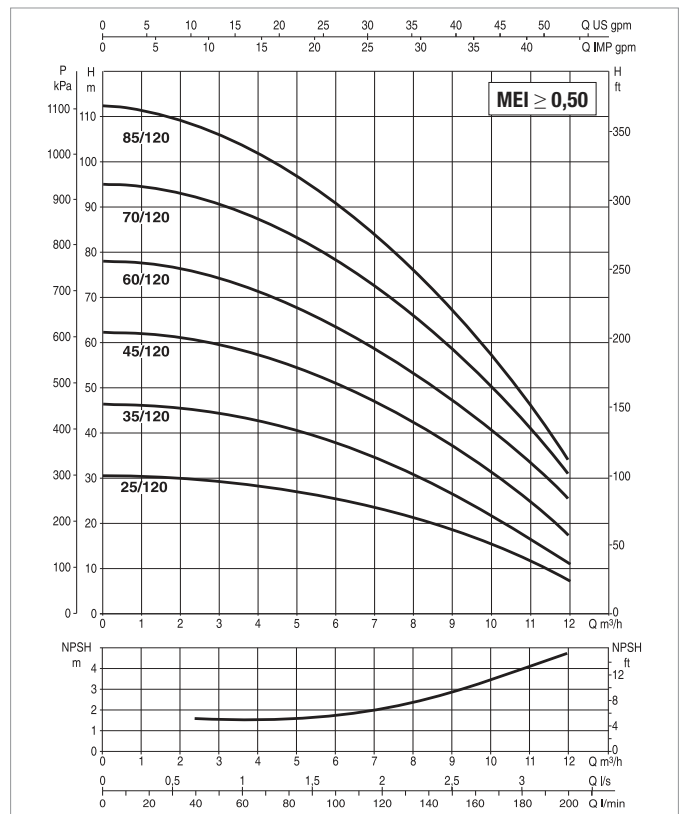
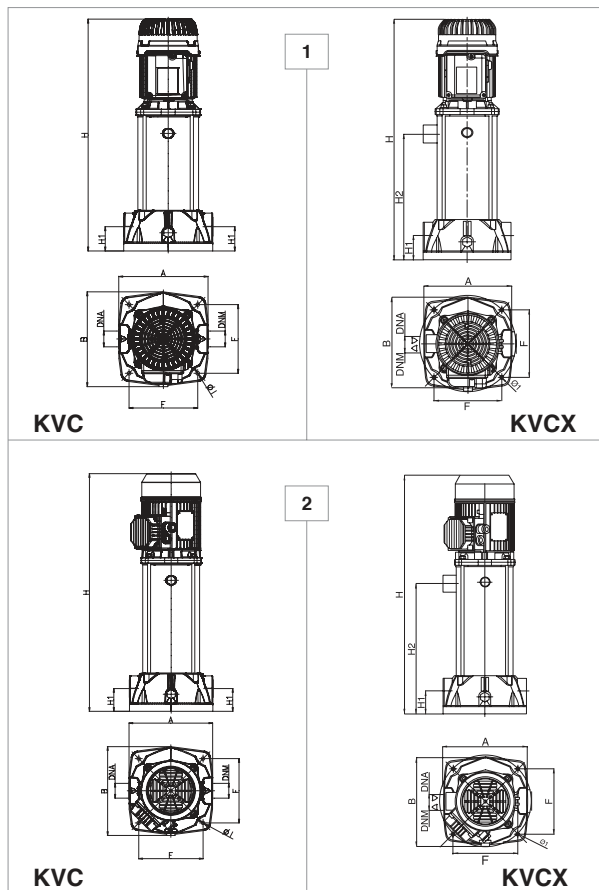
The performance curves are based on kinematic viscosity values = 1 mm<sup>2</sup>/s and density equal to 1000 kg/m<sup>3</sup>. Curve tolerance according to ISO 9906.

