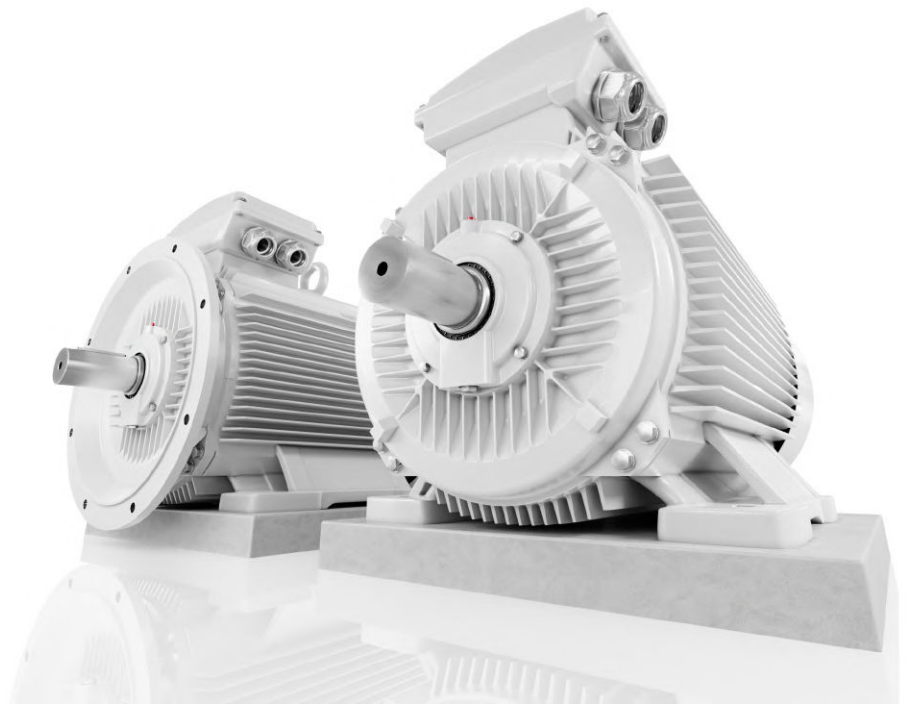




# 1ALD, 1LCD series

Two-speed asynchronous electric motors with shielded (double) winding





**AL** and **LC** motors  
for all types of industry

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# Quality management and certificates



VYBO Electric is a modern High-tech energy saving company that pays high attention to quality, environment, safety and precision and efficiency of work and energy in production. Therefore, it holds a lot of certificates and quality control systems. **Our priority is quality control.**

## Basic certificates include:

### ISO9001

The primary task of the ISO 9001 standard is to focus on system management and quality management in the organization. The satisfaction of the customer and the fulfillment of his requirements, which are specified in contracts, orders, or technical drawings, are in the first place. The quality management system is linked to all processes in the company. The standard focuses on the management of human and financial resources, on the stability of infrastructure, including buildings, transport, hardware, software and other communication or information technologies. An important part is also the planning of production and services, the management of the purchasing process, but also the management of non-conforming products.



### ISO14001

The main priority of the ISO 14001 standard is to identify and understand the environmental aspects and activities that are related to the entire infrastructure of the company and, based on this, to regulate the environmental impact on the environment.

In its scope, the ISO 14001 standard creates the conditions for determining environmental goals and plans, the fulfillment of which is examined at regular intervals by top management and also by an independent body during internal audits.

This standard is intended for all organizations and companies that consider environmental protection as their primary goal.

The benefit of the standard for society is mainly:

- control over the environmental impact on the environment
- control over produced emissions and waste
- saving material and energy
- prevention of accidents
- compliance of the company's activities with legal requirements
- zero fines for environmental behavior
- creation of a good reputation and prestige of the company



## The ISO 45001

Specification (formerly known as OHSAS 18001) is an internationally recognized standard that declares compliance with the principles of a safe enterprise, managing risks at work and protecting the health of workers during work. It does not only concern danger and accidents, but also emphasizes other aspects such as the good condition and mental well-being of the employee.

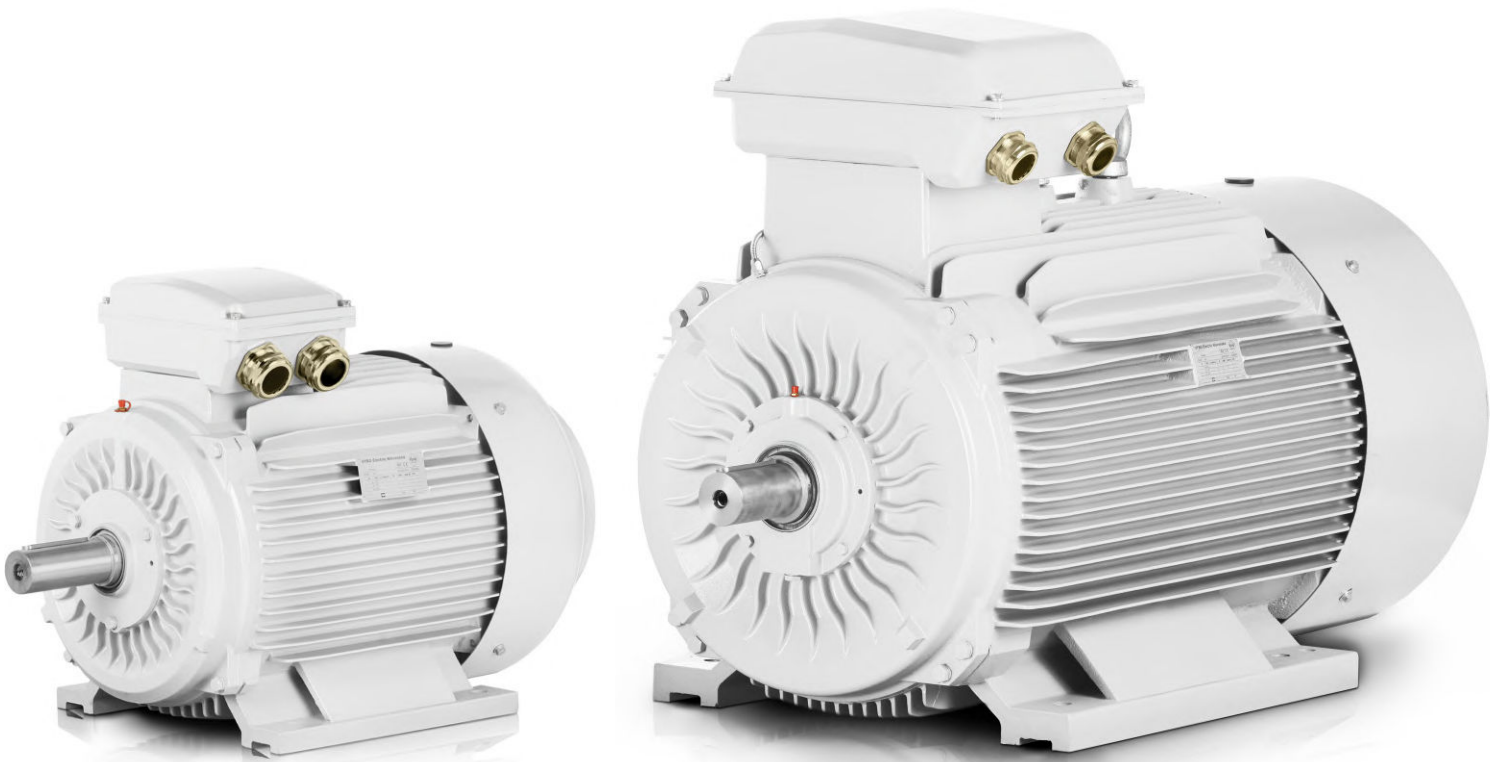
The certificate is held in Slovakia as STN ISO 45001:2019 and is under the title Management systems of safety and health protection at work. Requirements with guidance for use. It replaces the STN OHSAS 18001 standard.



