Water Jacket Cooled Motors
Water Jacket Cooled Motor

The water jacket cooled WGM motors were designed to meet the increasing demand for compact and reduced noise level machines, where high output power versus frame size ratio is required.

**Advantages:**
- Low noise level;
- Suitable for variable frequency drive operation;
- Minimum thermal dissipation to the environment;
- Compact construction;
- Suitable for aggressive operating conditions.

**Types of applications:**
- Marine duty: main and positioning propeller, pumps, etc.;
- Cement: kilns, mills, conveyor belts, fans, vibrating equipment, etc.;
- Wind energy generation;
- Mining: crushers, mills, conveyor belts, compressors, fans, pumps, etc.;
- Pulp and paper: chippers, mixers, debarkers, refineries, etc.
- Petrochemical: pumps and compressors;
- Water and sanitation: pumps;
- Steel industry: fans, exhausters, laminators, pumps, conveyor belts, cranes, etc.;
- Sugar and alcohol industry: chippers, debarkers, mills, etc.
Construction features

The water cooling system for WGM motors is provided by circulation of water over the frame construction and endshields. Besides allowing an effective thermal exchange between motor and the water, this cooling system reduces the temperature of the hoses along the grooves and increases the output power versus frame size ratio. Additionally, this system maintains the thermal efficiency, even at reduced speeds, which allows the application of this motor with frequency drives at high speed range on severe application that requires constant torque. The water cooling system also minimizes the heat exchange with the environment, cools down the bearings without requiring independent cooling system along with keeping low noise level.
Technical features

**Standard features**
- Frame sizes: 315 to 560 (IEC)
- Voltages: 690 V to 6600 V
- Number of poles: 2 to 8
- Frequency: 50 or 60 Hz
- Class of insulation: F or H
- Service factor: 1.0 or 1.15
- Mounting: B3, V1
- Degree of Protection: IP55
- Cooling system: IC71W
- Cast iron frame
- Insulated non-drive end bearing for frame sizes above 450 (inclusive).
- Insulated non-drive end bearing and shaft grounding brushes for VFD application motors, independently of frame size.
- PT100 - 2 per phase and 1 per bearing.
- Space heaters.
- Grounding lugs on frame and on main terminal box.
- Stainless steel nameplate.
- Drain plugs.

**Optional features**
- PT100 – water inlet and outlet.
- Flowmeter – water inlet and outlet.
- Water leakage detector.
- Insulated non-drive end bearing and shaft grounding brush.

**Special features**
- Steel welded frame.
- Marine certifications: ABS, Lloyd’s Register, DNV and BV.

**Output power per frame size**

**Output power values in kW, for \( f = 60\text{Hz} \)**

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Note: The values shown are subject to change without prior notice.
Mechanical features

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