



*New generation of
innovative design
Screw compressor*

High-efficiency Model RC2 Series Screw Compressor

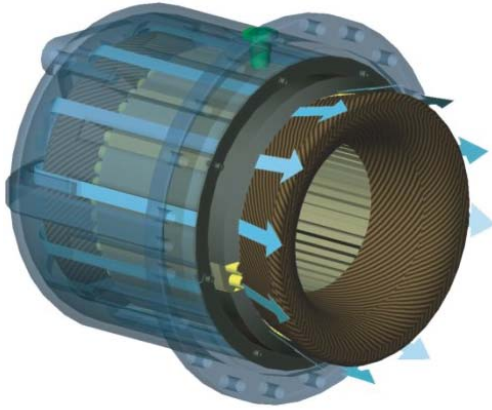


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Highlights of RC2 Series Screw Compressor

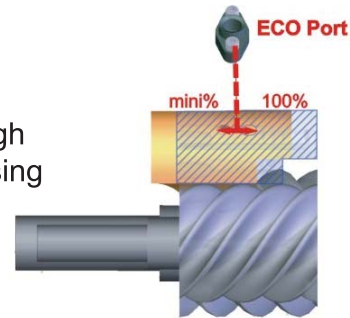


High-efficiency Motor

- Available for part winding start or star delta start
- Custom-made for specified voltage and frequency of power
- Two options A&B motor for RC2-100~RC2-930. Four options A1, A2 & B1, B2 motors for RC2-1020 ~1530.
- Optimal slot design for passage of refrigerant inside motor casing
- Refrigerant flows through outside of motor winding to provide the most efficient motor cooling
- Sliding-fit stator easier for installation and removal

Part-load Effective Economizer Operation

- Enhance cooling capacity as well as energy efficiency
- Sustain optimum medium pressure by vapor injection through specially-designed slots in slide valve and compression casing
- Effective under partial load and full load



High-efficiency Screw Rotor Profile

- 5-to-6 rotor profile patented in Taiwan, US, UK, and China
- Designed according to characteristics of refrigerants
- Hyper volumetric efficiency and minimum clearance

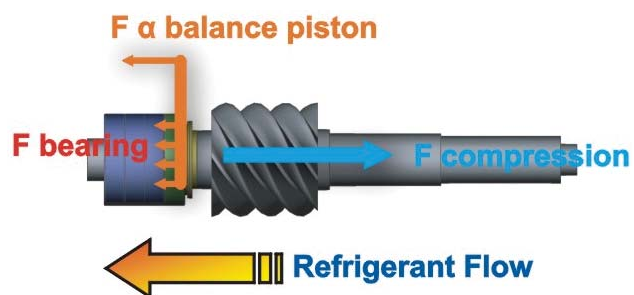


Dual Capacity Control

- Flanged-on solenoid coil easy for installation
- 3-step / 4-step or continuous (33%~100% / 25%~100%) capacity control system
- Interchangeable by varying control logic without modification of solenoid valves

Durable Bearing Structure

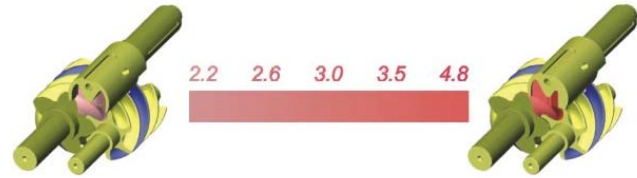
- High-quality bearings (radial and axial resistance)
- Additional bearing for backward rotation
- α balance piston against axial thrust
- Heavy-duty design
- Longer bearing life compared to traditional 9-bearing design





Wide VI Selection

- Built-in volume ratio (VI)-2.2, 2.6, 3.0, 3.5, 4.8
- Exactly match pressure ratio without over- or under-compression
- Suitable for various applications like refrigeration, water-cooled chiller, air-cooled chiller and heat pump



High-performance Integral Oil Separator

- Detachable demister for cleaning
- Finer size of mesh
- Low pressure drop and oil carry-over
- Three-staged oil separation (RC2-1020~RC2-1530)



