SULLAIR SINGLE-STAGE

Rotary Screw Air Compressors

Constant Speed and Variable Speed Drives

93–261 kW | 125–350 hp

SULLAIR®

Always air. Always there.®

ABOUT SULLAIR

For more than 50 years, Sullair has been on the leading edge of compressed air solutions. We were one of the first to execute rotary screw technology in our air compressors. And our machines are famous all over the world for their legendary durability. As the industry moves forward, Sullair will always be at the forefront with quality people, innovative solutions, and air compressors that are built to last.

Sullair was founded in Michigan City, Indiana in 1965, and has since expanded with a broad international network to serve customers in every corner of the globe. Sullair has offices in Chicago and manufacturing facilities in the United States, China and India — all ISO 9001 certified to assure the highest quality standards in manufacturing. In addition, Sullair Suzhou and Shenzhen facilities are ISO9001, ISO14001 and OHSAS 18001 certified.

SULLAIR CAPABILITIES

SULLAIR LEADERSHIP

Since 1965, Sullair has been recognized around the world as an innovator and a leader in rotary screw compression and vacuum technology. For more than 50 years, Sullair has designed and manufactured its own rotors and air end assemblies in Michigan City, Indiana.

The award-winning rotary screw design sets the industry standards and delivers the quality and reliability one expects from a leader.

SULLAIR TECHNOLOGY

Utilizing the most modern technologies, equipment and advanced manufacturing techniques, Sullair designs, manufactures, assembles, and tests the most innovative compressed air and vacuum products in the industry. Sullair products are known around the world for their universally applicable design, outstanding craftsmanship and superior quality.

STATISTICAL PROCESS CONTROL

The Sullair Statistical Process Control (SPC) system monitors rotor quality standards to assure consistent compressor and vacuum performance.

COMMITMENT TO INNOVATION

Underlying leadership at Sullair is a dedication to excellence and a commitment to innovation. Sullair constantly explores new ideas and seeks new ways to meet the industry's need for increasingly energy efficient compressed air and vacuum solutions.

SULLAIR
SINGLE-STAGE COMPRESSORS
LS-20S, LS-25S, VCC-20S, VCC-25S, V-20S AND V-25S

1. Sullair Supervisor™ Controller
- Supervisor Microprocessor Controller is standard, adds reliability and simplifies controls
- V250S uses WS Controller™

2. Cooling
- Air-cooled units have updraft coolers for ease of installation and heat recovery capabilities
- Water-cooled units use shell and tube heat exchanger

3. Multi-Stage Air-Fluid Separation
- Dual nested Optimizer™ separator elements reduce fluid carry-over to less than 1 ppm as measured prior to aftercooler, lowering fluid costs
- Pleated Optimizer elements lower initial pressure drop for greater efficiency and extend life of the elements

4. Optimalair™ Inlet Filter
- Includes remote air intake connection
- Provides finest inlet filtration in the industry (0.4 microns using Fine Fiber Technology)

5. Fiberglass Fluid Filter
- Aircraft-quality media provides better filtration
- Up to 20% more efficient than conventional paper elements

Superior Package Design
- SAE O-ring fittings are standard
- Number of fittings are reduced
- Designed for continuous duty
- Aftercooler, moisture separator and electric drain
- Air-cooled or water-cooled models are available

Flange-Mounted Motor and Air End*
- Up to 5% energy savings over belt drive
- Eliminates maintenance expense associated with V-belts

** Not standard on LS-25S*

Premium Efficient Motor
- Direct coupled design for extended bearing life
- 250,000-hour insulation life

The Variable Capacity Sullair Air End
- Legendary Sullair air end and spiral valve

Sullair Versatile Control System
- Matches output to demand
- Stabilizes system pressure
- Minimizes need for an air receiver
- Extends package life

Bearing Fluid Reservoirs
- Ensure fluid is available at start-up and extends air life

