

# AES Group, Inc.

Sales ▪ Construction ▪ Service

## SPECIFICATION

BASE MODEL NUMBER: LSQ15A5xP-AES-SPD-SPL  
SYSTEM CAPACITY: 150 SCFM @ 145 PSIG – 120 PSIG Delivery Pressure  
HORSEPOWER: 60 HP Total (4) 15HP Scroll Compressor Modules  
RECEIVER SIZE/CONFIGURATION: 200 Gal – Vertical  
ELECTRICAL: 208/230/460V, 3PH, 60Hz

**(MUST SPECIFY VOLTAGE WHEN ORDERING.)**

*\*System performance shown with all pumps running*

## General

The Powerex IA Open Scroll Air Compressor System is designed to provide clean, dry air for applications where the quality of the compressed air is critical. The **High-Pressure** unit is rated for a maximum of **145 PSIG**. Each system is completely tested before shipment and includes:

- Multiple oil-less scroll air compressors and associated equipment.
- Corrosion resistant air receiver.
- Desiccant air dryers with purge control.
- Control panel.
- Dew point monitor.
- Intended to Comply with NFPA99-2021 5.1.13.3.7 \* Instrument Air Supply Systems
  - 5.1.13.3.7.5 “Instrument air compressors shall be permitted to be of any type capable of the output pressure needed for the intended line pressure and of providing air meeting the definition of Instrument Air 5.1.13.3.7.1”

## DETAILED PRODUCT DESCRIPTION:

### Oil-less Scroll Compressor Pump

Each compressor shall be belt driven oil-less rotary scroll single stage, air-cooled construction with absolutely no oil needed for operation. Direct drive compressors shall not be used.

- The rotary design shall not require any inlet or exhaust valves and shall be rated for 100% continuous duty.
- Tip seals shall be of composite PTFE material and be rated for 5,000 hours operation for 2, 3, and 5 HP pumps, and rated for 8,000 hours operation for 7.5 and 10 HP pumps.
- Compressor bearings shall be external to the air compression chamber and shall be all serviceable for extended compressor life. Bearing maintenance shall not be required until 5,000 run hours. Compressors with bearings that are not accessible for service have a limited life span and shall not be accepted. Compressors shall have an integral radial flow fan for cooling and shall not require any additional electric cooling fans.
- Each compressor shall have flexible connectors on intake and discharge, an electric drive motor, a discharge check valve, a fan-cooled aftercooler, a condensate separator\* and a high discharge temperature shutdown switch.
- Each compressor module shall have an isolation valve and a moisture separator\* with automatic drain.

## MAINTENANCE-FRIENDL MOTOR/PUMP BASE-MOUNTS

Patented base-mount service slide provides safe, easy access to common maintenance items. Also include an adjustable slide base under each motor for ease of belt replacement and tensioning.

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## RECEIVER TANK

The AMSE National Board registered 200 psig working pressure, vertical air receiver is provided with:

- Pressure gauge
- Relief valve
- Sight gauge
- Manual and automatic electric timed tank drain
- 3-valve bypass plumbing
- External paint and internal lining to resist corrosion

## PREMIUM NFPA CONTROL PANEL

The control system provides automatic lead/lag activation based on demand and automatic alternation of all pumps in order to equalize the amount of usage among the available pumps. The control panel shall include:

- A color touch screen panel which displays the operating status of the unit. The touch screen will display pump status, pump faults, pump run hours, system pressure, system alarms and service alert notifications for the pumps, dryers and dew point monitor.
- Building automation communication gateway, with BacNet® protocol. Ethernet port for connection to BacNet® /IP server or direct connection to facility Ethernet for viewing of system operations and status via device IP-address.
- A PLC controller that includes logic programmed to appropriately manage start-stop, lead-lag and other pump operations.
- UL508A listed control panel in a NEMA 12 enclosure.

## AIR PURIFICATION SYSTEM

- Dual heat-less, automatic pressure swing regenerative desiccant air dryers
- Designed to produce a dew point of -40F
- Dual cyclonic water separators
- Dual .01 micron coalescing pre-filter with element change indicator and automatic condensate drain
- Dual 1 micron particulate after-filter with element change indicator
- Dual Combo .01 Micron/Activated Carbon Final Filter
- Dual pressure reducing valves
- Automatic dew point dependent switching to reduce purge frequency
- Purge muffler for quiet operation

## MONITORING EQUIPMENT

- Dew point monitor with audible/visual alarms & dry contacts for remote alarm signal
- Required High Dew Point Alarm Set at -22°F

## SYSTEM CONNECTIONS

The system is shipped with a flexible connector for discharge.