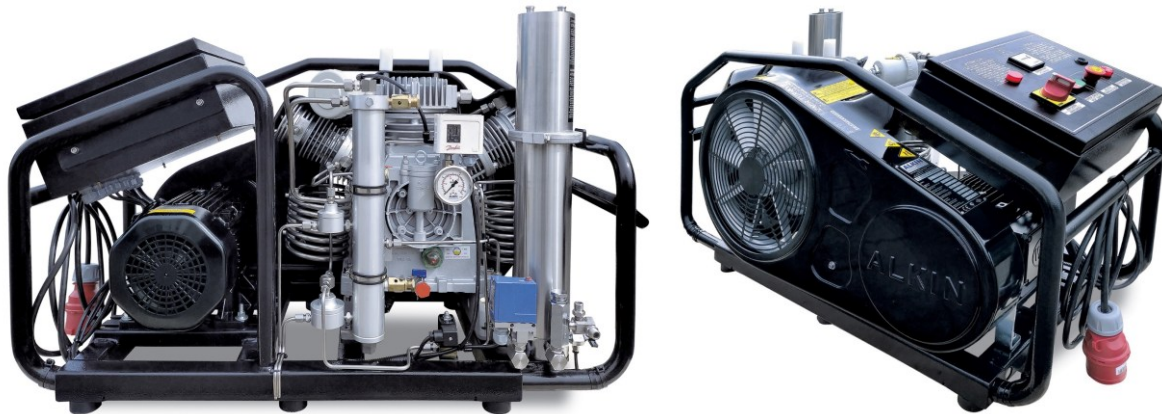


## W32 Mariner High Pressure Breathing Air Compressors



\*Purely Indicative Pictures

### General Compressor Technical Specifications

<p>Compressor Model</p> <p>Maximum Allowable Working Pressure</p> <p>Inlet Pressure</p> <p>Nominal Working / Final Pressure (Off-Load / Cut-Out)</p> <p>Standard Automatic Restart Value (On-Load / Cut-In)</p> <p>Maximum FAD / Charging Rate</p> <p>Nominal Electric Motor / Drive Power</p> <p>Electric Mains<sup>1</sup></p> <p>Compressor Type</p> <p>RPM<sup>2</sup></p> <p>Cooling System</p> <p>Enclosure / Layout</p> <p>Dimensions<sup>2</sup></p> <p>Wet / Curb Weight<sup>2</sup></p> <p>Noise Level<sup>3</sup></p> <p>Ambient Working Temperature Range</p> <p>Outlet Air Temperature</p> <p>Static Trim Angle / Static List Angle</p> <p>Dynamic Roll / Dynamic Pitch</p> <p>Number of Filling Hoses<sup>4</sup></p> <p>Auto Start, Stop &amp; Condensate Drain</p> <p>Muffler (Silencer) &amp; Environment-friendly Drain Collection</p> <p>PLC Control System (IP 66 / NEMA 4 / UL)</p> <p>Modbus RTU / RS 485 / SCADA / AUT / IAS / ICS TM / IMPS</p> <p>On-Load / Off-Load (OL / OL) Control for Safety &amp; Efficiency</p> <p>Real Time Breathing Air Quality Monitoring</p> <p>Breathing Air Quality</p> <p>International Guarantee for Availability of Spares</p> <p>International Warranty</p>	<p>W32 Mariner</p> <p>350 Barg / 5075 Psig / 35,0 MPag</p> <p>Atmospheric</p> <p><b>330 Barg / 4800 Psig / 33,0 MPag</b></p> <p>300 Barg / 4350 Psig / 30,0 MPag</p> <p><b>315 L/min / 11,3 Cfm / 18,9 M<sup>3</sup>/h</b></p> <p><b>5,5 kW / 7,5 HP</b></p> <p>380 - 400 V / 50 Hz / 3 Ph</p> <p>Reciprocating Breathing Air</p> <p><b>1450</b></p> <p>Air Cooled</p> <p>Electrostatically Painted, Portable, Steel Chassis</p> <p>1090*498*701 mm / 42,9*19,6*27,6"</p> <p>155 kg / 341 lbs.</p> <p>76 ±3 dB(A)</p> <p>0...50 °C / 32...122 °F</p> <p>Ambient Temperature + 4 - 12 °C / 7 - 21,6 °F</p> <p>35° by Head or Stern / 15° to Either Side</p> <p>45° for 8 seconds / 15° for 8 seconds</p> <p><b>2</b></p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p><i>Optional</i></p> <p><b>EN 12021, CGA D &amp; E grades &amp; STANAG 1079 &amp; 1458</b></p> <p><b>10 Years (Minimum)</b></p> <p><b>2 Years</b></p>
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**ALKIN**, in a constant endeavor for improvement, reserves the right to change any specification without any announcement.

