

**POLLRICH DLK®**  
**FAN FACTORIES**

**Drymax**  
**Low-pressure axial fan**  
**AARM reversible**



# The **AARM** circulation fan can be used in various industries



**The axial fans of DLK Ventilatoren GmbH are the result of intensive co-operation with well-known research institutions, the use of the latest tools for product development (CFD, FEM,..) and million investments in up-to-date manufacturing technology. The new series combines best price with optimal performance.**

**With our 40 years of experience, our AARM wood drying machine not only offers reliability and quality, but also full developed technology, and the appropriate know-how to achieve excellent results in various industries and applications.**

The following are some examples of the many possible uses:

#### **Wood drying:**

In order not to impair the quality of the wood while processing, a technical wood drying method is used.

By using our AARM in drying chambers, together with uniform stacking, temperature control, drying phases, conditioning time and a constant current air flow, the wood is dried in a short amount of time.

Cracks, rot and discolouration, which can be caused by a high level of moisture in the wood, are thereby avoided.

#### **Construction materials industry:**

Gentle and uniform drying is important in order to obtain the highest quality and durability of plaster casting. This goal can be easily achieved with our AARM thanks to optimum climate control and airflow.



#### **Equipment for the ceramics industry:**

Even for drying ceramics, porcelain and sanitary articles, with its technological advantages, our AARM is essential.

**... and in many other industries!**

# Product specific information

## Drymax by Pollrich DLK

### Casing:

Made of high-quality aluminum, with outlet cone and welded motor bracket of aluminium.

### Impeller profile

Hub and impeller blades made of a highly corrosion-resistant aluminium alloy (saltwater-proof). Symmetrically profiled blades for 100% reversible airflow, adjustable at standstill. Dynamically balanced according to DIN ISO 21940-11, balancing quality G 6.3 < 4.0 mm/s.

### Drive:

Particularly suitable motors for the drying industry in 400V / 50Hz or 460V / 60Hz, protection class IP55, IE1 or IE2, ISO class H. Up to and including 3kW: 230V / 400V / 50Hz, from 4kW: 400V / 690V / 50Hz

Suitable for continuous operation S1. Ambient temperature on three-phase motor max. 85°C, optionally 120°C. Motor performance selected for cold start-up at 20 °C.

### Temperature range:

Permissible conveying temperatures: -20°C to 85°C and 120°C

### Performance adjustment:

Please note the max. speed of the impeller and the max. power output of the motor.

### Air performance curves:

The performance curves show the total pressure increase  $p_f$  as function of the flow rate  $q_v$ .

The curves are valid for direct drive with stated number of poles at 50 Hz and pressure side duct connection. The performance measurement is made on suction side chamber and duct test rigs according to DIN 24163 resp. ISO 5801 for an air density of 1.2 kg/m<sup>3</sup> and 20 °C. For the operating data of our fans, the tolerances of accuracy class 3 according to DIN 24166 are applied.

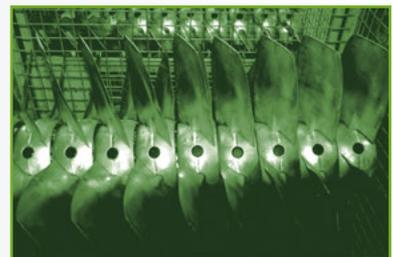
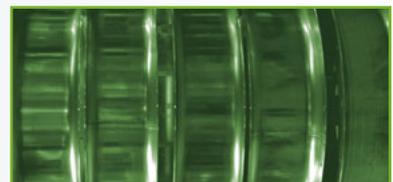
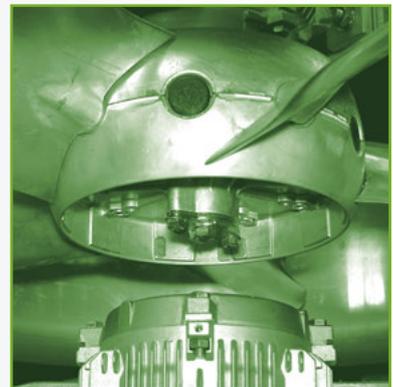


### Sound:

Below the air performance curves, the A-weighted sound power level  $L_p(A)$  is indicated for the respective blade angle. Indicated values according to VDI 3731.

### Installation:

Standard for horizontal installation. Vertical installation on request.



