

# IE5

## Energy-Efficient Solutions

Leading the Future of Pump Technology



Product Image for informational purposes only.



# Aquapack 3000

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### Leading the Future of Pump Technology

#### Introduction

Lubi Industries LLP is proud to introduce the latest innovation in pumping technology – the IE5 series. These pumps are equipped with advanced IE5 series motors, designed to meet the highest energy efficiency standards.

These pumps are ideal for a wide range of building services, industrial and water supply applications. IE5 motor equipped pumps help customers achieve sustainability goals while ensuring optimal performance.

The IE5 motors represent a cutting-edge solution for high efficiency operation. Their advanced permanent magnet synchronous motors (PMSM) are specifically designed for frequency converter operation, making them ideal for pump applications. They offer the highest efficiency, especially at part-load conditions in compliance with the IEC 60034-30-2 standard. IE5 motors deliver Ultra-Premium Energy Efficiency, reducing energy consumption and overall costs.

## Key Features

### High Efficiency

IE5 motors maintain high efficiency across a wide range of operating speeds and loads, leading to significant energy savings.

### Fast Response & Smooth Operation

The motors provide smooth, vibration-free operation with consistent torque-speed characteristics over a broad range of speeds, without sacrificing efficiency.

### Long Lifespan

IE5 motors and frequency converters are perfectly tuned for trouble-free operation. The embedded frequency converter design reduces space requirements, CAPEX during installation, and wiring costs.

### Reduced Maintenance

Built-in functionality for pump operation within the frequency converter eliminates the need for an external pump controller, minimizing additional I/O wiring and enabling hassle-free operation.

### Lower Noise

Low acoustic noise makes these motors suitable for building service applications.

### Energy Savings

IE5 motors reduce energy consumption and operational costs, offering significant savings over their lifecycle.

### Environmental Benefits

With reduced heat generation, IE5 motors contribute to lower greenhouse gas emissions.



## Technical Specification

|                    |                               |
|--------------------|-------------------------------|
| Power Rating       | : Up to 22 kW                 |
| Flow Rate          | : Up to 180 m <sup>3</sup> /h |
| Head               | : Up to 155 meters            |
| Efficiency         | : As per IEC 60034-30-2:2016  |
| Motor Speed        | : 3000 RPM                    |
| Ingress Protection | : IP54                        |

## Pump Protection Features

- Overcurrent Protection
- Undercurrent Protection
- Overvoltage Protection
- Undervoltage Protection
- Input Phase Loss Detection
- Output Phase Loss Detection
- Communication Failure Detection (for multi-pump systems)
- Short Circuit Protection
- Water Shortage Alarm (Low Water Level)
- High Pressure Alarm
- Low Pressure Alarm

# IE5 Multi-Pump System

- Connect up to 6 pumps in parallel without needing an external controller.
- IP54 frequency converter and power supply junction box are suitable for outdoor applications.
- Adjustable pump speed for constant pressure mode makes it ideal for domestic applications.
- Built-In Motor Protection
- Superior performance at part-load conditions
- Low starting current
- Auto Stop on low flow demand
- Working/Stand-by configuration with auto-switching between pumps.
- Auto start on power restoration.

## Advantages

### Compact Design

Space-saving layout.

### Lower Installation Costs

Reduced wiring and infrastructure expenses.

### Low Noise Operation

Quiet performance ideal for sensitive environments.

### Energy Savings

Up to 10% annual energy savings compared to IE3 motors.