1. Electric Mains Range: 110-690V, 50-60Hz, 1-3Ph; AC/DC Motor.

2. Dimensions, Weight & RPM might vary depending upon additional / optional / upgrade features.

3. Free Field as per ISO 2151.

4. Different connections & Ø available upon request.

## Standard Features / Standard Scope of Supply

### Purification / Filtration Technical Specifications

Brand / Maker	<b>ALKIN</b>
P41 / 350	✓
P41 Purifier ( <u>Stainless Steel</u> ) with Refillable / Repackable Purifier Cartridge ( <u>Stainless Steel</u> )	✓
Environment-friendly, "Green" Refillable / Repackable Cartridge ( <u>Stainless Steel</u> ) Elements	✓
P41 Purifier Capacity @20 °C / 68 °F	1.440 M <sup>3</sup>
Breathing Air Quality Complies with	<b>EN 12021, CGA D &amp; E grades &amp; STANAG 1079 &amp; 1458</b>

### Compressor Block Technical Specifications

Brand / Maker	<b>ALKIN</b>
Compressor Block Alignment	W-Shape
Number of Stages	3
Number of Cylinders	3
RPM	<b>1450</b>
Transmission Type	V-Belt Driven
Lubrication Type	Oil Pump / Forced Lubrication
Lubricant Capacity	3 L / 0,8 US Gallon
Lubricant	<b>ALKIN 100 Oil</b>
Lubrication Safety	✓
Cooling System	Air Cooled
Cooling Air Flow Requirement (Minimum)	1980 M <sup>3</sup> /h / 1165,4 Cfm
Thermal Overload Safety	✓
Intake Air Filter (Micronic)	✓
Intake Filter Clogging Monitoring	✓
Stainless Steel Compression Valves	✓
Cast Iron Cylinders with Hardening	✓
Steel Pistons with Steel Composite Rings	✓
Forged Steel Con-Rods	✓
Forged Steel Crankshaft	✓
Heavy-Duty Bearings with Long-Life	✓
Crankcase with Heat Treatment	✓
Intercoolers ( <u>Stainless Steel</u> ) & Aftercooler ( <u>Stainless Steel</u> ) for Each Stage of Compression	✓
2 <sup>nd</sup> & 3 <sup>rd</sup> Stage Water Condensate & Oil Separators	✓
Safety Valves for Each Stage of Compression	✓
Check Valve (Non-Return Valve, One-Way Valve)	✓
Priority Valve (Pressure Maintaining Valve)	✓
Muffler (Silencer)	✓
Automatic Condensate Drain with Environment-friendly, "Green" & Muffled (Silenced) Design	✓
Timer for Automatic Condensate Drain ( <i>Resettable</i> )	✓
Pneumatic Drain Valve	✓
Solenoid Valve with Unloaded Start	✓
Automatic Start & Stop ( <i>At any Pressures of Choice</i> )	✓
Pressure Switch / Sensor	✓
Oil Pressure Switch / Sensor (Low Oil Pressure Shutdown)	✓
Oil Pressure Gauge / Display	✓
Oil Level Sight Gauge / Glass	✓

