

ENGINEERING MANUAL

SSR
Small UP SERIES



CCN: 23753650
Rev.: D ECO 81751
Ref.: 9902
Page: 102
Date: 30th April 2013
Cancels: 01st January 2011

Point of Manufacture - Campbellsville, USA

60 HERTZ ENGINEERING DATA

Model		UP6-7-125	UP6-7-150	UP6-7-210
GENERAL COMPRESSOR DATA				
Capacity (Ref. Intake Cond.) FAD (1)	m³/min (cfm)	0.74 (26.3)	0.65 (23.1)	0.45 (16)
Maximum Operating Pressure	barg (psig)	8.6 (125)	10.3 (150)	14.5 (210)
Minimum Operating Pressure	barg (psig)	4.5 (65)	4.5 (65)	4.5 (65)
Maximum Operating Temperature	°C (°F)	40 (105)	40 (105)	40 (105)
Minimum Operating Temperature	°C (°F)	2 (36)	2 (36)	2 (36)
SOUND LEVEL (2)				
Base mounted Enclosed	dB(A)	65	65	65
COOLING DATA				
Air-cooled (Ambient Temperature 40°C/104°F)				
Coolant Discharge temperature	°C(°F)	87 (189)	86 (187)	90 (194)
A/E Injection Temperature	°C(°F)	79 (174)	79 (174)	79 (174)
(3) Aftercooler - Inlet	°C(°F)	79 (174)	79 (174)	79 (174)
Aftercooler - Outlet	°C(°F)	51 (124)	51 (124)	51 (124)
Heat Removal Oil Cooler	kW (1000 Btu/hr)	5.5 (18.8)	5.5 (18.8)	5.5 (18.8)
Heat Removal Oil and Aftercooler	kW (1000 Btu/hr)	6.1 (20.8)	6.1 (20.8)	6.1 (20.8)
Coolant Flow	lpm (UK gpm)	17.0 (3.7)	21.0 (4.6)	32.0 (7.0)
Fan Air Flow	m³/min (cfm)	20.0 (700)	20.0 (700)	16.0 (565)
Cooling Air CTD	°C (°F)	35 (63)	35 (63)	35 (63)
Aftercooler CTD (3)	°C (°F)	11 (20)	11 (20)	11 (20)
CONSTRUCTION FOUNDATION AND				
PIPING CONNECTIONS				
Air Discharge Base Mount	Inches BSPT (9)	0.75		
Air Discharge from ASME Receiver	Inches NPT	0.75		
Coolant Drain	Drain Plug	9/16"-SAE		
Power Inlet	Inch	1"		
COOLANT LUBRICATION DATA				
Coolant Sump Capacity	litres (US gal)	3 (.8)		
Total coolant fill capacity	litres (US gal)	4.5 (1.2)		
DIMENSIONS				
length, width, height	mm	Basemount 1042/734/914	80 gal 1362/734/1541	120 gal 1897/734/1541
	Inches	41/28.9/36	53.6/28.9/60.7	74.7/28.9/60.7
GA Drawing Numbers		22431811	22431829	22469191
SHIPPING DATA - NET WEIGHTS				
	kg (lb.)	295 (650)	420 (925)	436 (960)

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AIREND DATA

Rotor Diameter (male)	mm	74.25	74.25	74.25
Male Rotor Speed	rpm	3200	2850	2375
Tip Speed	m/sec	12.44	11.08	9.23

ELECTRICAL DATA - ALL UNITS SSR UP6-7		230-1-60	200v	230v	460v	575v
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Nominal Power - Driver	HP	7.5	7.5	7.5	7.5	7.5
Maximum Applied Power - Package	HP	8.2	8.2	8.2	8.2	8.2

Drive Motor Protection		TEFC	ODP / TEFC	ODP/TEFC	ODP/TEFC	ODP/TEFC
Nominal Current - Drive Motor (8)	Amps	31.0	20.6/20.2	17.9/17.5	9/8.8	7.2/7
Package Current - maximum pressure	Amps	34.1	22.7/22.2	19.7/19.3	9.9/9.7	7.9/7.7
Drive Motor RPM		3495	3475	3475	3475	3475
Drive Motor Frame		184T	184TZ	184TZ	184TZ	184TZ
Drive Motor Locked Rotor (5)	Amps	217.0	155.0	135.0	67.0	54.0
Drive Motor Efficiency (8)		84	87.5/88.5	87.5/88.5	87.5/88.5	87.5/88.5
Drive Motor Power Factor (8)		0.92	.88/.89	.88/.89	.88/.89	.88/.89
Test Certificate Number (4)		BL650710			AT43040 BK85519	

Electrical Installation

Recommended wire size (6)	Awg	6	8	10	14	14
Suggested Fuse Rating (7)	Amps	50	35	35	15	12

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 (For alternate conditions refer to SSR toolbox or contact IR)
- (4) Motor test certificate
- (5) Inrush amps
- (6) 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.
- (7) Recommended Time delay Fuse. Refer to local code for proper fuse sizing
- (8) Measured at nominal motor power
- (9) Installation kit will provide flexible connection to NPT or BSPT