| MODEL                | No. IMPELLERS | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL |      | In A      | MOTOR TYPE | I st. A    | 1/min. | CAPACITOR |     |
|----------------------|---------------|-------------------|-----------|------------|------|-----------|------------|------------|--------|-----------|-----|
|                      |               |                   |           | kW         | HP   |           |            |            |        | µF        | Vc  |
|                      |               |                   |           |            |      |           |            |            |        |           |     |
| KVC/KVCX 20/80 M     | 2             | 1x220-240V ~      | 0.93      | 0.55       | 0.75 | 4.2       | -          | 15.3       | 2800   | 14        | 450 |
| KVC/KVCX 20/80 T     |               | 3x230/400V ~      | 0.89      | 0.55       | 0.75 | 2.8 - 1.6 | -          | 3.8 - 2.2  | 2800   | -         | -   |
| KVC/KVCX 30/80 M     | 3             | 1x220-240V ~      | 1.40      | 0.9        | 1.2  | 6.5       | -          | 23.7       | 2800   | 25        | 450 |
| KVC/KVCX 30/80 T     |               | 3x230/400V ~      | 1.23      | 0.9        | 1.2  | 4.2 - 2.4 | IE2        | 5.7 - 3.3  | 2800   | -         | -   |
| KVC/KVCX 30/80 T IE3 |               | 3x230/400V ~      | 1.17      | 0.9        | 1.2  | 3.8 - 2.2 | IE3        | 5.1 - 3    | 2800   | -         | -   |
| KVC/KVCX 40/80 M     | 4             | 1x220-240V ~      | 1.63      | 1.1        | 1.5  | 7.4       | -          | 23.7       | 2800   | 31.5      | 450 |
| KVC/KVCX 40/80 T     |               | 3x230/400V ~      | 1.56      | 1          | 1.36 | 5 - 2.9   | IE2        | 6.7 - 3.9  | 2800   | -         | -   |
| KVC/KVCX 40/80 T IE3 |               | 3x230/400V ~      | 1.49      | 1          | 1.36 | 4.5 - 2.6 | IE3        | 6 - 3.5    | 2800   | -         | -   |
| KVC/KVCX 45/80 M     | 5             | 1x220-240V ~      | 2.10      | 1.5        | 2    | 9.6       | -          | 38.3       | 2800   | 40        | 450 |
| KVC/KVCX 45/80 T     |               | 3x230/400V ~      | 2.03      | 1.5        | 2    | 6.8 - 3.9 | IE2        | 10 - 5.8   | 2800   | -         | -   |
| KVC/KVCX 45/80 T IE3 |               | 3x230/400V ~      | 1.93      | 1.5        | 2    | 6 - 3.4   | IE3        | 9.3 - 5.4  | 2800   | -         | -   |
| KVC/KVCX 55/80 M     | 6             | 1x220-240V ~      | 2.46      | 1.85       | 2.5  | 11.2      | -          | 37.7       | 2800   | 40        | 450 |
| KVC/KVCX 55/80 T     |               | 3x230/400V ~      | 2.36      | 1.85       | 2.5  | 7.5 - 4.3 | IE2        | 11.5 - 6.6 | 2800   | -         | -   |
| KVC/KVCX 55/80 T IE3 |               | 3x230/400V ~      | 2.28      | 1.85       | 2.5  | 6.8 - 3.9 | IE3        | 10.4 - 6   | 2800   | -         | -   |
| KVC/KVCX 65/80 T     | 7             | 3x230/400V ~      | 2.67      | 2.2        | 3    | 8.3 - 4.8 | IE2        | 11.6 - 6.7 | 2800   | -         | -   |
| KVC/KVCX 65/80 T IE3 |               | 3x230/400V ~      | 2.66      | 2.2        | 3    | 7.7 - 4.4 | IE3        | 12.3 - 7.1 | 2800   | -         | -   |

| MODEL      | EXTERNAL DESIGN | A   | B   | F   | H   | H1 | H2  | Ø I | DNA      | DNM      | PACKING DIMENSIONS |     |     | VOLUME (m <sup>3</sup> ) | WEIGHT kg    |             |
|------------|-----------------|-----|-----|-----|-----|----|-----|-----|----------|----------|--------------------|-----|-----|--------------------------|--------------|-------------|
|            |                 |     |     |     |     |    |     |     |          |          | L/A                | L/B | H   |                          | single-phase | three-phase |
| KVC 20/80  | 1               | 221 | 250 | 170 | 505 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 600 | 0.065                    | 14.7         | 14.7        |
