

# ENGINEERING MANUAL

## SSR Small UP SERIES



CCN: 23753650  
 Rev.: H CN 1330784  
 Ref.: 9902  
 Page: 102  
 Date: 5th Dec 2018  
 Cancels: 10th Nov 2017

Point of Manufacture - Campbellville, USA

### 60 HERTZ ENGINEERING DATA

Model		UP6-7-125	UP6-7-150	UP6-7-210
*** DENOTES NOT AVAILABLE IN NORTH AMERICA ***				
<b>GENERAL COMPRESSOR DATA</b>				
Capacity (Ref. Intake Cond.) FAD (1)	m <sup>3</sup> /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)

<b>SOUND LEVEL (2)</b>				
Base mounted Enclosed	dB(A)	65	65	65

<b>COOLING DATA</b>				
<b>Air-cooled (Ambient Temperature 40°C/104°F)</b>				
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	m <sup>3</sup> /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

<b>PIPING CONNECTIONS</b>				
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"		

<b>COOLANT LUBRICATION DATA</b>				
Coolant Sump Capacity	litres (US gal)	3 (.8)		
Total coolant fill capacity	litres (US gal)	4.5 (1.2)		

<b>DIMENSIONS</b>		Basemount	80 gal (20in tank)	80 gal (24in tank)	120 gal
length, width, height	mm	1040/728/936	1737/737/1513	1350/737/1616	1846/737/1616
	Inches	40.9/28.7/36.9	68.4/29.0/59.6	53.2/29.0/63.6	72.7/29.0/63.7
GA Drawing Numbers		22431811	24470304	22431829	22469191

<b>SHIPPING DATA - NET WEIGHTS</b>					
	kg (lb.)	298 (655)	422 (930)	420 (925)	430 (946)

**SSR**  
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Model		UP6-7-125	UP6-7-150	UP6-7-210			
<b>AIREND DATA</b>							
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			
<b>ELECTRICAL DATA - ALL UNITS SSR UP6-7</b>							
*** NOTE BLUE SHADE DENOTES SINGLE PHASE ***		230-1-60	200v	230v	380v	460v	575v
Nominal Power - Driver	HP	7.5	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	8.2
Drive Motor Protection		TEFC	ODP	ODP	ODP	ODP	ODP
Nominal Current - Drive Motor ( 8 )	Amps	31.0	20.0	17.8	10.5	8.9	7.5
Package Current - maximum pressure	Amps	34.1	22.0	19.6	11.6	9.8	8.3
Drive Motor RPM		3495	3510	3510	3510	3510	3510
Drive Motor Frame		184T	184TZ	184TZ	184TZ	184TZ	184TZ
Drive Motor Locked Rotor (5)	Amps	217.0	159.0	145.0	84.0	73.0	60.0
Drive Motor Efficiency ( 8 )		84	88.5	88.5	88.5	88.5	88.5
Drive Motor Power Factor ( 8 )		0.92	0.90	0.90	0.90	0.90	0.90
Test Certificate Number (4)		BL650710	FD-2016-023195	FD-2016-170821	FDC 086582.2017	FD-2016-170821	FD-2016-171653
<b>Electrical Installation</b>							
Recommended wire size ( 6 )	Awg	6	8	10	12	14	14
Suggested Fuse Rating ( 7 )	Amps	50	35	35	20	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