

SIMOTICS XP 1LA Explosion-Proof Motors

Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD

Self-ventilated motors with High Efficiency IE2
Aluminum series 1LA9 with order code for explosion protection

IE2

Selection and ordering data

| P _{rated} 50 Hz kW | P _{rated} 60 Hz kW | Frame size FS | Operating values at rated output | | | | | | | | | | L _{pfA} 50 Hz dB(A) | L _{WA} 50 Hz dB(A) | Aluminum series 1LA9 – IE2 version for Zone 2 or 21/22 in type of protection Ex n or Ex tD | m _{IM B3} J | | Torque class CL |
|-----------------------------------|-----------------------------------|---------------------|------------------------------------|-----------------------------------|-------------|--|--|--|---|--|---|---|------------------------------------|-----------------------------------|--|--|--|-----------------------|
| | | | n _{rated} 50 Hz rpm | T _{rated} 50 Hz Nm | IE class | η _{rated} 50 Hz, 4/4 % | η _{rated} 50 Hz, 3/4 % | η _{rated} 50 Hz, 2/4 % | COS- φ _{rated} 50 Hz, 4/4 | I _{rated} 50 Hz, 400 V A | T _{LR} / I _{rated} | I _{LR} / I _{rated} | | | | T _B / I _{rated} | Order No. with order code for Ex prot. | |

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2 in accordance with IEC 60034-30
- Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)

