

## DAB Pump 1 / 2 / 3 NV 50

### WITH MULTISTAGE VERTICAL AXIS CENTRIFUGAL PUMPS

Characterised by the use of "KV" type multi-impeller vertical axis electric pumps, these sets are acclaimed for their high efficiency, application versatility, and very low noise operation.

Utilised in large scale civil and industrial installations, selection of these sets must be performed by skilled engineers capable of assessing the effective requirements of the systems on which they are to be installed.

#### HYDRAULIC SECTION

- 1-2-3 vertical multistage electric pumps KV 50;
- Skid in galvanised steel complete with 4 rubber anti-vibration feet;
- Flanged suction and discharge manifolds in galvanized steel complete with blank flange;
- Isolator valves on suction and discharge
- Flanged check valve on suction side;
- Antivibration flexible coupling for connection to discharge pipe;
- BY-PASS circuit complete with isolator valve and automatic safety valve;
- Radial pressure gauge with isolator valve;
- Galvanized steel column for adjustable mounting of the control panel;
- Membrane pressure tanks.

#### ELECTRICAL SECTION CONTROL PANEL

Direct Starting for unit power ratings up to 7.5 kW inclusive.

Star-Delta starting for unit power ratings up to 9.2 kW inclusive.

Cabinet in sheet steel with IP 55 protection rating and lever handle with lock. Door lock switch, remote motor protectors with thermal relays and electric pump fuses, low voltage control circuit (24 Volt) feeding remote motor protectors, adjustable delayed pumps stop time (supplementary run), system to change starting sequence for sets of 2-3 electric pumps. Selector for Automatic (my means

of pressure switches installed on discharge manifold) or Manual operation of electric pumps. Terminal board for connection of minimum pressure switch for pump stopping, float switch to protect against dry running, remote pump start command.

#### CONTROL PRESSURE SWITCHES

Electric pump control pressure switches precalibrated and installed on the discharge manifold.

The pressure switches operate the remote motor protectors to invert the electric pumps in cascade mode.

**JOCKEY PUMP – COMPENSATION FUNCTION** (cuts in to compensate for small quantity water demand to avoid wasteful starting of the main electric pumps) The sets are available also with the KV 3 jockey pump complete with valves and connected to the suction and discharge manifolds.

Electric control and protection circuit for jockey pump in main electric pump control cabinet for 1-2 K sets. Separate control cabinet for 3 K pump sets.

**WEEKLY TEST RUN** (must be requested at time of order - cannot be retrofitted)

The pump sets are available also with a weekly test run system, composed of a programmable weekly timer, an audible illuminated alarm, a drain solenoid valve on the discharge manifold, an automatic reset emergency stop pushbutton, and a minimum pressure switch.

With the weekly test run the electric pumps are started periodically for a few minutes to prevent mechanical seizure during prolonged periods of disuse.

At the end of the test any faults are signalled by the alarm function. The 1-2-3 KV 50/7 - 1-2-3 KV 50/6 - 1-2-3 KV 50/8 - 1-2-3 KV 50/9 pump sets are supplied without membrane pressure tanks and without flexible couplings. The pump sets are supplied in a strong carton on a wooden pallet complete with instruction leaflet and wiring diagram.



## TECHNICAL DATA - 1 KV 50



### 1 PUMP

| MODEL      | CODE      |
|------------|-----------|
| 1 KV50/3 T | 500410730 |
| 1 KV50/4 T | 500410740 |
| 1 KV50/5 T | 500410750 |
| 1 KV50/6 T | 500410760 |
| 1 KV50/7 T | 500410770 |
| 1 KV50/8 T | 500410780 |
| 1 KV50/9 T | 500410790 |

### 1 PUMP + PILOT PUMP

| MODEL                        | CODE      |
|------------------------------|-----------|
| 1 KV50/3 T pilot pump 3/12 T | 500415300 |
| 1 KV50/4 T pilot pump 3/15 T | 500415310 |
| 1 KV50/5 T pilot pump 3/18 T | 500415320 |