Complete Protection & Accessories

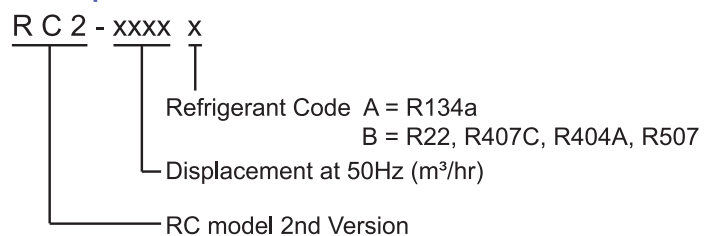
1. Motor temperature sensor (optional)
 - “Built-in” Pt100 or Pt1000 installed in motor winding
 - Accurately registers motor temperature
 - Controller can precisely initiate liquid injection to motor accordingly
2. Discharge Temperature Thermistor & Motor Temperature Thermistor
 - Totally integrated
 - Effectively protect compressor in advance when any abnormal alarm occurs
3. Liquid Injection and Oil Cooler Function (Port & Stop Pin)
 - Both available on every Hanbell screw compressor
4. Oil Level Switch
 - Ensure sufficient lubricant in compressor for better lubrication, capacity control, cooling and sealing
5. Heater (150W & 300W)
 - Increase lubricant’s flow-ability when compressor restarts after long-term stop
6. Connection for Pressure Differential Switch
 - Easily detect clog in oil filter
 - Assure effective capacity modulation and lubrication



Other Advantages

- Low noise level and minimum vibration
- Fewer quantity of parts in screw compressor than those in reciprocating compressor
- Easy for maintenance and overhaul
- Compact geometry, easy for layout

Compressor Nomenclature



Approval and Certification

- Production by SOP conformed to major quality standards
- Approved by ISO 9001-2000, UL, CE(PED), Electronic Apparatus for Explosive Atmospheres (EX, China), Lloyd’s Register (vessel), Symbol of Excellence in Taiwan



Technical Data RC2-A

MODEL	COMPRESSOR					MOTOR							Lubricant charge gal	Oil Heater W	Hydrostatic Pressure Test psi	WEIGHT lb	
	Displacement 60 / 50Hz Cubic Ft/Min	Rated Speed 60 / 50Hz	VI	Cap. Control (%)		Type	Nominal Hp		Starting	Voltage (V)		Insulation					Protection
				STEP	STEPLESS		60Hz	50Hz		60Hz	50Hz						
RC2-100A	69/58			33, 66, 100	33~100	3 Phase, 2 Pole, Squirrel Cage, Induction Motor	23	19						1.9		617	
RC2-140A	97/81			33, 66, 100	33~100		32	26							1.9		628
RC2-180A	127/106			33, 66, 100	33~100		42	35							1.9		661
RC2-200A	137/114			25, 50, 75, 100	25~100		45	37							2.1		937
RC2-230A	163/135			35, 50, 75, 100	35~100		53	44			208				3.7		1224
RC2-260A	182/151			25, 50, 75, 100	25~100		59	49			220				3.7		1234
RC2-300A	207/172			25, 50, 75, 100	25~100		67	56			230				3.7		1323
RC2-310A	218/181			35, 50, 75, 100	35~100		71	59	Y-Δ		380				4.3		1279
RC2-320A	226/188			25, 50, 75, 100	25~100		72	60	PWS		440				4.3		1323
RC2-340A	240/200			35, 50, 75, 100	35~100		77	64	DOL		460				4.3		1367
RC2-370A	259/215			35, 50, 75, 100	35~100		84	70			480				4.3		1411
RC2-410A	288/240		2.2	25, 50, 75, 100	25~100		93	78			575				4.3		1631
RC2-430A	300/240		2.6	25, 50, 75, 100	25~100		93	78							4.3		1620
RC2-470A	334/277		3.0	25, 50, 75, 100	25~100		108	90			380				4.8	150/300	1786
RC2-510A	360/299		3.5	35, 50, 75, 100	35~100		117	98			400				5.3		1720
RC2-550A	388/323		4.8	25, 50, 75, 100	25~100		126	105			415				6.1		1874
RC2-580A	413/343			35, 50, 75, 100	35~100		131	109							5.3		1852
RC2-620A	438/364			35, 50, 75, 100	35~100		137	114			380				6		1940
RC2-710A	505/420			35, 50, 75, 100	35~100		158	131			440				7.4		2423
RC2-790A	560/466			30, 50, 75, 100	30~100		175	146			460				7.4		2601
RC2-830A	584/486			30, 50, 75, 100	30~100	183	152			480				7.4		2679	
RC2-930A	657/547			35, 50, 75, 100	35~100	212	176	Y-Δ		575				7.4		2734	
RC2-1020A	720/600			25, 50, 75, 100	25~100	227	189	DOL						10.6		3395	
RC2-1130A	795/600			25, 50, 75, 100	25~100	248	206							10.6		3439	
RC2-1270A	895/600			25, 50, 75, 100	25~100	286	238							14		4850	
RC2-1530A	1087/905			25, 50, 75, 100	25~100	331	275							14		5070	

