



# SIMOTICS N-compact Non-Standard Motors

## Motors specially designed for mains-fed operation

Self-ventilated motors  
Cast-iron series 1LA8

# IE2

### Selection and ordering data (continued)

| Operating values at rated output  |                               |   |                            |                            |          |                                 |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         | Cast-iron series                                  |           | m <sub>M</sub> | B3            | J | Torque class  |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
|---|-------------------------------|---|----------------------------|----------------------------|----------|---------------------------------|---------------------------------|--|------------------------------|---|-----------------------------------|-------------------------------------|-------------------------------------|------------------------------------|--------------------------|-------------------------|---|-----------|----------------|---------------|---|---------------|----|------------------|----|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|
| P <sub>rated</sub> , 50 Hz  | P <sub>rated</sub> , 60 Hz 1) | Frame size  | n <sub>rated</sub> , 50 Hz | T <sub>rated</sub> , 50 Hz | IE class | η <sub>rated</sub> , 50 Hz, 4/4 | η <sub>rated</sub> , 50 Hz, 3/4 | η <sub>rated</sub> , 50 Hz, 2/4                            | COS-φ <sub>rated</sub> , 4/4 | I <sub>rated</sub> , 50 Hz, 400 V                 | I <sub>rated</sub> , 50 Hz, 690 V | T <sub>LR</sub> /I <sub>rated</sub> | I <sub>LR</sub> /I <sub>rated</sub> | T <sub>B</sub> /T <sub>rated</sub> | L <sub>p</sub> fA, 50 Hz | L <sub>WA</sub> , 50 Hz | 1LA8 – Specially designed for mains-fed operation | Order No. |                |               |   |               | kg | kgm <sup>2</sup> | CL |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| kW  | kW                            | FS  | rpm                        | Nm                         |          | %                               | %                               | %  |                              | A   | A                                 |                                     |                                     |                                    |                          |                         | ▼ Standardline                                    |           |                |               |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| • Cooling: Self-ventilated (IC 411)<br>• Mains-fed operation: Up to frame size 355, a service factor (SF) of 1.1 is stamped, above this 1.05.<br>• 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)   |                               |   |                            |                            |          |                                 |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 250   | 280                           | 315   | 2979                       | 801                        | IE2      | 95.7                            | 95.7                            | 95.1   | 0.90                         | 420   | 245                               | 1.8                                 | 7.0                                 | 2.8                                | 82 (75) <sup>2)</sup>    | 97 (90) <sup>2)</sup>   | 1LA8315-2AC                                       | 1300      | 2.7            | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 315   | 353                           | 315   | 2979                       | 1010                       | IE2      | 95.7                            | 95.7                            | 95.5   | 0.91                         | 520   | 300                               | 1.8                                 | 7.0                                 | 2.8                                | 82 (75) <sup>2)</sup>    | 97 (90) <sup>2)</sup>   | 1LA8317-2AC                                       | 1500      | 3.3            | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 355   | 398                           | 355   | 2980                       | 1140                       | IE2      | 95.7                            | 95.7                            | 95.5   | 0.90                         | 590   | 345                               | 1.7                                 | 6.5                                 | 2.5                                | 77 <sup>3)</sup>         | 92 <sup>3)</sup>        | 1LA8353-2AC                                       | 1900      | 4.8            | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 400   | 448                           | 355   | 2980                       | 1280                       | –        | 96.2                            | 96.3                            | 96.0   | 0.91                         | 660   | 380                               | 1.7                                 | 6.5                                 | 2.5                                | 77 <sup>3)</sup>         | 92 <sup>3)</sup>        | 1LA8355-2AC                                       | 2000      | 5.3            | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 500   | 560                           | 355   | 2982                       | 1600                       | –        | 96.6                            | 96.7                            | 96.2   | 0.91                         | 820   | 475                               | 1.8                                 | 6.5                                 | 2.6                                | 77 <sup>3)</sup>         | 92 <sup>3)</sup>        | 1LA8357-2AC                                       | 2200      | 6.4            | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 560   | 616                           | 400   | 2985                       | 1790                       | –        | 96.6                            | 96.7                            | 96.4   | 0.91                         | 920   | 530                               | 1.6                                 | 7.0                                 | 2.8                                | 79 <sup>3)</sup>         | 94 <sup>3)</sup>        | 1LA8403-2AC                                       | 2800      | 8.6            | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 630   | 693                           | 400   | 2985                       | 2020                       | –        | 96.6                            | 96.7                            | 96.6   | 0.91                         | 1040  | 600                               | 1.6                                 | 7.0                                 | 2.8                                | 79 <sup>3)</sup>         | 94 <sup>3)</sup>        | 