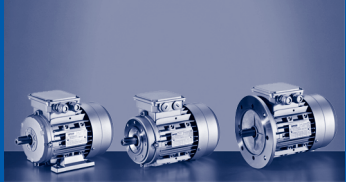


# Three-phase AC motors



Basic

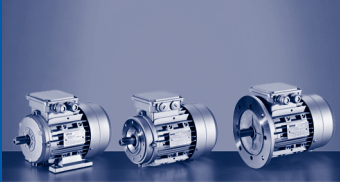


## Three-phase AC motors

Many straightforward industrial applications are the perfect example of when three-phase AC motors are required for mains operation without any of the typical options (e.g. blower, brake). That is where the robust three-phase AC motors from the Basic series come into play. These round off the section of the Lenze product portfolio that concentrates on cost-optimised motors.

- ▶ The 2, 4 and 6-pole motors in sizes 56 to 132 are available in B3, B5 and B14 designs. In addition, 4-pole motors are available in designs B3 and B5 up to a size of 225.
- ▶ All motors with a power of 0.75 kW or above meet the requirements of efficiency class IE2 (high efficiency) according to IEC60034-30. The efficiency was measured in accordance with IEC 60034-2-1.
- ▶ The motors in sizes 056 to 132 have an aluminium housing. From size 160 upwards, they feature a housing made from cast iron.
- ▶ Designs B3 and B5 come with a basalt grey coating (RAL7012) as standard. In the case of design B14, no coating is applied up to size 132.
- ▶ The motors feature an integrated integral fan as standard.
- ▶ The integrated thermal sensors enable continuous temperature monitoring and are coordinated with the temperature class F (155°C) of the motors.  
The following thermal sensors are used:
  - Motor frame size 56 to 132, design B3: 1x PTC
  - Motor frame size 56 to 132, designs B5 and B14: 1x thermal contact
  - Motor frame size 160 to 225, designs B3 and B5: 3x PTC
- ▶ The motors feature high-quality ball bearings.
- ▶ IP55 degree of protection ensures that the series is able to cope with the environmental conditions.
- ▶ The mounting dimensions conform to standards IEC 60072-1 and DIN EN 50347.
- ▶ All motor data assumes a maximum ambient temperature (cooling air temperature) of 40°C and a maximum site altitude of 1000 m above sea level.





## List of abbreviations

|                |         |                  |
|----------------|---------|------------------|
| $\eta_{100\%}$ | [%]     | Efficiency       |
| $\eta_{50\%}$  | [%]     | Efficiency       |
| $\eta_{75\%}$  | [%]     | Efficiency       |
| $\cos \varphi$ |         | Power factor     |
| $I_{N,\Delta}$ | [A]     | Rated current    |
| $I_{N,Y}$      | [A]     | Rated current    |
| $I_a / I_N$    |         | Starting current |
| $m$            | [kg]    | Mass             |
| $M_a$          | [Nm]    | Starting torque  |
| $M_b$          | [Nm]    | Stalling torque  |
| $M_N$          | [Nm]    | Rated torque     |
| $n_N$          | [r/min] | Rated speed      |
| $P_N$          | [kW]    | Rated power      |
| $U_{N,\Delta}$ | [V]     | Rated voltage    |
| $U_{N,Y}$      | [V]     | Rated voltage    |

EN 50347

Three-phase asynchronous motors for general use with standardised dimensions and outputs



Rated frequency 50 Hz

|                  | $P_N$ | $n_N$   | $U_{N,\Delta}$ | $I_{N,\Delta}$ | $U_{N,Y}$  | $I_{N,Y}$ | $I_a / I_N$ |
|------------------|-------|---------|----------------|----------------|------------|-----------|-------------|
|                  |       |         | $\pm 10\%$     |                | $\pm 10\%$ |           |             |
|                  | [kW]  | [r/min] | [V]            | [A]            | [V]        | [A]       |             |
| MDERAXX056-11V1C | 0.090 | 2710    | 230            | 0.64           | 400        | 0.37      | 4.00        |
| MDERAXX056-21V1C | 0.12  | 2710    | 230            | 0.78           | 400        | 0.45      | 4.00        |
| MDERAXX063-11V1C | 0.18  | 2720    | 230            | 0.95           | 400        | 0.55      | 5.50        |
| MDERAXX063-21V1C | 0.25  | 2720    | 230            | 1.25           | 400        | 0.72      | 5.50        |
| MDERAXX071-11V1C | 0.37  | 2760    | 230            | 1.63           | 400        | 0.94      | 6.10        |
| MDERAXX071-21V1C | 0.55  | 2820    | 230            | 2.30           | 400        | 1.33      | 6.10        |
| MHERAXX080-11V1C | 0.75  | 2880    | 230            | 3.04           | 400        | 1.75      | 7.00        |
| MHERAXX080-31V1C | 1.10  | 2880    | 230            | 4.30           | 400        | 2.47      | 7.00        |
| MHERAXX090-11V1C | 1.50  | 2900    | 230            | 5.16           | 400        | 2.96      | 8.50        |
| MHERAXX090-31V1C | 2.20  | 2900    | 230            | 7.37           | 400        | 4.24      | 8.50        |
| MHERAXX100-31V1C | 3.00  | 2900    | 230            | 9.80           | 400        | 5.63      | 9.00        |
| MHERAXX112-21V1C | 4.00  | 2920    | 400            | 7.52           |            |           | 9.00        |
| MHERAXX132-11V1C | 5.50  | 2930    | 400            | 10.2           |            |           | 8.50        |
| MHERAXX132-21V1C | 7.50  | 2930    | 400            | 13.8           |            |           | 8.50        |

|                  | $M_N$ | $M_a$ | $M_b$ | $\cos \varphi$ | $\eta_{50\%}$ | $\eta_{75\%}$ | $\eta_{100\%}$ | $m$  |
|------------------|-------|-------|-------|----------------|---------------|---------------|----------------|------|
|                  | [Nm]  | [Nm]  | [Nm]  |                | [%]           | [%]           | [%]            | [kg] |
| MDERAXX056-11V1C | 0.32  | 0.58  | 0.64  | 0.70           |               |               | 50.0           | 3.20 |
| MDERAXX056-21V1C | 0.42  | 0.76  | 0.84  | 0.70           |               |               | 55.0           | 3.40 |
| MDERAXX063-11V1C | 0.63  | 1.39  | 1.39  | 0.73           |               |               | 65.0           | 3.90 |
| MDERAXX063-21V1C | 0.88  | 1.94  | 1.94  | 0.76           |               |               | 66.0           | 4.40 |
| MDERAXX071-11V1C | 1.28  | 2.82  | 2.82  | 0.81           |               |               | 70.0           | 6.20 |
| MDERAXX071-21V1C | 1.86  | 4.09  | 4.28  | 0.82           |               |               | 73.0           | 6.30 |
| MHERAXX080-11V1C | 2.49  | 6.23  | 6.47  | 0.78           | 76.3          | 79.0          | 79.3           | 11.0 |
| MHERAXX080-31V1C | 3.65  | 9.13  | 9.49  | 0.79           | 78.3          | 81.0          | 81.3           | 13.0 |
| MHERAXX090-11V1C | 4.94  | 10.9  | 12.4  | 0.88           | 81.5          | 83.2          | 83.0           | 16.0 |
| MHERAXX090-31V1C | 7.24  | 15.9  | 18.1  | 0.89           | 83.4          | 84.7          | 84.2           | 19.0 |
| MHERAXX100-31V1C | 9.88  | 21.7  | 24.7  | 0.90           | 85.0          | 86.0          | 85.4           | 24.0 |
| MHERAXX112-21V1C | 13.1  | 28.8  | 32.8  | 0.89           | 86.0          | 87.0          | 86.3           | 28.0 |
| MHERAXX132-11V1C | 17.9  | 39.4  | 44.8  | 0.89           | 86.0          | 87.5          | 87.5           | 40.0 |
| MHERAXX132-21V1C | 24.4  | 53.7  | 61.0  | 0.89           | 87.6          | 88.8          | 88.4           | 43.0 |



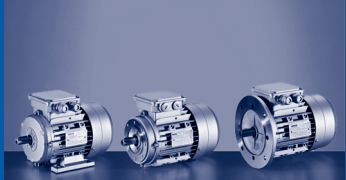
## Rated data 2-pole motors

### Rated frequency 60 Hz

|                  | $P_N$ | $n_N$   | $U_{N,\Delta}$ | $I_{N,\Delta}$ | $U_{N,Y}$  | $I_{N,Y}$ | $I_a / I_N$ |
|------------------|-------|---------|----------------|----------------|------------|-----------|-------------|
|                  |       |         | $\pm 10\%$     |                | $\pm 10\%$ |           |             |
|                  | [kW]  | [r/min] | [V]            | [A]            | [V]        | [A]       |             |
| MDERAXX056-11V1C | 0.10  | 3250    | 265            | 0.64           | 460        | 0.37      | 4.00        |
| MDERAXX056-21V1C | 0.14  | 3250    | 265            | 0.78           | 460        | 0.45      | 4.00        |
| MDERAXX063-11V1C | 0.21  | 3265    | 265            | 0.95           | 460        | 0.55      | 5.50        |
| MDERAXX063-21V1C | 0.29  | 3265    | 265            | 1.25           | 460        | 0.72      | 5.50        |
| MDERAXX071-11V1C | 0.43  | 3310    | 265            | 1.63           | 460        | 0.94      | 6.10        |
| MDERAXX071-21V1C | 0.63  | 3385    | 265            | 2.30           | 460        | 1.33      | 6.10        |
| MHERAXX080-11V1C | 0.86  | 3450    | 265            | 2.98           | 460        | 1.72      | 7.00        |
| MHERAXX080-31V1C | 1.27  | 3450    | 265            | 4.18           | 460        | 2.41      | 7.00        |
| MHERAXX090-11V1C | 1.73  | 3480    | 265            | 5.16           | 460        | 2.98      | 8.50        |
| MHERAXX090-31V1C | 2.53  | 3480    | 265            | 7.28           | 460        | 4.20      | 8.50        |
| MHERAXX100-31V1C | 3.45  | 3490    | 265            | 9.52           | 460        | 5.48      | 9.00        |
| MHERAXX112-21V1C | 4.60  | 3500    | 460            | 7.44           |            |           | 9.00        |
| MHERAXX132-11V1C | 6.33  | 3520    | 460            | 10.1           |            |           | 8.50        |
| MHERAXX132-21V1C | 8.63  | 3520    | 460            | 13.6           |            |           | 8.50        |

|                  | $M_N$ | $M_a$ | $M_b$ | $\cos \varphi$ | $\eta_{50\%}$ | $\eta_{75\%}$ | $\eta_{100\%}$ | $m$  |
|------------------|-------|-------|-------|----------------|---------------|---------------|----------------|------|
|                  | [Nm]  | [Nm]  | [Nm]  |                | [%]           | [%]           | [%]            | [kg] |
| MDERAXX056-11V1C | 0.31  | 0.58  | 0.64  | 0.70           |               |               | 50.0           | 3.20 |
| MDERAXX056-21V1C | 0.41  | 0.76  | 0.84  | 0.70           |               |               | 55.0           | 3.40 |
| MDERAXX063-11V1C | 0.62  | 1.39  | 1.39  | 0.73           |               |               | 65.0           | 3.90 |
| MDERAXX063-21V1C | 0.86  | 1.94  | 1.94  | 0.76           |               |               | 66.0           | 4.40 |
| MDERAXX071-11V1C | 1.25  | 2.82  | 2.82  | 0.81           |               |               | 70.0           | 6.20 |
| MDERAXX071-21V1C | 1.82  | 4.09  | 4.28  | 0.82           |               |               | 73.0           | 6.30 |
| MHERAXX080-11V1C | 2.39  | 6.23  | 6.47  | 0.78           | 76.3          | 79.0          | 80.6           | 11.0 |
| MHERAXX080-31V1C | 3.50  | 9.13  | 9.49  | 0.79           | 78.3          | 81.0          | 82.4           | 13.0 |
| MHERAXX090-11V1C | 4.73  | 10.9  | 12.4  | 0.88           | 81.5          | 83.2          | 83.9           | 16.0 |
| MHERAXX090-31V1C | 6.94  | 15.9  | 18.1  | 0.89           | 83.4          | 84.7          | 85.0           | 19.0 |
| MHERAXX100-31V1C | 9.47  | 21.7  | 24.7  | 0.90           | 85.0          | 86.0          | 86.5           | 24.0 |
| MHERAXX112-21V1C | 12.6  | 28.8  | 32.8  | 0.89           | 86.0          | 87.0          | 87.2           | 28.0 |
| MHERAXX132-11V1C | 17.1  | 39.4  | 44.8  | 0.89           | 86.0          | 87.5          | 88.1           | 40.0 |
| MHERAXX132-21V1C | 23.4  | 53.7  | 61.0  | 0.89           | 87.6          | 88.8          | 89.0           | 43.0 |



