



TECHNICAL MANUAL

08-15-2022

*New generation of
innovative design
Screw compressor*

High-efficiency Model RC2 Series Screw Compressor



5580 Enterprise Pkwy., Fort Myers, FL 33905 Office (239) 694-0089 Fax: (239) 694-0031

www.mcscontrols.com

1. General

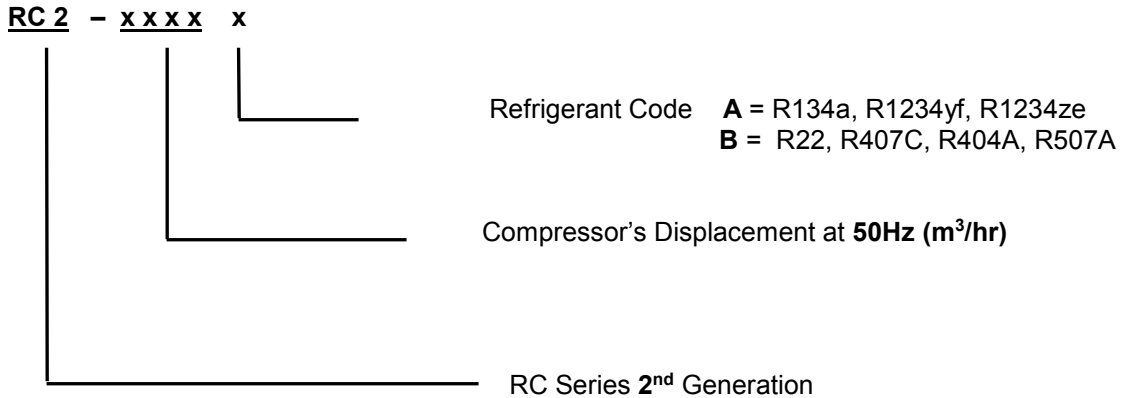
HANBELL **RC2** series semi-hermetic screw compressor is developed especially for applications in air-conditioning and refrigeration. With high operating load design, each HANBELL compressor is of high efficiency and reliability in all operating conditions such as thermal storage, heat pump system & refrigeration. Each HANBELL compressor has the latest and advanced **5-to-6 Patented Screw Rotor Profile** designed to ensure high capacity and efficiency in all operating conditions. Each unit is carefully manufactured and inspected by high precision **THREAD SCREW ROTOR GRINDING MACHINE, CNC MACHINING CENTER, and 3D COORDINATE MEASURING MACHINE**. Each **HANBELL** compressor follows **ISO 9001** quality system. This certification assures that its quality is controlled under severe quality procedures and good service to all customers.

RC2 series compressor is equipped with separated radial and axial bearings, liquid injection and economizer connection, PTC motor temperature thermistors and discharge temperature thermistors, a motor protector, and oil level switch and oil pressure differential switch connector and other accessories. The complete accessories and their new designs guarantee the compressor has the best reliability, longest bearing life during heavy duty running and strict operating conditions.

This Technical Manual contains information about lifting, dimensions, installation, operation, applications and basic trouble-shooting. It is strongly recommended that contents of this manual should be referred carefully prior to lifting, installation, and commissioning of RC2 series compressor in order to prevent any accident or damage. Please contact HANBELL or its local distributors/agents for more information or further assistance.

2. Specifications and description of design

2.1 Compressor nomenclature



b. RC2-B

MODEL	COMPRESSOR				MOTOR							Lubricant charge	Oil Heater	Hydrostatic Pressure Test	WEIGHT	
	Displacement 60 / 50Hz m³/hr	Rated Speed 60 / 50Hz	VI	Cap. Control (%)		Type	Nominal Hp		Starting	Voltage (V)						Insulation
				STEP	STEPLESS		60Hz	50Hz		60Hz	50Hz	L	W	Kg/cm2G	kg	
RC2-100B	118/98			33, 66, 100	33~100	3 Phase, 2 Pole, Squirrel Cage, Induction Motor	38	31	Y-Δ PWS DOL	208 220 230 380 440 460 480 575	Class F	PTC Protection	7			280
RC2-140B	165/137			33, 66, 100	33~100		50	41					7	285		
RC2-180B	216/180			33, 66, 100	33~100		66	55					7	335		
RC2-200B	233/193			25, 50, 75, 100	25~100		70	58					8	425		
RC2-230B	277/230			35, 50, 75, 100	35~100		81	67					14	555		
RC2-260B	309/257			25, 50, 75, 100	25~100		90	75					14	560		
RC2-300B	352/293			25, 50, 75, 100	25~100		107	89					16	600		
RC2-310B	371/308			35, 50, 75, 100	35~100		110	91					16	580		
RC2-320B	384/320			25, 50, 75, 100	25~100		114	94					16	600		
RC2-340B	407/339			35, 50, 75, 100	35~100		121	101					16	620		
RC2-370B	440/366			35, 50, 75, 100	35~100		130	108	16	640						
RC2-410B	490/407	3550/2950	2.2 2.6 3.0 3.5 4.8	25, 50, 75, 100	25~100		146	121	16	740						
RC2-470B	567/471			25, 50, 75, 100	25~100		170	141	18	150/300	42	810				
RC2-510B	611/508			35, 50, 75, 100	35~100		183	152	20	780						
RC2-550B	660/549			25, 50, 75, 100	25~100		195	162	23	850						
RC2-580B	702/583			35, 50, 75, 100	35~100		210	175	20	840						
RC2-620B	745/619			35, 50, 75, 100	35~100		220	183	23	880						
RC2-710B	858/713			35, 50, 75, 100	35~100		250	208	28	1099						
RC2-790B	952/791			30, 50, 75, 100	30~100		276	230	28	1180						
RC2-830B	993/825			30, 50, 75, 100	30~100		290	234	28	1215						
RC2-930B	1117/929			35, 50, 75, 100	35~100	334	278	28	1240							
RC2-1020B	1223/1017	25, 50, 75, 100	25~100	357	297	40	1540									
RC2-1130B	1350/1122	25, 50, 75, 100	25~100	393	327	40	1560									
RC2-1270B	1521/1268	25, 50, 75, 100	25~100	471	392	53	2200									
RC2-1530B	1847/1539	25, 50, 75, 100	25~100	534	443	53	2300									

Nominal Horse Power:

All above Nominal Hp are not equal to the maximum compressors Hp; Please refer to Hanbell selection software's output for the rated current, Maximum Continuous Current-M.C.C according to various working condition while selecting the contactor, cable, fuse and wire, etc...