

CHAMPION		R Series 7.5HP				Eng. Data Sheet: CP-R4-V1													
		Engineering Data Sheet				Date: 2/25/2015													
		Air Cooled, 60Hz				Supersedes: NEW													
Model Number		VR7F-6	VR7F-8	VR7F-12	HR7F-6	HR7F-8	HR7F-12	HR7DF-12	HR7DF-25	BR7F	BR7	VR7-8	VR7-12	HR7-8	HR7-12	HR7-25	HR7D-12	HR7D-25	
Configurator Number		CASRSA			CADRSA			CABRSA			CASRSA			CADRSA					
Description	Units	Product Data																	
Compressor Pump																			
Pump Model	na	R15B						R30D											
Number of Cylinders	na	2						4											
Bore & Stroke	in.	4-5/8 & 2-1/2 x 3						4-5/8 (2) & 2-1/2 (2) x 3											
Flywheel	OD in.	16.5						18.875											
Pulley 125 PSIG	OD in.	9.35						7.0											
Pulley 175 PSIG	OD in.	9.35						6.2											
Number of Stages	na	2																	
Lubrication	na	Splash Lubricated																	
Oil Capacity	qt.	2						4											
Oil Type	na	CHAMPLUB, ISO 100 Non-Detergent Industrial Lubricant																	
Number of Belt Grooves	na	2																	
Belt Section	na	B																	
Crankcase	na	Cast Iron																	
Bearings	na	Tapered Roller																	
Cylinder	na	Aluminum with Cast Iron Liner																	
Piston 1st Stage	na	Aluminum Alloy																	
Piston 2nd Stage	na	Cast Iron																	
Valves	na	Disc Valves																	
Intake Filter	na	5 Micron																	
Main Drive Motor (1)																			
Drive Motor Nominal Power	hp(kW)	7.5 (5.59)																	
Voltage (2)	na	208/230/460/575																	
Phase	na	1 or 3																	
Drive Motor Speed	rpm	1800																	
Service Factor	na	1.15																	
Motor Insulation Class	na	F																	
Drive Motor Full Load Current - 208/1/60 (3)	amps	44.0																	
Drive Motor Full Load Current - 230/1/60 (3)	amps	40.0																	
Drive Motor Full Load Current - 208/3/60 (3)	amps	24.2																	
Drive Motor Full Load Current - 230/3/60 (3)	amps	22.0																	
Drive Motor Full Load Current - 460/3/60 (3)	amps	11.0																	
Drive Motor Full Load Current - 575/3/60 (3)	amps	9.0																	
Wire Size - 208/1/60 (3,4,5)	awg	6 (2)						6 (2)						6 (2)					
Wire Size - 230/1/60 (3,4,5)	awg	6 (2)						6 (2)						6 (2)					
Wire Size - 208/3/60 (3,4,5)	awg	8 (6)						8 (6)						8 (6)					
Wire Size - 230/3/60 (3,4,5)	awg	10 (6)						10 (6)						10 (6)					
Wire Size - 460/3/60 (3,4,5)	awg	14 (10)						14 (10)						14 (10)					
Wire Size - 575/3/60 (3,4,5)	awg	14 (10)						14 (10)						14 (10)					

- 1) Main Drive Motor performance is based off the standard ODP motor.
- 2) Compressors are voltage specific and must be specified at time of order.
- 3) The amp draws and wire size provided are off general NEC guidelines. For proper breaker and fuses please consult a licensed electrician or electrical contractor.
- 4) Copper wire, 75°C (167°F) maximum temperature rating, 30°C (86°F) ambient temperature
- 5) Values in () is for incoming power line on duplex units.

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Configurator Number		CASRSA					CADRSA					CASRSA					CADRSA									
Description		Units		Product Data																						
Performance Data (6)																										
CFM Delivery @ 125 PSIG (7)	acfm	23.9					47.8					23.9					30.0					60.0				
CFM Delivery @ 175 PSIG (7)	acfm	23.1					46.2					23.1					25.8					51.6				
CFM Displacement @ 125 PSIG	icfm	28.7					57.4					28.7					39.6					79.2				
CFM Displacement @ 175 PSIG	icfm	28.7					57.4					28.7					33.5					67.0				
Maximum Pressure	psig	175																								
Working Pressure Differential	psig	35																								
Pump Operating Speed @ 125 PSIG	rpm	990										670														
Pump Operating Speed @ 175 PSIG	rpm	990										575														
Minimum Speed	rpm	400																								
Maximum Speed	rpm	1000										1050														
Cooling Air Flow @ 125 PSIG	cfm	1195										975														
Cooling Air Flow @ 175 PSIG	cfm	1195										835														
Heat Rejection	btu/hr	16800																								
Noise Level (8)	dB(A)	77					80					77					78									
Aftercooler Approach Temp (9)	°F	45																								
Min/Max Operating Temp	°F	32/104																								
Dimensions and Weight																										
Tank Size	gal	60	80	120	60	80	120	250	na	80	120	80	120	250	120	250										
Tank Configuration	na	Vertical					Horizontal					na	Vertical					Horizontal								
Tank Capacity @ 125 PSIG	ft³	68	91	137	68	91	137	68.4	284.9	na	91	137	91	137	284.9	136.7	284.9									
Tank Capacity @ 175 PSIG	ft³	96	128	191	96	128	191	95.7	398.8	na	128	191	128	191	398.8	191.4	398.8									
Tank Pumping Time @ 125 PSIG (10)	min	2.9	3.8	5.7	2.9	3.8	2.85	5.94	na	3	4.6	3	4.6	9.47	2.27	4.74										
Tank Pumping Time @ 175 PSIG (10)	min	4.1	5.5	8.3	4.1	5.5	4.13	8.61	na	4.9	7.4	4.9	7.4	15.42	3.7	7.71										
Package Length	in.	35	35	43	51	66	72	75	88.5	38	43	42.5	67	71	88.5	83	88									
Package Width	in.	25	27	30	23	23	26	30	21.25	25	23	30	26	26	31	30	33.1									
Package Height	in.	77	75	81	49	53	56.5	61.5	29.5	29	67	81	50	53	60	56	61.3									
Total Package Weight	lbs.	485	635	765	485	570	765	1150	1485	310	430	665	800	665	860	1275	1305	1675								
Pump Length	in.	20					21.13																			
Pump Width	in.	16.875					25.42																			
Pump Height	in.	23.25					23.563																			
Pump Weight	lbs.	109					220																			
Discharge Connection (11)	npt "	1/2 F		3/4 F		1/2 F		3/4 F					3/4 F													
Outline Drawing ID	na	336CAS800	313CAS800	326CAS800	335CAS800	320CAS800	325CAS800	308CAD800	309CAD800	302CAB800	303CAB800	330CAS800	329CAS800	328CAS800	327CAS800	323CAS800	303CAD800	306CAD800								
Operating/Parts Manual ID	na	F3231										F3233														

- 6) All units tested in accordance with CAGI/PNEUROPE Acceptance Test Code PN2CPTC2.
- 7) acfm is actual cubic feet per minute at inlet conditions.
- 8) Sound levels are based off estimated dB(A).
- 9) Approach temperature is the temperature above the discharge air and above the ambient air of the aftercooler.
- 10) Tank pumping time is based off 0 PSIG to fully pressurized.
- 11) M = Male connection, F=Female connection

NOTE: Duplex models take quantities of 2 on applicable items such as motors, pump, oil quantity, etc.



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Due to Champion's continuing product development program, specifications and materials are subject to change without notice or obligation.