Rated frequency 50 Hz

|                  | $P_N$ | $n_N$   | $U_{N,\Delta}$ | $I_{N,\Delta}$ | $U_{N,Y}$  | $I_{N,Y}$ | $I_a / I_N$ |
|------------------|-------|---------|----------------|----------------|------------|-----------|-------------|
|                  |       |         | $\pm 10\%$     |                | $\pm 10\%$ |           |             |
|                  | [kW]  | [r/min] | [V]            | [A]            | [V]        | [A]       |             |
| MDERAXX056-12V1C | 0.060 | 1330    | 230            | 0.47           | 400        | 0.27      | 4.00        |
| MDERAXX056-22V1C | 0.090 | 1330    | 230            | 0.62           | 400        | 0.36      | 4.00        |
| MDERAXX063-12V1C | 0.12  | 1340    | 230            | 0.73           | 400        | 0.42      | 4.40        |
| MDERAXX063-32V1C | 0.18  | 1340    | 230            | 1.06           | 400        | 0.61      | 4.40        |
| MDERAXX071-12V1C | 0.25  | 1345    | 230            | 1.30           | 400        | 0.75      | 5.20        |
| MDERAXX071-32V1C | 0.37  | 1340    | 230            | 1.84           | 400        | 1.06      | 5.20        |
| MDERAXX071-42V1C | 0.55  | 1390    | 230            | 2.58           | 400        | 1.49      | 5.30        |
| MDERAXX080-12V1C | 0.55  | 1425    | 230            | 2.46           | 400        | 1.41      | 8.80        |
| MHERAXX080-32V1C | 0.75  | 1425    | 230            | 3.24           | 400        | 1.86      | 8.80        |
| MHERAXX090-12V1C | 1.10  | 1450    | 230            | 4.29           | 400        | 2.47      | 8.80        |
| MHERAXX090-32V1C | 1.50  | 1450    | 230            | 5.76           | 400        | 3.31      | 8.50        |
| MHERAXX100-12V1C | 2.20  | 1440    | 230            | 8.40           | 400        | 4.83      | 9.00        |
| MHERAXX100-32V1C | 3.00  | 1440    | 230            | 11.3           | 400        | 6.49      | 9.00        |

|                  | $M_N$ | $M_a$ | $M_b$ | $\cos \varphi$ | $\eta_{50\%}$ | $\eta_{75\%}$ | $\eta_{100\%}$ | $m$  |
|------------------|-------|-------|-------|----------------|---------------|---------------|----------------|------|
|                  | [Nm]  | [Nm]  | [Nm]  |                | [%]           | [%]           | [%]            | [kg] |
| MDERAXX056-12V1C | 0.43  | 0.60  | 0.86  | 0.65           |               |               | 50.0           | 3.20 |
| MDERAXX056-22V1C | 0.65  | 1.17  | 1.30  | 0.73           |               |               | 50.0           | 3.40 |
| MDERAXX063-12V1C | 0.86  | 1.55  | 1.72  | 0.72           |               |               | 57.0           | 4.00 |
| MDERAXX063-32V1C | 1.28  | 2.30  | 2.56  | 0.73           |               |               | 58.0           | 4.50 |
| MDERAXX071-12V1C | 1.77  | 3.72  | 3.89  | 0.74           |               |               | 65.0           | 6.10 |
| MDERAXX071-32V1C | 2.64  | 5.54  | 5.81  | 0.75           |               |               | 67.0           | 6.70 |
| MDERAXX071-42V1C | 3.78  | 8.32  | 9.45  | 0.75           |               |               | 71.0           | 9.20 |
| MDERAXX080-12V1C | 3.69  | 8.49  | 9.23  | 0.73           |               |               | 77.0           | 12.0 |
| MHERAXX080-32V1C | 5.03  | 11.6  | 12.6  | 0.73           | 75.6          | 78.8          | 79.6           | 14.0 |
| MHERAXX090-12V1C | 7.24  | 16.7  | 18.1  | 0.79           | 78.6          | 81.0          | 81.4           | 17.0 |
| MHERAXX090-32V1C | 9.88  | 22.7  | 24.7  | 0.79           | 80.0          | 82.4          | 82.8           | 20.0 |
| MHERAXX100-12V1C | 14.6  | 33.6  | 36.5  | 0.78           | 82.0          | 84.0          | 84.3           | 25.0 |
| MHERAXX100-32V1C | 19.9  | 45.8  | 49.8  | 0.78           | 84.0          | 85.6          | 85.5           | 29.0 |

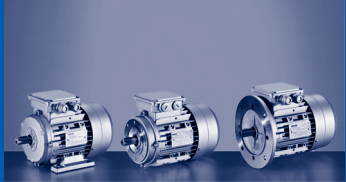


## Rated data 4-pole motors

|                  | $P_N$ | $n_N$   | $U_{N,\Delta}$ | $I_{N,\Delta}$ | $U_{N,Y}$  | $I_{N,Y}$ | $I_a / I_N$ |
|------------------|-------|---------|----------------|----------------|------------|-----------|-------------|
|                  |       |         | $\pm 10\%$     |                | $\pm 10\%$ |           |             |
|                  | [kW]  | [r/min] | [V]            | [A]            | [V]        | [A]       |             |
| MHERAXX112-22V1C | 4.00  | 1460    | 400            | 8.00           |            |           | 8.80        |
| MHERAXX132-12V1C | 5.50  | 1460    | 400            | 11.0           |            |           | 8.50        |
| MHERAXX132-22V1C | 7.50  | 1460    | 400            | 14.7           |            |           | 8.20        |
| MHERAXX160-22V1C | 11.0  | 1460    | 400            | 20.5           |            |           | 7.00        |
| MHERAXX160-32V1C | 15.0  | 1460    | 400            | 27.8           |            |           | 7.50        |
| MHERAXX180-22V1C | 18.5  | 1470    | 400            | 33.7           |            |           | 7.50        |
| MHERAXX180-32V1C | 22.0  | 1470    | 400            | 39.9           |            |           | 7.50        |
| MHERAXX200-32V1C | 30.0  | 1470    | 400            | 52.2           |            |           | 7.20        |
| MHERAXX225-12V1C | 37.0  | 1480    | 400            | 65.6           |            |           | 7.20        |
| MHERAXX225-22V1C | 45.0  | 1480    | 400            | 79.3           |            |           | 7.20        |

|                  | $M_N$ | $M_a$ | $M_b$ | $\cos \varphi$ | $\eta_{50\%}$ | $\eta_{75\%}$ | $\eta_{100\%}$ | $m$  |
|------------------|-------|-------|-------|----------------|---------------|---------------|----------------|------|
|                  | [Nm]  | [Nm]  | [Nm]  |                | [%]           | [%]           | [%]            | [kg] |
| MHERAXX112-22V1C | 26.2  | 52.4  | 57.6  | 0.83           | 86.5          | 87.4          | 87.0           | 33.0 |
| MHERAXX132-12V1C | 36.0  | 72.0  | 79.2  | 0.82           | 86.8          | 87.9          | 87.8           | 47.0 |
| MHERAXX132-22V1C | 49.1  | 98.2  | 108   | 0.83           | 88.0          | 89.2          | 89.0           | 60.0 |
| MHERAXX160-22V1C | 71.9  | 158   | 180   | 0.85           | 90.2          | 90.7          | 90.3           | 115  |
| MHERAXX160-32V1C | 98.1  | 216   | 245   | 0.86           | 90.8          | 91.4          | 91.0           | 135  |
| MHERAXX180-22V1C | 120   | 264   | 300   | 0.86           | 90.6          | 91.3          | 91.3           | 170  |
| MHERAXX180-32V1C | 143   | 315   | 358   | 0.86           | 90.9          | 91.8          | 91.8           | 184  |
| MHERAXX200-32V1C | 195   | 429   | 488   | 0.89           | 91.8          | 92.5          | 92.5           | 235  |
| MHERAXX225-12V1C | 239   | 526   | 598   | 0.87           | 93.2          | 94.0          | 93.9           | 290  |
| MHERAXX225-22V1C | 290   | 638   | 725   | 0.87           | 92.6          | 93.3          | 93.3           | 326  |



Rated frequency 60 Hz

|                  | $P_N$ | $n_N$   | $U_{N,\Delta}$ | $I_{N,\Delta}$ | $U_{N,Y}$  | $I_{N,Y}$ | $I_a / I_N$ |
|------------------|-------|---------|----------------|----------------|------------|-----------|-------------|
|                  |       |         | $\pm 10\%$     |                | $\pm 10\%$ |           |             |
|                  | [kW]  | [r/min] | [V]            | [A]            | [V]        | [A]       |             |
| MDERAXX056-12V1C | 0.070 | 1595    | 265            | 0.47           | 460        | 0.27      | 4.00        |
| MDERAXX056-22V1C | 0.10  | 1595    | 265            | 0.62           | 460        | 0.36      | 4.00        |
| MDERAXX063-12V1C | 0.14  | 1605    | 265            | 0.73           | 460        | 0.42      | 4.40        |
| MDERAXX063-32V1C | 0.21  | 1605    | 265            | 1.06           | 460        | 0.61      | 4.40        |
| MDERAXX071-12V1C | 0.29  | 1610    | 265            | 1.30           | 460        | 0.75      | 5.20        |
| MDERAXX071-32V1C | 0.43  | 1605    | 265            | 1.84           | 460        | 1.06      | 5.20        |
| MDERAXX071-42V1C | 0.63  | 1665    | 265            | 2.58           | 460        | 1.49      | 5.30        |
| MDERAXX080-12V1C | 0.63  | 1730    | 265            | 2.38           | 460        | 1.37      | 8.80        |
| MHERAXX080-32V1C | 0.86  | 1730    | 265            | 3.14           | 460        | 1.81      | 8.80        |
| MHERAXX090-12V1C | 1.27  | 1750    | 265            | 4.17           | 460        | 2.40      | 8.80        |
| MHERAXX090-32V1C | 1.73  | 1750    | 265            | 5.75           | 460        | 3.31      | 8.50        |
| MHERAXX100-12V1C | 2.53  | 1750    | 265            | 8.20           | 460        | 4.72      | 9.00        |
| MHERAXX100-32V1C | 3.45  | 1750    | 265            | 11.0           | 460        | 6.35      | 9.00        |

|                  | $M_N$ | $M_a$ | $M_b$ | $\cos \varphi$ | $\eta_{50\%}$ | $\eta_{75\%}$ | $\eta_{100\%}$ | $m$  |
|------------------|-------|-------|-------|----------------|---------------|---------------|----------------|------|
|                  | [Nm]  | [Nm]  | [Nm]  |                | [%]           | [%]           | [%]            | [kg] |
| MDERAXX056-12V1C | 0.41  | 0.60  | 0.86  | 0.65           |               |               | 50.0           | 3.20 |
| MDERAXX056-22V1C | 0.62  | 1.17  | 1.30  | 0.73           |               |               | 50.0           | 3.40 |
| MDERAXX063-12V1C | 0.82  | 1.55  | 1.72  | 0.72           |               |               | 57.0           | 4.00 |
| MDERAXX063-32V1C | 1.23  | 2.30  | 2.56  | 0.73           |               |               | 58.0           | 4.50 |
| MDERAXX071-12V1C | 1.70  | 3.72  | 3.89  | 0.74           |               |               | 65.0           | 6.10 |
| MDERAXX071-32V1C | 2.53  | 5.54  | 5.81  | 0.75           |               |               | 67.0           | 6.70 |
| MDERAXX071-42V1C | 3.62  | 8.32  | 9.45  | 0.75           |               |               | 71.0           | 9.20 |
| MDERAXX080-12V1C | 3.54  | 8.49  | 9.23  | 0.73           |               |               | 78.6           | 12.0 |
| MHERAXX080-32V1C | 4.82  | 11.6  | 12.6  | 0.73           | 75.6          | 78.8          | 81.0           | 14.0 |
| MHERAXX090-12V1C | 6.94  | 16.7  | 18.1  | 0.79           | 78.6          | 81.0          | 82.6           | 17.0 |
| MHERAXX090-32V1C | 9.47  | 22.7  | 24.7  | 0.79           | 80.0          | 82.4          | 84.0           | 20.0 |
| MHERAXX100-12V1C | 14.0  | 33.6  | 36.5  | 0.78           | 82.0          | 84.0          | 85.2           | 25.0 |
| MHERAXX100-32V1C | 19.1  | 45.8  | 49.8  | 0.78           | 84.0          | 85.6          | 86.2           | 29.0 |