2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz ¹⁾

| | | | | | | | | | | | | | | | | | | | |
|------|------|-------|------|------|-----|------|------|------|------|------------------|-----|-----|-----|----|----|------------------|-------|--------|----|
| 0.18 | 0.21 | 63 M | 2840 | 0.61 | – | 67.4 | 66.9 | 62.4 | 0.78 | 0.50 | 2.5 | 4.8 | 3.1 | 49 | 60 | 1LA9060-2KA ■■-Z | 4.0 | 0.0022 | 16 |
| 0.25 | 0.29 | 63 M | 2840 | 0.84 | – | 69.9 | 69.9 | 65.9 | 0.80 | 0.65 | 2.3 | 4.9 | 2.5 | 49 | 60 | 1LA9063-2KA ■■-Z | 4.7 | 0.0026 | 16 |
| 0.37 | 0.43 | 71 M | 2840 | 1.2 | – | 72.8 | 72.8 | 69.8 | 0.77 | 0.95 | 3.1 | 6.5 | 3.1 | 52 | 63 | 1LA9070-2KA ■■-Z | 6.0 | 0.0041 | 16 |
| 0.55 | 0.63 | 71 M | 2835 | 1.9 | – | 74.4 | 74.4 | 71.4 | 0.75 | 1.42 | 3.4 | 6.3 | 2.9 | 52 | 63 | 1LA9073-2KA ■■-Z | 7.2 | 0.0050 | 16 |
| 0.75 | 0.86 | 80 M | 2885 | 2.5 | IE2 | 77.4 | 77.9 | 74.4 | 0.82 | 1.71 | 3.5 | 8.3 | 3.2 | 56 | 67 | 1LA9080-2KA ■■-Z | 10.7 | 0.0010 | 16 |
| 1.1 | 1.27 | 80 M | 2860 | 3.7 | IE2 | 79.6 | 79.6 | 78.6 | 0.89 | 2.25 | 3.2 | 7.0 | 3.2 | 56 | 67 | 1LA9083-2KA ■■-Z | 12.4 | 0.0013 | 16 |
| 1.5 | 1.75 | 90 S | 2890 | 5.0 | IE2 | 81.3 | 81.3 | 80.3 | 0.87 | 3.05 | 3.5 | 7.0 | 3.5 | 60 | 72 | 1LA9090-2KA ■■-Z | 16.2 | 0.0018 | 16 |
| 2.2 | 2.55 | 90 L | 2890 | 7.3 | IE2 | 83.2 | 83.2 | 82.2 | 0.87 | 4.4 | 3.5 | 7.0 | 3.5 | 60 | 72 | 1LA9096-2KA ■■-Z | 18.6 | 0.0022 | 16 |
| 3 | 3.45 | 100 L | 2880 | 9.9 | IE2 | 84.6 | 84.6 | 83.6 | 0.88 | 5.8 | 3.1 | 7.0 | 3.2 | 62 | 74 | 1LA9106-2KA ■■-Z | 25 | 0.0044 | 16 |
| 4 | 4.55 | 112 M | 2905 | 13 | IE2 | 85.8 | 85.8 | 84.8 | 0.89 | 7.6 | 2.6 | 7.0 | 3.2 | 63 | 75 | 1LA9113-2KA ■■-Z | 36.7 | 0.0077 | 16 |
| 5.5 | 6.3 | 132 S | 2930 | 18 | IE2 | 87.0 | 87.0 | 86.0 | 0.90 | 10.1 | 2.4 | 7.0 | 3.2 | 68 | 80 | 1LA9130-2KA ■■-Z | 46.2 | 0.019 | 16 |
| 7.5 | 8.6 | 132 S | 2930 | 24 | IE2 | 88.1 | 88.1 | 87.1 | 0.92 | 13.4 | 2.5 | 7.0 | 3.1 | 68 | 80 | 1LA9131-2KA ■■-Z | 58.1 | 0.024 | 16 |
| 11 | 12.6 | 160 M | 2945 | 36 | IE2 | 89.4 | 89.4 | 88.4 | 0.90 | 19.7 | 2.3 | 7.0 | 3.1 | 70 | 82 | 1LA9163-2KA ■■-Z | 78.6 | 0.044 | 16 |
| 15 | 17.3 | 160 M | 2945 | 49 | IE2 | 90.3 | 90.3 | 89.3 | 0.90 | 26.5 | 2.3 | 7.0 | 3.1 | 70 | 82 | 1LA9164-2KA ■■-Z | 87.6 | 0.051 | 16 |
| 18.5 | 21.3 | 160 L | 2940 | 60 | IE2 | 90.9 | 90.9 | 89.9 | 0.92 | 32 | 2.3 | 7.0 | 3.1 | 70 | 82 | 1LA9166-2KA ■■-Z | 110.4 | 0.065 | 16 |
| 22 | 25.3 | 180 M | 2945 | 71 | IE2 | 91.3 | 91.3 | 90.3 | 0.89 | 39 ²⁾ | 2.5 | 7.2 | 3.3 | 70 | 83 | 1LA9183-2WA ■■-Z | 131 | 0.090 | 16 |
| 30 | 34.5 | 200 L | 2950 | 97 | IE2 | 92.0 | 92.0 | 91.0 | 0.89 | 53 | 2.4 | 7.0 | 3.2 | 71 | 84 | 1LA9206-2WA ■■-Z | 182 | 0.16 | 16 |
| 37 | 42.5 | 200 L | 2950 | 120 | IE2 | 92.5 | 92.5 | 91.0 | 0.89 | 65 ²⁾ | 2.4 | 7.0 | 3.3 | 71 | 84 | 1LA9207-2WA ■■-Z | 211 | 0.20 | 16 |

| Voltages | No. of poles | Motor type | Version | Order code(s) |
|--------------------------------|--|-----------------|---------------------------|---------------|
| 50 Hz 230 VΔ/400 VY | 2 | 1LA9060 ... 207 | Standard | 1 – |
| 50 Hz 400 VΔ/690 VY | 2 | 1LA9060 ... 207 | Standard | 6 – |
| 50 Hz 500 VY | 2 | 1LA9060 ... 207 | Without additional charge | 3 – |
| 500 VΔ | 2 | 1LA9106 ... 207 | Without additional charge | 5 – |
| Further voltages ¹⁾ | For add. charges, code numbers, order codes and descr., see suppl. and special versions. | | | 9 ... |

