

CHAMPION	R Series 20, 25, 30HP	Eng. Data Sheet: CP-R7-V4
	Engineering Data Sheet	Date: 9/13/2022
	Air Cooled, 60Hz	Supersedes: CP-R7-V3

Model Number	BR20	HR20-12	HR20-24	HR20D-24	BR25	HR25-12	HR25-24	HR25D-24	BR30	HR30-12	HR30-24	HR30D-24
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Configurator Number	R2-30A											
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Description	Units	Product Data										
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Compressor Pump													
Pump Model	n/a	R70A											
Number of Cylinders	n/a	4											
Bore & Stroke	in.	6-1/4 (2) & 3-1/4(2) x 4											
Flywheel	OD in.	22											
Pulley 80 / 125 PSIG	OD in.	8.95							11.35				
Pulley 175 PSIG	OD in.	8.35	9.75								11.4		
Number of Stages	n/a	2											
Lubrication	n/a	Splash Lubricated											
Oil Capacity	qt.	6-1/3											
Oil Type	n/a	CHAMPLUB, ISO 100 Non-Detergent Industrial Lubricant											
Number of Belt Grooves	n/a	3											
Belt Section	n/a	B											
Crankcase	n/a	Cast Iron											
Bearings	n/a	Tapered Roller											
Cylinder	n/a	Cast Iron											
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)	20 (14.91)			25 (18.64)			30 (22.37)				
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	59.4			74.8			88.0				
Drive Motor Full Load Current - 230/3/60 (3)	amps	54			68			80.0				
Drive Motor Full Load Current - 460/3/60 (3)	amps	27			34			40.0				
Drive Motor Full Load Current - 575/3/60 (3)	amps	22			27			32.0				
Wire Size - 208/3/60 (3,4,5)	awg	3 (1/0)			2 (3/0)			1 (4/0)				
Wire Size - 230/3/60 (3,4,5)	awg	4 (1/0)			2 (2/0)			1 (4/0)				
Wire Size - 460/3/60 (3,4,5)	awg	8 (4)			6 (3)			6 (2)				
Wire Size - 575/3/60 (3,4,5)	awg	10 (6)			8 (4)			8 (4)				

- 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		BR20	HR20-12	HR20-24	HR20D-24	BR25	HR25-12	HR25-24	HR25D-24	BR30	HR30-12	HR30-24	HR30D-24			
Configurator Number		R2-30A														
Description	Units	Product Data														
Performance Data (6)																
CFM Delivery @ 80 PSIG (7)	acfm	88.5	177.0	105.2	210.4	105.2	210.4	105.2	210.4	105.2	210.4	105.2	210.4			
CFM Delivery @ 125 PSIG (7)	acfm	84.9	169.8	102.9	205.8	102.9	205.8	102.9	205.8	102.9	205.8	102.9	205.8			
CFM Delivery @ 175 PSIG (7)	acfm	77.8	155.6	90.7	181.4	101.8	203.6	101.8	203.6	101.8	203.6	101.8	203.6			
Displacement @ 80 / 125 PSIG	cfm	109.4	218.8	126.4	252.8	126.4	252.8	126.4	252.8	126.4	252.8	126.4	252.8			
Displacement @ 175 PSIG	cfm	93	186	109.4	218.8	126.4	252.8	126.4	252.8	126.4	252.8	126.4	252.8			
Maximum Pressure	psig	175														
Working Pressure Differential	psig	35														
Pump Operating Speed @ 80 / 125 PSIG	rpm	712						907								
Pump Operating Speed @ 175 PSIG	rpm	664				776				907						
Minimum Speed	rpm	425														
Maximum Speed	rpm	1000														
Cooling Air Flow @ 80 / 125 PS	cfm	2580						2980								
Cooling Air Flow @ 175 PSIG	cfm	2195				2580				2980						
Heat Rejection	btu/hr	44790	89580	55990	111980	67180	134360	67180	134360	67180	134360	67180	134360			
Aftercooler Approach Temp	°F	30														
Noise Level (8)	dB(A)	80	82	84	86	84	86	84	86	84	86	84	86			
Min/Max Operating Temp	°F	32 / 104														
Dimensions and Weight																
Tank Size	gal	n/a	120	240	240	n/a	120	240	240	n/a	120	240	240			
Tank Configuration	n/a		Horizontal				Horizontal				Horizontal					
Tank Capacity @ 80 PSIG	ft³		103.3	206.7	206.7		103.3	206.7	206.7		103.3	206.7	206.7	103.3	206.7	206.7
Tank Capacity @ 125 PSIG	ft³		152.4	304.9	304.9		152.4	304.9	304.9		152.4	304.9	304.9	152.4	304.9	304.9
Tank Capacity @ 175 PSIG	ft³		207.0	414.0	414.0		207.0	414.0	414.0		207.0	414.0	414.0	207.0	414.0	414.0
Tank Pumping Time @ 125 PSIG (9)	min		1.5	3.1	1.5		1.3	2.8	1.4		1.3	2.8	1.4	1.3	2.8	1.4
Tank Pumping Time @ 175 PSIG (9)	min		2.5	5.2	2.6		2.1	4.4	2.2		1.9	3.9	2.0	1.9	3.9	2.0
Package Length	in.	59.1	73.3	89.6	89.5	59.1	73.3	89.6	89.5	59.1	73.3	89.6	89.5			
Package Width	in.	33.6	36.3	36.3	66.5	33.6	36.3	36.3	66.5	33.6	36.3	36.3	66.5			
Package Height	in.	39.8	65.0	71.3	75.8	39.8	65.0	71.3	75.8	39.8	65.0	71.3	75.8			
Approx. Ship Weight	lbs.	1000	1517	1871	2845	1020	1557	1911	2940	1060	1597	1951	3018			
Pump Length	in.	26.7														
Pump Width	in.	33.5														
Pump Height	in.	33.75														
Pump Weight	lbs.	570														
Discharge Connection (10)	npt "	1-1/4 F														
Parts Manual ID	n/a	CQGF3457														
Service Manual ID	n/a	CQGF3473														
Controller Manual ID	n/a	CQGF3475	CQGF3538	CQGF3475	CQGF3538	CQGF3475	CQGF3538	CQGF3475	CQGF3538	CQGF3475	CQGF3538	CQGF3475	CQGF3538			

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) Tank pumping time is based off 0 PSIG to fully pressurized.
10) M = Male connection, F=Female connection; the BRA20-30 have a 1" F connection with an air cooled after cooler.
NOTE: Duplex models take quantities of 2 on applicable items such as motors, pump, oil quantity, etc.