# Technical data

## Characteristics:

### Example:

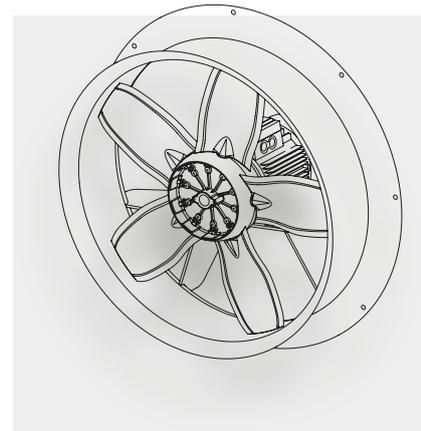
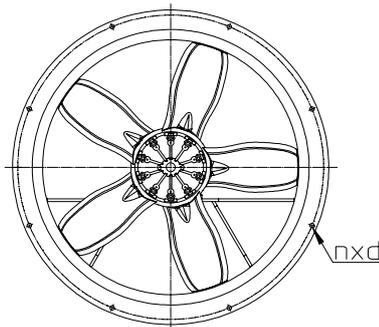
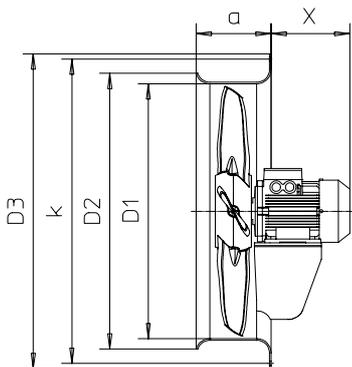
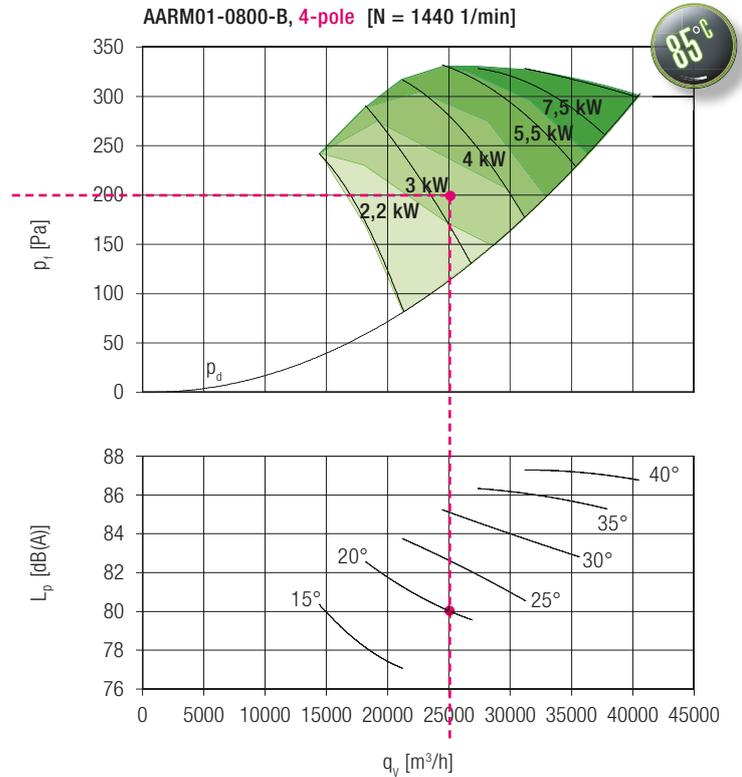
$q_v = 25000 \text{ m}^3/\text{h}$   
 $p_f = 200 \text{ Pa}$

-> Blade angle:  $20^\circ$  / Motor: 3kW

Sound pressure level  $L_p$  (A)  
 at a distance of 3m.

At the operating point: 80 dB(A)

AARM01-0800-B, 4-pole [N = 1440 1/min]



| Fan           | Flow rate<br>(max. values) | Pressure<br>(max. values) | Motor BG | a   | D1   | D2   | D3   | nxd    | k    | x max. | Weight [kg] |
|---------------|----------------------------|---------------------------|----------|-----|------|------|------|--------|------|--------|-------------|
| AARM01-0630-B | 19500                      | 200                       | 80-100   | 165 | 632  | 712  | 800  | 8 x 12 | 760  | 248    | 24-44       |
| AARM01-0710-B | 27500                      | 260                       | 90-112   | 185 | 713  | 793  | 900  | 8 x 12 | 860  | 281    | 33-68       |
| AARM01-0800-B | 40500                      | 335                       | 100-132  | 235 | 804  | 870  | 992  | 8 x 14 | 960  | 378    | 44-117      |
| AARM01-0900-B | 54500                      | 430                       | 100-132  | 280 | 905  | 985  | 1100 | 8 x 14 | 1060 | 376    | 53-126      |
| AARM01-1000-B | 75000                      | 530                       | 132-160  | 340 | 1005 | 1065 | 1165 | 8 x 14 | 1115 | 397    | 73-162      |