### 1 PUMP + WEEKLY TEST

| MODEL           | CODE      |
|-----------------|-----------|
| 1 KV50/3 T + PS | 500411730 |
| 1 KV50/4 T + PS | 500411740 |
| 1 KV50/5 T + PS | 500411750 |
| 1 KV50/6 T + PS | 500411760 |

### 1 PUMP + PILOT PUMP + WEEKLY TEST

| MODEL                               | CODE      |
|-------------------------------------|-----------|
| 1 KV50/3 T (pilot pump 3/12 T) + PS | 500415800 |
| 1 KV50/4 T (pilot pump 3/15 T) + PS | 500415810 |
| 1 KV50/5 T (pilot pump 3/18 T) + PS | 500415820 |

\* The unit is supplied without membrane tanks and vibration dampening joints.

# 1/2/3 KV 50

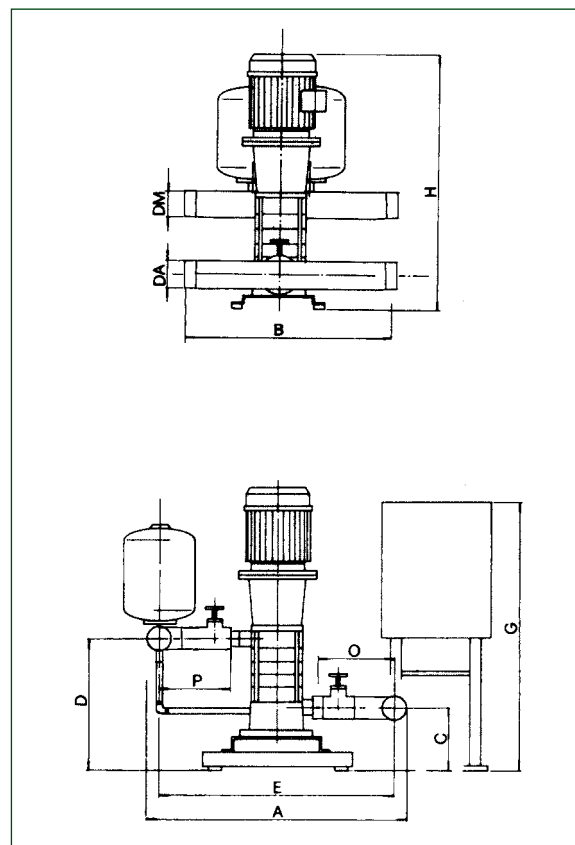
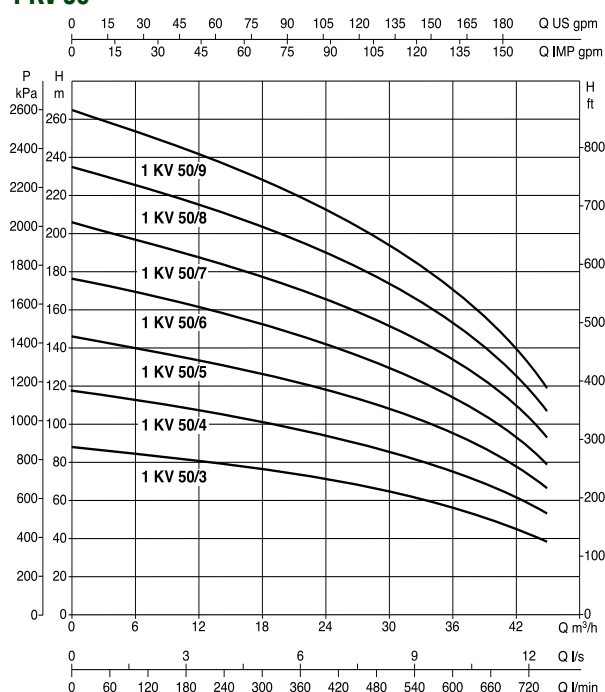
## WITH MULTISTAGE VERTICAL AXIS CENTRIFUGAL PUMPS