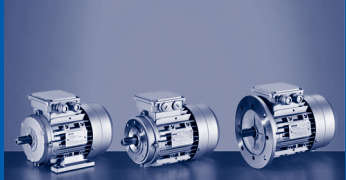


## Rated data 4-pole motors

|                  | $P_N$ | $n_N$   | $U_{N,\Delta}$<br>$\pm 10\%$ | $I_{N,\Delta}$ | $U_{N,Y}$<br>$\pm 10\%$ | $I_{N,Y}$ | $I_a / I_N$ |
|------------------|-------|---------|------------------------------|----------------|-------------------------|-----------|-------------|
|                  | [kW]  | [r/min] | [V]                          | [A]            | [V]                     | [A]       |             |
| MHERAXX112-22V1C | 4.60  | 1750    | 460                          | 7.92           |                         |           | 8.80        |
| MHERAXX132-12V1C | 6.33  | 1760    | 460                          | 10.9           |                         |           | 8.50        |
| MHERAXX132-22V1C | 8.63  | 1760    | 460                          | 14.5           |                         |           | 8.20        |
| MHERAXX160-22V1C | 12.7  | 1750    | 460                          | 20.5           |                         |           | 7.00        |
| MHERAXX160-32V1C | 17.3  | 1750    | 460                          | 27.8           |                         |           | 7.50        |
| MHERAXX180-22V1C | 21.3  | 1960    | 460                          | 33.7           |                         |           | 7.50        |
| MHERAXX180-32V1C | 25.3  | 1760    | 460                          | 39.9           |                         |           | 7.50        |
| MHERAXX200-32V1C | 34.5  | 1760    | 460                          | 52.2           |                         |           | 7.20        |
| MHERAXX225-12V1C | 42.5  | 1775    | 460                          | 65.6           |                         |           | 7.20        |
| MHERAXX225-22V1C | 51.8  | 1775    | 460                          | 79.3           |                         |           | 7.20        |

|                  | $M_N$ | $M_a$ | $M_b$ | $\cos \varphi$ | $\eta_{50\%}$ | $\eta_{75\%}$ | $\eta_{100\%}$ | $m$  |
|------------------|-------|-------|-------|----------------|---------------|---------------|----------------|------|
|                  | [Nm]  | [Nm]  | [Nm]  |                | [%]           | [%]           | [%]            | [kg] |
| MHERAXX112-22V1C | 25.1  | 52.4  | 57.6  | 0.83           | 86.5          | 87.4          | 87.8           | 33.0 |
| MHERAXX132-12V1C | 34.5  | 72.0  | 79.2  | 0.82           | 86.8          | 87.9          | 88.6           | 47.0 |
| MHERAXX132-22V1C | 47.0  | 98.2  | 108   | 0.83           | 88.0          | 89.2          | 89.4           | 60.0 |
| MHERAXX160-22V1C | 68.9  | 158   | 180   | 0.85           | 90.2          | 90.7          | 90.3           | 115  |
| MHERAXX160-32V1C | 94.0  | 216   | 245   | 0.86           | 90.8          | 91.4          | 91.0           | 135  |
| MHERAXX180-22V1C | 115   | 264   | 300   | 0.86           | 90.6          | 91.3          | 91.3           | 170  |
| MHERAXX180-32V1C | 137   | 315   | 358   | 0.86           | 90.9          | 91.8          | 91.8           | 184  |
| MHERAXX200-32V1C | 187   | 429   | 488   | 0.89           | 91.8          | 92.5          | 92.5           | 235  |
| MHERAXX225-12V1C | 229   | 526   | 598   | 0.87           | 93.2          | 94.0          | 93.9           | 290  |
| MHERAXX225-22V1C | 278   | 638   | 725   | 0.87           | 92.6          | 93.3          | 93.3           | 326  |



Rated frequency 50 Hz

|                  | $P_N$ | $n_N$   | $U_{N,\Delta}$ | $I_{N,\Delta}$ | $U_{N,Y}$  | $I_{N,Y}$ | $I_a / I_N$ |
|------------------|-------|---------|----------------|----------------|------------|-----------|-------------|
|                  |       |         | $\pm 10\%$     |                | $\pm 10\%$ |           |             |
|                  | [kW]  | [r/min] | [V]            | [A]            | [V]        | [A]       |             |
| MDERAXX063-13V1C | 0.090 | 860     | 230            | 0.80           | 400        | 0.46      | 4.00        |
| MDERAXX063-23V1C | 0.12  | 860     | 230            | 0.99           | 400        | 0.57      | 4.00        |
| MDERAXX071-13V1C | 0.18  | 860     | 230            | 1.21           | 400        | 0.70      | 4.00        |
| MDERAXX071-23V1C | 0.25  | 860     | 230            | 1.56           | 400        | 0.90      | 4.00        |
| MDERAXX080-23V1C | 0.37  | 900     | 230            | 1.87           | 400        | 1.08      | 6.70        |
| MDERAXX080-33V1C | 0.55  | 905     | 230            | 2.66           | 400        | 1.53      | 6.70        |
| MHERAXX090-13V1C | 0.75  | 920     | 230            | 3.54           | 400        | 2.03      | 7.50        |
| MHERAXX090-33V1C | 1.10  | 920     | 230            | 5.04           | 400        | 2.90      | 7.50        |
| MHERAXX100-33V1C | 1.50  | 925     | 230            | 6.65           | 400        | 3.82      | 7.50        |
| MHERAXX112-23V1C | 2.20  | 925     | 230            | 9.38           | 400        | 5.39      | 7.50        |
| MHERAXX132-13V1C | 3.00  | 950     | 230            | 12.1           | 400        | 6.93      | 8.50        |
| MHERAXX132-23V1C | 4.00  | 950     | 400            | 8.98           |            |           | 9.00        |
| MHERAXX132-33V1C | 5.50  | 950     | 400            | 12.2           |            |           | 9.50        |

|                  | $M_N$ | $M_a$ | $M_b$ | $\cos \varphi$ | $\eta_{50\%}$ | $\eta_{75\%}$ | $\eta_{100\%}$ | $m$  |
|------------------|-------|-------|-------|----------------|---------------|---------------|----------------|------|
|                  | [Nm]  | [Nm]  | [Nm]  |                | [%]           | [%]           | [%]            | [kg] |
| MDERAXX063-13V1C | 1.00  | 1.90  | 2.00  | 0.59           |               |               | 48.0           | 4.50 |
| MDERAXX063-23V1C | 1.33  | 2.53  | 2.66  | 0.59           |               |               | 51.5           | 5.60 |
| MDERAXX071-13V1C | 2.00  | 3.80  | 4.00  | 0.66           |               |               | 56.0           | 6.40 |
| MDERAXX071-23V1C | 2.78  | 5.28  | 5.56  | 0.68           |               |               | 59.0           | 6.50 |
| MDERAXX080-23V1C | 3.93  | 8.25  | 8.65  | 0.70           | 68.0          | 71.2          | 70.9           | 12.0 |
| MDERAXX080-33V1C | 5.80  | 12.8  | 13.3  | 0.70           | 71.4          | 74.4          | 74.1           | 16.0 |
| MHERAXX090-13V1C | 7.78  | 17.1  | 17.9  | 0.70           | 73.9          | 76.4          | 76.0           | 15.0 |
| MHERAXX090-33V1C | 11.4  | 25.1  | 26.2  | 0.70           | 76.0          | 78.5          | 78.3           | 17.0 |
| MHERAXX100-33V1C | 15.5  | 31.0  | 34.1  | 0.71           | 79.9          | 81.0          | 79.8           | 22.0 |
| MHERAXX112-23V1C | 22.7  | 49.9  | 49.9  | 0.72           | 81.8          | 82.8          | 81.8           | 25.0 |
| MHERAXX132-13V1C | 30.2  | 69.5  | 69.5  | 0.75           | 81.6          | 83.4          | 83.3           | 34.0 |
| MHERAXX132-23V1C | 40.2  | 92.5  | 92.5  | 0.76           | 83.3          | 84.2          | 84.6           | 43.0 |
| MHERAXX132-33V1C | 55.3  | 133   | 133   | 0.76           | 84.7          | 86.1          | 86.0           | 52.0 |



## Rated data 6-pole motors

### Rated frequency 60 Hz

|                  | $P_N$ | $n_N$   | $U_{N,\Delta}$ | $I_{N,\Delta}$ | $U_{N,Y}$  | $I_{N,Y}$ | $I_a / I_N$ |
|------------------|-------|---------|----------------|----------------|------------|-----------|-------------|
|                  |       |         | $\pm 10\%$     |                | $\pm 10\%$ |           |             |
|                  | [kW]  | [r/min] | [V]            | [A]            | [V]        | [A]       |             |
| MDERAXX063-13V1C | 0.10  | 1030    | 265            | 0.80           | 460        | 0.46      | 4.00        |
| MDERAXX063-23V1C | 0.14  | 1030    | 265            | 0.99           | 460        | 0.57      | 4.00        |
| MDERAXX071-13V1C | 0.21  | 1030    | 265            | 1.22           | 460        | 0.70      | 4.00        |
| MDERAXX071-23V1C | 0.29  | 1030    | 265            | 1.56           | 460        | 0.90      | 4.00        |
| MDERAXX080-23V1C | 0.43  | 1125    | 265            | 1.79           | 460        | 1.03      | 6.70        |
| MDERAXX080-33V1C | 0.63  | 1130    | 265            | 2.57           | 460        | 1.48      | 6.70        |
| MHERAXX090-13V1C | 0.86  | 1150    | 265            | 3.42           | 460        | 1.97      | 7.50        |
| MHERAXX090-33V1C | 1.27  | 1150    | 265            | 4.84           | 460        | 2.79      | 7.50        |
| MHERAXX100-33V1C | 1.73  | 1140    | 265            | 6.59           | 460        | 3.80      | 7.50        |
| MHERAXX112-23V1C | 2.53  | 1155    | 265            | 9.05           | 460        | 5.21      | 7.50        |
| MHERAXX132-13V1C | 3.45  | 1170    | 265            | 11.6           | 460        | 6.70      | 8.50        |
| MHERAXX132-23V1C | 4.60  | 1170    | 460            | 8.79           |            |           | 9.00        |
| MHERAXX132-33V1C | 6.33  | 1175    | 460            | 11.8           |            |           | 9.50        |

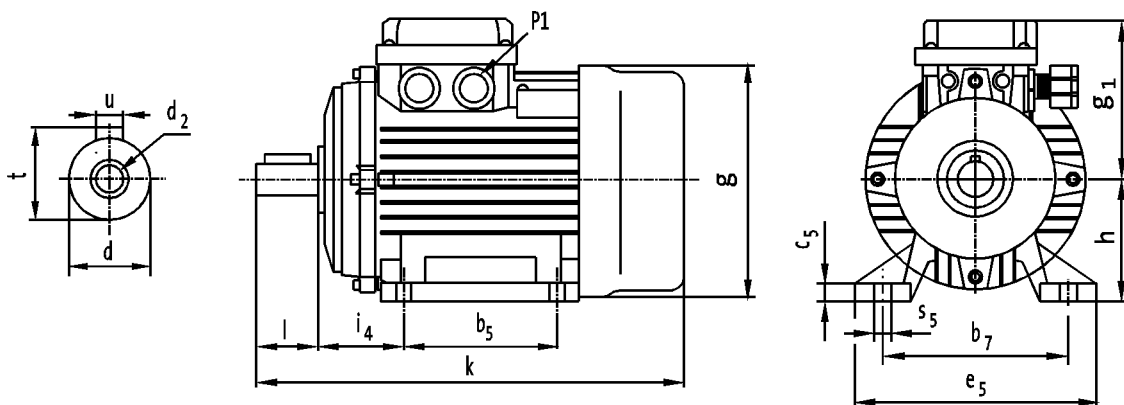
|                  | $M_N$ | $M_a$ | $M_b$ | $\cos \varphi$ | $\eta_{50\%}$ | $\eta_{75\%}$ | $\eta_{100\%}$ | $m$  |
|------------------|-------|-------|-------|----------------|---------------|---------------|----------------|------|
|                  | [Nm]  | [Nm]  | [Nm]  |                | [%]           | [%]           | [%]            | [kg] |
| MDERAXX063-13V1C | 0.98  | 1.90  | 2.00  | 0.59           |               |               | 48.0           | 4.50 |
| MDERAXX063-23V1C | 1.30  | 2.53  | 2.66  | 0.59           |               |               | 51.5           | 5.60 |
| MDERAXX071-13V1C | 1.96  | 3.80  | 4.00  | 0.66           |               |               | 56.0           | 6.40 |
| MDERAXX071-23V1C | 2.72  | 5.28  | 5.56  | 0.68           |               |               | 59.0           | 6.50 |
| MDERAXX080-23V1C | 3.77  | 8.25  | 8.65  | 0.70           | 68.0          | 71.2          | 73.5           | 12.0 |
| MDERAXX080-33V1C | 5.56  | 12.8  | 13.3  | 0.70           | 71.4          | 74.4          | 76.3           | 16.0 |
| MHERAXX090-13V1C | 7.46  | 17.1  | 17.9  | 0.70           | 73.9          | 76.4          | 78.0           | 15.0 |
| MHERAXX090-33V1C | 10.9  | 25.1  | 26.2  | 0.70           | 76.0          | 78.5          | 80.1           | 17.0 |
| MHERAXX100-33V1C | 14.8  | 31.0  | 34.1  | 0.71           | 79.9          | 81.0          | 81.2           | 22.0 |
| MHERAXX112-23V1C | 21.8  | 49.9  | 49.9  | 0.72           | 81.8          | 82.8          | 83.3           | 25.0 |
| MHERAXX132-13V1C | 28.9  | 69.5  | 69.5  | 0.75           | 81.6          | 83.4          | 84.4           | 34.0 |
| MHERAXX132-23V1C | 38.5  | 92.5  | 92.5  | 0.76           | 83.3          | 84.2          | 85.5           | 43.0 |
| MHERAXX132-33V1C | 53.0  | 133   | 133   | 0.76           | 84.7          | 86.1          | 86.9           | 52.0 |