| Types of construction | No. of poles | Motor type | Version | Order code(s) |
|-------------------------------|--|-----------------|------------------------|---------------|
| Without flange | 2 | 1LA9060 ... 207 | Standard | 0 – |
| With flange | 2 | 1LA9060 ... 207 | With additional charge | 1 – |
| | 2 | 1LA9060 ... 166 | With additional charge | 1 – |
| | 2 | 1LA9183 ... 207 | With additional charge | 9 M1G |
| | 2 | 1LA9060 ... 207 | With additional charge | 4 – |
| With standard flange | 2 | 1LA9060 ... 207 | With additional charge | 6 – |
| | 2 | 1LA9060 ... 166 | With additional charge | 2 – |
| | 2 | 1LA9060 ... 166 | With additional charge | 7 – |
| With special flange | 2 | 1LA9060 ... 166 | With additional charge | 3 – |
| Further types of construction | For add. charges, code numbers, order codes and descr., see suppl. and special versions. | | | 9 ... |

| Design according to ATEX | No. of poles | Motor type | Version | Order code(s) |
|-------------------------------------|--------------|-----------------|------------------|-------------------------|
| Zone 2 | 2 | 1LA9060 ... 166 | With add. charge | 1LA9 ... - ... ■■-Z M72 |
| | 2 | 1LA9060 ... 166 | With add. charge | 1LA9 ... - ... ■■-Z M73 |
| VIK (includes Zone 2) ⁵⁾ | 2 | 1LA9060 ... 166 | With add. charge | 1LA9 ... - ... ■■-Z K30 |
| | 2 | 1LA9060 ... 166 | On request | – |
| Zone 21 | 2 | 1LA9060 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M34 |
| | 2 | 1LA9060 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M38 |
| Zone 22 | 2 | 1LA9060 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M35 |
| | 2 | 1LA9060 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M39 |
| Zone 2/22 (IP55) | 2 | 1LA9060 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M74 |
| | 2 | 1LA9060 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M75 |

| Special versions | Order code(s) |
|------------------|-------------------------------------|
| Options | 1LA9 ... - ... ■■-Z ...+...+...+... |

¹⁾ Voltages for 60 Hz can be ordered with voltage code 9 and the appropriate order code – see "Voltages" in supplements and special versions. Operating values at rated output for 60 Hz are available on request.

²⁾ For connection to 230 V, parallel feeders are necessary.

³⁾ The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing

upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

⁴⁾ The "Second shaft extension" option, order code K16 is not possible.

⁵⁾ If the identification Ex nA II is required in addition to VIK on the rating plate, this must be ordered using order code C27. The VIK version is not possible in combination with Zone 21 and 22.

SIMOTICS XP 1LA Explosion-Proof Motors

Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD

IE2

Self-ventilated motors with High Efficiency IE2
Aluminum series 1LA9 with order code for explosion protection

Selection and ordering data (continued)

| P _{rated} , 50 Hz kW | P _{rated} , 60 Hz kW | Frame size FS | Operating values at rated output | | | | | | | | | | L _{pfA} , 50 Hz dB(A) | L _{WA} , 50 Hz dB(A) | Aluminum series 1LA9 – IE2 version for Zone 2 or 21/22 in type of protection Ex n or Ex tD | m _{IM B3 J} | | Torque class CL |
|-------------------------------------|-------------------------------------|---------------------|--------------------------------------|-------------------------------------|-------------|--|--|--|---|--|---|---|--------------------------------------|-------------------------------------|--|--|--|-----------------------|
| | | | n _{rated} , 50 Hz rpm | T _{rated} , 50 Hz Nm | IE class | η _{rated} , 50 Hz, 4/4 % | η _{rated} , 50 Hz, 3/4 % | η _{rated} , 50 Hz, 2/4 % | COS- φ _{rated} , 50 Hz, 4/4 | I _{rated} , 50 Hz, 400 V A | T _{LR} / T _{rated} | I _{LR} / I _{rated} | | | | T _B / T _{rated} | Order No. with order code for Ex prot. | |