| MODEL        | CODE      | VOLTAGE<br>50 Hz | P2 NOMINAL |      | In<br>A | PRESSURE SWITCH<br>SETTING IN BAR | MAX PRESSURE<br>OBTAINABLE<br>BAR | PILOT PUMP |           |      |     |
|--------------|-----------|------------------|------------|------|---------|-----------------------------------|-----------------------------------|------------|-----------|------|-----|
|              |           |                  | kW         | HP   |         |                                   |                                   | TYPE       | CODE      | P2   |     |
| 1 KV 50/3 T* | 500410730 | 3x400V ~         | 9,2        | 12,5 | 18      | 6÷7                               | 8,6                               | KV 3/12 T  | 500415300 | 1,5  | 2   |
| 1 KV 50/4 T* | 500410740 | 3x400V ~         | 11         | 15   | 22      | 8÷9                               | 11,5                              | KV 3/15 T  | 500415310 | 1,85 | 2,5 |
| 1 KV 50/5 T* | 500410750 | 3x400V ~         | 15         | 20   | 30      | 10÷11                             | 14,8                              | KV 3/18 T  | 500415320 | 2,2  | 3   |
| 1 KV 50/6 T  | 500410760 | 3x400V ~         | 18,5       | 25   | 36      | 12÷13                             | 17,6                              | —          | —         | —    | —   |
| 1 KV 50/7 T  | 500410770 | 3x400V ~         | 22         | 30   | 40      | 14÷15                             | 20,4                              | —          | —         | —    | —   |
| 1 KV 50/8 T  | 500410780 | 3x400V ~         | 22         | 30   | 40      | 16÷17                             | 23                                | —          | —         | —    | —   |
| 1 KV 50/9 T  | 500410790 | 3x400V ~         | 30         | 40   | 56      | 18÷19                             | 26                                | —          | —         | —    | —   |

\* Pilote pump available on demand.

## DIMENSIONS AND WEIGHTS 1 KV 50

### 1 KV 50



| MODEL     | A    | B   | C   | D   | E   | G    | H    | O   | P   | I   | L   | M   | Fxn° | Ø MANIFOLD    |               | WEIGHT<br>Kg. |
|-----------|------|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|------|---------------|---------------|---------------|
|           |      |     |     |     |     |      |      |     |     |     |     |     |      | SUCTION       | DELIVERY      |               |
| 1 KV 50/3 | 1175 | 550 | 233 | 423 | 855 | 1005 | 1060 | 250 | 235 | 130 | 200 | 160 | 18x4 | DN 80 - PN 16 | DN 80 - PN 16 | 390           |
| 1 KV 50/4 | 1175 | 550 | 233 | 477 | 855 | 1005 | 1180 | 250 | 235 | 130 | 200 | 160 | 18x4 | DN 80 - PN 16 | DN 80 - PN 16 | 418           |
| 1 KV 50/5 | 1175 | 550 | 233 | 531 | 855 | 1005 | 1310 | 250 | 235 | 130 | 200 | 160 | 18x4 | DN 80 - PN 16 | DN 80 - PN 16 | 470           |
| 1 KV 50/6 | 1175 | 550 | 233 | 585 | 855 | 1005 | 1405 | 250 | 235 | 130 | 200 | 160 | 18x4 | DN 80 - PN 16 | DN 80 - PN 16 | 485           |
| 1 KV 50/7 | 1175 | 550 | 233 | 639 | 855 | 1005 | 1485 | 250 | 235 | 130 | 200 | 160 | 18x4 | DN 80 - PN 25 | DN 80 - PN 25 | 503           |
| 1 KV 50/8 | 1175 | 550 | 233 | 693 | 855 | 1005 | 1540 | 250 | 235 | 130 | 200 | 160 | 18x4 | DN 80 - PN 25 | DN 80 - PN 25 | 513           |
| 1 KV 50/9 | 1175 | 550 | 233 | 747 | 855 | 1005 | 1690 | 250 | 235 | 130 | 200 | 160 | 18x4 | DN 80 - PN 25 | DN 80 - PN 25 | 650           |

# 1/2/3 KV 50

## WITH MULTISTAGE VERTICAL AXIS CENTRIFUGAL PUMPS

### TECHNICAL DATA - 2 KV 50

#### 1 PUMP

| MODEL      | CODE      |
|------------|-----------|
| 2 KV50/3 T | 500420730 |
| 2 KV50/4 T | 500420740 |
| 2 KV50/5 T | 500420750 |
| 2 KV50/6 T | 500420760 |
| 2 KV50/7 T | 500420770 |
| 2 KV50/8 T | 500420780 |
| 2 KV50/9 T | 500420790 |

\* The unit is supplied without membrane tanks and vibration dampening joints.