Genuine Sullube® Factory Fill
- A 10,000-hour extended-life synthetic fluid powered by Dow technology, Sullube has been used in more than 50,000 compressors worldwide
- Optional PristineFG™ or 24KT®

SULLAIR 10 YEARS Diamond Warranty

10-year Diamond Warranty
Confirming our rugged design and commitment to customer satisfaction, all new Sullair S-energy® stationary air compressors plus select other models (with discharge pressures up to 150 psig) include the exclusive 10-year Diamond Warranty. The comprehensive warranty covers:
- 10 years on the air end
- 5 years on the motor, VSD, air/fluid receiver, oil cooler and aftercooler

VARIABLE CAPACITY CONTROL
TECHNOLOGY

Variable Displacement Air End
The Sullair variable displacement air end maintains constant system pressure to the plant. Since VSD compressors use large, efficient, slow running rotors, a lower power consumption is achieved at the top end of capacity. Oil foaming does not occur, air is not wasted to the atmosphere, and bearings last longer.

The motor and air end run at optimum speed and, therefore, maintain optimum efficiency throughout the full variable output range.

Sullair VSD compressors react instantly to rapid changes in demand. The effective rotor length is progressively reduced as the demand is reduced which provides the most efficient part-load control system to 50% output.

This system is extremely simple and provides a cost effective, energy-efficient control alternative.

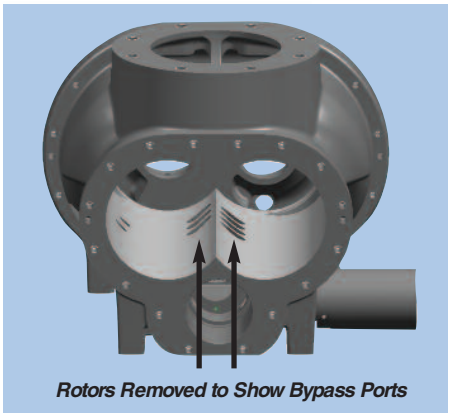
Variable Capacity Compressors Save You Power
The compressor displacement is matched to the output need. The technology assures precision operation for virtually any part-load point. It provides significant power savings at part-load conditions, compared to compressors using suction throttling, or load/no load control.

Increases Capacity Control Efficiency
By activating automatically when the unit is operating under partial load, the modulating valve goes down to as low as 40%, and allowing compression of only the required quantity of air, the spiral valve increases the efficiency of the compression process. The ultimate result is greater compression efficiency and reduced power consumption infinitely variable from 50–100% capacity.

How the Spiral Valve Operation Works
The compression volume varies to suit the air demand by progressively opening or closing internal bypass ports on the air end.

Capacity is matched to system demand, reducing cycling time and extending component life.

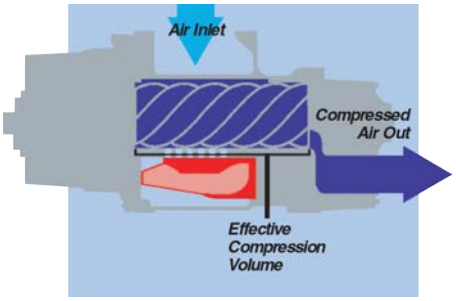
Part-load capacity and efficiency can produce energy savings up to 17–30%.