## ISO50001

Energy management systems Energy efficiency help organizations save money, save energy resources and also help to prevent climate change. ISO 50001 encourages organizations in all sectors to use energy more efficiently through the development of an energy management system. The international standard ISO 50001: 2011 specifies the requirements for building, maintaining and improving the energy system. It aims to enable organizations to implement a systematic approach that will help achieve lasting improvements in energy efficiency, energy use and consumption.





# 1ALD, 1LCD series

Electric motors for standard and heavy duty in a cast iron frame



# Technical data 1ALD, 1LCD

| Type   | Poles | Power |          | Speed | Efficiency | Power factor   | Direct on line starting torque ratio | Direct on line starting current ratio | Direct on line pull out torque ratio |
|--------|-------|-------|----------|-------|------------|----------------|--------------------------------------|---------------------------------------|--------------------------------------|
|        |       | kW    | Amps (A) | r/min | $\eta$     | ( $\cos\phi$ ) | LRT                                  | LRA                                   | BDT                                  |
| 801-   | 4     | 0,45  | 1,4      | 1420  | 66         | 0,74           | 1,5                                  | 6,5                                   | 1,8                                  |
|        | 2     | 0,55  | 1,5      | 2860  | 65         | 0,85           | 1,7                                  | 7                                     | 1,8                                  |
| 802-   | 4     | 0,55  | 1,7      | 1420  | 68         | 0,74           | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 2     | 0,75  | 2,0      | 2860  | 66         | 0,85           | 1,8                                  | 7                                     | 1,8                                  |
| 90S-   | 4     | 0,85  | 2,3      | 1430  | 74         | 0,77           | 1,8                                  | 6,5                                   | 1,8                                  |
|        | 2     | 1,1   | 2,8      | 2850  | 71         | 0,85           | 1,9                                  | 7                                     | 1,8                                  |
| 90L-   | 4     | 1,3   | 3,3      | 1430  | 76         | 0,78           | 1,8                                  | 6,5                                   | 1,8                                  |
|        | 2     | 1,8   | 4,3      | 2850  | 73         | 0,85           | 2,0                                  | 7                                     | 1,8                                  |
| 100L1- | 4     | 2     | 4,8      | 1430  | 78         | 0,81           | 1,7                                  | 6,5                                   | 1,8                                  |
|        | 2     | 2,4   | 5,6      | 2850  | 76         | 0,86           | 1,9                                  | 7                                     | 1,8                                  |
| 100L2- | 4     | 2,4   | 5,6      | 1430  | 79         | 0,83           | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 2     | 3,0   | 6,7      | 2850  | 77         | 0,89           | 1,7                                  | 7                                     | 1,8                                  |
| 112M-  | 4     | 3,3   | 7,4      | 1450  | 82         | 0,83           | 1,9                                  | 6,5                                   | 1,8                                  |
|        | 2     | 4,0   | 8,6      | 2860  | 79         | 0,89           | 2,0                                  | 7                                     | 1,8                                  |
| 132S-  | 4     | 4,5   | 9,8      | 1450  | 83         | 0,84           | 1,7                                  | 6,5                                   | 1,8                                  |
|        | 2     | 5,5   | 11,9     | 2860  | 79         | 0,89           | 1,8                                  | 7                                     | 1,8                                  |
| 132M-  | 4     | 6,5   | 13,8     | 1450  | 84         | 0,85           | 1,7                                  | 6,5                                   | 1,8                                  |
|        | 2     | 8     | 17,1     | 2880  | 80         | 0,89           | 1,8                                  | 7                                     | 1,8                                  |
| 160M-  | 4     | 9     | 18,5     | 1460  | 87         | 0,85           | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 2     | 11    | 22,9     | 2920  | 82         | 0,89           | 1,8                                  | 7                                     | 1,8                                  |
| 160L-  | 4     | 11    | 22,3     | 1460  | 87         | 0,86           | 1,7                                  | 6,5                                   | 1,8                                  |
|        | 2     | 14    | 28,8     | 2920  | 82         | 0,90           | 1,9                                  | 7                                     | 1,8                                  |
| 180M-  | 4     | 15    | 29,4     | 1470  | 89         | 0,87           | 1,8                                  | 6,5                                   | 1,8                                  |
|        | 2     | 18,5  | 36,7     | 2940  | 85         | 0,90           | 1,9                                  | 7                                     | 1,8                                  |
| 180L-  | 4     | 18,5  | 35,9     | 1470  | 89         | 0,88           | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 2     | 22    | 42,7     | 2940  | 86         | 0,91           | 1,8                                  | 7                                     | 1,8                                  |
| 200L-  | 4     | 26    | 49,9     | 1470  | 89         | 0,89           | 1,4                                  | 6,5                                   | 1,8                                  |
|        | 2     | 30    | 58,3     | 2950  | 85         | 0,92           | 1,6                                  | 7                                     | 1,8                                  |
| 225S-  | 4     | 32    | 60,7     | 1480  | 90         | 0,89           | 1,4                                  | 6,5                                   | 1,8                                  |
|        | 2     | 37    | 71,7     | 2960  | 86         | 0,92           | 1,6                                  | 7                                     | 1,8                                  |
| 225M-  | 4     | 37    | 69,4     | 1480  | 91         | 0,89           | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 2     | 45    | 86,4     | 2960  | 86         | 0,92           | 1,6                                  | 7                                     | 1,8                                  |