1LA8405-2AC                                       | 3000      | 9.6            | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 710   | 781                           | 400   | 2985                       | 2270                       | –        | 96.8                            | 96.9                            | 96.8   | 0.91                         | –   | 670 <sup>4)</sup>                 | 1.7                                 | 7.0                                 | 2.8                                | 79 <sup>3)</sup>         | 94 <sup>3)</sup>        | 1LA8407-2AC                                       | 3200      | 11             | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 800   | –                             | 450   | 2986                       | 2560                       | –        | 96.7                            | 96.8                            | 96.5   | 0.91                         | –   | 760                               | 0.9                                 | 7.0                                 | 3.0                                | 81 <sup>3)</sup>         | 96 <sup>3)</sup>        | 1LA8453-2AE                                       | 4000      | 19             | 5             |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 900   | –                             | 450   | 2986                       | 2880                       | –        | 96.8                            | 96.9                            | 96.5   | 0.92                         | –   | 850                               | 0.9                                 | 7.0                                 | 2.8                                | 81 <sup>3)</sup>         | 96 <sup>3)</sup>        | 1LA8455-2AE                                       | 4200      | 21             | 5             |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 1000  | –                             | 450   | 2986                       | 3200                       | –        | 96.9                            | 97.0                            | 96.7   | 0.93                         | –   | 930                               | 0.9                                 | 7.0                                 | 2.7                                | 81 <sup>3)</sup>         | 96 <sup>3)</sup>        | 1LA8457-2AE                                       | 4400      | 23             | 5             |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz 1)   |                               |   |                            |                            |          |                                 |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 250   | 288                           | 315   | 1488                       | 1600                       | IE2      | 95.5                            | 95.6                            | 95.2   | 0.87                         | 435   | 250                               | 1.8                                 | 6.5                                 | 2.8                                | 75                       | 87                      | ▼ 1LA8315-4AB                                     | 1300      | 3.6            | 13            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 315   | 362                           | 315   | 1488                       | 2020                       | IE2      | 95.7                            | 95.8                            | 95.5   | 0.87                         | 550   | 315                               | 2.0                                 | 6.8                                 | 2.8                                | 75                       | 87                      | ▼ 1LA8317-4AB                                     | 1500      | 4.4            | 13            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 355   | 408                           | 355   | 1488                       | 2280                       | IE2      | 95.8                            | 95.9                            | 95.5   | 0.87                         | 610   | 355                               | 1.8                                 | 6.0                                 | 2.5                                | 75                       | 90                      | ▼ 1LA8353-4AB                                     | 1900      | 6.1            | 13            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 400   | 460                           | 355   | 1488                       | 2570                       | –        | 95.9                            | 96.0                            | 95.7   | 0.87                         | 690   | 400                               | 2.0                                 | 6.2                                 | 2.5                                | 75                       | 90                      | ▼ 1LA8355-4AB                                     | 2000      | 6.8            | 13            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 500   | 575                           | 355   | 1488                       | 3210                       | –        | 96.2                            | 96.3                            | 96.1   | 0.88                         | 850   | 495                               | 2.0                                 | 6.5                                 | 2.5                                | 75                       | 90                      | ▼ 1LA8357-4AB                                     | 2200      | 8.5            | 13            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 560   | 644                           | 400   | 1492                       | 3580                       | –        | 96.2                            | 96.3                            | 95.8   | 0.88                         | 950   | 550                               | 1.9                                 | 6.5                                 | 2.7                                | 78                       | 93                      | 1LA8403-4AB                                       | 2800      | 13             | 13            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 630   | 725                           | 400   | 1492                       | 4030                       | –        | 96.4                            | 96.5                            | 95.9   | 0.88                         | 1080  | 620                               | 1.9                                 | 6.8                                 | 2.7                                | 78                       | 93                      | 1LA8405-4AB                                       | 3000      | 14             | 13            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 710   | 817                           | 400   | 1492                       | 4540                       | –        | 96.5                            | 96.6                            | 96.2   | 0.89                         | –   | 690 <sup>4)</sup>                 | 1.9                                 | 6.8                                 | 2.7                                | 78                       | 93                      | 1LA8407-4AB                                       | 3200      | 16             | 13            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 800   | 920                           | 450   | 1492                       | 5120                       | –        | 96.5                            | 96.6                            | 96.1   | 0.88                         | –   | 790 <sup>4)</sup>                 | 1.6                                 | 7.0                                 | 2.6                                | 81                       | 96                      | 1LA8453-4AC                                       | 4000      | 23             | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 900   | 1040                          | 450   | 1492                       | 5760                       | –        | 96.6                            | 96.7                            | 96.2   | 0.87                         | –   | 900 <sup>5)</sup>                 | 1.6                                 | 7.0                                 | 2.6                                | 81                       | 96                      | 1LA8455-4AC                                       | 4200      | 26             | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 1000  | 1150                          | 450   | 1492                       | 6400                       | –        | 96.6                            | 96.7                            | 96.3   | 0.89                         | –   | 970 <sup>5)</sup>                 | 1.7                                 | 7.0                                 | 2.6                                | 81                       | 96                      | 1LA8457-4AC                                       | 4400      | 28             | 10            |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| Voltages  |                               | No. of poles  |                            | Motor type                 |          | Version                         |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   | Order code(s) |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 50 Hz   |                               | 400 VΔ/690 VY   |                            | 2, 4                       |          | 1LA8315 ... 405                 |                                 | Standard   |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    | 6 –              |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
|   |                               | 690 VΔ  |                            | 2, 4                       |          | 1LA8407 ... 457                 |                                 | Standard   |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    | 0 –              |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
|   |                               | 500 VΔ  |                            | 2, 4                       |          | 1LA8315 ... 457                 |                                 | Without additional charge                                  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    | 5 –              |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 60 Hz 1)  |                               | 460 VΔ  |                            | 2, 4                       |          | 1LA8315 ... 405                 |                                 | With additional charge                                     |                              | 1LA8407 onwards, on request.                      |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    | 9 L2F            |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| Further voltages 1)   |                               | For add. charges, code numbers, order codes and descriptions, see supplements and special versions. |                            |                            |          |                                 |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   | 9 ...         |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| For types of construction see suppl.  |                               | Motor type  |                            | Version                    |          |                                 |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                | Order code(s) |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| Without flange  |                               | IM B3   |                            | 1LA8315 ... 457            |          | Standard                        |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   | 0 –           |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
|   |                               | IM V5, IM V6  |                            | 1LA8315 ... 457            |          | With additional charge          |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   | 0 –           |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| With flange   |                               | IM V1 without protective cover  |                            | 1LA8315 ... 457 6)         |          | With additional charge          |                                 | Not for explosion-proof motors.                            |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   | 8 –           |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
|   |                               | IM V1 with protective cover   |                            | 1LA8315 ... 457 6)         |          | With additional charge          |                                 | The "Second shaft extension" option (K16) is not possible. |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   | 4 –           |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