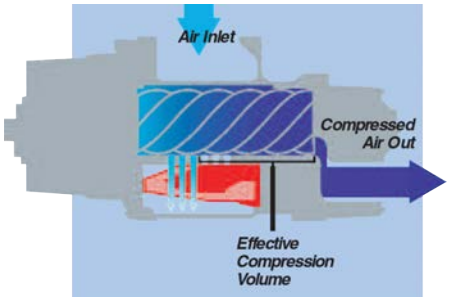
Rotors Removed to Show Bypass Ports

BYPASS PORTS IN STATOR

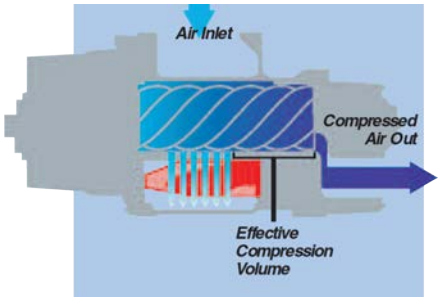
CLOSED BYPASS PORTS



PARTIALLY OPEN BYPASS PORTS



OPEN BYPASS PORTS



RELIABILITY AND PERFORMANCE
WITH A PROVEN DESIGN

Continuous Duty

Sullair compressors have established themselves as outstanding compressors in the 125 to 350 horsepower range. Sullair compressors offer the proven reliability of our rotary screw design to provide continuous-duty performance. Components of every Sullair compressor have been carefully selected to assure complete reliability.

As a result of their rugged, time-proven design, Sullair compressors require minimal maintenance for optimum performance.

Rotary Screw Dependability

These models use a single-stage rotary screw air end, featuring a rugged bearing design: tapered roller bearings on the discharge end and cylindrical roller bearings on the inlet, for high load-carrying capacity.

Every Sullair Compressor Offers You More

- Proven Sullair air end
- Longer average bearing life, designed for over 100,000 hours of service

Superior Package Design

- Air-cooled or water-cooled models
- Available with or without enclosure
- Designed from the frame up as a complete package—not built with a variety of off-the-shelf components
- Serial communication between the SupervisorTM Controller and eliminates the need for hard-wired relays

Premium Efficient Motor

- Improved energy conservation
- 250,000-hour insulation life

Broad Operating Range

These compressors are available in 125 to 350 horsepower, with capacities from 457 to 1615 acfm and pressure ratings of 100 to 175 psig.

Choice of Environmentally Compatible Compressor Fluids

- Long-life, 10,000 hour Genuine Sullube® standard factory fill
- Non-varnishing and biodegradable
- Extended-life 24KT® is optional
- Routine fluid disposal costs are virtually eliminated

Multi-Stage Air-Fluid Separation

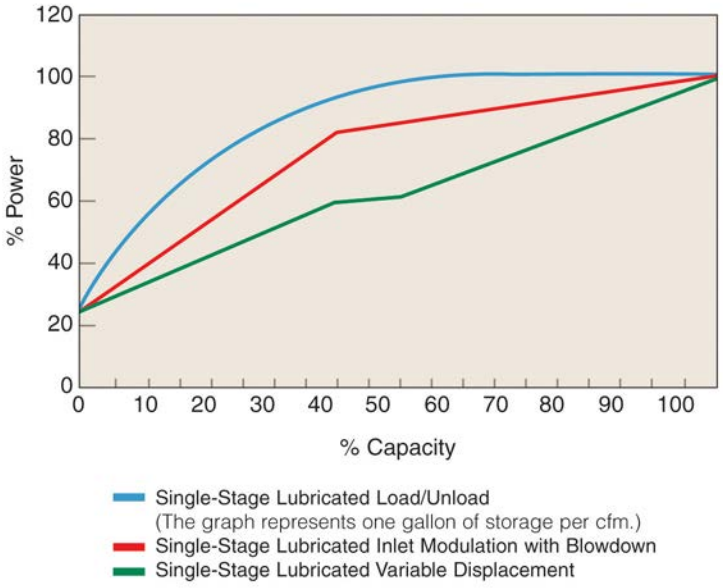
- Dual nested separator, reduces lubricant carryover to less than 1 ppm

Fiberglass Fluid Filter

- Up to 20% more efficient than conventional paper elements

VARIABLE CAPACITY CONTROL CUTS ENERGY COSTS

PART LOAD PERFORMANCE ASSESSMENT



Reference: Compressed Air and Gas Handbook, 6th Edition, pages 221-223.

Lower Maintenance Costs

The Sullair VSD requires only minimal maintenance for optimum performance. There are no troublesome belts or expensive bull gear arrangements to wear out or replace.