# Why choose our newly developed AARM, exactly?

## We have the answer for you!

### Fully reversible / symmetrically profiled blades

- optimal adjustment to the specific application area
- constant air circulation

### Impeller blades adjustable at standstill

- optimal adjustment at the operating point

### Impeller and casing made of aluminium

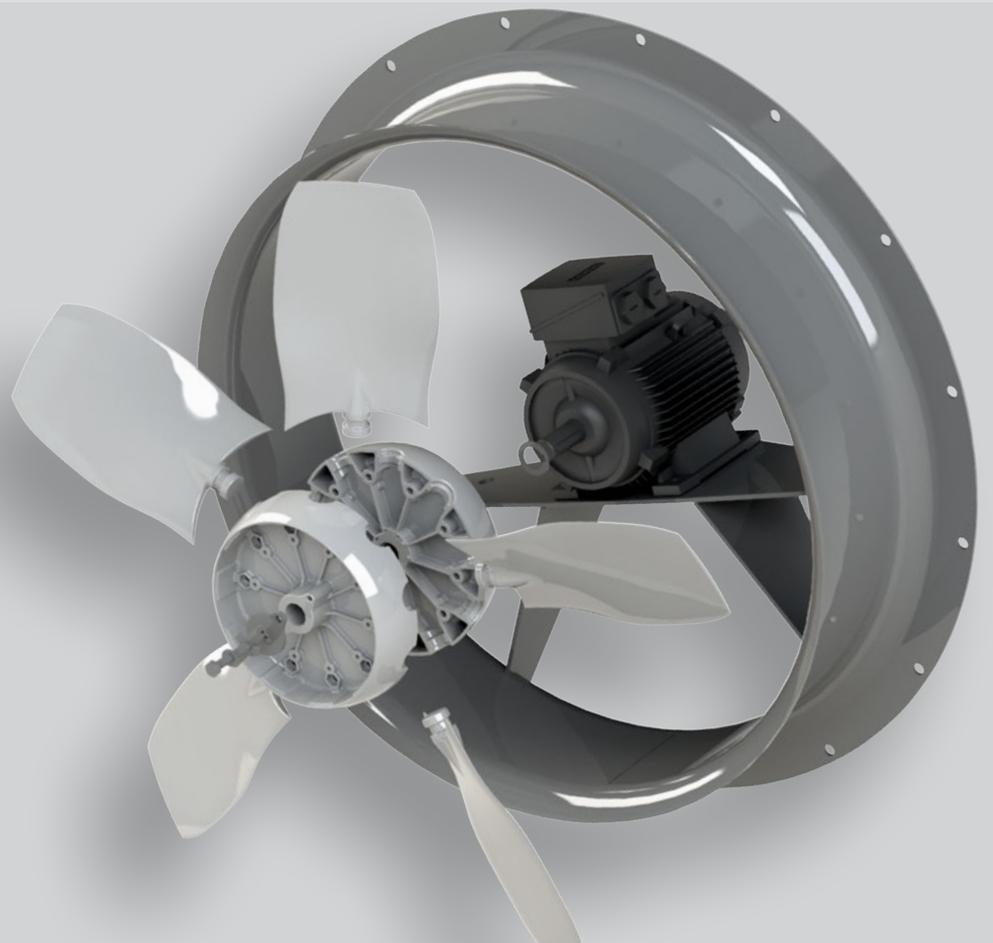
- high level of wear and corrosion protection
- lightweight construction
- easy mounting

### Special drying motor

- low exchange costs
- increased longevity

### Two temperature ranges up to 85 °C resp. 120 °C

- use at high temperatures
- application in different drying concepts



### Comparison of operating cost

DLK and a competitor, as an example of an operator with an average of 6 drying chambers each equipped with 8 fans.

### Energy costs



### AARM performance in comparison with the competition

- 10% higher flow rate
- 8% higher of efficiency
- 8% higher operating point

Our 40 years of experience will be to your benefit!

At comparable operating points, operating cost savings of approx. 25 000 € (15%) annually can be achieved by using our AARM wood drying fan.

# POLLRICHDLK® FAN FACTORIES

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- System optimisation