|   |                               | IM B35  |                            | 1LA8315 ... 457 7)         |          | With additional charge          |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   | 6 –           |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| Special versions  |                               |   |                            |                            |          |                                 |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   | Order code(s) |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| ▼ Standardline  |                               | No. of poles  |                            | Motor type                 |          | Voltage                         |                                 | Type   |                              | For the range of options, see "Special versions". |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| With price and delivery time advantages   |                               | 4   |                            | 1LA8315 ... 357            |          | 50 Hz, 400 VΔ/690 VY            |                                 | IM B3  |                              | 1LA83 ... 4AB                                     |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    | 6 0 -Z B20+ ...  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| Options   |                               | For add. charges, order codes and descriptions, see supplements and special versions.               |                            |                            |          |                                 |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   | 1LA8 ... -Z   |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| Motor type 1LA8   |                               |   |                            |                            |          |                                 |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
|   |                               | 315-2   |                            | 317-2                      |          | 353-2                           |                                 | 355-2  |                              | 357-2   |                                   | 403-2                               |                                     | 405-2                              |                          | 407-2                   |   | 453-2     |                | 455-2         |   | 457-2         |    | 315-4            |    | 317-4 |  | 353-4 |  | 355-4 |  | 357-4 |  | 403-4 |  | 405-4 |  | 407-4 |  | 453-4 |  | 455-4 |  | 457-4 |  |
| Parallel feeders required   |                               |   |                            |                            |          |                                 |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| 400 V   |                               | Yes   |                            | Yes                        |          | Yes                             |                                 | Yes  |                              | Yes   |                                   | Yes                                 |                                     | Yes                                |                          | Yes                     |   | Yes       |                | Yes           |   | Yes           |    | Yes              |    | Yes   |  | Yes   |  | Yes   |  | Yes   |  | Yes   |  | Yes   |  | Yes   |  |       |  |       |  |       |  |
| 500 V   |                               | –   |                            | –                          |          | Yes                             |                                 | Yes  |                              | Yes   |                                   | Yes                                 |                                     | Yes                                |                          | Yes                     |   | Yes       |                | Yes           |   | Yes           |    | Yes              |    | –     |  | –     |  | Yes   |  | Yes   |  | Yes   |  | Yes   |  | Yes   |  |       |  |       |  |       |  |
| 690 V   |                               | –   |                            | –                          |          | –                               |                                 | –  |                              | –   |                                   | Yes                                 |                                     | Yes                                |                          | –                       |   | –         |                | –             |   | –             |    | –                |    | –     |  | –     |  | –     |  | –     |  | –     |  | Yes   |  | Yes   |  |       |  |       |  |       |  |
| Mechanical limit speed n <sub>max</sub> in rpm (limit speeds for reinforced bearings, order code K20, for 4-pole motors on request.)  |                               |   |                            |                            |          |                                 |                                 |  |                              |   |                                   |                                     |                                     |                                    |                          |                         |   |           |                |               |   |               |    |                  |    |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
| Standard  |                               | 3600  |                            | 3600                       |          | 3600                            |                                 | 3600   |                              | 3600  |                                   | 3000                                |                                     | 3000                               |                          | 3000                    |   | 3000      |                | 2500          |   | 2500          |    | 2500             |    | 2200  |  | 2200  |  | 2200  |  | 2100  |  | 2100  |  | 2100  |  |       |  |       |  |       |  |       |  |
| IM V1   |                               | –   |                            | –                          |          | 3100                            |                                 | 3100   |                              | 3100  |                                   | 3100                                |                                     | –                                  |                          | –                       |   | –         |                | –             |   | –             |    | –                |    | 2100  |  | 2100  |  | 2100  |  | 1800  |  | 1800  |  | 1800  |  |       |  |       |  |       |  |       |  |
| Ex prot.  |                               | –   |                            | –                          |          | –                               |                                 | –  |                              | –   |                                   | –                                   |                                     | –                                  |                          | –                       |   | –         |                | 2650          |   | 2650          |    | 2350             |    | 2350  |  | 2350  |  | 2100  |  | 2100  |  | 2100  |  | 1900  |  | 1900  |  |       |  |       |  |       |  |