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2 in accordance with IEC 60034-30
- Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)

4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz ¹⁾

| | | | | | | | | | | | | | | | | | | | |
|------|------|-------|------|------|-----|------|------|------|------|--------------------|-----|-----|-----|----|----|------------------|-------|---------|----|
| 0.12 | 0.14 | 63 M | 1395 | 0.82 | – | 53.6 | 52.1 | 47.6 | 0.65 | 0.50 | 2.6 | 3.5 | 2.6 | 42 | 53 | 1LA9060-4KA ■■-Z | 4.0 | 0.00037 | 16 |
| 0.18 | 0.21 | 63 M | 1395 | 1.2 | – | 72.1 | 72.1 | 68.1 | 0.68 | 0.53 | 2.8 | 3.6 | 2.7 | 42 | 53 | 1LA9063-4KA ■■-Z | 4.7 | 0.00045 | 16 |
| 0.25 | 0.29 | 71 M | 1410 | 1.7 | – | 74.0 | 74.0 | 71.0 | 0.64 | 0.76 | 3.2 | 4.3 | 3.1 | 44 | 55 | 1LA9070-4KA ■■-Z | 6.0 | 0.00076 | 16 |
| 0.37 | 0.43 | 71 M | 1385 | 2.6 | – | 76.1 | 76.1 | 73.1 | 0.73 | 0.96 | 2.8 | 4.2 | 3.0 | 44 | 55 | 1LA9073-4KA ■■-Z | 7.0 | 0.00095 | 16 |
| 0.55 | 0.63 | 80 M | 1410 | 3.7 | – | 78.1 | 78.6 | 75.6 | 0.77 | 1.32 | 2.8 | 5.6 | 2.9 | 47 | 58 | 1LA9080-4KA ■■-Z | 10.7 | 0.0017 | 16 |
| 0.75 | 0.86 | 80 M | 1400 | 5.1 | IE2 | 79.6 | 79.6 | 78.6 | 0.75 | 1.81 | 3.6 | 5.8 | 3.5 | 47 | 58 | 1LA9083-4KA ■■-Z | 12.4 | 0.0024 | 16 |
| 1.1 | 1.27 | 90 S | 1440 | 7.3 | IE2 | 81.4 | 81.4 | 80.4 | 0.77 | 2.55 | 2.7 | 6.4 | 3.2 | 48 | 60 | 1LA9090-4KA ■■-Z | 16.2 | 0.0033 | 16 |
| 1.5 | 1.75 | 90 L | 1440 | 9.9 | IE2 | 82.8 | 82.8 | 81.8 | 0.77 | 3.4 | 3.1 | 6.7 | 3.4 | 48 | 60 | 1LA9096-4KA ■■-Z | 18.6 | 0.0040 | 16 |
| 2.2 | 2.55 | 100 L | 1435 | 15 | IE2 | 84.3 | 84.3 | 83.3 | 0.82 | 4.6 | 3.1 | 7.0 | 3.6 | 53 | 65 | 1LA9106-4KA ■■-Z | 26 | 0.0052 | 16 |
| 3 | 3.45 | 100 L | 1435 | 20 | IE2 | 85.5 | 85.5 | 84.5 | 0.81 | 6.3 | 3.5 | 7.0 | 3.9 | 53 | 65 | 1LA9107-4KA ■■-Z | 31 | 0.0077 | 16 |
| 4 | 4.55 | 112 M | 1440 | 27 | IE2 | 86.6 | 86.6 | 85.6 | 0.81 | 8.2 | 2.8 | 6.9 | 3.2 | 53 | 65 | 1LA9113-4KA ■■-Z | 38.7 | 0.014 | 16 |
| 5.5 | 6.3 | 132 S | 1455 | 36 | IE2 | 87.7 | 87.7 | 86.7 | 0.84 | 10.8 | 2.9 | 7.0 | 3.6 | 62 | 74 | 1LA9130-4KA ■■-Z | 49.2 | 0.023 | 16 |
| 7.5 | 8.6 | 132 M | 1455 | 49 | IE2 | 88.7 | 88.7 | 87.7 | 0.84 | 14.5 | 3.0 | 7.0 | 3.6 | 62 | 74 | 1LA9133-4KA ■■-Z | 62.1 | 0.029 | 16 |
| 11 | 12.6 | 160 M | 1460 | 72 | IE2 | 89.8 | 89.8 | 88.8 | 0.85 | 21 | 2.7 | 6.9 | 3.2 | 66 | 78 | 1LA9163-4KA ■■-Z | 86.6 | 0.055 | 16 |
| 15 | 17.3 | 160 L | 1460 | 98 | IE2 | 90.6 | 90.6 | 89.6 | 0.86 | 28 | 2.9 | 7.0 | 3.3 | 66 | 78 | 1LA9166-4KA ■■-Z | 115.4 | 0.072 | 16 |
| 18.5 | 21.3 | 180 M | 1465 | 121 | IE2 | 91.2 | 91.2 | 90.2 | 0.84 | 35 ²⁾ | 2.5 | 7.0 | 3.2 | 63 | 76 | 1LA9183-4WA ■■-Z | 126 | 0.15 | 16 |
| 22 | 25.3 | 180 L | 1470 | 143 | IE2 | 91.6 | 91.6 | 90.6 | 0.84 | 41.5 ²⁾ | 2.6 | 7.3 | 3.4 | 63 | 76 | 1LA9186-4WA ■■-Z | 146 | 0.19 | 16 |
| 30 | 34.5 | 200 L | 1465 | 196 | IE2 | 92.3 | 92.3 | 91.3 | 0.87 | 54 | 2.6 | 7.0 | 3.2 | 65 | 78 | 1LA9207-4WA ■■-Z | 196 | 0.32 | 16 |

