

ENGINEERING MANUAL

SSR UP SERIES



CCN: 23753403
Rev.: C
Ref.: 9904
Page: 98
Date: 01st January 2011
Cancels: 10th January 2008

Point of Manufacture - Campbellsville, Kentucky USA
SSR UP6-15-125 , UP6-15-150
60 HERTZ ENGINEERING DATA

Model		15-125	15-150
GENERAL COMPRESSOR DATA			
Capacity (Ref. Intake Cond.) FAD (1)	cfm (m ³ /min)	65 (1.85)	58 (1.64)
Maximum Operating Pressure	psig (barg)	125 (8.5)	150 (10.3)
Minimum Operating Pressure	psig (barg)	65 (4.5)	65 (4.5)
Maximum Operating Temperature	°F (°C)	105 (40)	105 (40)
Minimum Operating Temperature	°F (°C)	36 (2)	36 (2)

SOUND LEVEL (2)			
Base mounted Enclosed	dB(A)	68	68

COOLING DATA			
Air-cooled (Ambient Temperature 122°F/50°C)			
Rated Airend Discharge temperature	°F (°C)	199.0 (93)	196.0 (91)
A/E Injection Temperature	°F (°C)	180 (82)	180 (82)
Aftercooler - Inlet (3)	°F (°C)	172 (78)	172 (78)
Aftercooler - Outlet	°F (°C)	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)
Oil Flow	US gpm (lpm)	7.0 (15.9)	9.2 (21.6)
Fan Air Flow	cfm (m ³ /min)	1770 (50.1)	1770 (50.1)
Cooling Air CTD	°F (°C)	20 (12)	20 (12)
Aftercooler CTD (3)	°F (°C)	22 (12)	19 (11)

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

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

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
length, width, height	Inches	52 / 36 / 42.5	77.5 / 36 / 71
	mm	1321/ 914/ 1080	1962/ 914/ 1796

SHIPPING DATA - NET WEIGHTS		Base Mounted	120 Gal Rec
	lb. (kg)	1183 (538)	1510 (685)

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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 UP6-20		200v		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	
		ODP	TEFC	ODP	TEFC	ODP	TEFC	ODP	TEFC	ODP	TEFC
Motor Enclosure											
Nominal Current - Drive Motor (8)	Amps	43	41.1	37.4	35.7	22.6	21.7	18.7	17.9	15	14.3
Package Current - maximum pressure	Amps	47.3	45.2	41.2	39.3	24.9	23.8	20.6	19.7	16.4	15.8
Drive Motor RPM		1765	1760	1765	1760	1765	1760	1765	1760	1765	1760
Drive Motor Frame		254T	160M	254T	160M	254T	160M	254T	160M	254T	160M
Drive Motor Full Voltage Locked Rotor (star) Amps (7)		257.6	(151.3)	224.0	(131.6)	135.6	(114)	112.0	(66.4)	89.6	(53.1)
Drive Motor Efficiency (10)		0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Drive Motor Power Factor (10)		0.81	0.85	0.81	0.85	0.81	0.85	0.81	0.85	0.81	0.85
Test certificate number		01562/03	32765/02	01562/03	32765/02	TBA	TBA	01562/03	32765/02	01562/03	32765/02
Electrical Installation											
Mains Supply Cable (8)(13)	Gage	4	4	4	4	10	10	10	10	10	10
Suggested Fuse Rating	Amps	90	90	80	80	40	40	40	40	35	35

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	CCN	Particulate		Liquid			
		ISO Class	Filtration	ISO Class	Filtration		
Primary filter detail - at 21°C (70°F)	85570588	3	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	10.3	150	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 PNEUROP/CAGI test codes, with +/- 3 dB(A) tolerance.
- (3) 40% Relative Humidity Inlet Air
- (4) Predicted CAT cell data at rated discharge pressure.
- (7) Star Delta Starting 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