1) Voltages for 60 Hz can be ordered with voltage code 9 and the appropriate order code.  
 2) Low-noise version in brackets. To reduce noise, 2-pole motors can be equipped with an axial fan for one direction of rotation. Clockwise rotation order code K37, counter-clockwise rotation K38.  
 3) Standard version with axial fan for clockwise rotation. Without order code K37. For counter-clockwise rotation, order code K38 is necessary.  
 4) Can be ordered for 400 VΔ 50 Hz as special version with voltage code 9 and order code L1Y (specify output, voltage and frequency).  
 5) Also available on request for 400 VΔ 50 Hz.  
 6) Not for 1LA8353 to 457 2-pole, 60 Hz.  
 7) Not for 1LA8453 to 457 2-pole, 60 Hz.

# SIMOTICS N-compact Non-Standard Motors

## Motors specially designed for mains-fed operation

# IE2

Self-ventilated motors  
Cast-iron series 1LA8

### Selection and ordering data (continued)

| Operating values at rated output  |                               |   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         | Cast-iron series<br>1LA8 – Specially designed for mains-fed operation<br>Order No. | m <sub>IM B3</sub> | J    | Torque class     |    |               |  |   |  |
|---|-------------------------------|---|----------------------------|----------------------------|----------|---------------------------------|---------------------------------|--|-------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|---------------------------------|--------------------------|-------------------------|--|--------------------|------|------------------|----|---------------|--|---|--|
| P <sub>rated</sub> , 50 Hz  | P <sub>rated</sub> , 60 Hz 1) | Frame size  | n <sub>rated</sub> , 50 Hz | T <sub>rated</sub> , 50 Hz | IE class | η <sub>rated</sub> , 50 Hz, 4/4 | η <sub>rated</sub> , 50 Hz, 3/4 | η <sub>rated</sub> , 50 Hz, 2/4                            | COS-φ <sub>rated</sub> , 50 Hz, 4/4 | I <sub>rated</sub> , 50 Hz, 400 V | I <sub>rated</sub> , 50 Hz, 690 V | T <sub>LR</sub> /I <sub>tra</sub> | I <sub>LR</sub> /I <sub>ra</sub> | T <sub>B</sub> /I <sub>ra</sub> | L <sub>p</sub> fA, 50 Hz | L <sub>WA</sub> , 50 Hz |  |                    |      |                  |    |               |  |   |  |
| kW  | kW                            | FS  | rpm                        | Nm                         |          | %                               | %                               | %  |                                     | A                                 | A                                 |                                   |                                  |                                 |                          |                         |  | ▲ New              | kg   | kgm <sup>2</sup> | CL |               |  |   |  |
| • Cooling: Self-ventilated (IC 411)<br>• Mains-fed operation: Up to frame size 355, a service factor (SF) of 1.1 is stamped, above this 1.05.<br>• 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)   |                               |   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |
| 200   | 230                           | 315   | 990                        | 1930                       | IE2      | 95.2                            | 95.4                            | 94.8   | 0.86                                | 355                               | 205                               | 2.0                               | 6.3                              | 2.5                             | 68                       | 82                      |  | 1LA8315-6AB        | 1300 | 6.0              | 13 |               |  |   |  |
| 250   | 288                           | 315   | 989                        | 2410                       | IE2      | 95.4                            | 95.6                            | 95.2   | 0.86                                | 440                               | 255                               | 2.0                               | 6.3                              | 2.5                             | 68                       | 82                      |  | 1LA8317-6AB        | 1500 | 7.3              | 13 |               |  |   |  |
| 315   | 362                           | 355   | 992                        | 3040                       | IE2      | 95.7                            | 95.7                            | 95.5   | 0.86                                | 550                               | 320                               | 2.1                               | 6.5                              | 2.8                             | 71                       | 86                      |  | 1LA8355-6AB        | 2000 | 13               | 13 |               |  |   |  |
| 355   | 408                           | 355   | 992                        | 3418                       | IE2      | 95.7                            | 95.7                            | 95.6   | 0.86                                | 620                               | 360                               | 2.0                               | 6.8                              | 2.9                             | 71                       | 86                      | ▲  | 1LA8357-6AB        | 2200 | 15               | 13 |               |  |   |  |
| 400   | 460                           | 355   | 993                        | 3850                       | –        | 96.0                            | 96.1                            | 95.7   | 0.86                                | 700                               | 405                               | 2.2                               | 6.5                              | 2.8                             | 71                       | 86                      |  | 1LA8357-6AB        | 2200 | 16               | 13 |               |  |   |  |
| 450   | 518                           | 400   | 992                        | 4330                       | –        | 96.0                            | 96.1                            | 95.8   | 0.86                                | 790                               | 455                               | 2.1                               | 6.5                              | 2.7                             | 73                       | 88                      |  | 1LA8403-6AB        | 2800 | 21               | 13 |               |  |   |  |
| 500   | 575                           | 400   | 992                        | 4810                       | –        | 96.0                            | 96.1                            | 95.8   | 0.86                                | 870                               | 510                               | 2.2                               | 6.5                              | 2.7                             | 73                       | 88                      |  | 1LA8405-6AB        | 3000 | 24               | 13 |               |  |   |  |
| 560   | 644                           | 400   | 992                        | 5390                       | –        | 96.2                            | 96.3                            | 96.0   | 0.86                                | 980                               | 570                               | 2.2                               | 6.5                              | 2.7                             | 73                       | 88                      |  | 1LA8407-6AB        | 3200 | 27               | 13 |               |  |   |  |