| Voltages | No. of poles | Motor type | Version | Order code(s) |
|--------------------------------|--|------------|-----------------|---------------------------|
| 50 Hz 230 VΔ/400 VY | 60 Hz ¹⁾ 460 VY | 4 | 1LA9060 ... 207 | Standard |
| 50 Hz 400 VΔ/690 VY | 60 Hz ¹⁾ 460 VΔ | 4 | 1LA9060 ... 207 | Standard |
| 50 Hz 500 VY | | 4 | 1LA9060 ... 207 | Without additional charge |
| 500 VΔ | | 4 | 1LA9106 ... 207 | Without additional charge |
| Further voltages ¹⁾ | For add. charges, code numbers, order codes and descr., see suppl. and special versions. | | | 9 ... |

| Types of construction | No. of poles | Motor type | Version | Order code(s) |
|-------------------------------|--|------------|-----------------|------------------------|
| Without flange | IM B3/6/7/8, IM V6 ³⁾ | 4 | 1LA9060 ... 207 | Standard |
| With flange | IM B5 ³⁾ | 4 | 1LA9060 ... 207 | With additional charge |
| | IM V3 ³⁾ | 4 | 1LA9060 ... 166 | With additional charge |
| | | 4 | 1LA9183 ... 207 | With additional charge |
| | IM V1 with protective cover ^{3) 4)} | 4 | 1LA9060 ... 207 | With additional charge |
| With standard flange | IM B35 | 4 | 1LA9060 ... 207 | With additional charge |
| | IM B14, IM V19 ³⁾ | 4 | 1LA9060 ... 166 | With additional charge |
| | IM B34 | 4 | 1LA9060 ... 166 | With additional charge |
| With special flange | IM B14, IM V19 ³⁾ | 4 | 1LA9060 ... 166 | With additional charge |
| Further types of construction | For add. charges, code numbers, order codes and descr., see suppl. and special versions. | | | 9 ... |