# Dimensions

## 2-pole motors

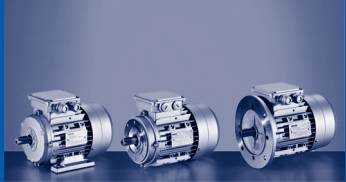
### Design B3



|                  | $k$  | $g$  | $g_1$ | $P_1$      |
|------------------|------|------|-------|------------|
|                  | [mm] | [mm] | [mm]  | [mm]       |
| MDERAXX056-11V1C | 183  | 110  | 96    | 2x M16x1.5 |
| MDERAXX056-21V1C |      |      |       |            |
| MDERAXX063-11V1C | 218  | 122  | 99    | 2x M20x1.5 |
| MDERAXX063-21V1C |      |      |       |            |
| MDERAXX071-11V1C | 251  | 138  | 109   | 2x M24x1.5 |
| MDERAXX071-21V1C |      |      |       |            |
| MHERAXX080-11V1C | 315  | 160  | 150   | 2x M32x1.5 |
| MHERAXX080-31V1C |      |      |       |            |
| MHERAXX090-11V1C | 320  | 185  | 160   | 2x M24x1.5 |
| MHERAXX090-31V1C | 335  |      |       |            |
| MHERAXX100-31V1C | 390  | 205  | 175   | 2x M24x1.5 |
| MHERAXX112-21V1C | 400  | 230  | 185   |            |
| MHERAXX132-11V1C | 445  | 265  | 200   | 2x M32x1.5 |
| MHERAXX132-21V1C | 485  |      |       |            |

# Dimensions

## 2-pole motors



|                  | <b>d</b>       | <b>d<sub>2</sub></b> | <b>l</b> | <b>t</b> | <b>u</b> |
|------------------|----------------|----------------------|----------|----------|----------|
|                  | j <sub>6</sub> |                      |          |          |          |
|                  | [mm]           | [mm]                 | [mm]     | [mm]     | [mm]     |
| MDERAXX056-11V1C | 9              | M4x10                | 20       | 10       | 3.0      |
| MDERAXX056-21V1C |                |                      |          |          |          |
| MDERAXX063-11V1C | 11             | M4x10                | 23       | 13       | 4.0      |
| MDERAXX063-21V1C |                |                      |          |          |          |
| MDERAXX071-11V1C | 14             | M5x12                | 30       | 16       | 5.0      |
| MDERAXX071-21V1C |                |                      |          |          |          |
| MHERAXX080-11V1C | 19             | M6x16                | 40       | 22       | 6.0      |
| MHERAXX080-31V1C |                |                      |          |          |          |
| MHERAXX090-11V1C | 24             | M8x20                | 50       | 27       | 8.0      |
| MHERAXX090-31V1C |                |                      |          |          |          |
| MHERAXX100-31V1C | 28             | M10x22               | 60       | 31       | 8.0      |
| MHERAXX112-21V1C |                |                      |          |          |          |
| MHERAXX132-11V1C | 38             | M12x28               | 80       | 41       | 10.0     |
| MHERAXX132-21V1C |                |                      |          |          |          |

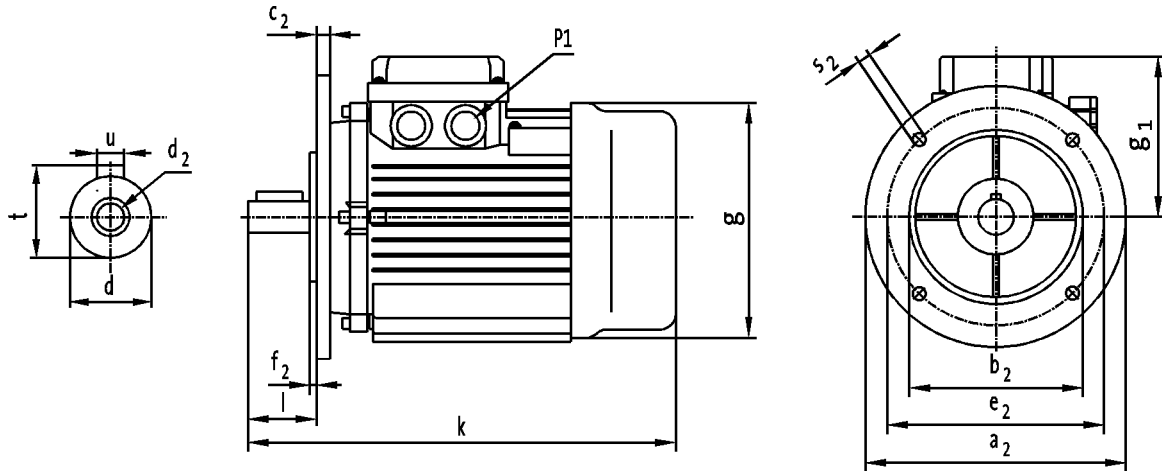
|                  | <b>b<sub>7</sub></b> | <b>i<sub>4</sub></b> | <b>b<sub>5</sub></b> | <b>e<sub>5</sub></b> | <b>h</b> | <b>c<sub>5</sub></b> | <b>s<sub>5</sub></b> |
|------------------|----------------------|----------------------|----------------------|----------------------|----------|----------------------|----------------------|
|                  | [mm]                 | [mm]                 | [mm]                 | [mm]                 | [mm]     | [mm]                 | [mm]                 |
| MDERAXX056-11V1C | 90                   | 36                   | 71                   | 110                  | 56       | 9                    | 7.0                  |
| MDERAXX056-21V1C |                      |                      |                      |                      |          |                      |                      |
| MDERAXX063-11V1C | 100                  | 40                   | 80                   | 122                  | 63       | 10                   | 7.0                  |
| MDERAXX063-21V1C |                      |                      |                      |                      |          |                      |                      |
| MDERAXX071-11V1C | 112                  | 45                   | 90                   | 136                  | 71       | 10                   | 7.0                  |
| MDERAXX071-21V1C |                      |                      |                      |                      |          |                      |                      |
| MHERAXX080-11V1C | 125                  | 50                   | 100                  | 165                  | 80       | 12                   | 10.0                 |
| MHERAXX080-31V1C |                      |                      |                      |                      |          |                      |                      |
| MHERAXX090-11V1C | 140                  | 56                   | 125                  | 190                  | 90       | 14                   | 12.0                 |
| MHERAXX090-31V1C |                      |                      |                      |                      |          |                      |                      |
| MHERAXX100-31V1C | 160                  | 63                   | 140                  | 210                  | 100      | 15                   | 12.0                 |
| MHERAXX112-21V1C |                      |                      |                      |                      |          |                      |                      |
| MHERAXX132-11V1C | 216                  | 89                   | 140                  | 275                  | 132      | 18                   | 12.0                 |
| MHERAXX132-21V1C |                      |                      |                      |                      |          |                      |                      |



# Dimensions

## 2-pole motors

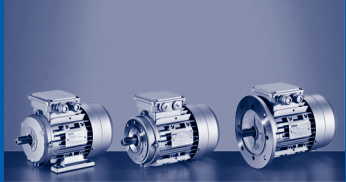
### Design B5



|                  | k    | g    | g <sub>1</sub> | P <sub>1</sub> |
|------------------|------|------|----------------|----------------|
|                  | [mm] | [mm] | [mm]           | [mm]           |
| MDERAXX056-11V1C | 183  | 110  | 96             | 2x M16x1.5     |
| MDERAXX056-21V1C |      |      |                |                |
| MDERAXX063-11V1C | 218  | 122  | 99             | 2x M20x1.5     |
| MDERAXX063-21V1C |      |      |                |                |
| MDERAXX071-11V1C | 251  | 138  | 109            | 2x M24x1.5     |
| MDERAXX071-21V1C |      |      |                |                |
| MHERAXX080-11V1C | 315  | 160  | 150            | 2x M32x1.5     |
| MHERAXX080-31V1C |      |      |                |                |
| MHERAXX090-11V1C | 320  | 185  | 160            | 2x M24x1.5     |
| MHERAXX090-31V1C | 335  |      |                |                |
| MHERAXX100-31V1C | 390  | 205  | 175            | 2x M32x1.5     |
| MHERAXX112-21V1C | 400  | 230  | 185            |                |
| MHERAXX132-11V1C | 445  | 265  | 200            | 2x M32x1.5     |
| MHERAXX132-21V1C | 485  |      |                |                |

# Dimensions

## 2-pole motors



|                  | d    | d <sub>2</sub> | l    | t    | u    |
|------------------|------|----------------|------|------|------|
|                  | j6   |                |      |      |      |
|                  | [mm] | [mm]           | [mm] | [mm] | [mm] |
| MDERAXX056-11V1C | 9    | M4x10          | 20   | 10   | 3.0  |
| MDERAXX056-21V1C |      |                |      |      |      |
| MDERAXX063-11V1C | 11   |                | 23   | 13   | 4.0  |
| MDERAXX063-21V1C |      |                |      |      |      |
| MDERAXX071-11V1C | 14   | M5x12          | 30   | 16   | 5.0  |
| MDERAXX071-21V1C |      |                |      |      |      |
| MHERAXX080-11V1C | 19   | M6x16          | 40   | 22   | 6.0  |
| MHERAXX080-31V1C |      |                |      |      |      |
| MHERAXX090-11V1C | 24   | M8x20          | 50   | 27   | 8.0  |
| MHERAXX090-31V1C |      |                |      |      |      |
| MHERAXX100-31V1C | 28   | M10x22         | 60   | 31   |      |
| MHERAXX112-21V1C |      |                |      |      |      |
| MHERAXX132-11V1C | 38   | M12x28         | 80   | 41   | 10.0 |
| MHERAXX132-21V1C |      |                |      |      |      |

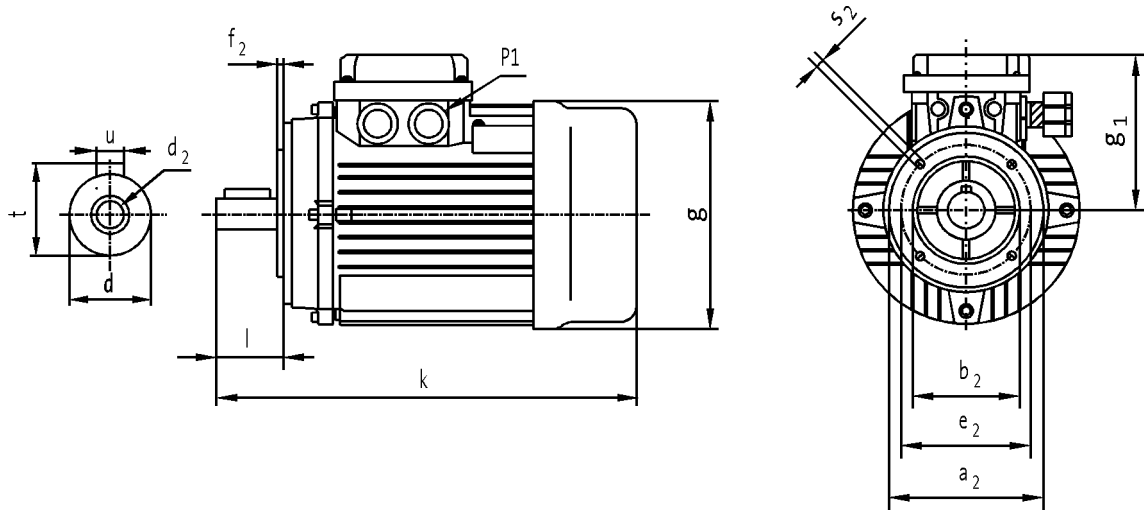
|                  |       | a <sub>2</sub> | b <sub>2</sub> | c <sub>2</sub> | e <sub>2</sub> | f <sub>2</sub> | s <sub>2</sub> |
|------------------|-------|----------------|----------------|----------------|----------------|----------------|----------------|
|                  |       | j6             |                |                |                |                |                |
|                  |       | [mm]           | [mm]           | [mm]           | [mm]           | [mm]           | [mm]           |
| MDERAXX056-11V1C | FF100 | 120            | 80             | 9              | 100            | 3.0            | 7.0            |
| MDERAXX056-21V1C |       |                |                |                |                |                |                |
| MDERAXX063-11V1C | FF115 | 140            | 95             | 10             | 115            | 3.5            | 9.0            |
| MDERAXX063-21V1C |       |                |                |                |                |                |                |
| MDERAXX071-11V1C | FF130 | 160            | 110            |                | 130            |                |                |
| MDERAXX071-21V1C |       |                |                |                |                |                |                |
| MHERAXX080-11V1C |       |                |                |                |                |                |                |
| MHERAXX080-31V1C | FF165 | 200            | 130            | 12             | 165            |                | 12.0           |
| MHERAXX090-11V1C |       |                |                |                |                |                |                |
| MHERAXX090-31V1C |       |                |                |                |                |                |                |
| MHERAXX100-31V1C | FF215 | 250            | 180            | 13             | 215            | 4.0            | 15.0           |
| MHERAXX112-21V1C |       |                |                |                |                |                |                |
| MHERAXX132-11V1C | FF265 | 300            | 230            | 14             | 265            |                |                |
| MHERAXX132-21V1C |       |                |                |                |                |                |                |