Unit : CFM

500

1000

Nominal HP:

All above Nominal HP are not equal to the maximum compressor HP; please refer to Hanbell selection software for power input in specified working condition.

Technical Data RC2-B

MODEL	COMPRESSOR				MOTOR							Lubricant charge gal	Oil Heater W	Hydrostatic Pressure Test Kg/cm ² G	WEIGHT lb		
	Displacement 60 / 50Hz Cubic FT/Min	Rated Speed 60 / 50Hz	VI	Cap. Control (%)		Type	Nominal Hp		Starting	Voltage (V)						Insulation	Protection
				STEP	STEPLESS		60Hz	50Hz		60Hz	50Hz						
RC2-100B	69/58			33, 66, 100	33~100	3 Phase, 2 Pole, Squirrel Cage, Induction Motor	38	31	Y-Δ	208 220 230 380 440 460 480 575	Class F	PTC Protection	1.9	150/300	597	617	
RC2-140B	97/81			33, 66, 100	33~100		50	41					1.9			628	
RC2-180B	127/106			33, 66, 100	33~100		66	55					1.9			739	
RC2-200B	137/114			25, 50, 75, 100	25~100		70	58					2.1			937	
RC2-230B	163/135			35, 50, 75, 100	35~100		81	67					3.7			1190	
RC2-260B	182/151			25, 50, 75, 100	25~100		90	75					3.7			1234	
RC2-300B	207/172			25, 50, 75, 100	25~100		107	89					3.7			1323	
RC2-310B	218/181			35, 50, 75, 100	35~100		110	91					PWS			4.3	1279
RC2-320B	226/188			25, 50, 75, 100	25~100		114	94					DOL			4.3	1323
RC2-340B	240/200			35, 50, 75, 100	35~100		121	101								4.3	1367
RC2-370B	259/215	2.2		35, 50, 75, 100	35~100		130	108	380 400 415	4.3	1411						
RC2-410B	288/240	2.6		25, 50, 75, 100	25~100		146	121		4.3	1631						
RC2-470B	334/277	3550/2950	3.0	25, 50, 75, 100	25~100		170	141		4.8	1786						
RC2-510B	360/299		3.5	35, 50, 75, 100	35~100		183	152		5.3	1720						
RC2-550B	388/323		4.8	25, 50, 75, 100	25~100		195	162		6.1	1874						
RC2-580B	413/343			35, 50, 75, 100	35~100		210	175		5.3	1852						
RC2-620B	438/364			35, 50, 75, 100	35~100		220	183		6	1940						
RC2-710B	505/420			35, 50, 75, 100	35~100		250	208		7.4	2423						
RC2-790B	560/466			30, 50, 75, 100	30~100		276	230		7.4	2601						
RC2-830B	584/486			30, 50, 75, 100	30~100		290	234		Y-Δ	7.4	2679					
RC2-930B	657/547			35, 50, 75, 100	35~100	334	278	DOL	7.4	2734							
RC2-1020B	720/600			25, 50, 75, 100	25~100	357	297		10.6	3395							
RC2-1130B	795/600			25, 50, 75, 100	25~100	393	327	10.6	3439								
RC2-1270B	895/600			25, 50, 75, 100	25~100	471	392	14	4850								
RC2-1530B	1087/905			25, 50, 75, 100	25~100	534	443	14	5070								