#### 1 PUMP + WEEKLY TEST

| MODEL           | CODE      |
|-----------------|-----------|
| 2 KV50/3 T + PS | 500421730 |
| 2 KV50/4 T + PS | 500421740 |
| 2 KV50/5 T + PS | 500421750 |
| 2 KV50/6 T + PS | 500421760 |

\* The unit is supplied without membrane tanks and vibration dampening joints.

#### 1 PUMP + PILOT PUMP

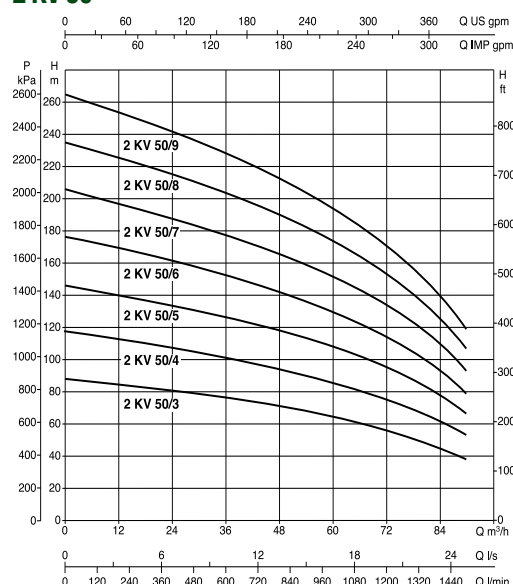
| MODEL                          | CODE      |
|--------------------------------|-----------|
| 2 KV50/3 T (pilot pump 3/12 T) | 500422300 |
| 2 KV50/4 T (pilot pump 3/15 T) | 500422310 |
| 2 KV50/5 T (pilot pump 3/18 T) | 500422320 |

#### 1 PUMP + PILOT PUMP + WEEKLY TEST

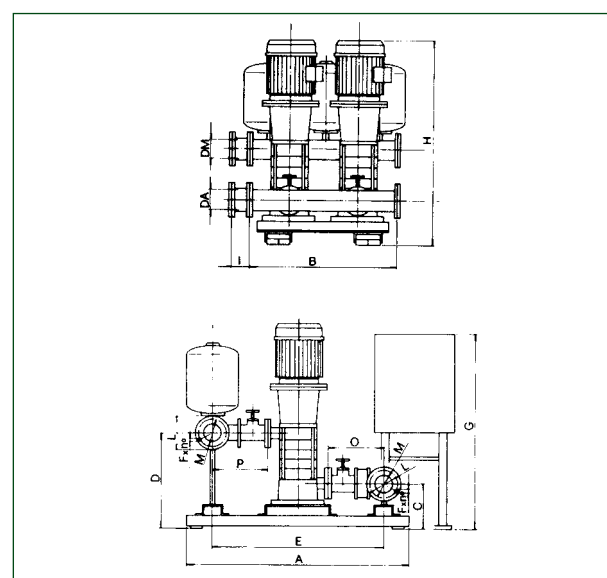
| MODEL                               | CODE      |
|-------------------------------------|-----------|
| 2 KV50/3 T (pilot pump 3/12 T) + PS | 500422800 |
| 2 KV50/4 T (pilot pump 3/15 T) + PS | 500422810 |
| 2 KV50/5 T (pilot pump 3/18 T) + PS | 500422820 |