# Dimensions

## 2-pole motors

### Design B14



|                         | <b>k</b> | <b>g</b> | <b>g<sub>1</sub></b> | <b>P<sub>1</sub></b> |
|-------------------------|----------|----------|----------------------|----------------------|
|                         | [mm]     | [mm]     | [mm]                 | [mm]                 |
| <b>MDERAXX056-11V1C</b> | 183      | 110      | 96                   | 2x M16x1.5           |
| <b>MDERAXX056-21V1C</b> |          |          |                      |                      |
| <b>MDERAXX063-11V1C</b> | 218      | 122      | 99                   |                      |
| <b>MDERAXX063-21V1C</b> |          |          |                      |                      |
| <b>MDERAXX071-11V1C</b> | 251      | 138      | 109                  | 2x M20x1.5           |
| <b>MDERAXX071-21V1C</b> |          |          |                      |                      |
| <b>MHERAXX080-11V1C</b> | 315      | 160      | 150                  | 2x M24x1.5           |
| <b>MHERAXX080-31V1C</b> |          |          |                      |                      |
| <b>MHERAXX090-11V1C</b> | 320      | 185      | 160                  |                      |
| <b>MHERAXX090-31V1C</b> |          |          |                      |                      |
| <b>MHERAXX100-31V1C</b> | 390      | 205      | 175                  |                      |
| <b>MHERAXX112-21V1C</b> | 400      | 230      | 185                  |                      |
| <b>MHERAXX132-11V1C</b> | 445      | 265      | 200                  | 2x M32x1.5           |
| <b>MHERAXX132-21V1C</b> | 485      |          |                      |                      |

## Dimensions 2-pole motors



|                  | d    | d <sub>2</sub> | l    | t    | u    |
|------------------|------|----------------|------|------|------|
|                  | j6   |                |      |      |      |
|                  | [mm] | [mm]           | [mm] | [mm] | [mm] |
| MDERAXX056-11V1C | 9    | M4x10          | 20   | 10   | 3.0  |
| MDERAXX056-21V1C |      |                |      |      |      |
| MDERAXX063-11V1C | 11   |                | 23   | 13   | 4.0  |
| MDERAXX063-21V1C |      |                |      |      |      |
| MDERAXX071-11V1C | 14   | M5x12          | 30   | 16   | 5.0  |
| MDERAXX071-21V1C |      |                |      |      |      |
| MHERAXX080-11V1C | 19   | M6x16          | 40   | 22   | 6.0  |
| MHERAXX080-31V1C |      |                |      |      |      |
| MHERAXX090-11V1C | 24   | M8x20          | 50   | 27   | 8.0  |
| MHERAXX090-31V1C |      |                |      |      |      |
| MHERAXX100-31V1C | 28   | M10x22         | 60   | 31   |      |
| MHERAXX112-21V1C |      |                |      |      |      |
| MHERAXX132-11V1C | 38   | M12x28         | 80   | 41   | 10.0 |
| MHERAXX132-21V1C |      |                |      |      |      |

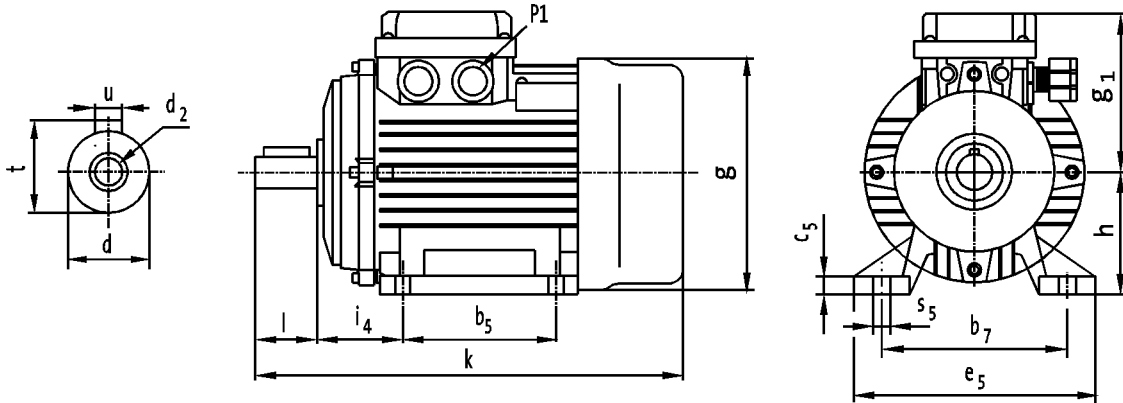
|                  |       | a <sub>2</sub> | b <sub>2</sub> | e <sub>2</sub> | f <sub>2</sub> | s <sub>2</sub> |
|------------------|-------|----------------|----------------|----------------|----------------|----------------|
|                  |       | j6             |                |                |                |                |
|                  |       | [mm]           | [mm]           | [mm]           | [mm]           | [mm]           |
| MDERAXX056-11V1C | FT65  | 80             | 50             | 65             | 3.0            | 8x M5x11       |
| MDERAXX056-21V1C |       |                |                |                |                |                |
| MDERAXX063-11V1C | FT75  | 90             | 60             | 75             |                | 8x M5x14       |
| MDERAXX063-21V1C |       |                |                |                |                |                |
| MDERAXX071-11V1C | FT85  | 105            | 70             | 85             | 3.5            | 8x M6x14       |
| MDERAXX071-21V1C |       |                |                |                |                |                |
| MHERAXX080-11V1C | FT100 | 120            | 80             | 100            | 3.0            | 8x M6x 15      |
| MHERAXX080-31V1C |       |                |                |                |                |                |
| MHERAXX090-11V1C | FT115 | 140            | 95             | 115            |                | 8x M8x 16      |
| MHERAXX090-31V1C |       |                |                |                |                |                |
| MHERAXX100-31V1C | FT130 | 160            | 110            | 130            | 3.5            | 8x M8x 18      |
| MHERAXX112-21V1C |       |                |                |                |                | 8x M8x 19      |
| MHERAXX132-11V1C | FT165 | 200            | 130            | 165            | 4.0            | 8x M10x 23     |
| MHERAXX132-21V1C |       |                |                |                |                |                |



# Dimensions

## 4-pole motors

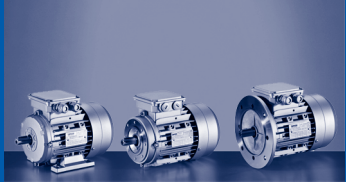
### Design B3



|                         | k    | g    | g <sub>1</sub> | P <sub>1</sub> |
|-------------------------|------|------|----------------|----------------|
|                         | [mm] | [mm] | [mm]           | [mm]           |
| <b>MDERAXX056-12V1C</b> | 189  | 110  | 96             | 2x M16x1.5     |
| <b>MDERAXX056-22V1C</b> |      |      |                |                |
| <b>MDERAXX063-12V1C</b> |      |      |                |                |
| <b>MDERAXX063-32V1C</b> | 218  | 122  | 99             |                |
| <b>MDERAXX071-12V1C</b> | 251  | 138  | 109            | 2x M20x1.5     |
| <b>MDERAXX071-32V1C</b> |      |      |                |                |
| <b>MDERAXX071-42V1C</b> |      |      |                |                |
| <b>MDERAXX080-12V1C</b> | 315  | 160  | 150            | 2x M24x1.5     |
| <b>MHERAXX080-32V1C</b> |      |      |                |                |
| <b>MHERAXX090-12V1C</b> | 320  | 185  | 160            |                |
| <b>MHERAXX090-32V1C</b> | 335  |      |                |                |
| <b>MHERAXX100-12V1C</b> | 390  | 205  | 175            |                |
| <b>MHERAXX100-32V1C</b> |      |      |                |                |

# Dimensions

## 4-pole motors



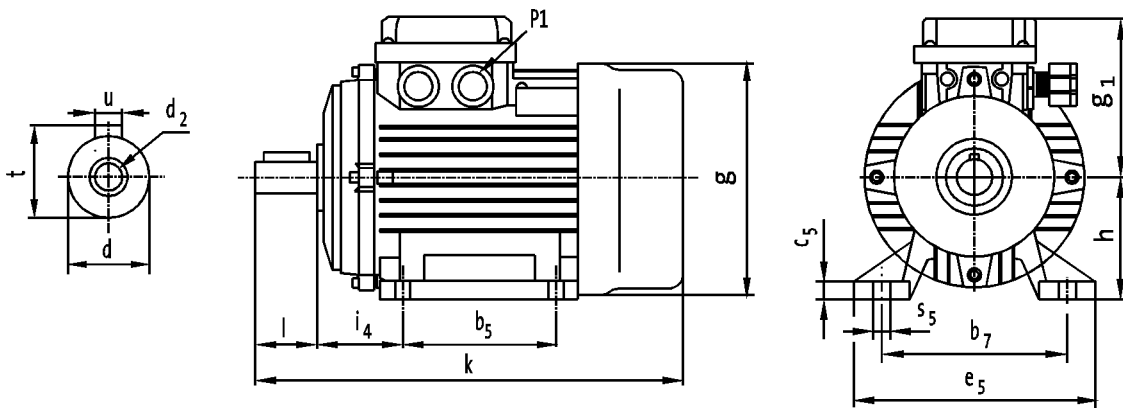
|                  | <b>d</b>       | <b>d<sub>2</sub></b> | <b>l</b> | <b>t</b> | <b>u</b> |
|------------------|----------------|----------------------|----------|----------|----------|
|                  | j <sub>6</sub> |                      |          |          |          |
|                  | [mm]           | [mm]                 | [mm]     | [mm]     | [mm]     |
| MDERAXX056-12V1C | 9              | M4x10                | 20       | 10       | 3.0      |
| MDERAXX056-22V1C |                |                      |          |          |          |
| MDERAXX063-12V1C | 11             | M4x10                | 23       | 13       | 4.0      |
| MDERAXX063-32V1C |                |                      |          |          |          |
| MDERAXX071-12V1C | 14             | M5x12                | 30       | 16       | 5.0      |
| MDERAXX071-32V1C |                |                      |          |          |          |
| MDERAXX071-42V1C |                |                      |          |          |          |
| MDERAXX080-12V1C | 19             | M6x16                | 40       | 22       | 6.0      |
| MHERAXX080-32V1C |                |                      |          |          |          |
| MHERAXX090-12V1C | 24             | M8x20                | 50       | 27       | 8.0      |
| MHERAXX090-32V1C |                |                      |          |          |          |
| MHERAXX100-12V1C | 28             | M10x22               | 60       | 31       |          |
| MHERAXX100-32V1C |                |                      |          |          |          |

|                  | <b>b<sub>7</sub></b> | <b>i<sub>4</sub></b> | <b>b<sub>5</sub></b> | <b>e<sub>5</sub></b> | <b>h</b> | <b>c<sub>5</sub></b> | <b>s<sub>5</sub></b> |
|------------------|----------------------|----------------------|----------------------|----------------------|----------|----------------------|----------------------|
|                  | [mm]                 | [mm]                 | [mm]                 | [mm]                 | [mm]     | [mm]                 | [mm]                 |
| MDERAXX056-12V1C | 90                   | 36                   | 71                   | 110                  | 56       | 9                    | 7.0                  |
| MDERAXX056-22V1C |                      |                      |                      |                      |          |                      |                      |
| MDERAXX063-12V1C | 100                  | 40                   | 80                   | 122                  | 63       |                      |                      |
| MDERAXX063-32V1C |                      |                      |                      |                      |          |                      |                      |
| MDERAXX071-12V1C | 112                  | 45                   | 90                   | 136                  | 71       | 10                   |                      |
| MDERAXX071-32V1C |                      |                      |                      |                      |          |                      |                      |
| MDERAXX071-42V1C |                      |                      |                      |                      |          |                      |                      |
| MDERAXX080-12V1C | 125                  | 50                   | 100                  | 165                  | 80       | 12                   | 10.0                 |
| MHERAXX080-32V1C |                      |                      |                      |                      |          |                      |                      |
| MHERAXX090-12V1C | 140                  | 56                   | 125                  | 190                  | 90       |                      |                      |
| MHERAXX090-32V1C |                      |                      |                      |                      |          |                      |                      |
| MHERAXX100-12V1C | 160                  | 63                   | 140                  | 210                  | 100      | 14                   | 12.0                 |
| MHERAXX100-32V1C |                      |                      |                      |                      |          |                      |                      |



## Dimensions 4-pole motors



|                         | <b>k</b> | <b>g</b> | <b>g<sub>1</sub></b> | <b>P<sub>1</sub></b> |
|-------------------------|----------|----------|----------------------|----------------------|
|                         | [mm]     | [mm]     | [mm]                 | [mm]                 |
| <b>MHERAXX112-22V1C</b> | 400      | 230      | 185                  | 2x M24×1.5           |
| <b>MHERAXX132-12V1C</b> | 445      | 265      | 200                  | 2x M32×1.5           |
| <b>MHERAXX132-22V1C</b> |          |          |                      |                      |
| <b>MHERAXX160-22V1C</b> | 605      | 315      | 249                  | 2x M40×1.5           |
| <b>MHERAXX160-32V1C</b> | 649      |          |                      |                      |
| <b>MHERAXX180-22V1C</b> | 684      | 360      | 265                  |                      |
| <b>MHERAXX180-32V1C</b> | 722      |          |                      |                      |
| <b>MHERAXX200-32V1C</b> | 774      | 400      | 292                  |                      |
| <b>MHERAXX225-12V1C</b> | 821      | 450      | 315                  | 2x M50×1.5           |
| <b>MHERAXX225-22V1C</b> | 845      |          |                      |                      |