| Design according to ATEX | No. of poles | Motor type | Version | Order code(s) |
|-------------------------------------|------------------------------|------------|-----------------|---|
| Zone 2 | Mains-fed operation | 4 | 1LA9060 ... 166 | With add. charge 1LA9 ... -... ■■-Z M72 |
| | Converter-fed operation (FC) | 4 | 1LA9060 ... 166 | With add. charge 1LA9 ... -... ■■-Z M73 |
| VIK (includes Zone 2) ⁵⁾ | Mains-fed operation | 4 | 1LA9060 ... 166 | With add. charge 1LA9 ... -... ■■-Z K30 |
| | Converter-fed operation (FC) | 4 | 1LA9060 ... 166 | On request – |
| Zone 21 | Mains-fed operation | 4 | 1LA9060 ... 207 | With add. charge 1LA9 ... -... ■■-Z M34 |
| | Converter-fed operation (FC) | 4 | 1LA9060 ... 207 | With add. charge 1LA9 ... -... ■■-Z M38 |
| Zone 22 | Mains-fed operation | 4 | 1LA9060 ... 207 | With add. charge 1LA9 ... -... ■■-Z M35 |
| | Converter-fed operation (FC) | 4 | 1LA9060 ... 207 | With add. charge 1LA9 ... -... ■■-Z M39 |
| Zone 2/22 (IP55) | Mains-fed operation | 4 | 1LA9060 ... 207 | With add. charge 1LA9 ... -... ■■-Z M74 |
| | Converter-fed operation (FC) | 4 | 1LA9060 ... 207 | With add. charge 1LA9 ... -... ■■-Z M75 |

| Special versions | Order code(s) |
|------------------|---|
| Options | For add. charges, order codes and descr., see suppl. and special versions. 1LA9 ... -... ■■-Z ...+...+...+... |

¹⁾ Voltages for 60 Hz can be ordered with voltage code 9 and the appropriate order code – see "Voltages" in supplements and special versions. Operating values at rated output for 60 Hz are available on request.

²⁾ For connection to 230 V, parallel feeders are necessary.

³⁾ The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing

upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

⁴⁾ The "Second shaft extension" option, order code K16 is not possible.

⁵⁾ If the identification Ex nA II is required in addition to VIK on the rating plate, this must be ordered using order code C27. The VIK version is not possible in combination with Zone 21 and 22.

SIMOTICS XP 1LA Explosion-Proof Motors

Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD

Self-ventilated motors with High Efficiency IE2
Aluminum series 1LA9 with order code for explosion protection

IE2

Selection and ordering data (continued)

| P _{rated} , 50 Hz kW | P _{rated} , 60 Hz kW | Frame size FS | Operating values at rated output | | | | | | | | | | L _{pFA} , 50 Hz dB(A) | L _{WA} , 50 Hz dB(A) | Aluminum series 1LA9 – IE2 version for Zone 2 or 21/22 in type of protection Ex n or Ex tD | m _{IM B3} J | Torque class |
|--|-------------------------------------|---------------------|--------------------------------------|-------------------------------------|-------------|--|--|--|---|--|---|---|--------------------------------------|-------------------------------------|---|----------------------|-----------------|
| | | | n _{rated} , 50 Hz rpm | T _{rated} , 50 Hz Nm | IE class | η _{rated} , 50 Hz, 4/4 % | η _{rated} , 50 Hz, 3/4 % | η _{rated} , 50 Hz, 2/4 % | COS- φ _{rated} , 50 Hz, 4/4 | I _{rated} , 50 Hz, 400 V A | T _{LR} / T _{rated} | I _{LR} / I _{rated} | | | | | |
| Order No. with order code for Ex prot. | kg | kgm ² | CL | | | | | | | | | | | | | | |

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2 in accordance with IEC 60034-30
- Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)