### Main Motor / Drive Technical Specifications

Brand / Maker	TEE-WAT / VOLT / WEG
Electric Motor / Drive Safety	TEFC, F Class, IP 55, IM B3 / NEMA F3
Electric Motor / Drive Efficiency	<b>IE3 - 89,2%</b> Premium Efficiency
Nominal Power	5,5 kW / 7,5 HP
Nominal Voltage / Frequency / Phase	380 - 400 V / 50 Hz / 3 Ph
Nominal Current	12,8 A
Starter	YΔ Starter (Soft Start)
Thermal Overload Safety	✓

### PLC Control & Electrical Panel Technical Specifications

Ergonomic Control & Electric Panel (IP 65 / NEMA 4 / 4X / UL)	✓
PLC Type (IP 66 / NEMA 4 / UL)	CMC AirMaster Fit
4" Graphic Screen with Keypad	✓
Intelligent Compressor Systems Control & Smart Technology	✓
User Friendly Interface, Intuitive Menus & Simplistic Operation	✓
Multiple Language Support for 12* Languages	✓
Real Time Monitoring with Instant Working Values	✓
Current Working Modes, Pressure, Hours & Amps, etc.	✓
Standard Choices for SI Units for Pressure & Temperature	✓
Advance Notification for Maintenance & Service Intervals	✓
Retrospective Fault / Error Records	✓
Logs of History of Events & Faults / Errors	✓
User Account Controls	✓
Password Protection for Different Menu Levels (3 Levels)	✓
Modbus RTU / RS 485	✓
SCADA / AUT / IAS / AMS / ICS TM / IMPS Communication	✓
Remote, Local & Automatic Control Modes	✓
On-Load / Off-Load (OL / OL) Control for Long-term Savings	✓
Environment-friendly, "Green" Impact on Energy Efficiency	✓
Adjustable Off-Load Run to Prevent Frequent Start / Stops	✓
24V Control Voltage	✓
On / Off Buttons	✓
Hourmeter	✓
Inter-Stage Pressure Gauges / Display	✓
LCD Display / Control LED Lights	✓
Intake Filter Clogging Monitoring	✓
Main Motor / Drive Starter	YΔ Starter (Soft Start)
Phase Monitoring / Sequencing (for 3Ph units only)	✓
Thermal Overload Protection for Electric Motor	✓
Thermal Overload Protection for Compressor	✓
Power Cable & Plug (At any Length of Choice)	✓
Cable Cross (mm) & Breaker	4*2,5 TTR & 25 A (D-type/curve)

### Chassis Technical Specifications

Horizontal, Portable, Steel Chassis (Electrostatically Painted)	✓
Anti-Corrosive Finish	✓
Anti-Vibration (Shock) Mounts	✓
Carrying Handles / Flywheel Guard / Cover	✓
2* Filling Hose(s) (Filling Valve, Pressure Gauge, DIN EN 144-2 / DIN 477 Adapter, Yoke, 1M HP Hose)	✓
Epoxy Color	9005 Black & 7041 Silver Grey

## Optional / Upgrade Features

### Purification / Filtration Technical Specifications

P41 Purifier ( <u>Stainless Steel</u> ) with Disposable Cartridge	<i>Optional</i>
Purifier converts Carbon Monoxide into Carbon Dioxide	<i>Optional</i>
Disposable Purifier Cartridge	<i>Optional</i>

### Breathing Air Quality Monitoring Technical Specifications

<b>ALKIN</b> Real Time Breathing Air Quality Monitoring	<i>Optional</i>
Moisture (Water, Humidity) Level Monitoring	<i>Optional</i>
Carbon Monoxide (CO) Level Monitoring	<i>Optional</i>
Oxygen (O <sub>2</sub> ) Level Monitoring	<i>Optional</i>
Carbon Dioxide (CO <sub>2</sub> ) Level Monitoring	<i>Optional</i>
Oil VOC Level Monitoring	<i>Optional</i>
Helium (He) Level Monitoring	<i>Optional</i>
Nitrogen (N <sub>2</sub> ) Level Monitoring	<i>Optional</i>
Hydrogen Sulfide (H <sub>2</sub> S) Level Monitoring	<i>Optional</i>
Real Time Monitoring with Instant Working Values	<i>Optional</i>
Auto Stop & Alarm at Breathing Air Quality Non-Compliance	<i>Optional</i>