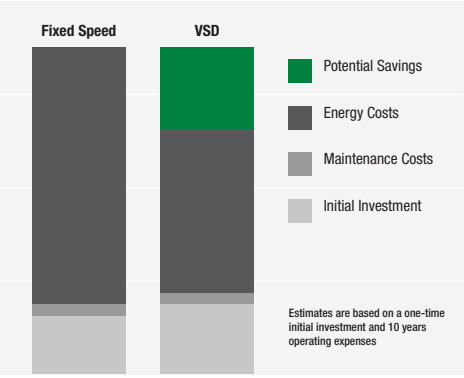
Part-Load Capacity Control Comparisons

The chart illustrates how a rotary screw compressor with variable displacement reduces power consumption as the compressor load drops. More importantly, it shows the substantial power savings at part-load when compared to other capacity control systems.

SULLAIR
VSD AIR COMPRESSORS

Sullair compressors with VSD provide:

- Excellent energy savings
- Relief from potential peak demand charges
- Possible utility company rebate
- DC link Choke with 3% Line Reactor included (Model/Voltage Specific)
- Stable system pressure
- Consistent product quality
- Reduced system air leaks
- Reduced storage requirements
- Flexibility for future growth
- Low five-year life cycle cost



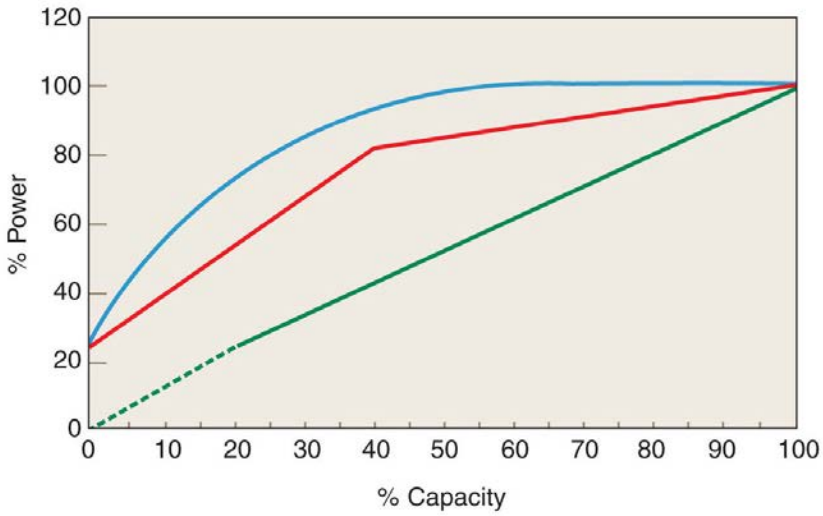
Your Compressed Air System Can Improve Your Bottom Line

In just ten years, the electrical power cost to operate a standard compressor can be more than six times greater than its purchase price.

Total Compressor Flexibility

Sullair VSD compressors provides the flexibility to vary both capacity and pressure. This flexibility makes it possible to "grow" your air system without adding more compressors.

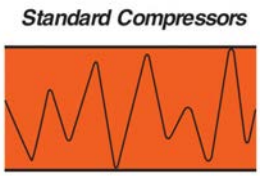
PART LOAD PERFORMANCE ASSESSMENT



Reference: Compressed Air and Gas Handbook, 6th Edition, pages 221-223.

Variable Speed Drive is the Superior Alternative

The chart above is a representation of nominal control systems for generic comparative purposes. A detailed and accurate comparison of specific compressor models is available from your Sullair representative or authorized distributor.