## Dimensions 4-pole motors



|                  | d    | d <sub>2</sub> | l    | t    | u    |      |
|------------------|------|----------------|------|------|------|------|
|                  | j6   |                |      |      |      |      |
|                  | [mm] | [mm]           | [mm] | [mm] | [mm] |      |
| MHERAXX112-22V1C | 28   | M10x22         | 60   | 31   | 8.0  |      |
| MHERAXX132-12V1C | 38   | M12x28         | 80   | 41   | 10.0 |      |
| MHERAXX132-22V1C |      |                |      |      |      |      |
| MHERAXX160-22V1C | 42   | M16x36         | 110  | 45   | 12.0 |      |
| MHERAXX160-32V1C |      |                |      |      |      |      |
| MHERAXX180-22V1C | 48   |                |      |      | 52   | 14.0 |
| MHERAXX180-32V1C |      |                |      |      |      |      |
| MHERAXX200-32V1C | 55   | M20x42         | 140  | 59   | 16.0 |      |
| MHERAXX225-12V1C | 60   |                |      |      |      |      |
| MHERAXX225-22V1C |      |                |      |      | 64   | 18.0 |

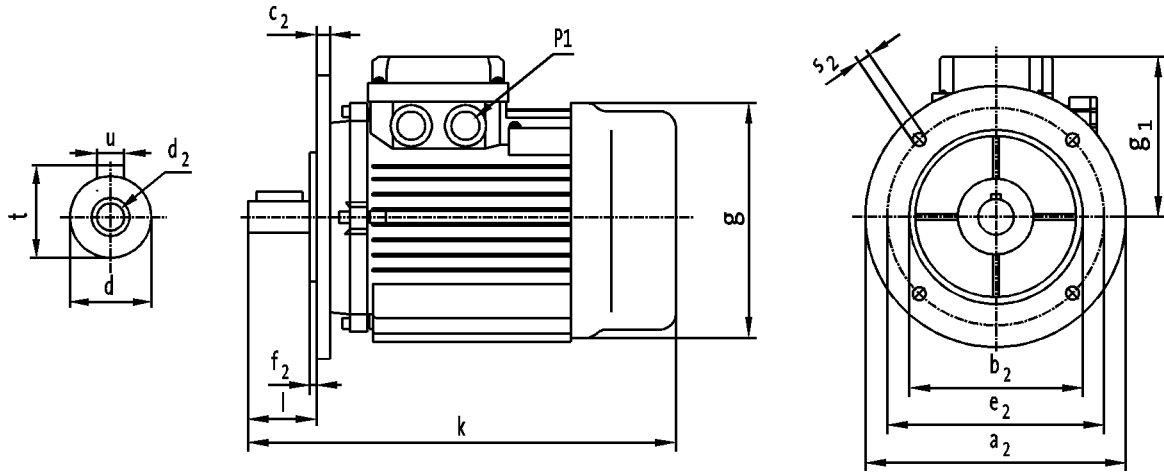
|                  | b <sub>7</sub> | i <sub>4</sub> | b <sub>5</sub> | e <sub>5</sub> | h    | c <sub>5</sub> | s <sub>5</sub> |
|------------------|----------------|----------------|----------------|----------------|------|----------------|----------------|
|                  | [mm]           | [mm]           | [mm]           | [mm]           | [mm] | [mm]           | [mm]           |
| MHERAXX112-22V1C | 190            | 70             | 140            | 240            | 112  | 15             | 12.0           |
| MHERAXX132-12V1C | 216            | 89             |                |                | 275  | 132            |                |
| MHERAXX132-22V1C |                |                |                | 178            |      |                |                |
| MHERAXX160-22V1C | 254            | 108            | 210            | 315            | 160  | 20             | 15.0           |
| MHERAXX160-32V1C |                |                | 254            |                |      |                |                |
| MHERAXX180-22V1C | 279            | 121            | 241            | 350            | 180  | 22             |                |
| MHERAXX180-32V1C |                |                | 279            |                |      |                |                |
| MHERAXX200-32V1C | 318            | 133            | 305            | 388            | 200  | 25             | 19.0           |
| MHERAXX225-12V1C | 356            | 149            | 286            | 435            | 225  | 28             |                |
| MHERAXX225-22V1C |                |                | 311            |                |      |                |                |



# Dimensions

## 4-pole motors

### Design B5



|                  | k    | g    | g <sub>1</sub> | P <sub>1</sub> |
|------------------|------|------|----------------|----------------|
|                  | [mm] | [mm] | [mm]           | [mm]           |
| MDERAXX056-12V1C | 189  | 110  | 96             | 2x M16x1.5     |
| MDERAXX056-22V1C |      |      |                |                |
| MDERAXX063-12V1C | 218  | 122  | 99             | 2x M20x1.5     |
| MDERAXX063-32V1C |      |      |                |                |
| MDERAXX071-12V1C | 251  | 138  | 109            | 2x M24x1.5     |
| MDERAXX071-32V1C |      |      |                |                |
| MDERAXX071-42V1C | 315  | 160  | 150            | 2x M24x1.5     |
| MDERAXX080-12V1C |      |      |                |                |
| MHERAXX080-32V1C | 320  | 185  | 160            | 2x M24x1.5     |
| MHERAXX090-12V1C |      |      |                |                |
| MHERAXX090-32V1C | 335  | 205  | 175            | 2x M24x1.5     |
| MHERAXX100-12V1C |      |      |                |                |
| MHERAXX100-32V1C | 390  |      |                |                |

# Dimensions

## 4-pole motors



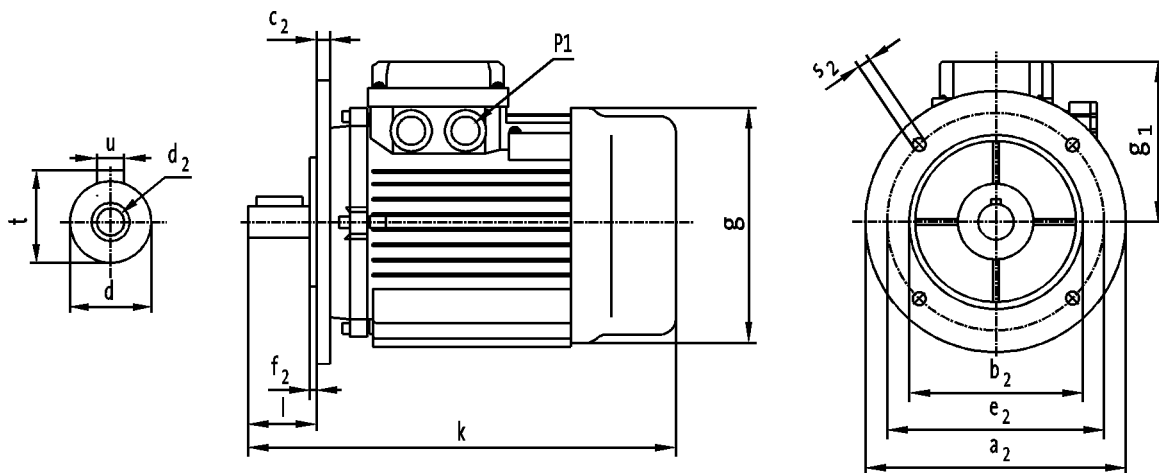
|                  | <b>d</b> | <b>d<sub>2</sub></b> | <b>l</b> | <b>t</b> | <b>u</b> |
|------------------|----------|----------------------|----------|----------|----------|
|                  | j6       |                      |          |          |          |
|                  | [mm]     | [mm]                 | [mm]     | [mm]     | [mm]     |
| MDERAXX056-12V1C | 9        | M4x10                | 20       | 10       | 3.0      |
| MDERAXX056-22V1C |          |                      |          |          |          |
| MDERAXX063-12V1C | 11       |                      | 23       | 13       | 4.0      |
| MDERAXX063-32V1C |          |                      |          |          |          |
| MDERAXX071-12V1C | 14       | M5x12                | 30       | 16       | 5.0      |
| MDERAXX071-32V1C |          |                      |          |          |          |
| MDERAXX071-42V1C |          |                      |          |          |          |
| MDERAXX080-12V1C | 19       | M6x16                | 40       | 22       | 6.0      |
| MHERAXX080-32V1C |          |                      |          |          |          |
| MHERAXX090-12V1C | 24       | M8x20                | 50       | 27       | 8.0      |
| MHERAXX090-32V1C |          |                      |          |          |          |
| MHERAXX100-12V1C | 28       | M10x22               | 60       | 31       |          |
| MHERAXX100-32V1C |          |                      |          |          |          |

|                  |       | <b>a<sub>2</sub></b> | <b>b<sub>2</sub></b> | <b>c<sub>2</sub></b> | <b>e<sub>2</sub></b> | <b>f<sub>2</sub></b> | <b>s<sub>2</sub></b> |
|------------------|-------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                  |       |                      | j6                   |                      |                      |                      |                      |
|                  |       | [mm]                 | [mm]                 | [mm]                 | [mm]                 | [mm]                 | [mm]                 |
| MDERAXX056-12V1C | FF100 | 120                  | 80                   | 9                    | 100                  | 3.0                  | 7.0                  |
| MDERAXX056-22V1C |       |                      |                      |                      |                      |                      |                      |
| MDERAXX063-12V1C | FF115 | 140                  | 95                   | 10                   | 115                  | 3.5                  | 9.0                  |
| MDERAXX063-32V1C |       |                      |                      |                      |                      |                      |                      |
| MDERAXX071-12V1C | FF130 | 160                  | 110                  |                      | 130                  |                      |                      |
| MDERAXX071-32V1C |       |                      |                      |                      |                      |                      |                      |
| MDERAXX071-42V1C |       |                      |                      |                      |                      |                      |                      |
| MDERAXX080-12V1C | FF165 | 200                  | 130                  | 12                   | 165                  |                      | 12.0                 |
| MHERAXX080-32V1C |       |                      |                      |                      |                      |                      |                      |
| MHERAXX090-12V1C |       |                      |                      |                      |                      |                      |                      |
| MHERAXX090-32V1C |       |                      |                      |                      |                      |                      |                      |
| MHERAXX100-12V1C | FF215 | 250                  | 180                  | 13                   | 215                  | 4.0                  | 15.0                 |
| MHERAXX100-32V1C |       |                      |                      |                      |                      |                      |                      |

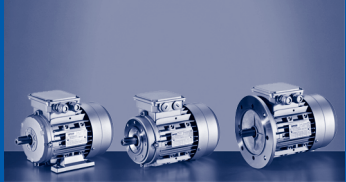


## Dimensions 4-pole motors



|                  | k    | g    | g <sub>1</sub> | P <sub>1</sub> |
|------------------|------|------|----------------|----------------|
|                  | [mm] | [mm] | [mm]           | [mm]           |
| MHERAXX112-22V1C | 400  | 230  | 185            | 2x M24×1.5     |
| MHERAXX132-12V1C | 445  | 265  | 200            | 2x M32×1.5     |
| MHERAXX132-22V1C |      |      |                |                |
| MHERAXX160-22V1C | 605  | 315  | 249            | 2x M40×1.5     |
| MHERAXX160-32V1C | 649  |      |                |                |
| MHERAXX180-22V1C | 684  | 360  | 265            |                |
| MHERAXX180-32V1C | 722  |      |                |                |
| MHERAXX200-32V1C | 774  | 400  | 292            | 2x M50×1.5     |
| MHERAXX225-12V1C | 821  | 450  | 315            |                |
| MHERAXX225-22V1C | 845  |      |                |                |

## Dimensions 4-pole motors



|                  | d    | d <sub>2</sub> | l    | t    | u    |      |
|------------------|------|----------------|------|------|------|------|
|                  | j6   |                |      |      |      |      |
|                  | [mm] | [mm]           | [mm] | [mm] | [mm] |      |
| MHERAXX112-22V1C | 28   | M10x22         | 60   | 31   | 8.0  |      |
| MHERAXX132-12V1C | 38   | M12x28         | 80   | 41   | 10.0 |      |
| MHERAXX132-22V1C |      |                |      |      |      |      |
| MHERAXX160-22V1C | 42   | M16x36         | 110  | 45   | 12.0 |      |
| MHERAXX160-32V1C |      |                |      |      |      |      |
| MHERAXX180-22V1C | 48   |                |      |      | 52   | 14.0 |
| MHERAXX180-32V1C |      |                |      | 59   | 16.0 |      |
| MHERAXX200-32V1C | 55   | M20x42         | 140  |      |      |      |
| MHERAXX225-12V1C | 60   |                |      |      | 64   | 18.0 |
| MHERAXX225-22V1C |      |                |      |      |      |      |