Unit : CFM

500

1000

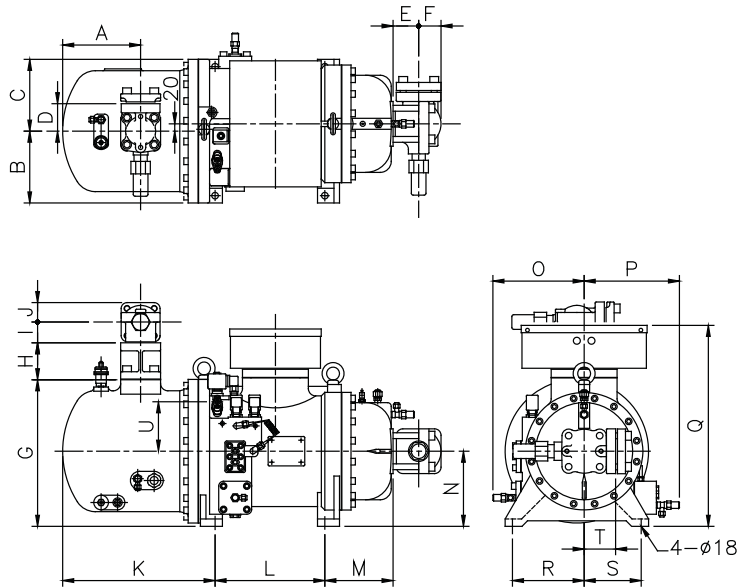
Nominal HP:

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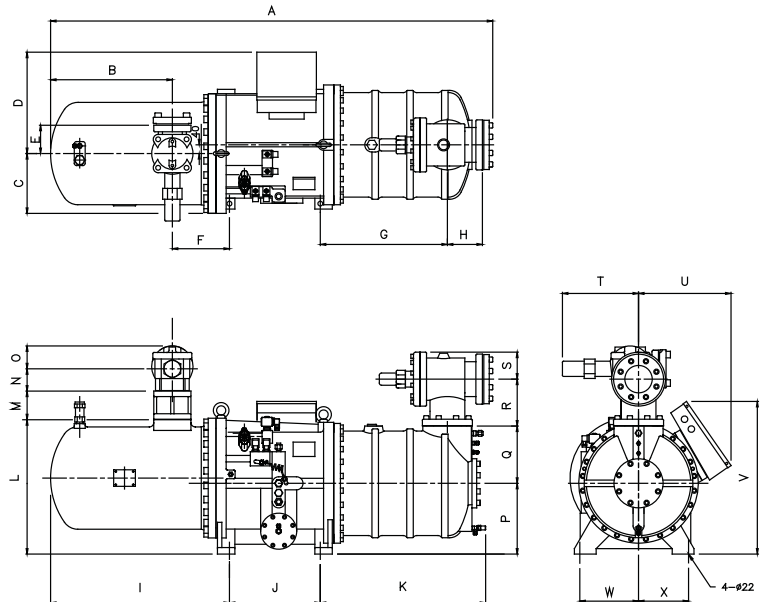
RC2-100~RC2-180 Outline

Note: Number in red indicate dimensions in which RC2-B differs from RC2-A (A / B)



MODEL	Dimensions																				Unit: Inch	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	
RC2-100	8.39	7.72	7.72	2.95	2.76	2.40	15.75	3.98	2.22	2.09	16.40	11.81	7.34	8.07	9.80	10.24	21.59	7.72	6.14	3.39	5.31	
RC2-140	8.39	7.72	7.72	2.95	2.76	2.40	15.75	3.98	2.22	2.09	16.40	11.81	7.34	8.07	9.80	10.24	21.59	7.72	6.14	3.39	5.31	
RC2-180	11.14	7.72	7.72	2.95	3.19	2.70	16.14	3.98	2.22	2.09	16.40	11.81	7.34	8.07	9.45	10.24	21.59	7.72	6.14	3.74	4.84	