Stable System Pressure Improves the Consistency of Your Process to Reduce Product Rejects

- Lowers air system leaks
- Reduces system storage requirements
- Provides increased energy savings to increase profits

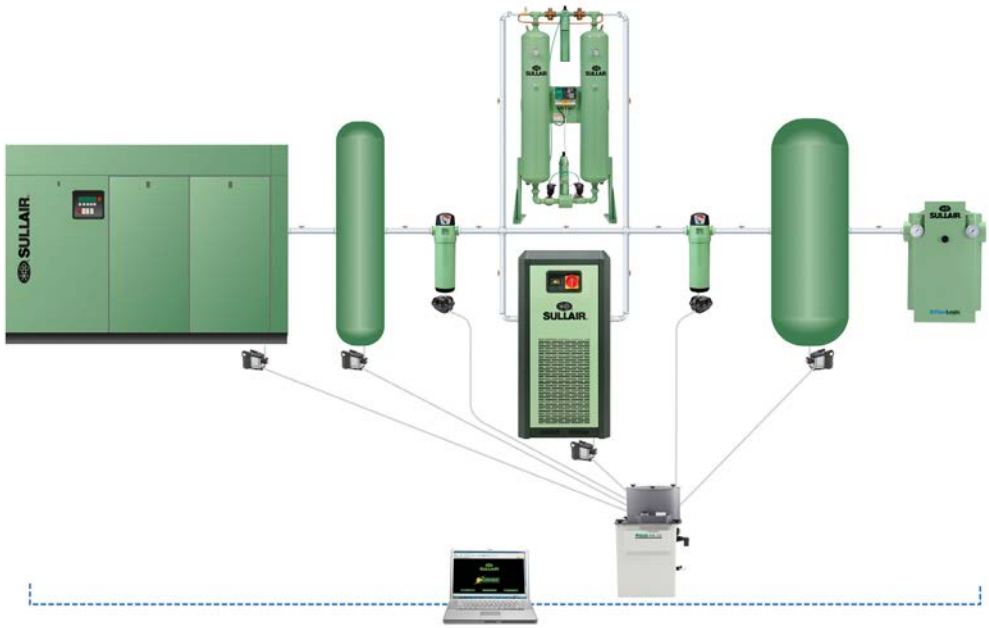
Soft Start is Standard with Unlimited Starts and Stops

- No need for Wye Delta and other soft starters
- No need to control the number of hot or cold starts
- Unlimited starts and stops save electrical costs
- Avoids high electrical current at start-up

VSD Avoids Potential Peak Demand Charges

VSD compressors provide the highest power factor over the entire frequency range, often avoiding utility company penalties.

SULLAIR STATIONARY
AIR POWER SYSTEMS



Sullair offers total compressed air systems to help compressed air users reduce energy costs and improve productivity by analyzing, managing and controlling their compressed air systems.

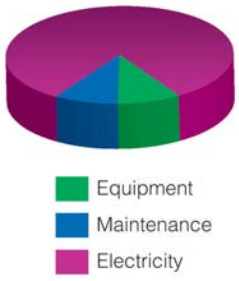
Sullair air systems include: plant air audits, energy efficient products, compressed air system controls, equipment to monitor and manage systems, air distribution products, and after-purchase support.

Each component of the system is carefully matched for capacity and pressure to provide maximum performance and energy efficiency.

The system includes:

- Rotary screw compressor
- Wet storage
- Refrigerated dryer or desiccant dryer
- Filters to meet your requirement
- Dry storage
- Flow controller
- Drains
- Oil/water separator
- Ethernet-based eConnect™ to monitor and control the entire system

Sullair Reduces Your Life Cycle Costs



Air Compressor Life Cycle Costs

According to B*est Practices for Compressed Air Systems, Compressed Air Challenge* [Second Edition, 2007] energy costs now represent 82% of the total operating expenses. Energy savings from Sullair S-energy® compressors can significantly reduce life cycle costs.

The Sullair S-energy compressors significantly reduce operating and energy costs over the entire compressor life cycle. Contributing to the energy savings are:

- Proven Sullair air end with a low restriction inlet valve
- High efficiency fan
- Low pressure drop air-fluid separation system to prevent energy loss

Sullair designs deliver cost savings for the life of the product. Improved air filtration translates into:

- Extended separator life
- Improved fluid filter life
- Less lubricant contamination

To reduce fluid disposal costs, we offer our Genuine Sullube® 10,000-hour fluid, or 24KT®, a long-life fluid that never needs changing.

