

New 50 Series Refrigeration Condensing Units

Available
Now
MRC 15-100

- THE MRC RANGE INCORPORATES MICROCHANNEL HEAT EXCHANGERS GIVING A LARGE REDUCTION IN THE AMOUNT OF REFRIGERANT REQUIRED.
- APPROVED FOR USE WITH NEW LOW GWP REFRIGERANTS R448A & R449A
- LARGE RANGE OF SINGLE PHASE MODELS
- ECA LISTED MRC+
- ECO DESIGN READY



MRC Range

The Marstair range of refrigeration condensing units are an effective cooling solution for food display cabinets and many other refrigeration applications designed specifically for outdoor use.

Standard equipment for all models includes; fixed HP & adjustable LP switch for system protection and fan speed head pressure control for operation in low-ambient temperatures.

This quiet, efficient and wide range of units will operate free standing or wall mounted.

New MRC+ Upgraded Features

- Electrics access door for ease of installation
- Internal sight glass for added protection
- Adjustable low pressure switch for improved pump down operation
- Gomax pressure couplers to prevent damage
- Reorganised electrics for a neater finish
- Crank case heater for extra compressor protection (15-40)
- Self retaining door access screws for easier maintenance
- 5 year parts warranty as standard (excluding Marine & Offshore)

Additional MRC+ Features

- A-grade quality components, with one size fits all spares
- Green Heat Ready
- Tier II ECO-Design
- Also available in an extensive Low Temp range (MRC+LT)
- 3 minute start delay timer
- Fan speed head pressure control
- BS EN 60947-3-1 isolator
- Refrigeration filter/drier
- Also available in Ducted range (DRC+)

The MRC+ range is also now ECA Listed.



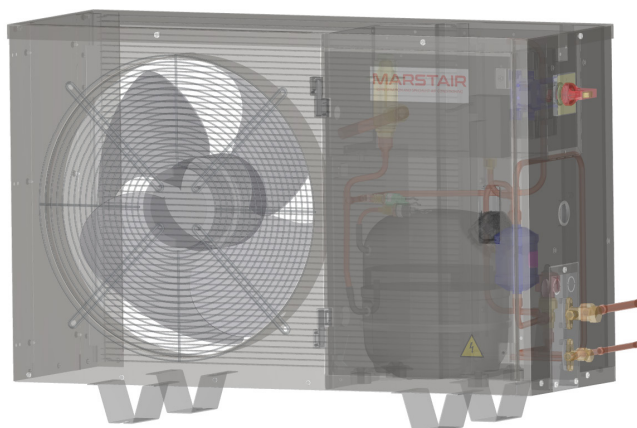
MRC+Technical Information

Specification MRC

- Suction and liquid valves
- Emerson or Saginomiya (Danfoss) Fan speed controllers
- HP protection switch with auto reset (PED cat VI)
- LP protection switch with auto reset & alarm
- Contactor (overload on 3Ph units)
- Crankcase heater (reciprocating only)
- Liquid receiver
- Microchannel Heat Exchangers
- European manufactured Copeland Compressors MRC 45-180
- Tecumseh Compressors MRC 15-40
- Low noise fans
- UK manufactured plate work

Additional Specification MRC+

- Capacitor start relay (15-40 1Ph only)
- Sight glass
- Refrigeration drier
- UK Solenoid (Kraus & Naimer) Detachable Isolator
- Noise attenuation insulation
- Ranco adjustable LP switch with auto reset



1Ph & 3Ph Data

MRC 1PH	RECEIVER VOL
15	2
20	2
30	2
40	2
45	2
50	4
60	4
80	4
90	4
100	4
150	4

MRC 3PH	RECEIVER VOL
30	2
40	2
50	4
60	4
80	4
90	4
100	4
130	7.5
150	7.5
165	7.5
180	7.5

Dimensions and Weights Unpacked Units

	MODEL													
	15	20	30	40	45	50	60	80	90	100	130	150	165	180
HEIGHT mm	620	620	620	620	720	720	720	720	820	820	1080	1050	1080	1275
WIDTH mm	900	900	900	900	1000	1000	1000	1000	1000	1000	1000	1000	1000	1100
DEPTH mm	300	300	300	300	350	350	350	350	350	350	425	425	425	425
1 Ph kg	46	47	48	53	60	64	65	66	76	84	-	107	-	-
3 Ph kg	-	-	48	53	-	62	63	64	73	81	101	103	103	118








MRC+ Sound Levels

Sound pressure levels (SPL) at 10m distance in free field conditions @ 27°C External Ambient

dBA	34	34	34	34	33	33	33	34	37	38	37	37	37	39
NR	28	28	28	28	27	27	27	27	30	31	30	30	30	32