# Technical data 1ALD, 1LCD

| Type   | Frame reference and size | Poles | Rated power |          | Full load speed in revolutions per minute | Efficiency | Power factor | Direct on line starting torque ratio | Direct on line starting current ratio | Direct on line pull out torque ratio |
|--------|--------------------------|-------|-------------|----------|---|------------|--------------|--------------------------------------|---------------------------------------|--------------------------------------|
|        |                          |       | kW          | Amps (A) |   |            |              |                                      |                                       |                                      |
| 250M-  | 4                        | 4     | 45          | 84,4     | 1480                                      | 91         | 0,89         | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 2                        | 2     | 52          | 103,2    | 2960                                      | 87         | 0,92         | 1,6                                  | 7                                     | 1,8                                  |
| 280S-  | 4                        | 4     | 60          | 111,3    | 1480                                      | 91         | 0,90         | 1,4                                  | 6,5                                   | 1,8                                  |
|        | 2                        | 2     | 72          | 135,1    | 2970                                      | 88         | 0,92         | 1,5                                  | 7                                     | 1,8                                  |
| 280M-  | 4                        | 4     | 72          | 33,6     | 1480                                      | 91         | 0,90         | 1,4                                  | 6,5                                   | 1,8                                  |
|        | 2                        | 2     | 82          | 152,2    | 2970                                      | 88         | 0,93         | 1,5                                  | 7                                     | 1,8                                  |
| 90S-   | 6                        | 6     | 0,65        | 2,2      | 920                                       | 64         | 0,68         | 1,6                                  | 6                                     | 1,8                                  |
|        | 4                        | 4     | 0,85        | 2,3      | 1420                                      | 70         | 0,79         | 1,4                                  | 6,5                                   | 1,8                                  |
| 90L-   | 6                        | 6     | 0,85        | 2,8      | 930                                       | 66         | 0,70         | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 4     | 1,1         | 3,0      | 1420                                      | 71         | 0,79         | 1,5                                  | 7                                     | 1,8                                  |
| 100L1- | 6                        | 6     | 1,3         | 3,8      | 940                                       | 74         | 0,70         | 1,7                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 4     | 1,8         | 4,4      | 1440                                      | 77         | 0,80         | 1,4                                  | 7                                     | 1,8                                  |
| 100L2- | 6                        | 6     | 1,5         | 4,3      | 940                                       | 7E         | 0,70         | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 4     | 2,2         | 5,4      | 1440                                      | 77         | 0,80         | 1,4                                  | 7                                     | 1,8                                  |
| 112M-  | 6                        | 6     | 2,2         | 5,7      | 960                                       | 78         | 0,75         | 1,8                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 4     | 2,8         | 6,7      | 1440                                      | 77         | 0,82         | 1,5                                  | 7                                     | 1,8                                  |
| 132S-  | 6                        | 6     | 3           | 7,7      | 960                                       | 79         | 0,75         | 1,8                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 4     | 4           | 9,5      | 1440                                      | 78         | 0,82         | 1,7                                  | 7                                     | 1,8                                  |
| 132M-  | 6                        | 6     | 4           | 9,8      | 960                                       | 82         | 0,76         | 1,6                                  | 6                                     | 1,8                                  |
|        | 4                        | 4     | 15          | 12,3     | 1440                                      | 80         | 0,85         | 1,4                                  | 6,5                                   | 1,8                                  |
| 160M-  | 6                        | 6     | 6,5         | 15,1     | 970                                       | 84         | 0,78         | 1,5                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 4     | 8           | 17,4     | 1460                                      | 82         | 0,84         | 1,5                                  | 7                                     | 1,8                                  |
| 160L-  | 6                        | 6     | 9           | 20,6     | 970                                       | 85         | 0,78         | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 4     | 11          | 23,4     | 1460                                      | 83         | 0,85         | 1,7                                  | 7                                     | 1,8                                  |
| 180M-  | 6                        | 6     | 11          | 21,9     | 980                                       | 85         | 0,76         | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 4     | 14          | 29,8     | 1470                                      | 84         | 0,85         | 1,7                                  | 7                                     | 1,8                                  |
| 180L-  | 6                        | 6     | 13          | 29,4     | 980                                       | 86         | 0,78         | 1,7                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 4     | 16          | 33,6     | 1470                                      | 85         | 0,85         | 1,7                                  | 7                                     | 1,8                                  |
| 200L-  | 6                        | 6     | 18,5        | 41,4     | 980                                       | 87         | 0,78         | 1,6                                  | 6,7                                   | 1,8                                  |
|        | 4                        | 4     | 22          | 44,7     | 1460                                      | 86,5       | 0,86         | 1,5                                  | 7,0                                   | 1,8                                  |
| 225S-  | 6                        | 6     | 22          | 44,2     | 980                                       | 88         | 0,86         | 1,8                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 4     | 28          | 56,2     | 1470                                      | 86,5       | 0,87         | 1,8                                  | 7,0                                   | 1,8                                  |