| 630   | 725                           | 450   | 993                        | 6060                       | –        | 96.3                            | 96.4                            | 96.2   | 0.85                                | 1120                              | 640                               | 2.0                               | 6.5                              | 2.6                             | 75                       | 90                      |  | 1LA8453-6AB        | 4000 | 35               | 13 |               |  |   |  |
| 710   | 817                           | 450   | 993                        | 6830                       | –        | 96.3                            | 96.4                            | 96.4   | 0.85                                | –                                 | 730 <sup>2)</sup>                 | 2.0                               | 6.5                              | 2.5                             | 75                       | 90                      |  | 1LA8455-6AB        | 4200 | 39               | 13 |               |  |   |  |
| 800   | 920                           | 450   | 993                        | 7690                       | –        | 96.5                            | 96.7                            | 96.5   | 0.85                                | –                                 | 820 <sup>3)</sup>                 | 2.0                               | 6.5                              | 2.5                             | 75                       | 90                      |  | 1LA8457-6AB        | 4500 | 44               | 13 |               |  |   |  |
| 8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz 1)   |                               |   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |
| 160   | 184                           | 315   | 739                        | 2070                       | –        | 94.4                            | 94.5                            | 94.4   | 0.81                                | 300                               | 176                               | 2.1                               | 6.0                              | 2.4                             | 65                       | 79                      |  | 1LA8315-8AB        | 1300 | 6.0              | 13 |               |  |   |  |
| 200   | 230                           | 315   | 739                        | 2580                       | –        | 94.7                            | 94.8                            | 94.8   | 0.82                                | 370                               | 215                               | 2.1                               | 6.0                              | 2.4                             | 65                       | 79                      |  | 1LA8317-8AB        | 1500 | 7.3              | 13 |               |  |   |  |
| 250   | 288                           | 355   | 741                        | 3220                       | –        | 95.2                            | 95.3                            | 95.1   | 0.82                                | 460                               | 270                               | 2.1                               | 6.1                              | 2.4                             | 67                       | 82                      |  | 1LA8355-8AB        | 2000 | 13               | 13 |               |  |   |  |
| 315   | 362                           | 355   | 741                        | 4060                       | –        | 95.5                            | 95.6                            | 95.4   | 0.82                                | 580                               | 335                               | 2.1                               | 6.1                              | 2.4                             | 67                       | 82                      |  | 1LA8357-8AB        | 2200 | 16               | 13 |               |  |   |  |
| 355   | 408                           | 400   | 742                        | 4570                       | –        | 95.6                            | 95.7                            | 95.6   | 0.82                                | 650                               | 380                               | 2.0                               | 6.2                              | 2.6                             | 69                       | 84                      |  | 1LA8403-8AB        | 2800 | 21               | 13 |               |  |   |  |
| 400   | 460                           | 400   | 742                        | 5150                       | –        | 95.7                            | 95.8                            | 95.5   | 0.82                                | 740                               | 425                               | 2.1                               | 6.5                              | 2.6                             | 69                       | 84                      |  | 1LA8405-8AB        | 3000 | 24               | 13 |               |  |   |  |
| 450   | 518                           | 400   | 742                        | 5790                       | –        | 95.8                            | 95.9                            | 95.8   | 0.82                                | 830                               | 480                               | 2.1                               | 6.5                              | 2.6                             | 69                       | 84                      |  | 1LA8407-8AB        | 3200 | 27               | 13 |               |  |   |  |
| 500   | 575                           | 450   | 744                        | 6420                       | –        | 95.9                            | 96.0                            | 95.7   | 0.80                                | 940                               | 550                               | 2.0                               | 6.6                              | 2.4                             | 71                       | 86                      |  | 1LA8453-8AB        | 4000 | 35               | 13 |               |  |   |  |
| 560   | 644                           | 450   | 744                        | 7190                       | –        | 96.0                            | 96.1                            | 95.8   | 0.81                                | 1040                              | 600                               | 2.0                               | 6.6                              | 2.4                             | 71                       | 86                      |  | 1LA8455-8AB        | 4200 | 39               | 13 |               |  |   |  |
| 630   | 725                           | 450   | 744                        | 8090                       | –        | 96.1                            | 96.2                            | 95.9   | 0.81                                | 1160                              | 680                               | 2.0                               | 6.6                              | 2.4                             | 71                       | 86                      |  | 1LA8457-8AB        | 4500 | 44               | 13 |               |  |   |  |