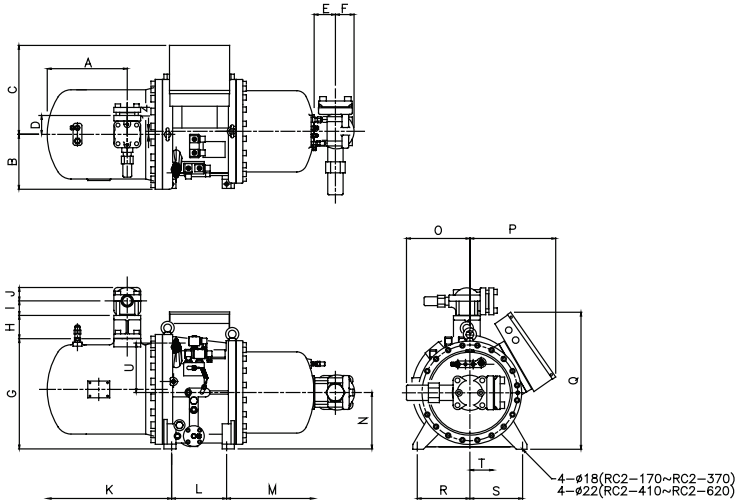
RC2-710~RC2-930 Outline



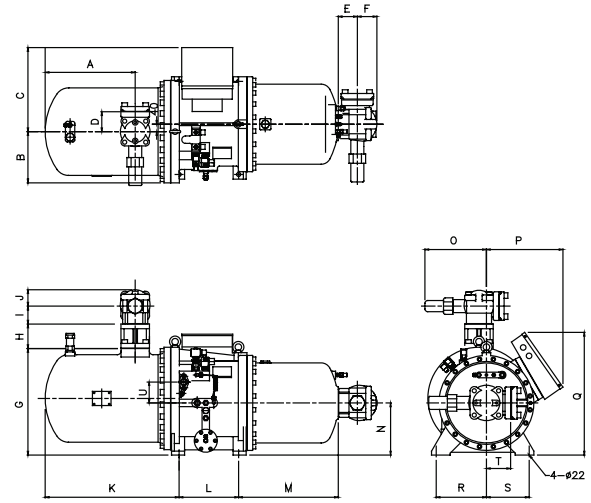
MODEL	Dimensions																				Unit: Inch				
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
RC2-710	74.74 /77.5	22.05	10.08	18.35	5.12	10.33	20.25 /23.01	6.34	32.38	13.86	27.16 /29.92	24.29	5.18	4.05	4.13	12.80	10.35	8.48	4.88	13.78	16.77	27.60	10.63	9.06	13.86
RC2-790	77.30 /80.06	22.05	10.08	18.35	5.12	10.33	20.25 /23.01	6.34	21.38	16.46	27.16 /29.92	24.29	5.18	4.05	4.13	12.80	10.35	8.48	4.88	13.78	16.77	27.60	10.63	9.06	9.06
RC2-830	77.30 /80.06	22.05	10.08	18.35	5.12	10.33	20.25 /23.01	6.34	32.38	16.46	27.16 /29.92	24.29	5.18	4.05	4.13	12.80	10.35	8.48	4.88	13.78	16.77	27.60	10.63	9.06	9.06
RC2-930	80.06 /82.18	22.05	10.08	18.35	5.12	10.33	23.01 /23.01	6.34	32.38	16.46	27.16 /29.92	24.29	5.18	4.05	4.13	12.80	10.35	8.48	4.88	13.78	16.77	27.60	10.63	9.06	9.06



