

ENGINEERING MANUAL

SSR
UP SERIES

CCN: 23753577
 Rev.: D ECO: 80133
 Ref.: 9905
 Page: 114
 Date: 07th November 2011
 Cancels: 01st January 2011

Confidential Information

Points of Manufacture - Campbellsville Facility, Kentucky & SIRC, Shanghai, PRC.
 SSR UP6-40-115HA, UP6-40-125HA, UP6-40-150HA, UP6-40-200HA
 60 HERTZ ENGINEERING DATA

Model		40-115HA	40-125HA	40-150HA	40-200HA
GENERAL COMPRESSOR DATA					
Capacity (Ref. Intake Cond.) FAD (1)	cfm (m ³ /min)	183 (5.18)	180 (5.10)	170 (4.81)	143 (4.05)
Maximum Operating Pressure	psig (barg)	115 (8.0)	125 (8.5)	150 (10.3)	200 (13.8)
Minimum Operating Pressure	psig (barg)	65 (4.5)	65 (4.5)	65 (4.5)	65 (4.5)
Maximum Operating Temperature	°F (°C)	122 (50)	122 (50)	122 (50)	122 (50)
Minimum Operating Temperature	°F (°C)	36 (2)	36 (2)	36 (2)	36 (2)

SOUND LEVEL (2)					
Base mounted Enclosed	dB(A)	69	69	69	69

COOLING DATA

Air-cooled (Ambient Temperature 50°C/122°F)

Max Airend Discharge Temperature	°F (°C)	216 (102)	216 (102)	216 (102)	216 (102)
A/E Injection Temperature	°F (°C)	179 (81.7)	179 (81.7)	179 (81.7)	179 (81.7)
Aftercooler - Inlet (3)	°F (°C)	203 (95.0)	202 (94.4)	199 (92.8)	195 (90.6)
Aftercooler - Outlet	°F (°C)	142 (61.1)	141 (60.6)	138 (58.9)	134 (56.7)
Heat Removal Oil Cooler	1000 Btu/hr (kW)	95.7 (28.0)	96.7 (28.3)	98.2 (28.8)	100.6 (29.5)
Heat Removal Oil and Aftercooler	1000 Btu/hr (kW)	121.9 (35.7)	122.3 (35.8)	123.1 (36.0)	123.1 (36.1)
Oil Flow	US gpm (lpm)	13.0 (49.2)	13.6 (51.5)	15 (56.8)	18 (78.1)
Fan Air Flow	cfm (m ³ /min)	3900 (110.4)	3900 (110.4)	3900 (110.4)	3900 (110.4)
Cooling Air CTD	°F (°C)	40 (22)	40 (22)	40 (22)	40 (22)
Aftercooler CTD (3)	°F (°C)	20 (11.1)	19 (10.6)	16 (8.9)	12 (6.7)

CONSTRUCTION FOUNDATION AND MOUNTING DATA	Base mounted - see installation drawing	22246326
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PIPING CONNECTIONS

Air Discharge Base Mount	Inches NPT	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂
Condensate Drain	Inches NPT	1/4	1/4	1/4	1/4
Coolant Drain	Ball Valve -Inch NPT	1/2	1/2	1/2	1/2
Power Inlet	Inches	2. 1/2	2. 1/2	2. 1/2	2. 1/2

COOLANT LUBRICATION DATA

Coolant Sump Capacity	US Gal. (liters)	3.7 (14)	3.7 (14)	3.7 (14)	3.7 (14)
Total coolant fill capacity	US Gal. (liters)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)

DIMENSIONS

length, width, height	Inches	Base Mounted 67.4/ 54.3 / 52.8			
	mm	1712/ 1379 / 1344			

SHIPPING DATA - NET WEIGHTS

	lb. (kg)	TEFC Motor 2476 (1123)	ODP motor 2384 (1081)
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Model		40-115HA	40-125HA	40-150HA	40-200HA
AIREND DATA					
Rotor Diameter (male)	inches	5.05	5.05	5.05	5.05
Male Rotor Speed	rpm	3861	3733	3439	2948
Tip Speed	ft/sec	85.04	82.22	75.75	64.93

ELECTRICAL DATA - ALL UNITS SSR UP6-40HA		Volts	200		230		380		460		575		
Nominal Power - Driver		hp	40.0		40.0		40.0		40.0		40.0		
Rated Power - Fan		hp	1.3		1.3		1.3		1.3		1.3		
Maximum Applied Power - Package		hp	45.3		45.3		45.3		45.3		45.3		
			ODP	TEFC	ODP	TEFC	ODP	TEFC	ODP	TEFC	ODP	TEFC	
Motor Enclosure													
Nominal Current - Drive Motor (6)		Amps	111.1	108.7	96.6	94.5	58.5	57.2	48.3	47.3	38.6	37.8	
Package Current (includes fan) - max. pressure		Amps	129.7	126.5	112.8	110.0	68.3	66.6	56.4	55.0	45.1	44.0	
Drive Motor RPM			1775	1775	1775	1775	1775	1775	1775	1775	1775	1775	
Drive Motor Frame			326T	326T	326T	326T	326T	326T	326T	326T	326T	326T	
Drive Motor Locked Rotor - Full Voltage - EISA		Amps	960.6	1087.2	835.3	945.4	505.6	572.2	417.6	472.7	334.1	378.2	
Drive Motor Efficiency (6)- EISA			0.945	0.945	0.945	0.945	0.945	0.945	0.945	0.945	0.945	0.945	
Drive Motor Power Factor (6)- EISA			0.8	0.82	0.8	0.82	0.8	0.82	0.8	0.82	0.8	0.82	
Fan Motor Efficiency (6)			0.855		0.855		0.855		0.855		0.855		
Fan Motor Power Factor (6)			0.62		0.62		0.62		0.62		0.62		
Fan Motor Full Voltage Locked Rotor Current			43.7		38		19		23		15.2		
Electrical Installation													
Mains Supply Cable (5)		Gage	4/0	4/0	3/0	3/0	2	2	3	3	4	4	
Suggested Fuse Rating		Amps	175	175	150	150	90	90	75	75	60	60	

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
- (5) 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.
- (6) Measured at nominal motor power