| MODEL        | CODE      | VOLTAGE<br>50 Hz | P2 NOMINAL |        | In<br>A | PRESSURE SWITCH<br>SETTING IN BAR | MAX PRESSURE<br>OBTAINABLE<br>BAR | PILOT PUMP |           |      |     |
|--------------|-----------|------------------|------------|--------|---------|-----------------------------------|-----------------------------------|------------|-----------|------|-----|
|              |           |                  | kW         | HP     |         |                                   |                                   | TYPE       | CODE      | P2   |     |
| 2 KV 50/3 T* | 500420730 | 3x400 V ~        | 2x9,2      | 2x12,5 | 2x18    | 5,5÷7                             | 8,6                               | KV 3/12 T  | 500422300 | 1,5  | 2   |
| 2 KV 50/4 T* | 500420740 | 3x400 V ~        | 2x11       | 2x15   | 2x22    | 7,5÷9                             | 11,5                              | KV 3/15 T  | 500422310 | 1,85 | 2,5 |
| 2 KV 50/5 T* | 500420750 | 3x400 V ~        | 2x15       | 2x20   | 2x30    | 9,5÷11                            | 14,8                              | KV 3/18 T  | 500422320 | 2,2  | 3   |
| 2 KV 50/6 T  | 500420760 | 3x400 V ~        | 2x18,5     | 2x25   | 2x36    | 11,5÷13                           | 17,6                              | —          | —         | —    | —   |
| 2 KV 50/7 T  | 500420770 | 3x400 V ~        | 2x22       | 2x30   | 2x40    | 13,5÷15                           | 20,4                              | —          | —         | —    | —   |
| 2 KV 50/8 T  | 500420780 | 3x400 V ~        | 2x22       | 2x30   | 2x40    | 15,5÷17                           | 23                                | —          | —         | —    | —   |
| 2 KV 50/9 T  | 500420790 | 3x400 V ~        | 2x30       | 2x40   | 2x56    | 17,5÷19                           | 26                                | —          | —         | —    | —   |

### 2 KV 50



### DIMENSIONS AND WEIGHTS 2 KV 50



| MODEL     | A    | B    | C   | D   | E    | G    | H    | O   | P   | I   | L   | M   | Fxn° | Ø MANIFOLD     |                | WEIGHT<br>Kg. |
|-----------|------|------|-----|-----|------|------|------|-----|-----|-----|-----|-----|------|----------------|----------------|---------------|
|           |      |      |     |     |      |      |      |     |     |     |     |     |      | SUCTION        | DELIVERY       |               |
| 2 KV 50/3 | 1400 | 1000 | 300 | 483 | 1130 | 1250 | 1120 | 500 | 270 | 170 | 250 | 210 | 18x8 | DN 125 - PN 16 | DN 125 - PN 16 | 740           |
| 2 KV 50/4 | 1400 | 1000 | 300 | 537 | 1130 | 1250 | 1240 | 500 | 270 | 170 | 250 | 210 | 18x8 | DN 125 - PN 16 | DN 125 - PN 16 | 790           |
| 2 KV 50/5 | 1400 | 1000 | 300 | 591 | 1130 | 1250 | 1380 | 500 | 270 | 170 | 250 | 210 | 18x8 | DN 125 - PN 16 | DN 125 - PN 16 | 885           |
| 2 KV 50/6 | 1400 | 1000 | 300 | 645 | 1130 | 1250 | 1465 | 500 | 270 | 170 | 250 | 210 | 18x8 | DN 125 - PN 16 | DN 125 - PN 16 | 906           |
| 2 KV 50/7 | 1400 | 1000 | 300 | 699 | 1130 | 1250 | 1545 | 500 | 270 | 170 | 250 | 210 | 18x8 | DN 125 - PN 25 | DN 125 - PN 25 | 942           |
| 2 KV 50/8 | 1400 | 1000 | 300 | 753 | 1130 | 1250 | 1600 | 500 | 270 | 170 | 250 | 210 | 18x8 | DN 125 - PN 25 | DN 125 - PN 25 | 976           |
| 2 KV 50/9 | 1400 | 1000 | 300 | 807 | 1130 | 1250 | 1750 | 500 | 270 | 170 | 250 | 210 | 18x8 | DN 125 - PN 25 | DN 125 - PN 25 | 1200          |

# 1/2/3 KV 50

## WITH MULTISTAGE VERTICAL AXIS CENTRIFUGAL PUMPS

### TECHNICAL DATA - 3 KV 50

#### 1 PUMP

| MODEL      | CODE      |
|------------|-----------|
| 3 KV50/3 T | 500430730 |
| 3 KV50/4 T | 500430740 |
| 3 KV50/5 T | 500430750 |
| 3 KV50/6 T | 500430760 |
| 3 KV50/7 T | 500430770 |
| 3 KV50/8 T | 500430780 |
| 3 KV50/9 T | 500430790 |

\* The unit is supplied without membrane tanks and vibration dampening joints.