# Technical data 1ALD, 1LCD

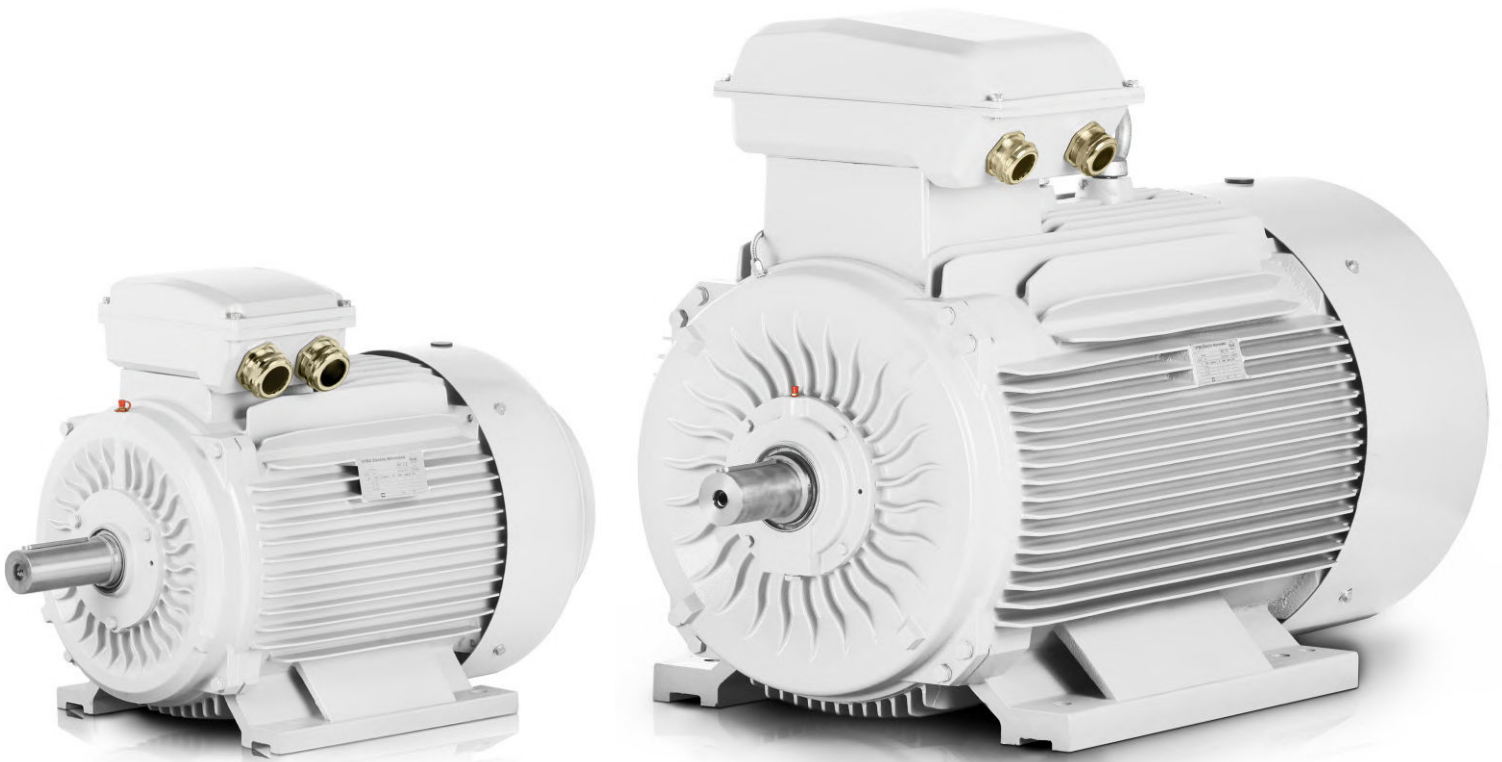
| Type   | Frame reference and size | Rated power |                   | Full load speed in revolutions per minute | Efficiency | Power factor  | Direct on line starting torque ratio | Direct on line starting current ratio | Direct on line pull out torque ratio |
|--------|--------------------------|-------------|-------------------|---|------------|---------------|--------------------------------------|---------------------------------------|--------------------------------------|
|        |                          | Power       | Full load current |   |            |               |                                      |                                       |                                      |
|        | Poles                    | kW          | Amps (A)          | Speed                                     | $\eta$     | Power factor  | LRT                                  | LRA                                   | BDT                                  |
|        |                          |             |                   | r/min                                     | (%)        | (cos $\phi$ ) | RLT                                  | RLA                                   | RLT                                  |
| 225M-  | 6                        | 26          | 52,2              | 980                                       | 88         | 0,86          | 1,8                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 32          | 66,0              | 1470                                      | 85,5       | 0,90          | 1,8                                  | 7                                     | 1,8                                  |
| 250M-  | 6                        | 32          | 62,1              | 980                                       | 90         | 0,87          | 1,5                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 42          | 74,7              | 1470                                      | 86,5       | 0,91          | 1,3                                  | 7                                     | 1,8                                  |
| 280S-  | 6                        | 42          | 81,5              | 980                                       | 90         | 0,87          | 1,5                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 55          | 104,2             | 1470                                      | 87         | 0,90          | 1,3                                  | 7                                     | 1,8                                  |
| 280M-  | 6                        | 55          | 106,7             | 990                                       | 90         | 0,87          | 1,6                                  | 6,5                                   | 1,8                                  |
|        | 4                        | 67          | 138,1             | 1480                                      | 87         | 0,89          | 1,3                                  | 7                                     | 1,8                                  |
| 90L-   | 8                        | 0,45        | 1,9               | 680                                       | 58         | 0,63          | 1,6                                  | 5,5                                   | 1,8                                  |
|        | 4                        | 0,75        | 1,92              | 1420                                      | 72         | 0,87          | 1,4                                  | 6,5                                   | 1,8                                  |
| 100L-  | 8                        | 0,85        | 3,1               | 700                                       | 67         | 0,63          | 1,6                                  | 5,5                                   | 1,8                                  |
|        | 4                        | 1,5         | 3,5               | 1420                                      | 74         | 0,88          | 1,4                                  | 6,5                                   | 1,8                                  |
| 112M-  | 8                        | 1,5         | 5,0               | 700                                       | 72         | 0,63          | 1,7                                  | 5,5                                   | 1,8                                  |
|        | 4                        | 2,4         | 5,3               | 1420                                      | 78         | 0,88          | 1,7                                  | 6,5                                   | 1,8                                  |
| 132S-  | 8                        | 2,2         | 7,0               | 720                                       | 75         | 0,64          | 1,5                                  | 5,5                                   | 1,8                                  |
|        | 4                        | 3,3         | 7,1               | 1440                                      | 80         | 0,88          | 1,7                                  | 6,5                                   | 1,8                                  |
| 132M-  | 8                        | 3           | 9,0               | 720                                       | 78         | 0,65          | 1,5                                  | 5,5                                   | 1,8                                  |
|        | 4                        | 4,5         | 9,4               | 1440                                      | 82         | 0,89          | 1,6                                  | 6,5                                   | 1,8                                  |
| 160M-  | 8                        | 5           | 13,9              | 730                                       | 83         | 0,66          | 1,5                                  | 5,5                                   | 1,8                                  |
|        | 4                        | 7,5         | 15,2              | 1450                                      | 84         | 0,89          | 1,6                                  | 6,5                                   | 1,8                                  |
| 160L-  | 8                        | 7           | 19,0              | 730                                       | 85         | 0,66          | 1,5                                  | 5,5                                   | 1,8                                  |
|        | 4                        | 11          | 21,8              | 1450                                      | 86         | 0,89          | 1,6                                  | 6,5                                   | 1,8                                  |
| 180L-  | 8                        | 11          | 26,0              | 730                                       | 87         | 0,72          | 1,5                                  | 6                                     | 1,8                                  |
|        | 4                        | 17          | 31,5              | 1470                                      | 88         | 0,91          | 1,5                                  | 7                                     | 1,8                                  |
| 200L1- | 8                        | 14          | 33,0              | 740                                       | 87         | 0,74          | 1,8                                  | 6                                     | 1,8                                  |
|        | 4                        | 22          | 41,3              | 1470                                      | 88         | 0,92          | 1,7                                  | 7                                     | 1,8                                  |
| 200L2- | 8                        | 17          | 40,1              | 740                                       | 87         | 0,74          | 1,5                                  | 6                                     | 1,8                                  |
|        | 4                        | 26          | 48,8              | 1470                                      | 88         | 0,92          | 1,7                                  | 7                                     | 1,8                                  |
| 225M-  | 8                        | 24          | 53,2              | 740                                       | 89         | 0,77          | 1,5                                  | 6                                     | 1,8                                  |
|        | 4                        | 34          | 66,7              | 1470                                      | 88         | 0,88          | 1,5                                  | 7                                     | 1,8                                  |



