

CHAMPION	R Series 5HP		Eng. Data Sheet: CP-R3-V4									
	Engineering Data Sheet		Date: 9/13/2022									
	Air Cooled, 60Hz		Supersedes: CP-R3-V3									
Model Number		BR5	VR5-6	VR5-8	VR5-12	HR5-3	HR5-6	HR5-8	HR5-12	HR5D-8	HR5D-12	HR5D-25
Configurator Number	R2-30A											
Description	Units	Product Data										
Compressor Pump												
Pump Model	n/a	R15B										
Number of Cylinders	n/a	2										
Bore & Stroke	in.	4-5/8 & 2-1/2 x 3										
Flywheel	OD in.	16.5										
Pulley 80 / 125 PSIG	OD in.	7.35										
Pulley 175 PSIG	OD in.	7										
Number of Stages	n/a	2										
Lubrication	n/a	Splash Lubricated										
Oil Capacity	qt.	2										
Oil Type	n/a	CHAMPLUB, ISO 100 Non-Detergent Industrial Lubricant										
Number of Belt Grooves	n/a	2										
Belt Section	n/a	B										
Crankcase	n/a	Cast Iron										
Bearings	n/a	Tapered Roller										
Cylinder	n/a	Aluminum with Cast Iron Liner										
Piston 1st Stage	n/a	Aluminum Alloy										
Piston 2nd Stage	n/a	Cast Iron										
Valves	n/a	Disc Valves										
Intake Filter	n/a	5 Micron										
Main Drive Motor (1)												
Drive Motor Nominal Power	hp(kW)	5 (3.73)										
Voltage (2)	n/a	208/230/460/575										
Phase	n/a	1 or 3										
Drive Motor Speed	rpm	1800										
Service Factor	n/a	1.15										
Motor Insulation Class	n/a	F										
Drive Motor Full Load Current - 208/1/60 (3)	amps	30.8										
Drive Motor Full Load Current - 230/1/60 (3)	amps	28										
Drive Motor Full Load Current - 208/3/60 (3)	amps	16.7										
Drive Motor Full Load Current - 230/3/60 (3)	amps	15.2										
Drive Motor Full Load Current - 460/3/60 (3)	amps	7.6										
Drive Motor Full Load Current - 575/3/60 (3)	amps	6.1										
Wire Size - 208/1/60 (3,4,5)	awg	8 (4)										
Wire Size - 230/1/60 (3,4,5)	awg	8 (4)										
Wire Size - 208/3/60 (3,4,5)	awg	10 (8)										
Wire Size - 230/3/60 (3,4,5)	awg	12 (8)										
Wire Size - 460/3/60 (3,4,5)	awg	14 (12)										
Wire Size - 575/3/60 (3,4,5)	awg	14 (12)										

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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	Air Cooled, 60Hz						Supersedes: CP-R3-V3						
Model Number		BR5	VR5-6	VR5-8	VR5-12	HR5-3	HR5-6	HR5-8	HR5-12	HR5D-8	HR5D-12	HR5D-25	
Configurator Number	R2-30A												
Description	Units	Product Data											
Performance Data (6)													
CFM Delivery @ 80 PSIG (7)	acfm	21.6						43.2					
CFM Delivery @ 125 PSIG (7)	acfm	21.0						42.0					
CFM Delivery @ 175 PSIG (7)	acfm	17.0						34.0					
Displacement @ 80 / 125 PSIG	cfm	23.5						47.0					
Displacement @ 175 PSIG	cfm	21.4						42.8					
Maximum Pressure	psig	175											
Working Pressure Differential	psig	35											
Pump Operating Speed @ 80 / 125 PSIG	rpm	780											
Pump Operating Speed @ 175 PSIG	rpm	737											
Minimum Speed	rpm	400											
Maximum Speed	rpm	1050											
Cooling Air Flow @ 80 / 125 PSIG	cfm	868											
Cooling Air Flow @ 175 PSIG	cfm	820											
Dryer Flow	cfm	25											
Heat Rejection	btu/hr	11200						22400					
Noise Level (8)	dB(A)	75						78					
Aftercooler Approach Temp (9)	°F	45											
Min/Max Operating Temp	°F	32 / 104											
Dimensions and Weight													
Tank Size	gal		60	80	120	30	60	80	120	80	120	250	
Tank Configuration	n/a		Vertical				Horizontal						
Tank Capacity @ 80 PSIG	ft³	n/a	51.7	68.9	103.3	25.8	51.7	68.9	103.3	68.9	103.3	215.3	
Tank Capacity @ 125 PSIG	ft³		76.2	101.6	152.4	38.1	76.2	101.6	152.4	101.6	152.4	317.6	
Tank Capacity @ 175 PSIG	ft³		103.5	138.0	207.0	51.8	103.5	138.0	207.0	138.0	207.0	431.3	
Tank Pumping Time @ 125 PSIG (10)	min		3.6	4.8	7.3	1.8	3.6	4.8	7.3	2.4	3.6	7.6	
Tank Pumping Time @ 175 PSIG (10)	min		6.1	8.1	12.2	3.0	6.1	8.1	12.2	4.1	6.1	12.7	
Package Length	in.		38.0	35.3	35.0	35.3	42.6	51.8	66.8	71.5	74.9	74.9	88.3
Package Length w/ dryer	in.		n/a						74.6	76.8	n/a		
Package Width	in.	24.7	32.5	34.5	37.4	31.4	31.6	31.6	32.8	31.7	32.7	37.9	
Package Width w/ dryer	in.		n/a						34.5	35.7	n/a		
Package Height	in.	29.5	77.4	76.4	75.8	43.7	49.3	48.8	54.8	49.8	54.0	60.5	
Package Height w/ dryer	in.		n/a						49.8	54.0	n/a		
Approx. Ship Weight	lbs.	280	525	590	762	432	525	590	762	755	980	1140	
Approx. Ship Weight w/ dryer	lbs.		n/a						780	889	n/a		
Pump Length	in.	20											
Pump Width	in.	16.5											
Pump Height	in.	23.25											
Pump Weight	lbs.	109											
Discharge Connection (11)	npt "	3/4	1/2 F		3/4 F	1/2 F		3/4 F	1/2	3/4 F			
Parts Manual ID	n/a	CQF3454											
Service Manual ID	n/a	CQF3473											
Controller Manual ID	n/a	CQF3475						CQF3538					

6) All units tested in accordance with CAGI/PNEUROP 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.