RC2-200~RC2-580 Outline

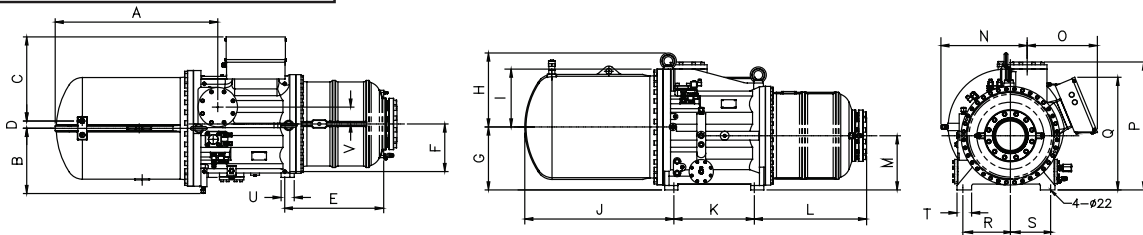


RC2-550~RC2-620 Outline



MODEL	Dimensions																			Unit: Inch	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
RC2-200	13.59	9.02	14.88	2.95	3.23	2.71	17.60	3.98	2.24	2.09	21.10	8.98	13.43 /15.3	8.86	9.65	14.25	23.31	8.86	8.86	3.74	7.72
RC2-230	14.37	9.84	15.94	3.38	3.82	3.45	19.76	4.17	2.64	2.40	22.32	9.88	15.71	10.12	11.38	15.40	24.57	9.45	9.45	4.21	8.86
RC2-260	14.37	9.84	15.94	3.38	3.82	3.45	19.76	4.17	2.64	2.40	22.32	9.88	15.71	10.12	11.38	15.40	24.57	9.45	9.45	4.21	8.86
RC2-300	16.06	9.84	15.94	3.38	3.82	3.45	19.76	4.17	2.64	2.40	22.32	9.88	15.71 /17.48	10.12	11.38	15.40	24.57	9.45	9.45	4.21	9.01
RC2-310	16.06	9.84	15.94	3.38	3.82	3.45	19.76	4.17	2.64	2.40	22.32	9.88	17.48	10.12	11.38	15.40	24.57	9.45	9.45	4.21	8.86
RC2-320	16.06	9.84	15.94	3.38	3.82	3.45	19.76	4.17	2.64	2.40	22.32	9.88	15.71 /17.48	10.12	11.38	15.40	24.57	9.45	9.45	4.21	9.01
RC2-340	16.06	9.84	15.94	3.74	4.05	4.13	19.76	4.76	3.19	2.72	22.32	9.88	17.60 /19.37	10.12	12.20	15.40	24.57	9.45	9.45	5.12	8.98
RC2-370	16.06	9.84	15.94	3.74	4.05	4.13	19.76	4.76	3.19	2.72	22.32	9.88	17.60 /19.37	10.12	12.20	15.40	24.57	9.45	9.45	5.12	8.98
RC2-410	15.43	10.83	17.83	3.74	4.05	4.13	21.77	4.72	3.19	2.72	24.13	11.34	17.05	10.83	12.40	16.26	25.79	10.63	9.05	5.12	10.04
RC2-430	15.43	10.83	17.83	3.74	4.05	4.13	21.77	4.72	3.19	2.72	24.13	11.34	17.05	10.83	12.40	16.26	25.79	10.63	9.05	5.12	10.04
RC2-470	17.32	10.83	17.83	3.74	4.05	4.13	21.77	4.72	3.19	2.72	26.02	11.34	17.05 /18.82	10.83	12.40	16.26	25.79	10.63	9.05	5.12	10.04
RC2-510	18.31	10.83	17.83	4.21	4.05	4.13	22.05	5.18	3.80	3.46	27.40	11.34	19.05	10.83	13.03	16.26	25.79	10.63	9.05	5.12	10
RC2-550	19.05	10.83	17.77	4.21	4.05	4.13	22.52	5.18	3.80	3.46	28.35	12.60	18.78 /21.10	11.02	13.03	16.20	25.94	10.63	9.05	5.12	4.41
RC2-580	18.31	10.83	17.83	4.21	4.05	4.13	22.05	5.18	3.80	3.46	27.40	11.34	19.05	10.83	13.03	16.26	25.79	10.63	9.05	5.12	10.04
RC2-620	19.05	10.83	17.77	4.21	4.05	4.13	22.52	5.18	3.80	3.46	28.35	12.60	20.67	11.02	13.03	16.20	25.94	10.63	9.05	5.12	4.41

RC2-1020~RC2-1530 Outline



MODEL	Dimensions											Unit: Inch
	A	B	C	D	E	F	G	H	I	J	K	
RC2-1020/1130	44.09	13.78	18.90	1.77	25.83	12.80	16.14	14.37	13.78	39.73	18.50	
RC2-1270/1530	43.78	17.52	22.64	1.97	26.65	12.80	16.93	19.88	15.55	40.16	21.65	

MODEL	Dimensions											Unit: Inch
	L	M	N	O	P	Q	R	S	T	U	V	
RC2-1020/1130	28.46	14.57	17.75	19.65	28.15	28.66	12.79	10.83	3.94	3.94	2.36	
RC2-1270/1530	30.04	14.57	22.23	18.90	32.48	30.31	12.79	10.83	3.94	3.54	4.53	



RC2-100~RC2-930 Application Limits