# Technical data 1ALD, 1LCD

| Frame reference and size |       | Rated power | Full load current | Full load speed in revolutions per minute | Efficiency | Power factor   | Direct on line starting torque ratio | Direct on line starting current ratio | Direct on line pull out torque ratio |
|--------------------------|-------|-------------|-------------------|---|------------|----------------|--------------------------------------|---------------------------------------|--------------------------------------|
|                          |       | Power       |                   | Speed                                     | $\eta$     | Power factor   | LRT                                  | LRA                                   | BDT                                  |
| Type                     | Poles | kW          | Amps (A)          | r/min                                     | (%)        | ( $\cos\phi$ ) | RLT                                  | RLA                                   | RLT                                  |
| 250M-                    | 8     | 30          | 64,9              | 740                                       | 90         | 0,78           | 1,6                                  | 6                                     | 1,8                                  |
|                          | 4     | 42          | 78,8              | 1480                                      | 89         | 0,91           | 1,7                                  | 7                                     | 1,8                                  |
| 280S-                    | 8     | 40          | 83,5              | 740                                       | 91         | 0,80           | 1,6                                  | 6                                     | 1,8                                  |
|                          | 4     | 55          | 102               | 1480                                      | 90         | 0,91           | 1,7                                  | 7                                     | 1,8                                  |
| 280M-                    | 8     | 47          | 96,9              | 740                                       | 91         | 0,81           | 1,6                                  | 6                                     | 1,8                                  |
|                          | 4     | 67          | 122,9             | 1480                                      | 90         | 0,92           | 1,7                                  | 7                                     | 1,8                                  |
| 90S-                     | 8     | 0,35        | 1,6               | 680                                       | 56         | 0,60           | 1,8                                  | 5                                     | 1,8                                  |
|                          | 6     | 0,45        | 1,4               | 930                                       | 70         | 0,72           | 1,2                                  | 6                                     | 1,8                                  |
| 90L-                     | 8     | 0,45        | 1,9               | 680                                       | 59         | 0,60           | 1,7                                  | 5                                     | 1,8                                  |
|                          | 6     | 0,65        | 1,9               | 930                                       | 71         | 0,73           | 1,8                                  | 6                                     | 1,8                                  |
| 100L-                    | 8     | 0,75        | 2,9               | 710                                       | 65         | 0,60           | 1,8                                  | 5                                     | 1,8                                  |
|                          | 6     | 1,1         | 3,1               | 950                                       | 75         | 0,73           | 1,9                                  | 6                                     | 1,8                                  |
| 112M-                    | 8     | 1,3         | 4,5               | 710                                       | 72         | 0,61           | 1,7                                  | 5                                     | 1,8                                  |
|                          | 6     | 1,8         | 4,8               | 950                                       | 78         | 0,73           | 1,9                                  | 6                                     | 1,8                                  |
| 132S-                    | 8     | 4,8         | 5,8               | 730                                       | 76         | 0,62           | 1,6                                  | 5                                     | 1,8                                  |
|                          | 6     | 2,4         | 6,2               | 970                                       | 80         | 0,73           | 1,9                                  | 6                                     | 1,8                                  |
| 132M-                    | 8     | 2,6         | 8,2               | 730                                       | 78         | 0,62           | 1,9                                  | 5                                     | 1,8                                  |
|                          | 6     | 3,7         | 9,4               | 970                                       | 82         | 0,73           | 1,9                                  | 6                                     | 1,8                                  |
| 160M-                    | 8     | 4,5         | 13,3              | 930                                       | 83         | 0,62           | 1,6                                  | 5                                     | 1,8                                  |
|                          | 6     | 6           | 14,7              | 980                                       | 85         | 0,73           | 1,9                                  | 6                                     | 1,8                                  |
| 160L-                    | 8     | 6           | 17,5              | 930                                       | 84         | 0,62           | 1,6                                  | 5                                     | 1,8                                  |
|                          | 6     | 8           | 19,4              | 980                                       | 86         | 0,73           | 1,9                                  | 6                                     | 1,8                                  |
| 180M-                    | 8     | 7,5         | 21,9              | 930                                       | 84         | 0,62           | 1,9                                  | 5                                     | 1,8                                  |
|                          | 6     | 10          | 24,2              | 980                                       | 86         | 0,73           | 1,9                                  | 6                                     | 1,8                                  |
| 180L-                    | 8     | 9           | 24,8              | 730                                       | 85         | 0,65           | 1,8                                  | 5                                     | 1,8                                  |
|                          | 6     | 12          | 28,3              | 980                                       | 86         | 0,75           | 1,9                                  | 6                                     | 1,8                                  |
| 200L1-                   | 8     | 12          | 32,5              | 730                                       | 86         | 0,65           | 1,8                                  | 5                                     | 1,8                                  |
|                          | 6     | 17          | 39,1              | 980                                       | 87         | 0,76           | 2,0                                  | 6                                     | 1,8                                  |
| 200L2-                   | 8     | 15          | 40,3              | 730                                       | 87         | 0,65           | 1,8                                  | 5                                     | 1,8                                  |
|                          | 6     | 20          | 45,4              | 980                                       | 88         | 0,76           | 2,0                                  | 6                                     | 1,8                                  |





# 1ALDT, 1LCDT series

Electric motors for standard and heavy duty in a cast iron frame



SOLUTIONS FOR INDUSTRY

# Technical data 1ALDT, 1LCDT

| Frame reference and size |       | Rated power | Full load current | Efficiency    | Power factor                   | Direct on line starting torque ratio | Direct on line pull out torque ratio | Direct on line starting current ratio |
|--------------------------|-------|-------------|-------------------|---------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|
| Type                     | Poles | Power<br>kW | Amps (A)          | $\eta$<br>[%] | Power factor<br>( $\cos\Phi$ ) | LRT<br>RLT                           | BDT<br>RLT                           | LRA<br>RLA                            |
| 80M1                     | 2     | 0,75        | 1,86              | 68            | 0,82                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 0,17        | 0,65              | 58            | 0,62                           | 1,4                                  | 1,8                                  | 5,5                                   |
| 80M2                     | 2     | 0,95        | 2,33              | 70            | 0,81                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 0,25        | 0,87              | 64            | 0,65                           | 1,4                                  | 1,8                                  | 5,5                                   |
| 90S                      | 2     | 1,4         | 3,45              | 74            | 0,83                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 0,3         | 0,85              | 70            | 0,72                           | 1,4                                  | 1,8                                  | 5,5                                   |
| 90L                      | 2     | 1,9         | 4,27              | 75            | 0,86                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 0,4         | 1,08              | 72            | 0,73                           | 1,4                                  | 1,8                                  | 5,5                                   |
| 100L1                    | 2     | 2,5         | 5,25              | 82            | 0,87                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 0,65        | 1,80              | 74            | 0,72                           | 1,4                                  | 1,8                                  | 5,5                                   |
| 100L2                    | 2     | 3,1         | 6,39              | 82            | 0,87                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 0,8         | 2,17              | 76            | 0,72                           | 1,4                                  | 1,8                                  | 5,5                                   |
| 112M                     | 2     | 4,4         | 9,15              | 82            | 0,88                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 1,1         | 2,42              | 80            | 0,74                           | 1,4                                  | 1,8                                  | 5,5                                   |
| 132S                     | 2     | 5,9         | 11,68             | 83            | 0,91                           | 1,9                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 1,4         | 3,5               | 80            | 0,74                           | 1,3                                  | 1,8                                  | 5,5                                   |
| 132M                     | 2     | 8           | 15,29             | 85            | 0,91                           | 1,9                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 2           | 4,65              | 83            | 0,77                           | 1,3                                  | 1,8                                  | 5,5                                   |
| 160M                     | 2     | 12,5        | 24,04             | 86            | 0,91                           | 1,9                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 2,8         | 6,56              | 85            | 0,75                           | 1,3                                  | 1,8                                  | 5,5                                   |
| 160L                     | 2     | 16,5        | 30,98             | 87            | 0,91                           | 1,9                                  | 1,8                                  | 7,5                                   |
|                          | 4     | 3,8         | 8,64              | 86            | 0,76                           | 1,3                                  | 1,8                                  | 5,5                                   |
| 90S                      | 4     | 1,1         | 2,86              | 70            | 0,78                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 6     | 0,32        | 1,09              | 63            | 0,66                           | 1,6                                  | 1,8                                  | 6                                     |
| 90L                      | 4     | 1,4         | 3,4               | 72            | 0,81                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 6     | 0,45        | 1,43              | 68            | 0,66                           | 1,6                                  | 1,8                                  | 6                                     |
| 100L1                    | 4     | 2,2         | 5,22              | 80            | 0,79                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 6     | 0,7         | 2,15              | 73            | 0,66                           | 1,6                                  | 1,8                                  | 6                                     |
| 100L2                    | 4     | 2,5         | 5,96              | 81            | 0,78                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 6     | 0,9         | 2,86              | 74            | 0,67                           | 1,6                                  | 1,8                                  | 6                                     |