TECHNICAL SPECIFICATIONS

60HZ MOTOR LS-200S AND LS-25S	MOTOR		CONSTANT SPEED DRIVE FULL-LOAD CAPACITY**								LENGTH		WIDTH		HEIGHT		WEIGHT	
Model	hp	kW	100 PSI acfm	7 bar m³/min	125 PSI acfm	9 bar m³/min	150 PSI acfm	10 bar m³/min	175 PSI acfm	12 bar m³/min	in	mm	in	mm	in	mm	lbs	kg
LS-200S-125	125	93	647	18.3	587	16.9	506	14.3	457	12.9	100	2540	60	1524	68	1727	5250	2381
LS-200S-150	150	112	752	21.2	683	19.3	631	17.8	570	16.1	100	2540	60	1524	68	1727	5250	2381
LS-200S-200*	200	149	980	27.7	897	25.4	768	21.7	720	20.3	120	3048	72	1828	68	1727	7450	3379
LS-25S-250	250	186	1218	34.4	1075	30.4	-	-	-	-	154	3911	78	1981	86	2184	10,760	4880
LS-25S-300	300	224	1480	41.9	1330	37.6	-	-	-	-	154	3911	78	1981	86	2184	10,760	4880
LS-25S-350	350	261	1615	45.7	1460	41.3	-	-	-	-	154	3911	78	1981	86	2184	11,110	5039
60HZ MOTOR VCC-200S AND VCC-25S	**MOTOR**		**CONSTANT SPEED DRIVE WITH VARIABLE CAPACITY CONTROL FULL-LOAD CAPACITY****								**LENGTH**		**WIDTH**		**HEIGHT**		**WEIGHT**	
Model	hp	kW	100 PSI acfm	7 bar m³/min	125 PSI acfm	9 bar m³/min	150 PSI acfm	10 bar m³/min	175 PSI acfm	12 bar m³/min	in	mm	in	mm	in	mm	lbs	kg
VCC-200S-125	125	93	647	18.3	587	16.9	506	14.3	457	12.9	100	2540	60	1524	68	1727	5250	2381
VCC-200S-150	150	112	752	21.2	683	19.3	631	17.8	570	16.1	100	2540	60	1524	68	1727	5250	2381
VCC-200S-200*	200	149	980	27.7	897	25.4	768	21.7	720	20.3	120	3048	72	1828	68	1727	7450	3379
VCC-250S-200*	200	149	1025	29.0	910	25.7	-	-	-	-	120	3048	72	1828	68	1727	8750	3968
VCC-25S-250	250	186	1218	34.4	1075	30.4	-	-	-	-	154	3911	78	1981	86	2184	10,760	4880
VCC-25S-300	300	224	1615	45.7	1460	41.3	-	-	-	-	154	3911	78	1981	86	2184	10,760	4880
VCC-25S-350	350	261	1480	41.9	1330	37.6	-	-	-	-	154	3911	78	1981	86	2184	11,110	5039
60HZ MOTOR V-200S	**MOTOR**		**VARIABLE SPEED DRIVE V-200S FULL-LOAD CAPACITY WITH VARIABLE CAPACITY CONTROL****								**LENGTH**		**WIDTH**		**HEIGHT**		**WEIGHT**	
Model	hp	kW	100 PSI acfm	7 bar m³/min	125 PSI acfm	9 bar m³/min	150 PSI acfm	10 bar m³/min	175 PSI acfm	12 bar m³/min	in	mm	in	mm	in	mm	lbs	kg
V-200S-125	125	93	633	17.9	576	16.3	-	-	-	-	100	2540	60	1524	68	1727	5330	2417
V-200S-150	150	112	757	21.4	696	19.7	-	-	-	-	100	2540	60	1524	68	1727	5650	2562
V-200S-200*	200	149	967	27.3	888	25.1	787	22.2	743	21.0	120	3048	72	1828	68	1727	7800	3538
60HZ MOTOR V-250S	**MOTOR**		**VARIABLE SPEED DRIVE V-200S FULL-LOAD CAPACITY WITH VARIABLE CAPACITY CONTROL****								**LENGTH**		**WIDTH**		**HEIGHT**		**WEIGHT**	
Model	hp	kW	100 PSI acfm	7 bar m³/min	125 PSI acfm	9 bar m³/min	150 PSI acfm	10 bar m³/min	175 PSI acfm	12 bar m³/min	in	mm	in	mm	in	mm	lbs	kg
V-250S-250	250	186	1195	33.8	1085	30.7	-	-	-	-	154	3511	78	1981	86	2184	10,760	4880
V-250S-300	300	224	1400	39.6	1305	36.9	-	-	-	-	154	3511	78	1981	86	2184	10,760	4880
V-250S-350	350	261	1580	44.7	1435	40.6	-	-	-	-	154	3511	78	1981	86	2184	11,110	5039