6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz ¹⁾

| | | | | | | | | | | | | | | | | | | | |
|-------------|-------------|--------------|-----|-----|-----|------|------|------|------|------|-----|-----|-----|----|----|-------------------------|-------|--------|----|
| 0.75 | 0.86 | 90 S | 925 | 7.7 | IE2 | 75.9 | 75.9 | 72.9 | 0.72 | 1.98 | 2.5 | 4.4 | 2.5 | 43 | 55 | 1LA9090-6KA ■■-Z | 16.9 | 0.0033 | 16 |
| 1.1 | 1.27 | 90 L | 940 | 11 | IE2 | 78.1 | 78.6 | 75.6 | 0.70 | 2.9 | 3.2 | 5.7 | 3.2 | 43 | 55 | 1LA9096-6KA ■■-Z | 19.6 | 0.0050 | 16 |
| 1.5 | 1.75 | 100 L | 935 | 15 | IE2 | 79.8 | 79.8 | 78.8 | 0.73 | 3.7 | 3.4 | 6.2 | 3.4 | 47 | 59 | 1LA9106-6KA ■■-Z | 26 | 0.0055 | 16 |
| 2.2 | 2.55 | 112 M | 955 | 22 | IE2 | 81.8 | 81.8 | 80.8 | 0.70 | 5.5 | 2.7 | 6.2 | 3.0 | 52 | 64 | 1LA9113-6KA ■■-Z | 38.7 | 0.014 | 16 |
| 4 | 4.55 | 132 M | 950 | 40 | IE2 | 84.6 | 84.6 | 83.6 | 0.81 | 8.4 | 2.5 | 6.3 | 2.7 | 63 | 75 | 1LA9133-6KA ■■-Z | 53.2 | 0.025 | 16 |
| 5.5 | 6.3 | 132 M | 960 | 55 | IE2 | 86.0 | 86.0 | 85.0 | 0.77 | 12 | 3.3 | 7.3 | 3.6 | 63 | 75 | 1LA9134-6KA ■■-Z | 66.1 | 0.034 | 16 |
| 7.5 | 8.6 | 160 M | 965 | 74 | IE2 | 87.2 | 87.2 | 86.2 | 0.72 | 17.2 | 2.2 | 5.5 | 2.5 | 66 | 78 | 1LA9163-6KA ■■-Z | 103.6 | 0.063 | 16 |
| 11 | 12.6 | 160 L | 960 | 109 | IE2 | 88.7 | 88.7 | 87.7 | 0.78 | 23 | 2.9 | 6.9 | 3.2 | 66 | 78 | 1LA9166-6KA ■■-Z | 113.4 | 0.072 | 16 |
| 15 | 18 | 180 L | 970 | 148 | IE2 | 89.7 | 89.7 | 88.7 | 0.75 | 32 | 2.0 | 6.5 | 2.5 | 66 | 78 | 1LA9186-6WA ■■-Z | 144 | 0.19 | 16 |
| 18.5 | 22 | 200 L | 975 | 181 | IE2 | 90.4 | 90.4 | 89.4 | 0.77 | 38.5 | 2.5 | 6.2 | 2.5 | 66 | 78 | 1LA9206-6WA ■■-Z | 183 | 0.28 | 16 |
| 22 | 26.5 | 200 L | 975 | 215 | IE2 | 90.9 | 90.9 | 89.9 | 0.77 | 45.5 | 2.5 | 6.2 | 2.5 | 66 | 78 | 1LA9207-6WA ■■-Z | 214 | 0.36 | 16 |