#### 1 PUMP + WEEKLY TEST

| MODEL           | CODE      |
|-----------------|-----------|
| 3 KV50/3 T + PS | 500431730 |
| 3 KV50/4 T + PS | 500431740 |
| 3 KV50/5 T + PS | 500431750 |
| 3 KV50/6 T + PS | 500431760 |

\* The unit is supplied without membrane tanks and vibration dampening joints.

#### 1 PUMP + PILOT PUMP

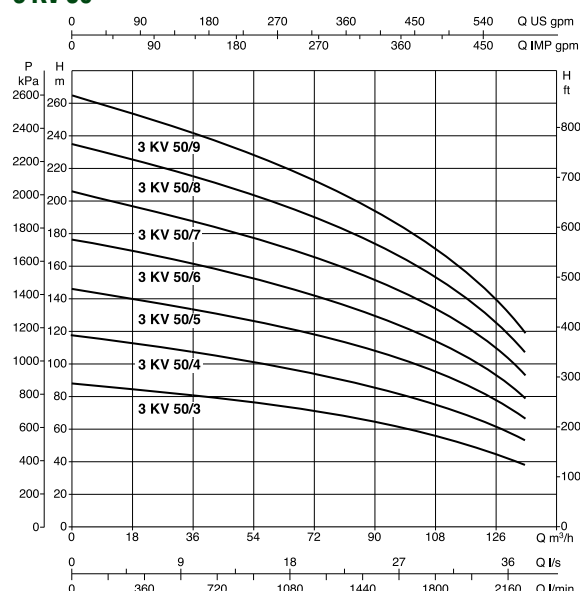
| MODEL                          | CODE      |
|--------------------------------|-----------|
| 3 KV50/3 T (pilot pump 3/12 T) | 500432300 |
| 3 KV50/4 T (pilot pump 3/15 T) | 500432310 |
| 3 KV50/5 T (pilot pump 3/18 T) | 500432320 |

#### 1 PUMP + PILOT PUMP + WEEKLY TEST

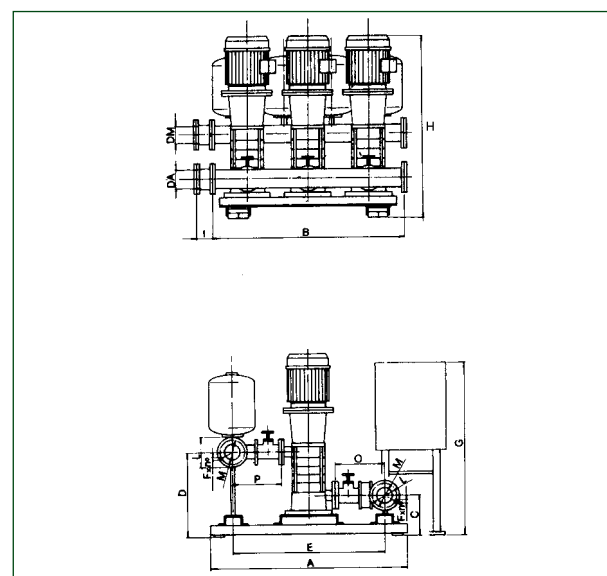
| MODEL                             | CODE      |
|-----------------------------------|-----------|
| 3 KV50/3 T pilot pump 3/12 T + PS | 500432800 |
| 3 KV50/4 T pilot pump 3/15 T + PS | 500432810 |
| 3 KV50/5 T pilot pump 3/18 T + PS | 500432820 |