### Reduced Operational Costs

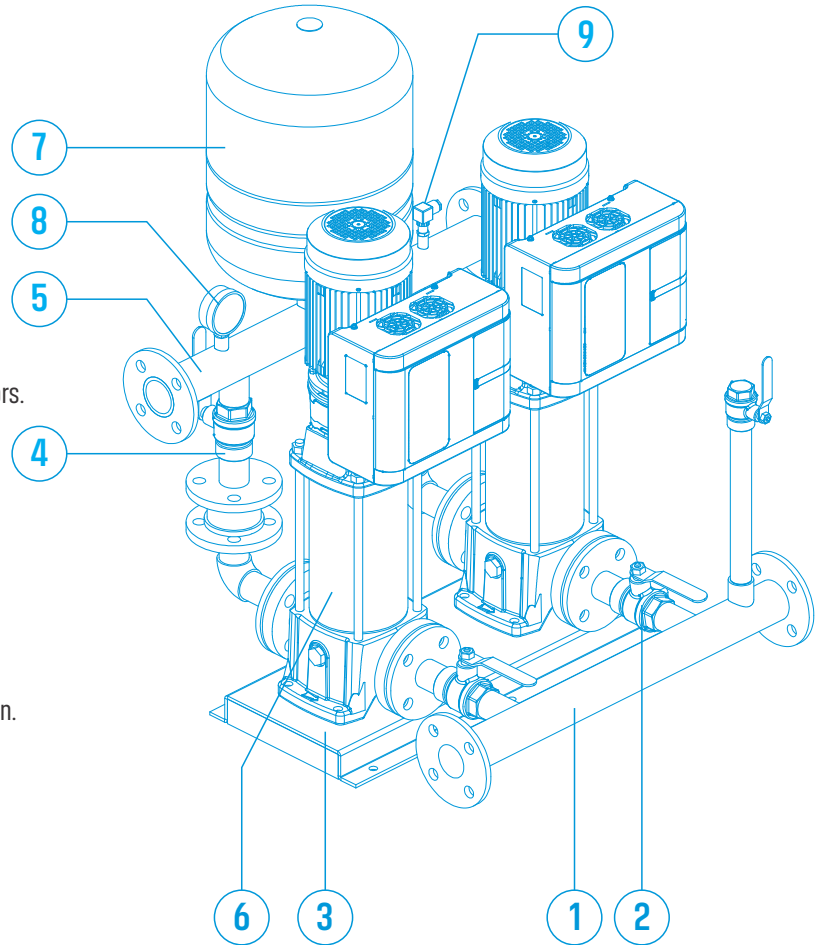
Lower energy usage and maintenance.

### Long Service Life & Durability

Designed for extended service life.

### Enhanced Operational Efficiency

Smooth operation with less noise and reduced vibration.



## SYSTEM COMPONENTS

| Sr. No. | DESCRIPTION         | QTY.       | VERSIONS "G"                    | VERSIONS "I"                    | VERSIONS "N"                    |
|---------|---------------------|------------|---------------------------------|---------------------------------|---------------------------------|
| 1       | Suction manifold    | 1          | Galvanized steel                | 1.4301 (AISI 304)               | 1.4401 (AISI 316)               |
| 2       | Isolating valve     | 2 PER PUMP | Brass NiCr- plated or cast iron | Brass NiCr- plated or cast iron | 1.4401 (AISI 316) and cast iron |
| 3       | Base frame          | 1          | Galvanized steel/Painted        | Galvanized steel/Painted        | 1.4301 (AISI 304)               |
| 4       | Non-return valve    | 1 PER PUMP | Brass NiCr- plated or cast iron | Brass NiCr- plated or cast iron | 1.4401 (AISI 316)               |
| 5       | Discharge manifold  | 1          | Galvanized steel                | 1.4301 (AISI 304)               | 1.4401 (AISI 316)               |
| 6       | Pump                | 1 ~ 6      | LCR                             | LCRI                            | LCRN                            |
| 7       | Diaphragm tank      | 1          | As per customer requirement     | As per customer requirement     | As per customer requirement     |
| 8       | Pressure Gauge      | 1          |                                 |                                 |                                 |
| 9       | Pressure Transducer | 1          |                                 |                                 |                                 |

## LUBI INDUSTRIES LLP

Near Kalyan Mills, Naroda Road, Ahmedabad-380 025, INDIA.

Phone : +91 - 79 - 61700100, Fax No. : +91 - 79 - 61700399.

Sales Enquiries: [indsales@lubipumps.com](mailto:indsales@lubipumps.com), [expsales@lubipumps.com](mailto:expsales@lubipumps.com)

[www.lubipumps.com](http://www.lubipumps.com)

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