### PLC Technical Specifications

PLC Type	<i>CMC AirMaster Form</i>
4,3" Color Graphic Touchscreen	✓
Industry 4.0 & IoT (Internet of things)	<i>Optional</i>
Multiple Language Support for 22* Languages	<i>Optional</i>
Scheduling	<i>Optional</i>
Ethernet Port / Remote Access / Inter-Communication	<i>Optional</i>
7" Color Touchscreen / SD Card	<i>Optional</i>

### General Compressor Technical Specifications

Dual Pressure System ( <i>At any Pressure of Choice</i> )	<i>Optional</i>
Selective Valve to Switch between High & Low Pressures	<i>Optional</i>
Thermal Overload Protection for Compressor	<i>Optional</i>
Stainless Chassis	<i>Optional</i>
Wheels	<i>Optional</i>
Soundproof, Vertical, Steel Canopy ( <u>Electrostatically Painted</u> )	<i>Optional</i>
Stainless Canopy	<i>Optional</i>
Water Cooling ( <i>Fresh Water / Sea Water / Liquid</i> )	<i>Optional</i>
Receiver / Tank / Storage	<i>Optional</i>
Regulator	<i>Optional</i>
Extra Purification / Filtration	<i>Optional</i>
Remote / Bridge Control Unit	<i>Optional</i>
Test & Reset Buttons	<i>Optional</i>
Intake Hose (Telescopic Air Intake)	<i>Optional</i>
Extra Filling Hoses	<i>Optional</i>
CGA Adapters / Yokes & Other International Connections	<i>Optional</i>
Navy Design / Lifting Lugs	<i>Optional</i>
Anti-Vibration (Shock) Mounts for Marine Applications	<i>Optional</i>
Crankcase Heater for Extreme Ambient Temperatures	<i>Optional</i>
Petrol / Diesel Engine Drive	<i>Optional</i>
DC Motor Drive	<i>Optional</i>
Different Colors	<i>Optional</i>

### Directives (where applicable)

- ✓ EC Machinery Directive 2006/42/EC
- ✓ EC Low Voltage Directive 2014/35/EU (formerly 2006/95/EC)
- ✓ EN / ANSI / ISO 12100 Safety of Machinery
- ✓ EN 1012-1 Compressors & Pumps
- ✓ EC Pressure Equipment Directive 2014/68/EU (formerly 97/23/EC)
- ✓ EC Electromagnetic Compatibility (EMC) 2004/108/EC
- ✓ IEC 60204-1 Electrical Safety of Machinery
- ✓ EN 12021 Compressed Gases for Breathing Apparatus
- ✓ STANAG 1079 & 1458 Compressed Gases for Breathing Apparatus
- ✓ OPNAVINST 5100.19 - Navy Safety and Occupational Health Program
- ✓ CGA D & E grades Breathing Air Quality
- ✓ ISO / TSE
- ✓ TL / IACS / SOLAS
- ✓ Marine Equipment Directive 2014/90/EU (formerly 96/98/EC)
- ✓ DIN / AD 2000
- ✓ ANSI / ASME / CGA
- ✓ NEMA / NFPA / OSHA
- ✓ ATEX

### Sectors

- ✓ Scuba Diving & Police Diving
- ✓ Technical Diving & Commercial Diving
- ✓ Surface-Supplied Diving
- ✓ Fire Departments & Emergency Services & First Responders
- ✓ Military, Navy & Air Force
- ✓ Aerospace & Aviation & Airports
- ✓ Shipyards & Maritime
- ✓ Automotive & Racing
- ✓ Civil Defense & Public Safety
- ✓ Fish Farms & Aquariums
- ✓ Paintball & Air Guns
- ✓ 3D Printing
- ✓ Test Equipment
- ✓ Seismic Explorations
- ✓ Scientific, Marine Biology & Archeological Diving
- ✓ Underwater Construction
- ✓ Mining & Drilling
- ✓ Oil & Gas & Energy
- ✓ Offshore & Industrial Applications

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\*Above values are measured at 380-400V.