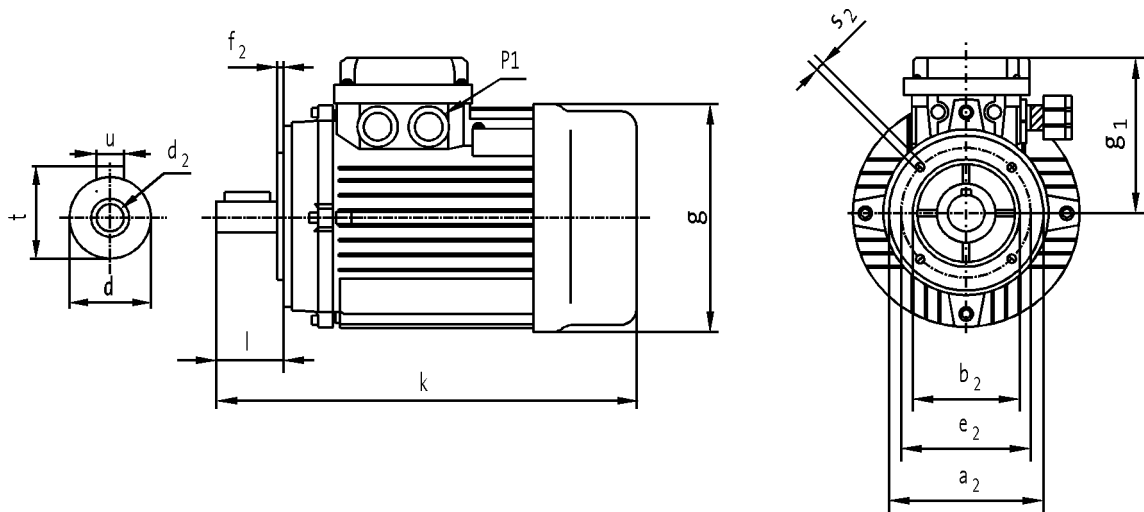
|                  |       | a <sub>2</sub> | b <sub>2</sub> | c <sub>2</sub> | e <sub>2</sub> | f <sub>2</sub> | s <sub>2</sub> |
|------------------|-------|----------------|----------------|----------------|----------------|----------------|----------------|
|                  |       | j6             |                |                |                |                |                |
|                  |       | [mm]           | [mm]           | [mm]           | [mm]           | [mm]           | [mm]           |
| MHERAXX112-22V1C | FF215 | 250            | 180            | 14             | 215            | 4.0            | 15.0           |
| MHERAXX132-12V1C | FF265 | 300            | 230            |                | 265            |                |                |
| MHERAXX132-22V1C |       |                |                |                |                |                |                |
| MHERAXX160-22V1C | FF300 | 350            | 250            | 15             | 300            | 5.0            | 19.0           |
| MHERAXX160-32V1C |       |                |                |                |                |                |                |
| MHERAXX180-22V1C |       |                |                |                |                |                |                |
| MHERAXX180-32V1C |       |                |                |                |                |                |                |
| MHERAXX200-32V1C | FF350 | 400            | 300            | 17             | 350            |                |                |
| MHERAXX225-12V1C | FF400 | 450            | 350            | 20             | 400            |                |                |
| MHERAXX225-22V1C |       |                |                |                |                |                |                |



# Dimensions

## 4-pole motors

### Design B14



|                         | <b>k</b> | <b>g</b> | <b>g<sub>1</sub></b> | <b>P<sub>1</sub></b> |
|-------------------------|----------|----------|----------------------|----------------------|
|                         | [mm]     | [mm]     | [mm]                 | [mm]                 |
| <b>MDERAXX056-12V1C</b> | 189      | 110      | 96                   | 2x M16x1.5           |
| <b>MDERAXX056-22V1C</b> |          |          |                      |                      |
| <b>MDERAXX063-12V1C</b> |          |          |                      |                      |
| <b>MDERAXX063-32V1C</b> | 218      | 122      | 99                   |                      |
| <b>MDERAXX071-12V1C</b> | 251      | 138      | 109                  | 2x M20x1.5           |
| <b>MDERAXX071-32V1C</b> |          |          |                      |                      |
| <b>MDERAXX071-42V1C</b> |          |          |                      |                      |
| <b>MDERAXX080-12V1C</b> | 315      | 160      | 150                  | 2x M24x1.5           |
| <b>MHERAXX080-32V1C</b> |          |          |                      |                      |
| <b>MHERAXX090-12V1C</b> |          |          |                      |                      |
| <b>MHERAXX090-32V1C</b> | 320      | 185      | 160                  |                      |
| <b>MHERAXX100-12V1C</b> | 335      |          |                      |                      |
| <b>MHERAXX100-32V1C</b> | 390      | 205      | 175                  |                      |
| <b>MHERAXX112-22V1C</b> | 400      | 230      | 185                  |                      |
| <b>MHERAXX132-12V1C</b> | 445      | 265      | 200                  | 2x M32x1.5           |
| <b>MHERAXX132-22V1C</b> |          |          |                      |                      |

# Dimensions

## 4-pole motors



|                  | d              | d <sub>2</sub> | l    | t    | u    |
|------------------|----------------|----------------|------|------|------|
|                  | j <sub>6</sub> |                |      |      |      |
|                  | [mm]           | [mm]           | [mm] | [mm] | [mm] |
| MDERAXX056-12V1C | 9              | M4x10          | 20   | 10   | 3.0  |
| MDERAXX056-22V1C |                |                |      |      |      |
| MDERAXX063-12V1C | 11             |                | 23   | 13   | 4.0  |
| MDERAXX063-32V1C |                |                |      |      |      |
| MDERAXX071-12V1C | 14             | M5x12          | 30   | 16   | 5.0  |
| MDERAXX071-32V1C |                |                |      |      |      |
| MDERAXX071-42V1C |                |                |      |      |      |
| MDERAXX080-12V1C | 19             | M6x16          | 40   | 22   | 6.0  |
| MHERAXX080-32V1C |                |                |      |      |      |
| MHERAXX090-12V1C | 24             | M8x20          | 50   | 27   | 8.0  |
| MHERAXX090-32V1C |                |                |      |      |      |
| MHERAXX100-12V1C | 28             | M10x22         | 60   | 31   |      |
| MHERAXX100-32V1C |                |                |      |      |      |
| MHERAXX112-22V1C |                |                |      |      |      |
| MHERAXX132-12V1C | 38             | M12x28         | 80   | 41   | 10.0 |
| MHERAXX132-22V1C |                |                |      |      |      |

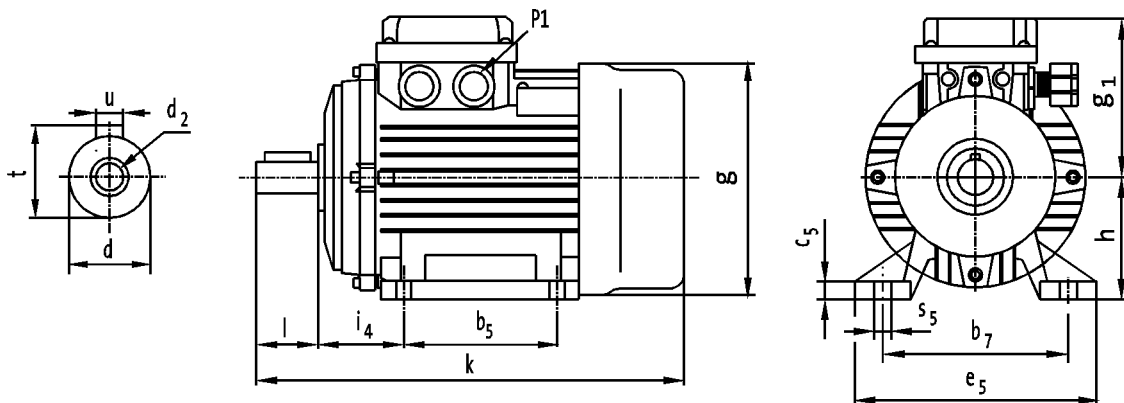
  

|                  |       | a <sub>2</sub> | b <sub>2</sub> | e <sub>2</sub> | f <sub>2</sub> | s <sub>2</sub> |
|------------------|-------|----------------|----------------|----------------|----------------|----------------|
|                  |       | j <sub>6</sub> |                |                |                |                |
|                  |       | [mm]           | [mm]           | [mm]           | [mm]           | [mm]           |
| MDERAXX056-12V1C | FT65  | 80             | 50             | 65             | 3.0            | 8x M5x11       |
| MDERAXX056-22V1C |       |                |                |                |                |                |
| MDERAXX063-12V1C | FT75  | 90             | 60             | 75             |                | 8x M5x14       |
| MDERAXX063-32V1C |       |                |                |                |                |                |
| MDERAXX071-12V1C | FT85  | 105            | 70             | 85             | 3.5            | 8x M6x14       |
| MDERAXX071-32V1C |       |                |                |                |                |                |
| MDERAXX071-42V1C |       |                |                |                |                |                |
| MDERAXX080-12V1C | FT100 | 120            | 80             | 100            | 3.0            | 8x M6x16       |
| MHERAXX080-32V1C |       |                |                |                |                |                |
| MHERAXX090-12V1C | FT115 | 140            | 95             | 115            |                | 8x M8x 16      |
| MHERAXX090-32V1C |       |                |                |                |                |                |
| MHERAXX100-12V1C | FT130 | 160            | 110            | 130            | 3.5            | 8x M8x 18      |
| MHERAXX100-32V1C |       |                |                |                |                |                |
| MHERAXX112-22V1C |       |                |                |                |                | 8x M8x 19      |
| MHERAXX132-12V1C | FT165 | 200            | 130            | 165            | 4.0            | 8x M10x 23     |
| MHERAXX132-22V1C |       |                |                |                |                |                |



## Dimensions 6-pole motors

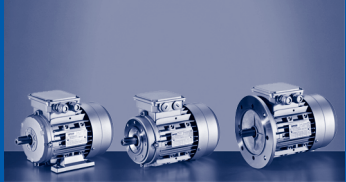
### Design B3



|                  | $k$<br>[mm] | $g$<br>[mm] | $g_1$<br>[mm] | $P_1$<br>[mm] |
|------------------|-------------|-------------|---------------|---------------|
| MDERAXX063-13V1C | 218         | 122         | 99            | 2x M16x1.5    |
| MDERAXX063-23V1C |             |             |               |               |
| MDERAXX071-13V1C | 251         | 138         | 109           | 2x M20x1.5    |
| MDERAXX071-23V1C |             |             |               |               |
| MDERAXX080-23V1C | 315         | 160         | 150           | 2x M24x1.5    |
| MDERAXX080-33V1C |             |             |               |               |
| MHERAXX090-13V1C | 320         | 185         | 160           |               |
| MHERAXX090-33V1C | 335         |             |               |               |
| MHERAXX100-33V1C | 390         | 205         | 175           |               |
| MHERAXX112-23V1C | 400         | 230         | 185           |               |
| MHERAXX132-13V1C | 445         | 265         | 200           |               |
| MHERAXX132-23V1C | 485         |             |               |               |
| MHERAXX132-33V1C |             |             |               |               |

# Dimensions

## 6-pole motors



|                  | <b>d</b>       | <b>d<sub>2</sub></b> | <b>l</b> | <b>t</b> | <b>u</b> |
|------------------|----------------|----------------------|----------|----------|----------|
|                  | j <sub>6</sub> |                      |          |          |          |
|                  | [mm]           | [mm]                 | [mm]     | [mm]     | [mm]     |
| MDERAXX063-13V1C | 11             | M4x10                | 23       | 13       | 4.0      |
| MDERAXX063-23V1C |                |                      |          |          |          |
| MDERAXX071-13V1C | 14             | M5x12                | 30       | 16       | 5.0      |
| MDERAXX071-23V1C |                |                      |          |          |          |
| MDERAXX080-23V1C | 19             | M6x16                | 40       | 22       | 6.0      |
| MDERAXX080-33V1C |                |                      |          |          |          |
| MHERAXX090-13V1C | 24             | M8x20                | 50       | 27       | 8.0      |
| MHERAXX090-33V1C |                |                      |          |          |          |
| MHERAXX100-33V1C | 28             | M10x22               | 60       | 31       |          |
| MHERAXX112-23V1C |                |                      |          |          |          |
| MHERAXX132-13V1C | 38             | M12x28               | 80       | 41       | 10.0     |
| MHERAXX132-23V1C |                |                      |          |          |          |
| MHERAXX132-33V1C |                |                      |          |          |          |

