

# Water-jacket cooled low-voltage three-phase motors with die-cast housing Cooling type IC 71 W

**LOHER**

## Application example



**Frame size: 180**  
**Power: 45kW**  
**Frequency: 50Hz**  
**Voltage: 400V**  
**Speed: 1500 rpm**  
**Mounting type: IMB5**  
**Enclosure: IP55**  
**prepared for final painting at the customer**  
**suitable for continuous operation**  
**Bearing service life >100000h**

## Important data

**Industry: Energy and building technologies as well as plant engineering**

**Application: Use as generator in block heating stations**

**Customers: Manufacturers and operators of block heating stations**

## General requirements

**Generator solution in water-cooled design as optimum solution for highly efficient and ecologically friendly heating stations (combined heat and power)**

**Good noise and vibration behaviour**

**High cooling water inlet temperatures**

**High power density (small installation space)**

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## Scope of delivery

**Motor/Generator:** Frame size 180, water-jacket cooled, without Ex-protection

**Power:** 45kW, S-1  
(Frame size 132 up to 7,5kW / FS160 up to 18kW,  
higher power ratings on customer request)

**Voltage:** 400V

**Mounting type:** IMB5

**Housing:** Cast stator frame, AT: -20°C up to +40°C  
temperature coolant supply: 75°C

**Options:** Regreasing device  
Terminal box  
Auxiliary terminal box for monitoring devices  
Both foot- and flange-mounted types possible  
Painting



## Customer benefits

- Spec. design also suitable for very high water inlet temperatures of e.g. 75°C (typical value for the use in block heating stations);
- Universally designed connections for water inlet resp. outlet (e.g. as simple hose connection or with DIN fitting);
- High thermal conductivity
- A 50% better heat dissipation than for comparable motors with steel frame and water chamber!
- Despite high water inlet temperature → very good efficiency
- Low power/weight ratio
- Processing considerably simplified  
→ Price advantage for the customer!

**Other fields of application:**

Tunnel boring machines, injection-moulding machines, etc.