| KVC 30/80  | 1               | 221 | 250 | 170 | 505 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 656 | 0.071                    | 13.7         | 13.9        |
| KVC 40/80  | 2               | 221 | 250 | 170 | 560 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 656 | 0.071                    | 18           | 17.6        |
| KVC 45/80  | 2               | 221 | 250 | 170 | 634 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 735 | 0.079                    | 18           | 17.6        |
| KVC 55/80  | 2               | 221 | 250 | 170 | 727 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 735 | 0.079                    | 22           | 22.1        |
| KVC 65/80  | 2               | 221 | 250 | 170 | 727 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 760 | 0.082                    | 22           | 22.1        |
| KVCX 20/80 | 1               | 221 | 250 | 170 | 505 | 60 | 184 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 600 | 0.065                    | 14.7         | 14.7        |
| KVCX 30/80 | 1               | 221 | 250 | 170 | 505 | 60 | 184 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 656 | 0.071                    | 13.7         | 13.9        |
| KVCX 40/80 | 2               | 221 | 250 | 170 | 560 | 60 | 239 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 656 | 0.071                    | 18           | 17.6        |
| KVCX 45/80 | 2               | 221 | 250 | 170 | 634 | 60 | 239 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 735 | 0.079                    | 18           | 17.6        |
| KVCX 55/80 | 2               | 221 | 250 | 170 | 727 | 60 | 332 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 735 | 0.079                    | 22           | 22.1        |
| KVCX 65/80 | 2               | 221 | 250 | 170 | 727 | 60 | 332 | 9   | G 1" 1/4 | G 1" 1/4 | 300                | 360 | 760 | 0.082                    | 22           | 22.1        |

# KVC / KVCX 120 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL                 | NO. OF IMPELLERS | ELECTRICAL DATA   |           |            |      |          |            |            |        |           |     |
|-----------------------|------------------|-------------------|-----------|------------|------|----------|------------|------------|--------|-----------|-----|
|                       |                  | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL |      | In A     | MOTOR TYPE | I st. A    | 1/min. | CAPACITOR |     |
|                       |                  |                   |           | kW         | HP   |          |            |            |        | µF        | Vc  |
| KVC-KVCX 25/120 M     | 2                | 1x220-240 V ~     | 1.5       | 1          | 1.36 | 6.5      | -          | 30         | 2800   | 25        | 450 |
| KVC-KVCX 25/120 T     |                  | 3x230-400 V ~     | 1.5       | 1          | 1.36 | 5-2.9    | IE2        | 22.1-12.8  | 2800   | -         | -   |
| KVC-KVCX 25/120 T IE3 |                  | 3x230-400 V ~     | 1.4       | 1          | 1.36 | 5-2.9    | IE3        | 22.1-12.8  | 2800   | -         | -   |
| KVC-KVCX 35/120 M     | 3                | 1x220-240 V ~     | 1.9       | 1.1        | 1.5  | 7.4      | -          | 30         | 2800   | 31.5      | 450 |
| KVC-KVCX 35/120 T     |                  | 3x230-400 V ~     | 1.9       | 1.1        | 1.5  | 6-3.5    | IE2        | 31.1-18    | 2800   | -         | -   |
| KVC-KVCX 35/120 T IE3 |                  | 3x230-400 V ~     | 2         | 1.1        | 1.5  | 6.4-3.7  | IE3        | 32.6-18.8  | 2800   | -         | -   |
| KVC-KVCX 45/120 M     | 4                | 1x220-240 V ~     | 2.6       | 1.85       | 2.5  | 12       | -          | 54         | 2800   | 40        | 450 |
| KVC-KVCX 45/120 T     |                  | 3x230-400 V ~     | 2.5       | 1.85       | 2.5  | 7.9-4.6  | IE2        | 48.4-28    | 2800   | -         | -   |