# Technical data 1ALDT, 1LCDT

| Frame reference and size |       | Rated power | Full load current | Efficiency | Power factor   | Direct on line starting torque ratio | Direct on line pull out torque ratio | Direct on line starting current ratio |
|--------------------------|-------|-------------|-------------------|------------|----------------|--------------------------------------|--------------------------------------|---------------------------------------|
| Type                     | Poles | Power       |                   | $\eta$     | Power factor   | LRT                                  | BDT                                  | LRA                                   |
|                          |       | kW          | Amps (A)          | (%)        | ( $\cos\phi$ ) | RLT                                  | RLT                                  | RLA                                   |
| 225M                     | 4     | 38          | 71,3              | 90         | 0,86           | 1,5                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 13          | 27,3              | 85         | 0,85           | 1,5                                  | 1,8                                  | 7                                     |
| 250M                     | 4     | 47          | 84,2              | 90         | 0,89           | 1,5                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 6           | 32,3              | 85         | 0,87           | 1,5                                  | 1,8                                  | 7                                     |
| 280S                     | 4     | 55          | 99,6              | 90         | 0,88           | 1,5                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 18,5        | 37,3              | 85         | 0,86           | 1,5                                  | 1,8                                  | 7                                     |
| 280M1                    | 4     | 70          | 125               | 91         | 0,88           | 1,5                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 25          | 48,4              | 87         | 0,87           | 1,5                                  | 1,8                                  | 7                                     |
| 280M2                    | 4     | 84          | 150,6             | 91         | 0,88           | 1,5                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 28          | 54,8              | 87         | 0,87           | 1,5                                  | 1,8                                  | 7                                     |
| 315S                     | 4     | 95          | 177,4             | 91         | 0,86           | 1,5                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 32          | 65,3              | 89         | 0,79           | 1,5                                  | 1,8                                  | 7                                     |
| 315M                     | 4     | 115         | 217,5             | 92         | 0,86           | 1,5                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 38          | 77,9              | 90         | 0,78           | 1,5                                  | 1,8                                  | 7                                     |
| 315L1                    | 4     | 135         | 260               | 92         | 0,86           | 1,5                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 45          | 90,5              | 90         | 0,80           | 1,5                                  | 1,8                                  | 7                                     |
| 315L2                    | 4     | 160         | 294               | 93         | 0,86           | 1,5                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 55          | 113,4             | 91         | 0,80           | 1,5                                  | 1,8                                  | 7                                     |
| 90S                      | 4     | 1,0         | 2,44              | 70         | 0,82           | 1,9                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 0,22        | 0,92              | 55         | 0,62           | 1,5                                  | 1,8                                  | 5                                     |
| 90L                      | 4     | 1,3         | 3,10              | 72         | 0,82           | 1,9                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 0,3         | 1,18              | 58         | 0,63           | 1,5                                  | 1,8                                  | 5                                     |
| 100L1                    | 4     | 2,0         | 4,68              | 80         | 0,80           | 1,9                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 0,55        | 0,55              | 65         | 0,61           | 1,5                                  | 1,8                                  | 5                                     |
| 100L2                    | 4     | 2,4         | 5,48              | 80         | 0,81           | 1,9                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 0,65        | 2,37              | 66         | 0,61           | 1,5                                  | 1,8                                  | 5                                     |
| 112M                     | 4     | 3,2         | 7,4               | 83         | 0,78           | 1,9                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 0,9         | 3,24              | 71         | 0,59           | 1,5                                  | 1,8                                  | 5                                     |
| 132S                     | 4     | 4,5         | 9,68              | 84         | 0,82           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 1,1         | 3,68              | 75         | 0,59           | 1,2                                  | 1,8                                  | 5                                     |
| 132M                     | 4     | 6,3         | 13,13             | 85         | 0,83           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 1,5         | 4,84              | 78         | 0,59           | 1,2                                  | 1,8                                  | 5                                     |
| 160M                     | 4     | 8,9         | 18,14             | 85         | 0,85           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 2,0         | 5,34              | 82         | 0,67           | 1,2                                  | 1,8                                  | 5                                     |
| 160L                     | 4     | 12          | 23,47             | 86         | 0,86           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 2,7         | 6,9               | 84         | 0,67           | 1,2                                  | 1,8                                  | 5                                     |
| 180M                     | 4     | 16          | 31,77             | 88         | 0,85           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 4           | 10,83             | 84         | 0,65           | 1,2                                  | 1,8                                  | 5                                     |
| 180L                     | 4     | 19,5        | 38,56             | 89         | 0,85           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 5           | 13,32             | 85         | 0,66           | 1,2                                  | 1,8                                  | 5                                     |
| 200L                     | 4     | 29          | 56,8              | 90         | 0,85           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 7,5         | 19,57             | 87         | 0,66           | 1,2                                  | 1,8                                  | 5                                     |
| 225M                     | 4     | 40          | 74,57             | 91         | 0,88           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 9,9         | 25,43             | 88         | 0,64           | 1,3                                  | 1,8                                  | 5                                     |
| 250M                     | 4     | 52          | 97,29             | 91         | 0,87           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 14,5        | 36,97             | 88         | 0,66           | 1,3                                  | 1,8                                  | 5                                     |
| 280S                     | 4     | 65          | 122,74            | 91         | 0,87           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 17          | 41,73             | 89         | 0,68           | 1,3                                  | 1,8                                  | 5                                     |



