ENGINEERING MANUAL

SSR
UP SERIES

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Point of Manufacture - Campbellsville, Kentucky USA
SSR UP6S-15-125 , UP6S-15-145
60 HERTZ ENGINEERING DATA

Model		15-125	15-145
GENERAL COMPRESSOR DATA			
Capacity (Ref. Intake Cond.) FAD (1)	cfm (m³/min)	65 (1.85)	58 (1.64)
Maximum Operating Pressure	psig (barg)	125 (8.5)	145 (10.0)
Minimum Operating Pressure	psig (barg)	65 (4.5)	65 (4.5)
Maximum Operating Temperature	ºF (ºC)	105 (40)	105 (40)
Minimum Operating Temperature	ºF (ºC)	36 (2)	36 (2)
SOUND LEVEL (2)			
Base mounted Enclosed	dB(A)	68	68
COOLING DATA			
Air-cooled (Ambient Temperature 40°C/105°F)			
Rated Airend Discharge temperature	°F (ºC)	199 (93)	196 (91)
A/E Injection Temperature	°F (ºC)	180 (82)	180 (82)
Aftercooler - Inlet (3)	°F (ºC)	172 (78)	172 (78)
Aftercooler - Outlet	°F (ºC)	126 (52)	123 (52)
Heat Removal Oil Cooler	1000 Btu/hr (kW)	32.2 (9.4)	37.9 (11.1)
Heat Removal Oil and Aftercooler	1000 Btu/hr (kW)	42.0 (12.3)	42.0 (12.3)
Heat Removal Dryer Condenser (max)	1000 Btu/hr (kW)	6.3 (1.8)	6.3 (1.8)
Oil Flow	US gpm (lpm)	7.0 (26.5)	9.2 (34.7)
Fan Air Flow	cfm (m³/min)	1770 (50.1)	1770 (50.1)
Dryer Fan Air Flow	cfm (m³/min)	420 (11.9)	420 (11.9)
Cooling Air CTD	°F (ºC)	27 (15)	27 (15)
Aftercooler CTD (3)	°F (ºC)	26 (14)	22 (12)

CONSTRUCTION FOUNDATION AND MOUNTING DATA	Base mounted - see installation drawing	48775159
	120 Gal receiver mounted - see installation drawing	48775175
	240 Gal receiver mounted - see installation drawing	48775183

PIPING CONNECTIONS			
Air Discharge Base Mount	Inches NPT	1.0	1.0
Air Discharge from Receiver	Inches NPT	1.0	1.0
Coolant Drain	Ball Valve -Inch NPT	¼	¼
Power Inlet	Inches	1¼	1¼
Package Condensate Drain	Inches	¼	¼
COOLANT LUBRICATION DATA			
Coolant Sump Capacity	US Gal	1.82 (7.0)	1.82 (7.0)
Total coolant fill capacity	US Gal	3.38 (13.0)	3.38 (13.0)

DIMENSIONS		**Base Mounted**	**120 Gal Rec**	**240 Gal Rec**
length, width, height	Inches	52 / 36 / 42.5	77.5 / 36 / 71	94 / 36 / 76.5
	mm	1321/ 914/ 1080	1962/ 914/ 1796	2390/ 914/ 1940
With Optional Dryer	Inches	67 / 36 / 42.5	77.5 / 36 / 72	95 / 36 / 76.5
	mm	1702/ 914/ 1080	1962/ 914/ 1797	2390/ 914/ 1941

SHIPPING DATA - NET WEIGHTS		**Base Mounted**	**120 Gal Rec**	**240 Gal Rec**
	lb. (kg)	1183 (538)	1510 (685)	1779 (807)
With Optional Dryer	lb. (kg)	1408 (640)	1735 (789)	2004 (911)

Point of Manufacture - Campbellsville, Kentucky USA
SSR UP6S-15-125 , UP6S-15-145
60 HERTZ ENGINEERING DATA

Model		**15-125**	**15-145**
AIREND DATA			
Rotor Diameter (male)	inches	4.21	4.21
Male Rotor Speed	rpm	2335	2093
Tip Speed	ft/sec	42.92	38.47

ELECTRICAL DATA - ALL UNITS SSR UP6S-15		**208v**	**230v**	**380v**	**460v**	**575v**
Nominal Power - Driver	hp	15.0	15.0	15.0	15.0	15.0
Rated Power - Fan	hp	Main Motor Driven	Main Motor Driven	Main Motor Driven	Main Motor Driven	Main Motor Driven
Applied Power at maximum pressure - Full Package	hp	16.5	16.5	16.5	16.5	16.5
		TEFC	TEFC	TEFC	TEFC	TEFC
Motor Enclosure						
Nominal Current - Drive Motor (8)	Amps	40.4	37.8	22.9	18.9	15.1
Package Current - maximum pressure	Amps	44.8	42.0	25.4	21.0	16.8
Drive Motor RPM		1770-1775	1770-1775	1775	1770-1775	1775
Drive Motor Frame		160 M	160 M	160 M	160 M	160 M
Drive Motor Full Voltage Locked Rotor Amps (star) (5)		103	94	63	52	41
Drive Motor Efficiency (10)		0.91-0.912	0.91-0.912	0.912	0.91-0.912	0.912
Drive Motor Power Factor (10)		0.83-0.80	0.83-0.80	0.80	0.83-0.80	0.80
Test certificate number		TBA	TBA	TBA	TBA	TBA
Dryer electrical data	**115-1-60**					
Full Load Current	9.6					
Starting Current	45					
Electrical Installation						
Mains Supply Cable (8)	Gage	4	4	6	10	10
Suggested Fuse Rating	Amps	90	80	50	40	35
Recommended wire Size - Dryer (8) (13)	16 AWG					

Refrigerated Dryer Data		**ISO Class**	
Pressure Dew Point ISO Class (12)	°C (°F)	6	8°C (46°F)
Refrigerant weight of R-134a	Grams / (Oz)		320/(11.6)

Filter Data	**Particulate**		**Liquid**	
	ISO Class	**Filtration**	**ISO Class**	**Filtration**
Primary filter detail - at 21°C (70°F)	3	0.1 micron	3	0.6 mg/m^3 (0.5 ppm)

		barG	**psig**	**barG**	**psig**	**barG**	**psig**
Pressure Drop data by operating pressure	barG / (psig)	**8.6**	**125**	**10.0**	**145**	**13.8**	**200**
Dryer Pressure Drop	barG / (psig)	0.22	3.2	0.14	2.0	0.06	0.8
Primary filter wet pressure drop	barG / (psig)	0.10	1.4	0.09	1.3	0.08	1.2
Total Pressure Drop (11) For ISO Class 3.6.3 air	barG / (psig)	0.32	4.6	0.23	3.3	0.14	2.0

Notes :

(1) FAD (Free Air Delivery) is full package performance including all losses. Tested in accordance with ISO 1217 : 1996 Annex C.
(2) Measured in free field conditions in accordance with ISO 2151; 2004 annex C, with + 3 dB(A) tolerance.
(3) 40% Relative Humidity Inlet Air
(4) Predicted CAT cell data at rated discharge pressure.
(5) Star Delta Inrush excluding transient spike.
(8) This is a minimum requirement based on 90°C wire - It may be necessary to use larger cables to comply with local regulations or if the voltage drop exceeds 5% of the nominal voltage.
(10) Measured at nominal motor power
(11) Total package including compressor, integral dryer with pre and final compressed air filters
(12) Dew point measured In accordance with ISO 8573-1:2001. With inlet air to package of 25°C (77 °F) and RH at 60%
(13) Always apply local electrical codes for sizing cables and fusing