| Voltages | | No. of poles | Motor type | Version | Order code(s) | | | |
|--------------------------------|---------------|---|------------|---------|-----------------|---------------------------|---|-----|
| 50 Hz | 230 VΔ/400 VY | 60 Hz ¹⁾ | 460 VY | 6 | 1LA9090 ... 207 | Standard | 1 | - |
| 50 Hz | 400 VΔ/690 VY | 60 Hz ¹⁾ | 460 VΔ | 6 | 1LA9090 ... 207 | Standard | 6 | - |
| 50 Hz | 500 VY | | | 6 | 1LA9090 ... 207 | Without additional charge | 3 | - |
| | 500 VΔ | | | 6 | 1LA9106 ... 207 | Without additional charge | 5 | - |
| Further voltages ¹⁾ | | For additional charges, code numbers, order codes and descriptions, see supplements and special versions. | | | | | 9 | ... |

| Types of construction | | No. of poles | Motor type | Version | Order code(s) | |
|-------------------------------|---|--------------|-----------------|------------------------|---------------|-----|
| Without flange | IM B3/6/7/8, IM V6 ²⁾ | 6 | 1LA9090 ... 207 | Standard | 0 | - |
| With flange | IM B5 ²⁾ | 6 | 1LA9090 ... 207 | With additional charge | 1 | - |
| | IM V3 ²⁾ | 6 | 1LA9090 ... 166 | With additional charge | 1 | - |
| | | 6 | 1LA9186 ... 207 | With additional charge | 9 | M1G |
| With standard flange | IM V1 with protective cover ²⁾³⁾ | 6 | 1LA9090 ... 207 | With additional charge | 4 | - |
| | IM B35 | 6 | 1LA9090 ... 207 | With additional charge | 6 | - |
| | IM B14, IM V19 ²⁾ | 6 | 1LA9090 ... 166 | With additional charge | 2 | - |
| With special flange | IM B34 | 6 | 1LA9090 ... 166 | With additional charge | 7 | - |
| | IM B14, IM V19 ²⁾ | 6 | 1LA9090 ... 166 | With additional charge | 3 | - |
| Further types of construction | For additional charges, code numbers, order codes and descriptions, see supplements and special versions. | | | | 9 | ... |

| Design according to ATEX | | No. of poles | Motor type | Version | Order code(s) |
|--|------------------------------|--------------|-----------------|------------------|---------------------------------------|
| Zone 2 | Mains-fed operation | 6 | 1LA9090 ... 166 | With add. charge | 1LA9 ... - ... ■■-Z M72 |
| | Converter-fed operation (FC) | 6 | 1LA9090 ... 166 | With add. charge | 1LA9 ... - ... ■■-Z M73 |
| VIK (includes Zone 2) ⁴⁾ | Mains-fed operation | 6 | 1LA9090 ... 166 | With add. charge | 1LA9 ... - ... ■■-Z K30 |
| | Converter-fed operation (FC) | 6 | 1LA9090 ... 166 | On request | - |
| Zone 21 | Mains-fed operation | 6 | 1LA9090 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M34 |
| | Converter-fed operation (FC) | 6 | 1LA9090 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M38 |
| Zone 22 | Mains-fed operation | 6 | 1LA9090 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M35 |
| | Converter-fed operation (FC) | 6 | 1LA9090 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M39 |
| Zone 2/22 (IP55) | Mains-fed operation | 6 | 1LA9090 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M74 |
| | Converter-fed operation (FC) | 6 | 1LA9090 ... 207 | With add. charge | 1LA9 ... - ... ■■-Z M75 |

| Special versions | | Order code(s) |
|------------------|---|--|
| Options | For additional charges, order codes and descriptions, see supplements and special versions. | 1LA9 ... - ... ■■-Z ...+...+...+... |

¹⁾ Voltages for 60 Hz can be ordered with voltage code 9 and the appropriate order code – see "Voltages" in supplements and special versions. Operating values at rated output for 60 Hz are available on request.

²⁾ The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

³⁾ The "Second shaft extension" option, order code K16 is not possible.

⁴⁾ If the identification Ex nA II is required in addition to VIK on the rating plate, this must be ordered using order code C27. The VIK version is not possible in combination with Zone 21 and 22.