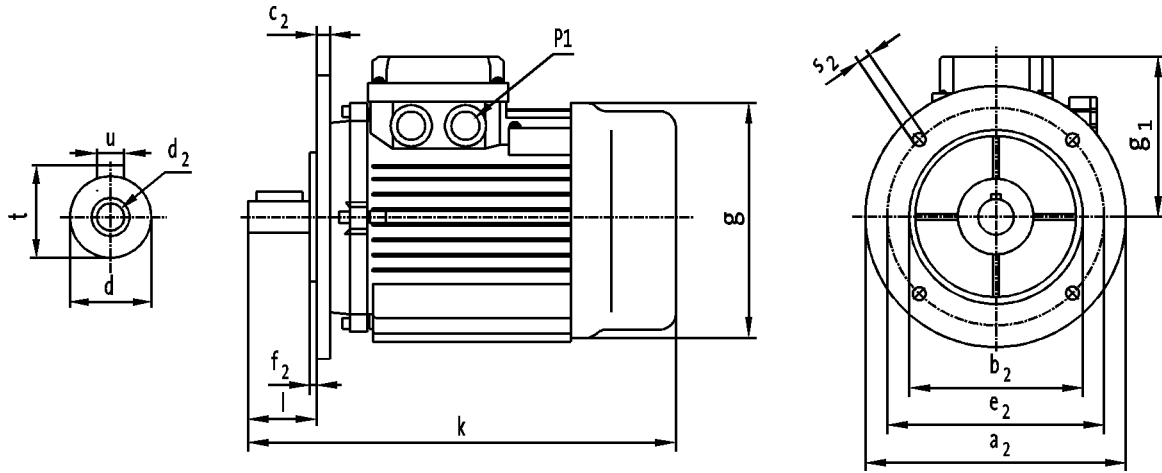
|                  | <b>b<sub>7</sub></b> | <b>i<sub>4</sub></b> | <b>b<sub>5</sub></b> | <b>e<sub>5</sub></b> | <b>h</b> | <b>c<sub>5</sub></b> | <b>s<sub>5</sub></b> |
|------------------|----------------------|----------------------|----------------------|----------------------|----------|----------------------|----------------------|
|                  | [mm]                 | [mm]                 | [mm]                 | [mm]                 | [mm]     | [mm]                 | [mm]                 |
| MDERAXX063-13V1C | 100                  | 40                   | 80                   | 122                  | 63       | 9                    | 7.0                  |
| MDERAXX063-23V1C |                      |                      |                      |                      |          |                      |                      |
| MDERAXX071-13V1C | 112                  | 45                   | 90                   | 136                  | 71       | 10                   |                      |
| MDERAXX071-23V1C |                      |                      |                      |                      |          |                      |                      |
| MDERAXX080-23V1C | 125                  | 50                   | 100                  | 165                  | 80       | 12                   | 10.0                 |
| MDERAXX080-33V1C |                      |                      |                      |                      |          |                      |                      |
| MHERAXX090-13V1C | 140                  | 56                   |                      | 125                  | 190      |                      |                      |
| MHERAXX090-33V1C |                      |                      |                      |                      |          |                      |                      |
| MHERAXX100-33V1C | 160                  | 63                   | 140                  | 210                  | 100      | 14                   | 12.0                 |
| MHERAXX112-23V1C |                      |                      |                      |                      |          |                      |                      |
| MHERAXX132-13V1C | 216                  | 89                   |                      | 178                  | 275      | 132                  |                      |
| MHERAXX132-23V1C |                      |                      |                      |                      |          |                      |                      |
| MHERAXX132-33V1C |                      |                      |                      |                      |          |                      |                      |



# Dimensions

## 6-pole motors

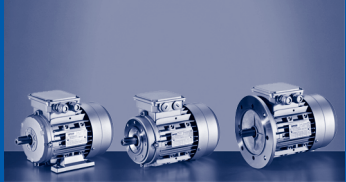
### Design B5



|                  | $k$  | $g$  | $g_1$ | $P_1$      |
|------------------|------|------|-------|------------|
|                  | [mm] | [mm] | [mm]  | [mm]       |
| MDERAXX063-13V1C | 218  | 122  | 99    | 2x M16x1.5 |
| MDERAXX063-23V1C |      |      |       |            |
| MDERAXX071-13V1C | 251  | 138  | 109   | 2x M20x1.5 |
| MDERAXX071-23V1C |      |      |       |            |
| MDERAXX080-23V1C | 315  | 160  | 150   | 2x M24x1.5 |
| MDERAXX080-33V1C |      |      |       |            |
| MHERAXX090-13V1C | 320  | 185  | 160   |            |
| MHERAXX090-33V1C | 335  |      |       |            |
| MHERAXX100-33V1C | 390  | 205  | 175   |            |
| MHERAXX112-23V1C | 400  | 230  | 185   |            |
| MHERAXX132-13V1C | 445  | 265  | 200   |            |
| MHERAXX132-23V1C | 485  |      |       |            |
| MHERAXX132-33V1C |      |      |       |            |

# Dimensions

## 6-pole motors



|                  | d    | d <sub>2</sub> | l    | t    | u    |
|------------------|------|----------------|------|------|------|
|                  | j6   |                |      |      |      |
|                  | [mm] | [mm]           | [mm] | [mm] | [mm] |
| MDERAXX063-13V1C | 11   | M4x10          | 23   | 13   | 4.0  |
| MDERAXX063-23V1C |      |                |      |      |      |
| MDERAXX071-13V1C | 14   | M5x12          | 30   | 16   | 5.0  |
| MDERAXX071-23V1C |      |                |      |      |      |
| MDERAXX080-23V1C | 19   | M6x16          | 40   | 22   | 6.0  |
| MDERAXX080-33V1C |      |                |      |      |      |
| MHERAXX090-13V1C | 24   | M8x20          | 50   | 27   | 8.0  |
| MHERAXX090-33V1C |      |                |      |      |      |
| MHERAXX100-33V1C | 28   | M10x22         | 60   | 31   |      |
| MHERAXX112-23V1C |      |                |      |      |      |
| MHERAXX132-13V1C | 38   | M12x28         | 80   | 41   | 10.0 |
| MHERAXX132-23V1C |      |                |      |      |      |
| MHERAXX132-33V1C |      |                |      |      |      |

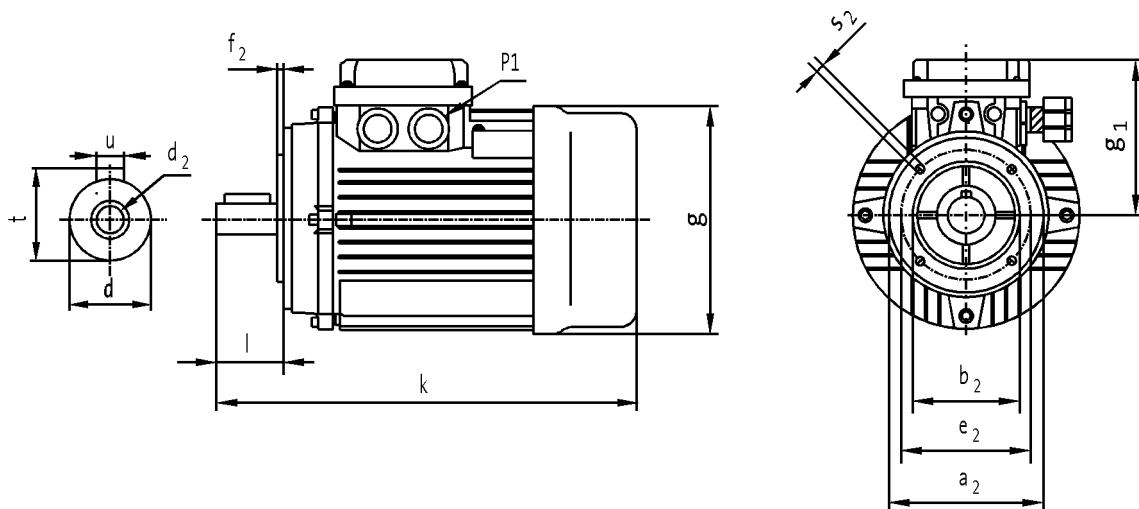
|                  |       | a <sub>2</sub> | b <sub>2</sub> | c <sub>2</sub> | e <sub>2</sub> | f <sub>2</sub> | s <sub>2</sub> |  |
|------------------|-------|----------------|----------------|----------------|----------------|----------------|----------------|--|
|                  |       |                | j6             |                |                |                |                |  |
|                  |       | [mm]           | [mm]           | [mm]           | [mm]           | [mm]           | [mm]           |  |
| MDERAXX063-13V1C | FF115 | 140            | 95             | 10             | 115            | 3.0            | 9.0            |  |
| MDERAXX063-23V1C |       |                |                |                |                |                |                |  |
| MDERAXX071-13V1C | FF130 | 160            | 110            |                | 130            |                |                |  |
| MDERAXX071-23V1C |       |                |                |                |                |                |                |  |
| MDERAXX080-23V1C | FF165 | 200            | 130            | 12             | 165            | 3.5            | 12.0           |  |
| MDERAXX080-33V1C |       |                |                |                |                |                |                |  |
| MHERAXX090-13V1C |       |                |                |                |                |                |                |  |
| MHERAXX090-33V1C |       |                |                |                |                |                |                |  |
| MHERAXX100-33V1C | FF215 | 250            | 180            | 13             | 215            | 4.0            | 15.0           |  |
| MHERAXX112-23V1C |       |                |                |                |                |                |                |  |
| MHERAXX132-13V1C | FF265 | 300            | 230            | 14             | 265            |                |                |  |
| MHERAXX132-23V1C |       |                |                |                |                |                |                |  |
| MHERAXX132-33V1C |       |                |                |                |                |                |                |  |



# Dimensions

## 6-pole motors

### Design B14



|                         | <b>k</b> | <b>g</b> | <b>g<sub>1</sub></b> | <b>P<sub>1</sub></b> |
|-------------------------|----------|----------|----------------------|----------------------|
|                         | [mm]     | [mm]     | [mm]                 | [mm]                 |
| <b>MDERAXX063-13V1C</b> | 218      | 122      | 99                   | 2x M16x1.5           |
| <b>MDERAXX063-23V1C</b> |          |          |                      |                      |
| <b>MDERAXX071-13V1C</b> | 251      | 138      | 109                  | 2x M20x1.5           |
| <b>MDERAXX071-23V1C</b> |          |          |                      |                      |
| <b>MDERAXX080-23V1C</b> | 315      | 160      | 150                  | 2x M24x1.5           |
| <b>MDERAXX080-33V1C</b> |          |          |                      |                      |
| <b>MHERAXX090-13V1C</b> | 320      | 185      | 160                  |                      |
| <b>MHERAXX090-33V1C</b> | 335      |          |                      |                      |
| <b>MHERAXX100-33V1C</b> | 390      | 205      | 175                  |                      |
| <b>MHERAXX112-23V1C</b> | 400      | 230      | 185                  |                      |
| <b>MHERAXX132-13V1C</b> | 445      | 265      | 200                  |                      |
| <b>MHERAXX132-23V1C</b> | 485      |          |                      |                      |
| <b>MHERAXX132-33V1C</b> |          |          |                      |                      |

## Dimensions 6-pole motors



|                  | d    | d <sub>2</sub> | l    | t    | u    |
|------------------|------|----------------|------|------|------|
|                  | j6   |                |      |      |      |
|                  | [mm] | [mm]           | [mm] | [mm] | [mm] |
| MDERAXX063-13V1C | 11   | M4x10          | 23   | 13   | 4.0  |
| MDERAXX063-23V1C |      |                |      |      |      |
| MDERAXX071-13V1C | 14   | M5x12          | 30   | 16   | 5.0  |
| MDERAXX071-23V1C |      |                |      |      |      |
| MDERAXX080-23V1C | 19   | M6x16          | 40   | 22   | 6.0  |
| MDERAXX080-33V1C |      |                |      |      |      |
| MHERAXX090-13V1C | 24   | M8x20          | 50   | 27   | 8.0  |
| MHERAXX090-33V1C |      |                |      |      |      |
| MHERAXX100-33V1C | 28   | M10x22         | 60   | 31   |      |
| MHERAXX112-23V1C |      |                |      |      |      |
| MHERAXX132-13V1C | 38   | M12x28         | 80   | 41   | 10.0 |
| MHERAXX132-23V1C |      |                |      |      |      |
| MHERAXX132-33V1C |      |                |      |      |      |

|                  |       | a <sub>2</sub> | b <sub>2</sub> | e <sub>2</sub> | f <sub>2</sub> | s <sub>2</sub> |
|------------------|-------|----------------|----------------|----------------|----------------|----------------|
|                  |       | j6             |                |                |                |                |
|                  |       | [mm]           | [mm]           | [mm]           | [mm]           | [mm]           |
| MDERAXX063-13V1C | FT75  | 90             | 60             | 75             | 3.0            | 8x M5x14       |
| MDERAXX063-23V1C |       |                |                |                |                |                |
| MDERAXX071-13V1C | FT85  | 105            | 70             | 85             | 3.5            | 8x M6x14       |
| MDERAXX071-23V1C |       |                |                |                |                |                |
| MDERAXX080-23V1C | FT100 | 120            | 80             | 100            | 3.0            | 8x M6x 15      |
| MDERAXX080-33V1C |       |                |                |                |                |                |
| MHERAXX090-13V1C | FT115 | 140            | 95             | 115            |                | 8x M8x 16      |
| MHERAXX090-33V1C |       |                |                |                |                |                |
| MHERAXX100-33V1C | FT130 | 160            | 110            | 130            | 3.5            | 8x M8x 18      |
| MHERAXX112-23V1C |       |                |                |                |                | 8x M8x 19      |
| MHERAXX132-13V1C |       |                |                |                |                |                |
| MHERAXX132-23V1C | FT165 | 200            | 130            | 165            | 4.0            | 8x M10x 23     |
| MHERAXX132-33V1C |       |                |                |                |                |                |



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