

CHAMPION	R Series 10HP					Eng. Data Sheet: CP-R5-V4		
	Engineering Data Sheet					Date: 9/13/2022		
	Air Cooled, 60Hz					Supersedes: CP-R5-V3		
Model Number	BR10	VR10-8	VR10-12	HR10-8	HR10-12	HR10-24	HR10D-12	HR10D-24
Configurator Number	R2-30A							
Description	Units	Product Data						
Compressor Pump								
Pump Model	n/a	R30D						
Number of Cylinders	n/a	4						
Bore & Stroke	in.	4-5/8 (2) & 2-1/2 (2) x 3						
Flywheel	OD in.	18.875						
Pulley 80 / 125 PSIG	OD in.	8.38						
Pulley 175 PSIG	OD in.	8.15						
Number of Stages	n/a	2						
Lubrication	n/a	Splash Lubricated						
Oil Capacity	qt.	4						
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)	10 (7.46)						
Voltage (2)	n/a	208/230/460/575						
Phase	n/a	3						
Drive Motor Speed	rpm	1800						
Service Factor	n/a	1.15						
Motor Insulation Class	n/a	F						
Drive Motor Full Load Current - 208/3/60 (3)	amps	30.8						
Drive Motor Full Load Current - 230/3/60 (3)	amps	28						
Drive Motor Full Load Current - 460/3/60 (3)	amps	14						
Drive Motor Full Load Current - 575/3/60 (3)	amps	11						
Wire Size - 208/3/60 (3,4,5)	awg	8 (4)						
Wire Size - 230/3/60 (3,4,5)	awg	8 (4)						
Wire Size - 460/3/60 (3,4,5)	awg	12 (8)						
Wire Size - 575/3/60 (3,4,5)	awg	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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Model Number		BR10	VR10-8	VR10-12	HR10-8	HR10-12	HR10-24	HR10D-12	HR10D-24	
Configurator Number		R2-30A								
Description	Units	Product Data								
Performance Data (6)										
CFM Delivery @ 80 PSIG (7)	acfm	35.7					71.4			
CFM Delivery @ 125 PSIG (7)	acfm	34.7					69.4			
CFM Delivery @ 175 PSIG (7)	acfm	33.8					67.6			
Displacement @ 80 / 125 PSIG	cfm	47.3					94.6			
Displacement @ 175 PSIG	cfm	43.1					86.2			
Maximum Pressure	psig	175								
Working Pressure Differential	psig	35								
Pump Operating Speed @ 80 / 125 PSIG	rpm	774								
Pump Operating Speed @ 175 PSIG	rpm	718								
Minimum Speed	rpm	400								
Maximum Speed	rpm	1050								
Cooling Air Flow @ 80 / 125 PSIG	cfm	1180								
Cooling Air Flow 175 PSIG	cfm	1075								
Dryer Flow	cfm	42								
Heat Rejection	btu/hr	22400					44800			
Noise Level (8)	dB(A)	78					80			
Aftercooler Approach Temp (9)	°F	40								
Min/Max Operating Temp	°F	32 / 104								
Dimensions and Weight										
Tank Size	gal	n/a	80	120	80	120	240	120	240	
Tank Configuration	n/a		Vertical				Horizontal			
Tank Capacity @ 80 PSIG	ft³		68.9	103.3	68.9	103.3	206.7	103.3	206.7	
Tank Capacity @ 125 PSIG	ft³		101.6	152.4	101.6	152.4	304.9	152.4	304.9	
Tank Capacity @ 175 PSIG	ft³		138.0	207.0	138.0	207.0	414.0	207.0	414.0	
Tank Pumping Time @ 125 PSIG (10)	min		2.4	3.7	2.4	3.7	7.6	1.8	3.8	
Tank Pumping Time @ 175 PSIG (10)	min		3.7	5.5	3.7	5.5	11.4	2.7	5.7	
Package Length	in.		42.7	42.8	42.7	67.2	71.8	88.2	83.0	88.3
Package Length w/ dryer	in.		n/a				82.5	91.9	n/a	
Package Width	in.		25.3	37.9	37.4	31.6	32.8	33.3	33.7	37.9
Package Width w/ dryer	in.	n/a				35.8	35.8	n/a		
Package Height	in.	28.2	63.7	75.7	48.8	54.7	60.7	54.0	60.6	
Package Height w/ dryer	in.	n/a				54.8	61.4	n/a		
Approx. Ship Weight	lbs.	723	766	895	776	895	1249	1725	2325	
Approx. Ship Weight w/ dryer	lbs.	n/a				1071	1221	n/a		
Pump Length	in.									
Pump Width	in.	25.42								
Pump Height	in.	23.563								
Pump Weight	lbs.	220								
Discharge Connection (11)	npt "	3/4 F				3/4 F				
Parts Manual ID	n/a	CQGF3455								
Service Manual ID	n/a	CQGF3473								
Controller Manual ID	n/a	CQGF3475					CQGF3538			

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.