# Technical data 1ALDT, 1LCDT

| Frame reference and size |       | Rated power | Full load current | Efficiency    | Power factor                   | Direct on line starting torque ratio | Direct on line pull out torque ratio | Direct on line starting current ratio |
|--------------------------|-------|-------------|-------------------|---------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|
| Type                     | Poles | Power<br>kW | Amps (A)          | $\eta$<br>[%] | Power factor<br>( $\cos\Phi$ ) | LRT<br>RLT                           | BDT<br>RLT                           | LRA<br>RLA                            |
| 280M                     | 4     | 75          | 137,39            | 91            | 0,88                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 18,5        | 43,86             | 90            | 0,70                           | 1,3                                  | 1,8                                  | 5                                     |
| 315S                     | 4     | 92          | 174,76            | 91            | 0,86                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 25          | 58,71             | 90            | 0,70                           | 1,3                                  | 1,8                                  | 5                                     |
| 315M                     | 4     | 110         | 208,26            | 92            | 0,86                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 30          | 70,11             | 91            | 0,70                           | 1,3                                  | 1,8                                  | 5                                     |
| 315L1                    | 4     | 135         | 253,26            | 92            | 0,87                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 36          | 83,99             | 91            | 0,70                           | 1,3                                  | 1,8                                  | 5                                     |
| 315L2                    | 4     | 155         | 287,97            | 92            | 0,87                           | 2,0                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 41          | 94,72             | 91            | 0,71                           | 1,3                                  | 1,8                                  | 5                                     |
| 90S                      | 8     | 0,65        | 2,24              | 65            | 0,63                           | 1,8                                  | 1,8                                  | 7                                     |
|                          |       | 0,25        | 1,22              | 52            | 0,58                           | 1,6                                  | 1,8                                  | 6                                     |
| 90L                      | 6     | 0,80        | 2,87              | 67            | 0,62                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 8     | 0,35        | 1,58              | 56            | 0,58                           | 1,6                                  | 1,8                                  | 6                                     |
| 100L1                    | 6     | 1,3         | 4,07              | 71            | 0,66                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 8     | 0,55        | 2,23              | 62            | 0,58                           | 1,6                                  | 1,8                                  | 6                                     |
| 100L2                    | 6     | 1,6         | 3,11              | 74            | 0,67                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 8     | 0,75        | 2,86              | 66            | 0,59                           | 1,6                                  | 1,8                                  | 6                                     |
| 112 M                    | 6     | 2,0         | 6,0               | 74            | 0,70                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 8     | 0,85        | 3,32              | 67            | 0,59                           | 1,6                                  | 1,8                                  | 6                                     |
| 132S                     | 6     | 2,6         | 6,85              | 79            | 0,71                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 8     | 1,2         | 4,05              | 73            | 0,60                           | 1,6                                  | 1,8                                  | 6                                     |
| 132M1                    | 6     | 3,3         | 7,96              | 80            | 0,76                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 8     | 1,6         | 5,26              | 76            | 0,60                           | 1,6                                  | 1,8                                  | 6                                     |
| 132M2                    | 6     | 4,5         | 10,95             | 82            | 0,75                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 8     | 2,2         | 7,02              | 77            | 0,60                           | 1,6                                  | 1,8                                  | 6                                     |
| 160M                     | 6     | 6,5         | 14,84             | 84            | 0,76                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 8     | 3,2         | 9,43              | 80            | 0,61                           | 1,6                                  | 1,8                                  | 6                                     |
| 160L                     | 6     | 9,0         | 20,21             | 86            | 0,77                           | 1,8                                  | 1,8                                  | 7                                     |
|                          | 8     | 4,5         | 12,97             | 82            | 0,62                           | 1,6                                  | 1,8                                  | 6                                     |
| 180L                     | 8     | 13          | 29,07             | 86            | 0,77                           | 1,5                                  | 1,8                                  | 7                                     |
|                          |       | 6,5         | 17,77             | 81            | 0,65                           | 1,5                                  | 1,8                                  | 6                                     |
| 200L1                    | 6     | 17          | 35,5              | 87            | 0,80                           | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 8,5         | 20,6              | 82            | 0,66                           | 1,5                                  | 1,8                                  | 6                                     |
| 200L2                    | 6     | 21          | 44,3              | 88            | 0,80                           | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 11          | 27,8              | 83            | 0,68                           | 1,5                                  | 1,8                                  | 6                                     |
| 225M                     | 6     | 30          | 62,3              | 89            | 0,83                           | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 15          | 32,2              | 87            | 0,78                           | 1,5                                  | 1,8                                  | 6                                     |
| 250M                     | 6     | 37          | 72,1              | 90            | 0,86                           | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 18          | 38,5              | 87            | 0,80                           | 1,5                                  | 1,8                                  | 6                                     |
| 280S                     | 6     | 45          | 86,8              | 90            | 0,86                           | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 21          | 46,2              | 88            | 0,81                           | 1,5                                  | 1,8                                  | 6                                     |
| 280M1                    | 6     | 55          | 104,7             | 91            | 0,82                           | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 28          | 57,2              | 89            | 0,81                           | 1,5                                  | 1,8                                  | 6                                     |
| 280M2                    | 6     | 65          | 122               | 91            | 0,82                           | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 32          | 66,6              | 89            | 0,81                           | 1,5                                  | 1,8                                  | 6                                     |
| 315S                     | 6     | 75          | 145,1             | 91            | 0,84                           | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 37          | 40,4              | 90            | 0,78                           | 1,5                                  | 1,8                                  | 6                                     |
| 315M                     | 6     | 90          | 171,6             | 92            | 0,85                           | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 45          | 90,4              | 91            | 0,80                           | 1,5                                  | 1,8                                  | 6                                     |