| MODEL        | CODE      | VOLTAGE<br>50 Hz | P2 NOMINAL |        | In<br>A | PRESSURE SWITCH<br>SETTING IN BAR | MAX PRESSURE<br>OBTAINABLE<br>BAR | PILOT PUMP |           |      |     |
|--------------|-----------|------------------|------------|--------|---------|-----------------------------------|-----------------------------------|------------|-----------|------|-----|
|              |           |                  | KW         | HP     |         |                                   |                                   | TYPE       | CODE      | P2   |     |
| 3 KV 50/3 T* | 500430730 | 3x400 V ~        | 3x9,2      | 3x12,5 | 3x18    | 5÷7                               | 8,6                               | KV 3/12 T  | 500432300 | Kw   | HP  |
| 3 KV 50/4 T* | 500430740 | 3x400 V ~        | 3x11       | 3x15   | 3x22    | 7÷9                               | 11,5                              | KV 3/15 T  | 500432310 | 1,5  | 2   |
| 3 KV 50/5 T* | 500430750 | 3x400 V ~        | 3x15       | 3x20   | 3x30    | 10÷12                             | 14,8                              | KV 3/18 T  | 500432320 | 1,85 | 2,5 |
| 3 KV 50/6 T  | 500430760 | 3x400 V ~        | 3x18,5     | 3x25   | 3x36    | 12÷14                             | 17,6                              | —          | —         | 2,2  | 3   |
| 3 KV 50/7 T  | 500430770 | 3x400 V ~        | 3x22       | 3x30   | 3x40    | 13÷15                             | 20,4                              | —          | —         | —    | —   |
| 3 KV 50/8 T  | 500430780 | 3x400 V ~        | 3x22       | 3x30   | 3x40    | 16÷18                             | 23                                | —          | —         | —    | —   |
| 3 KV 50/9 T  | 500430790 | 3x400 V ~        | 3x30       | 3x40   | 3x56    | 18÷20                             | 26                                | —          | —         | —    | —   |

### 3 KV 50



### DIMENSIONS AND WEIGHTS 3 KV 50



| MODEL     | A    | B    | C   | D   | E    | G    | H    | O   | P   | I   | L   | M   | Fxn° | Ø MANIFOLD     |                | WEIGHT<br>Kg. |
|-----------|------|------|-----|-----|------|------|------|-----|-----|-----|-----|-----|------|----------------|----------------|---------------|
|           |      |      |     |     |      |      |      |     |     |     |     |     |      | SUCTION        | DELIVERY       |               |
| 3 KV 50/3 | 1400 | 1200 | 300 | 483 | 1160 | 1250 | 1120 | 510 | 280 | 180 | 285 | 240 | 22x8 | DN 150 - PN 16 | DN 150 - PN 16 | 1050          |
| 3 KV 50/4 | 1400 | 1200 | 300 | 536 | 1160 | 1250 | 1240 | 510 | 280 | 180 | 285 | 240 | 22x8 | DN 150 - PN 16 | DN 150 - PN 16 | 1156          |
| 3 KV 50/5 | 1400 | 1200 | 300 | 591 | 1160 | 1250 | 1380 | 510 | 280 | 180 | 285 | 240 | 22x8 | DN 150 - PN 16 | DN 150 - PN 16 | 1290          |
| 3 KV 50/6 | 1400 | 1200 | 300 | 645 | 1160 | 1250 | 1465 | 510 | 280 | 180 | 285 | 240 | 22x8 | DN 150 - PN 16 | DN 150 - PN 16 | 1325          |
| 3 KV 50/7 | 1400 | 1200 | 300 | 699 | 1160 | 1250 | 1465 | 510 | 280 | 180 | 285 | 240 | 22x8 | DN 150 - PN 25 | DN 150 - PN 25 | 1390          |
| 3 KV 50/8 | 1400 | 1200 | 300 | 753 | 1160 | 1250 | 1600 | 510 | 280 | 180 | 285 | 240 | 22x8 | DN 150 - PN 25 | DN 150 - PN 25 | 1450          |
| 3 KV 50/9 | 1400 | 1200 | 300 | 807 | 1160 | 1250 | 1750 | 510 | 280 | 180 | 285 | 240 | 22x8 | DN 150 - PN 25 | DN 150 - PN 25 | 1770          |