CHAMPION	R Series 7.5HP	Eng. Data Sheet: CP-R4-V2
	Engineering Data Sheet	Date: 7/25/2019
	Air Cooled, 60Hz	Supersedes: CP-R4-V1

Model Number		VR7F-6	VR7F-8	VR7F-12	HR7F-6	HR7F-8	HR7F-12	HR7DF-12	HR7DF-24	BR7F	BR7	VR7-8	VR7-12	HR7-8	HR7-12	HR7-24	HR7D-12	HR7D-24
Configurator Number		**R2-30A**																
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										18.9						
Pulley 125 PSIG	OD in.	9.35										7						
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	AEON AC-HC, 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)						
Wire Size - 230/1/60 (3,4,5)	awg	6 (2)										6 (2)						
Wire Size - 208/3/60 (3,4,5)	awg	8 (6)										8 (6)						
Wire Size - 230/3/60 (3,4,5)	awg	10 (6)										10 (6)						
Wire Size - 460/3/60 (3,4,5)	awg	14 (10)										14 (10)						
Wire Size - 575/3/60 (3,4,5)	awg	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.

CHAMPION	R Series 7.5HP	Eng. Data Sheet: CP-R4-V2
	Engineering Data Sheet	Date: 7/25/2019
	Air Cooled, 60Hz	Supersedes: CP-R4-V1

Model Number		VR7F-6	VR7F-8	VR7F-12	HR7F-6	HR7F-8	HR7F-12	HR7DF-12	HR7DF-24	BR7F	BR7	VR7-8S	VR7-12	HR7-8	HR7-12	HR7-24	HR7D-12	HR7D-24
Configurator Number		**R2-30A**																
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		
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		240	na		80	120	80	120	240	120	240
Tank Configuration	na	Vertical			Horizontal					na		Vertical		Horizontal				
Tank Capacity @ 125 PSIG	ft³	68	91	137	68	91	137	68.4	285	na		91	137	91	137	284.9	136.7	284.9
Tank Capacity @ 175 PSIG	ft³	96	128	191	96	128	191	95.7	399	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	2.9	2.9	5.9	na		3.0	4.6	3.0	4.6	9.5	2.3	4.7
Tank Pumping Time @ 175 PSIG (10)	min	4.1	5.5	8.3	4.1	5.5	4.1	4.1	8.6	na		4.9	7.4	4.9	7.5	15.4	3.7	7.7
Package Length	in.	35.3	35.0	35.3	51.8	66.8	71.5	74.9	88.3	38.0	42.7	42.8	42.7	67.3	71.8	88.2	83.0	88.3
Package Width	in.	32.5	34.5	37.4	31.6	31.6	32.8	32.7	37.9	24.7	25.3	37.9	37.4	31.6	32.8	33.3	33.7	37.9
Package Height	in.	77.0	76.4	75.8	49.3	49.0	54.8	54.0	60.5	29.5	28.2	63.7	75.7	48.8	54.7	60.6	54.0	60.6
Approx. Ship Weight	lbs.	565	630	802	565	630	802	1150	1485	310	430	753	882	763	882	1236	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				
Operating/Parts Manual ID	na	CQGF3454								CQGF3455								

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.