# Technical data 1ALDT, 1LCDT

| Frame reference and size |       | Rated power | Full load current | Efficiency    | Power factor            | Direct on line starting torque ratio | Direct on line pull out torque ratio | Direct on line starting current ratio |
|--------------------------|-------|-------------|-------------------|---------------|-------------------------|--------------------------------------|--------------------------------------|---------------------------------------|
| Type                     | Poles | Power<br>kW | Amps (A)          | $\eta$<br>[%] | Power<br>( $\cos\Phi$ ) | LRT<br>RLT                           | BDT<br>RLT                           | LRA<br>RLA                            |
| 315L1                    | 6     | 110         | 209,5             | 92            | 0,85                    | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 55          | 115,7             | 91            | 0,78                    | 1,5                                  | 1,8                                  | 6                                     |
| 315L2                    | 6     | 132         | 252,0             | 92            | 0,85                    | 1,5                                  | 1,8                                  | 7                                     |
|                          | 8     | 66          | 137,4             | 91            | 0,78                    | 1,5                                  | 1,8                                  | 6                                     |
| 112M                     | 4     | 2,3         | 5,88              | 79            | 0,73                    | 2                                    | 1,8                                  | 7,5                                   |
|                          | 6     | 0,8         | 3,16              | 65            | 0,57                    | 1,4                                  | 1,8                                  | 6,5                                   |
|                          | 8     | 0,6         | 2,74              | 61            | 0,53                    | 1,3                                  | 1,8                                  | 4                                     |
| 132S                     | 4     | 3,1         | 4,14              | 81            | 0,79                    | 2                                    | 1,8                                  | 7,5                                   |
|                          | 6     | 1,1         | 3,9               | 71            | 0,60                    | 1,4                                  | 1,8                                  | 6,5                                   |
|                          | 8     | 0,8         | 3,06              | 68            | 0,57                    | 1,3                                  | 1,8                                  | 4                                     |
| 132M                     | 4     | 4,5         | 9,76              | 83            | 0,82                    | 2                                    | 1,8                                  | 7,5                                   |
|                          | 6     | 1,5         | 4,66              | 74            | 0,65                    | 1,4                                  | 1,8                                  | 6,5                                   |
|                          | 8     | 1,1         | 3,92              | 72            | 0,57                    | 1,3                                  | 1,8                                  | 4                                     |
| 160M                     | 4     | 7,5         | 15,98             | 84            | 0,82                    | 1,8                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 2,6         | 7,33              | 79            | 0,67                    | 1,4                                  | 1,8                                  | 6,5                                   |
|                          | 8     | 1,5         | 4,79              | 79            | 0,58                    | 0,95                                 | 1,8                                  | 4                                     |
| 160L                     | 4     | 10,2        | 20,64             | 86            | 0,85                    | 1,8                                  | 1,8                                  | 7,5                                   |
|                          | 6     | 3,5         | 9,46              | 81            | 0,68                    | 1,4                                  | 1,8                                  | 6,5                                   |
|                          | 8     | 2,0         | 6,03              | 81            | 0,60                    | 0,95                                 | 1,8                                  | 4                                     |
| 180M                     | 4     | 13          | 24,22             | 86            | 0,90                    | 1,8                                  | 1,8                                  | 8                                     |
|                          | 6     | 4,5         | 7,72              | 80            | 0,80                    | 1,4                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 2,6         | 10,62             | 80            | 0,63                    | 0,95                                 | 1,8                                  | 5,5                                   |
| 180L                     | 4     | 16          | 29,63             | 87            | 0,90                    | 1,8                                  | 1,8                                  | 8                                     |
|                          | 6     | 6           | 13,56             | 81            | 0,81                    | 1,4                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 3,3         | 9,69              | 81            | 0,63                    | 0,95                                 | 1,8                                  | 5,5                                   |
| 200L                     | 4     | 22          | 40,56             | 87            | 0,90                    | 1,8                                  | 1,8                                  | 8                                     |
|                          | 6     | 8           | 17,75             | 82            | 0,82                    | 1,4                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 4,5         | 13,23             | 82            | 0,62                    | 0,95                                 | 1,8                                  | 5,5                                   |
| 225S                     | 4     | 28          | 53,32             | 89            | 0,88                    | 1,8                                  | 1,8                                  | 8                                     |
|                          | 6     | 10          | 21,10             | 83            | 0,85                    | 1,4                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 5,5         | 13,43             | 85            | 0,70                    | 1,1                                  | 1,8                                  | 5,5                                   |
| 225M                     | 4     | 34          | 63,11             | 89            | 0,89                    | 1,8                                  | 1,8                                  | 8                                     |
|                          | 6     | 12          | 24,71             | 83            | 0,86                    | 1,4                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 7,5         | 17,22             | 87            | 0,74                    | 1,1                                  | 1,8                                  | 5,5                                   |
| 250M                     | 4     | 44          | 78,09             | 90            | 0,92                    | 1,8                                  | 1,8                                  | 8                                     |
|                          | 6     | 15,5        | 32,12             | 85            | 0,85                    | 1,4                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 10          | 22,58             | 88            | 0,75                    | 1,1                                  | 1,8                                  | 5,5                                   |
| 280S                     | 4     | 55          | 98,47             | 90            | 0,92                    | 1,8                                  | 1,8                                  | 8                                     |
|                          | 6     | 18          | 37                | 85            | 0,85                    | 1,4                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 12          | 27,33             | 88            | 0,74                    | 1,1                                  | 1,8                                  | 5,5                                   |
| 280M                     | 4     | 66          | 116,88            | 91            | 0,92                    | 1,8                                  | 1,8                                  | 8                                     |
|                          | 6     | 21          | 42,54             | 86            | 0,86                    | 1,4                                  | 1,8                                  | 7,5                                   |
| 315S                     | 4     | 75          | 136,34            | 90            | 0,91                    | 1,8                                  | 1,8                                  | 8                                     |
|                          | 6     | 27          | 55,27             | 87            | 0,84                    | 1,4                                  | 1,8                                  | 7,5                                   |
|                          | 8     | 19          | 43,8              | 89            | 0,73                    | 1,3                                  | 1,8                                  | 5,5                                   |





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SOLUTIONS FOR INDUSTRY

BUREAU VERITAS  
Certification



**VYBO Electric a.s.**  
Radlinského 18, 052 01 Spišská Nová Ves  
Slovak Republic

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

### ISO 14001: 2015

Scope of certification

**MANUFACTURE AND SALE OF ELECTRIC MOTORS, SALES AND DEVELOPMENT OF VARIABLE FREQUENCY DRIVES.**

Original cycle start date: 18.05.2022  
Expiry date of previous cycle: N/A  
Certification Audit date: 31.03.2022  
Certification cycle start date: 18.05.2022

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 17.05.2025

Certificate No. SK-U22 055E Version: 1 Issue date: 18.05.2022

Certification body address: 5<sup>th</sup> Floor, 86 Prescott Street, London E1 8HQ, United Kingdom  
Local office: Plynárska 7/B, BRATISLAVA 821 09, Slovak Republic



Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation. To check this certificate validity please call: +421 2 2341 4165

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Bureau Veritas Certification

### Certificate

Awarded to

**VYBO Electric a.s.**  
Radlinského 18, 052 01 Spišská Nová Ves  
Slovak Republic

BUREAU VERITAS CERTIFICATION (Z) s.r.o. certifies that the Management System of the above organisation has been assessed and found to be in accordance with the requirements of the management system standard detailed below

Standard

### ISO 45001:2018

Scope of supply

**MANUFACTURE AND SALE OF ELECTRIC MOTORS, SALES AND DEVELOPMENT OF VARIABLE FREQUENCY DRIVES.**

Original Approval Date: 18-05-2022  
Expiry date of previous cycle: N/A  
Certification Cycle Start Date: 18-05-2022  
Certification Cycle End Date: 17-05-2025  
Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: 17-05-2025

To check this certificate validity please call: +420 210 090 215

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.

Version 1 Issue Date: 18-05-2022  
Certificate Number: CZF - 2206117

ISSUING OFFICE ADDRESS: BUREAU VERITAS CERTIFICATION CZ, s.r.o., Obchodní 1, 143 02 Praha 4, Czech Republic

1/1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



# CERTIFICATE

**TÜV SÜD Slovakia s.r.o.**  
Certification Body for Management Systems  
Accredited by SNAS  
Certificate on accreditation No. Q-011  
certifies that



**VYBO Electric a.s.**  
Radlinského 18  
SK – 052 01 Spišská Nová Ves  
ICO: 45 537 143

has established and applies  
a Quality Management System for

**Manufacture and sale of electric motors.  
Sales and development of variable frequency drives.**

An audit was performed, Report No. 2264/40/22/Q/AS/C  
Proof has been furnished that the requirements  
according to

### STN EN ISO 9001:2016

are fulfilled. The certificate is valid from 2022-04-14 until 2025-04-13  
Certificate Registration No. Q 2264-1

Bratislava, 2022-04-14

TÜV SÜD Slovakia s.r.o.  
Certification Body for Management Systems  
Member of Group TÜV SÜD  
Jaskóva 6, 821 03 Bratislava

F-Q-019/26

Certificate SK22/3701

The management system of

**VYBO Electric a.s.**  
Radlinského 18  
052 01 Spišská Nová Ves, Slovakia

has been assessed and certified as meeting the requirements of

### EN ISO 50001:2018

For the following activities

**Production & sales of electric motors.  
Sales & development of variable frequency drives.**

Further clarifications regarding the scope of this certificate and the applicability of EN ISO 50001:2018 requirements may be obtained by consulting the organisation.

This certificate is valid from 7 April 2022 until 6 April 2025  
and remains valid subject to satisfactory surveillance audits.  
Recertification audit due a minimum of 60 days  
before the expiration date.  
Issue 1. Certified with SGS since 7 April 2022

Authorised by

Ing. Róbert Bodnár  
Director  
SGS Slovakia spol. s r. o.  
Kýzucká 14, 040 11 Košice, Slovakia  
t +421 55 783 61 11, f +421 55 783 61 20, www.sgs.com

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