50HZ MOTOR LS-200S AND LS-25S	MOTOR		CONSTANT SPEED DRIVE FULL-LOAD CAPACITY**								LENGTH		WIDTH		HEIGHT		WEIGHT	
Model	hp	kW	100 PSI acfm	7 bar m³/min	125 PSI acfm	9 bar m³/min	150 PSI acfm	10 bar m³/min	175 PSI acfm	12 bar m³/min	in	mm	in	mm	in	mm	lbs	kg
LS-200S-125	125	93	614	17.4	560	15.9	515	14.6	464	13.1	100	2540	60	1524	68	1727	5250	2381
LS-200S-150	150	112	745	21.1	678	19.2	601	17.0	542	15.3	100	2540	60	1524	68	1727	5250	2381
LS-200S-200*	200	149	951	25.6	884	25.0	791	22.4	725	20.5	120	3048	72	1828	68	1727	7450	3379
LS-25S-200	200	149	1010	28.6	810	22.9	795	22.5	-	-	154	3911	78	1981	86	2184	10,760	4880
LS-25S-250	250	186	1225	34.7	-	-	980	27.7	-	-	154	3911	78	1981	86	2184	10,760	4880
LS-25S-300	300	224	1452	41.1	1330	37.6	1305	36.9	-	-	154	3911	78	1981	86	2184	10,760	4880
LS-25S-350	350	261	1563	44.2	1438	40.7	-	-	-	-	154	3911	78	1981	86	2184	11,110	5039
60HZ MOTOR VCC-200S AND VCC-25S	**MOTOR**		**CONSTANT SPEED DRIVE WITH VARIABLE CAPACITY CONTROL FULL-LOAD CAPACITY****								**LENGTH**		**WIDTH**		**HEIGHT**		**WEIGHT**	
Model	hp	kW	100 PSI acfm	7 bar m³/min	125 PSI acfm	9 bar m³/min	150 PSI acfm	10 bar m³/min	175 PSI acfm	12 bar m³/min	in	mm	in	mm	in	mm	lbs	kg
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VCC-200S-200*	200	149	951	26.5	884	25.0	791	22.4	725	20.5	120	3048	72	1828	68	1727	7450	3379
VCC-250S-200*	200	149	1010	28.6	-	-	-	-	-	-	120	3048	72	1828	68	1727	8750	3968

* A remote cooler must be used with 200 hp and 250 hp (149 kW and 186 kW) compressors using 24KT®

** Capacity per CAGI / PNEUROP PN2CPTC2 (Annex C to ISO 1217)

24KT available for 100 and 125 psig — 6.8 bar and 8.6 bar offerings.

Information and data are subject to change without notice.

For more information, contact your local authorized Sullair distributor.

SULLAIR®
Always air. Always there.®

Sullair.com

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