| Voltages  |                               | No. of poles  |                            | Motor type                 |          | Version                         |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    | Order code(s) |  |   |  |
| 50 Hz   |                               | 400 VΔ/690 VY   |                            | 6                          |          | 1LA8315 ... 453                 |                                 | Standard   |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  | 6 |  |
|   |                               |   |                            | 8                          |          | 1LA8315 ... 457                 |                                 | Standard   |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  | 6 |  |
|   |                               | 690 VA  |                            | 6                          |          | 1LA8455 ... 457                 |                                 | Standard   |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  | 0 |  |
|   |                               | 500 VA  |                            | 6, 8                       |          | 1LA8315 ... 457                 |                                 | Without additional charge                                  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  | 5 |  |
| 60 Hz 1)  |                               | 460 VΔ  |                            | 6                          |          | 1LA8315 ... 453                 |                                 | With additional charge                                     |                                     | 1LA8455 onwards, on request.      |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    | 9             |  |   |  |
|   |                               |   |                            | 8                          |          | 1LA8315 ... 457                 |                                 | With additional charge                                     |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      | 9                |    |               |  |   |  |
| Further voltages 1)   |                               | For add. charges, code numbers, order codes and descriptions, see supplements and special versions.                           |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    | 9             |  |   |  |
| For types of construction see suppl.  |                               | Motor type  |                            | Version                    |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      | Order code(s)    |    |               |  |   |  |
| Without flange  |                               | IM B3   |                            | 1LA8315 ... 457            |          | Standard                        |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    | 0             |  |   |  |
|   |                               | IM V5, IM V6  |                            | 1LA8315 ... 457            |          | With additional charge          |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    | 0             |  |   |  |
| With flange   |                               | IM V1 without protective cover  |                            | 1LA8315 ... 457            |          | With additional charge          |                                 | Not for explosion-proof motors.                            |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      | 8                |    |               |  |   |  |
|   |                               | IM V1 with protective cover   |                            | 1LA8315 ... 457            |          | With additional charge          |                                 | The "Second shaft extension" option (K16) is not possible. |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      | 4                |    |               |  |   |  |
|   |                               | IM B35  |                            | 1LA8315 ... 457            |          | With additional charge          |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    | 6             |  |   |  |
| Special versions  |                               |   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      | Order code(s)    |    |               |  |   |  |
| Options   |                               | For add. charges, order codes and descriptions, see supplements and special versions.   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      | 1LA8 ... -Z      |    |               |  |   |  |
| Motor type 1LA8   |                               | 315-6 317-6 355-6 356-6 357-6 403-6 405-6 407-6 453-6 455-6 457-6 315-8 317-8 355-8 357-8 403-8 405-8 407-8 453-8 455-8 457-8 |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |
| Parallel feeders required   |                               |   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |
| 400 V   |                               | – Yes Yes Yes Yes – Yes Yes Yes Yes Yes – – – Yes – – Yes Yes Yes   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |
| 500 V   |                               | – – – Yes Yes – – – Yes Yes Yes – – – – – – – Yes Yes   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |
| 690 V   |                               | – – – Yes Yes – – – – – – – – – – – – – – – –   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |
| Mechanical limit speed n <sub>max</sub> in rpm (limit speeds for reinforced bearings, order code K20, for 6-pole and 8-pole motors on request.)   |                               |   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |
| Standard  |                               | 2950 2950 2500 2500 2500 2200 2200 2200 2100 2100 2100 2950 2950 2500 2500 2200 2200 2200 2100 2100 2100                      |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |
| IM V1   |                               | – – – – – 2100 2100 2100 1800 1800 1800 – – – – – 2100 2100 2100 1800 1800 1800   |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |
| Ex prot.  |                               | 2350 2350 2100 2100 2100 1900 1900 1900 1700 1700 1700 2350 2350 2100 2100 1900 1900 1900 1700 1700 1700                      |                            |                            |          |                                 |                                 |  |                                     |                                   |                                   |                                   |                                  |                                 |                          |                         |  |                    |      |                  |    |               |  |   |  |

1) Voltages for 60 Hz can be ordered with voltage code 9 and the appropriate order code.

2) Can be ordered for 400 VA 50 Hz as special version with voltage code 9 and order code L1Y (specify output, voltage and frequency).

3) Also available on request for 400 VΔ 50 Hz.