| KVC-KVCX 45/120 T IE3 |                  | 3x230-400 V ~     | 2.6       | 1.85       | 2.5  | 7.6-4.4  | IE3        | 46.3-26.8  | 2800   | -         | -   |
| KVC-KVCX 60/120 T     | 5                | 3x230-400 V ~     | 3.1       | 2.2        | 3    | 9.3-5.4  | IE2        | 53-31      | 2800   | -         | -   |
| KVC-KVCX 60/120 T IE3 |                  | 3x230-400 V ~     | 3.1       | 2.2        | 3    | 9-5.2    | IE3        | 51.2-29.58 | 2800   | -         | -   |
| KVC-KVCX 70/120 T     | 6                | 3x230-400 V ~     | 3.8       | 3          | 4    | 11.8-6.8 | IE2        | 78-45      | 2800   | -         | -   |
| KVC-KVCX 70/120 T IE3 |                  | 3x230-400 V ~     | 3.8       | 3          | 4    | 10.9-6.3 | IE3        | 71.9-41.5  | 2800   | -         | -   |
| KVC-KVCX 85/120 T     | 7                | 3x230-400 V ~     | 4.3       | 3          | 4    | 13.5-7.8 | IE2        | 90-53      | 2800   | -         | -   |
| KVC-KVCX 85/120 T IE3 |                  | 3x230-400 V ~     | 4.2       | 3          | 4    | 12.3-7.1 | IE3        | 81.1-46.8  | 2800   | -         | -   |

| MODEL         | EXTERNAL DESIGN | PACKING DIMENSIONS |     |     |     |    |     |     |          |          |     |     |     |              | VOLUME (m³) | WEIGHT kg   |  |
|---------------|-----------------|--------------------|-----|-----|-----|----|-----|-----|----------|----------|-----|-----|-----|--------------|-------------|-------------|--|
|               |                 | A                  | B   | F   | H   | H1 | H2  | Ø I | DNA      | DNM      | L/A | L/B | H   | single-phase |             | three-phase |  |
| KVC 25/120 *  | 1               | 221                | 235 | 170 | 450 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 585 | 0.058        | 17.0        | 17.1        |  |
| KVC 35/120 *  | 2               | 221                | 235 | 170 | 480 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 585 | 0.061        | 20.1        | 20.2        |  |
| KVC 45/120 *  | 2               | 221                | 235 | 170 | 507 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 715 | 0.064        | 20.2        | 21.9        |  |
| KVC 60/120    | 2               | 221                | 235 | 170 | 610 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 715 | 0.067        | -           | 21.6        |  |
| KVC 70/120    | 2               | 221                | 235 | 170 | 675 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 810 | 0.074        | -           | 24.0        |  |
| KVC 85/120    | 2               | 221                | 235 | 170 | 702 | 60 | -   | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 810 | 0.077        | -           | 25.0        |  |
| KVCX 25/120 * | 1               | 221                | 235 | 170 | 450 | 60 | 184 | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 585 | 0.061        | 17.0        | 17.1        |  |
| KVCX 35/120 * | 2               | 221                | 235 | 170 | 480 | 60 | 184 | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 585 | 0.061        | 20.1        | 20.2        |  |
| KVCX 45/120 * | 2               | 221                | 235 | 170 | 507 | 60 | 239 | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 715 | 0.067        | 20.2        | 21.9        |  |
| KVCX 60/120   | 2               | 221                | 235 | 170 | 610 | 60 | 239 | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 715 | 0.065        | -           | 21.6        |  |
| KVCX 70/120   | 2               | 221                | 235 | 170 | 675 | 60 | 332 | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 810 | 0.076        | -           | 24.0        |  |
| KVCX 85/120   | 2               | 221                | 235 | 170 | 702 | 60 | 332 | 9   | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 810 | 0.076        | -           | 25.0        |  |

\* H only valid for the three-phase version