MRC+ Technical Information Based on R407A

MODEL	Ambient Temp	ELECTRICAL SUPPLY		HP	EVAPORATING TEMPERATURE °C													
		1Ph	3Ph		R407A COOLING CAPACITY AND POWER INPUT KW													
					-15		-10		-5		0		5		7		10	
Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power			
MRC+ 15	27	*		1/2	0.90	0.58	1.20	0.64	1.55	0.71	1.90	0.77	2.37	0.83	2.39	0.86	2.45	0.88
	30				0.84	0.58	1.14	0.64	1.47	0.71	1.81	0.78	2.25	0.85	2.28	0.87	2.32	0.91
	32				0.81	0.58	1.09	0.64	1.42	0.72	1.74	0.83	2.19	0.86	2.19	0.89	2.24	0.92
	35				0.74	0.59	1.03	0.64	1.34	0.73	1.65	0.81	2.05	0.89	2.07	0.91	2.10	0.95
MRC+ 20	27	*		5/8	1.17	0.74	1.56	0.82	2.01	0.91	2.47	1.00	3.07	1.08	3.11	1.11	3.18	1.15
	30				1.10	0.74	1.47	0.83	1.91	0.92	2.35	1.01	2.92	1.10	2.96	1.13	3.01	1.18
	32				1.05	0.74	1.42	0.83	1.84	0.92	2.26	1.07	2.84	1.12	2.85	1.15	2.91	1.20
	35				0.96	0.74	1.34	0.84	1.73	0.94	2.14	1.05	2.66	1.15	2.68	1.19	2.72	1.24
MRC+ 30	27	*	*	1 3/8	1.74	0.94	2.23	1.04	2.78	1.15	3.32	1.26	4.03	1.36	4.07	1.43	4.40	1.50
	30				1.64	0.94	2.11	1.05	2.64	1.16	3.16	1.28	3.83	1.39	3.87	1.46	4.16	1.55
	32				1.57	0.95	2.03	1.06	2.53	1.17	3.03	1.35	3.74	1.41	3.72	1.49	4.02	1.58
	35				1.44	0.95	1.91	1.07	2.39	1.20	2.87	1.33	3.50	1.45	3.50	1.54	3.75	1.64
MRC+ 40	27	*	*	1 1/2	2.52	1.40	3.18	1.50	3.93	1.64	4.67	1.80	5.46	1.99	5.75	2.08	6.25	2.21
	30				2.39	1.42	3.03	1.53	3.74	1.68	4.64	1.85	5.18	2.05	5.46	2.14	5.90	2.29
	32				2.31	1.43	2.92	1.56	3.60	1.70	4.28	1.97	5.04	2.10	5.25	2.19	5.68	2.34
	35				2.12	1.44	2.76	1.58	3.41	1.75	4.04	1.94	4.69	2.16	4.91	2.26	5.28	2.42
MRC+ 45	27	*		1 1/2	2.48	1.02	3.01	1.05	3.62	1.10	4.22	1.18	4.87	1.29	5.11	1.37	5.52	1.47
	30				2.39	1.09	2.90	1.13	3.49	1.18	4.08	1.25	4.69	1.37	4.92	1.45	5.29	1.57
	32				2.33	1.14	2.89	1.17	3.39	1.22	3.95	1.36	4.61	1.42	4.78	1.52	5.31	1.64
	35				2.19	1.22	2.72	1.26	3.25	1.31	3.79	1.39	4.36	1.53	4.55	1.62	4.89	1.75
MRC+ 50 	27	*	*	2	3.31	1.50	4.05	1.54	4.89	1.59	5.73	1.67	6.64	1.78	6.98	1.83	7.57	1.88
	30				3.20	1.60	3.90	1.65	4.72	1.70	5.54	1.78	6.39	1.89	6.73	1.93	7.26	2.02
	32				3.12	1.67	3.89	1.72	4.58	1.76	5.37	1.93	6.29	1.96	6.54	2.02	7.29	2.10
	35				2.92	1.79	3.66	1.84	4.39	1.89	5.15	1.98	5.94	2.10	6.23	2.14	6.71	2.24
MRC+ 60 	27	*	*	2 1/2	3.89	1.66	4.75	1.71	5.74	1.77	6.72	1.86	7.80	1.98	8.19	2.03	8.89	2.09
	30				3.75	1.78	4.58	1.83	5.55	1.89	6.51	1.98	7.50	2.10	7.90	2.15	8.52	2.25
	32				3.66	1.86	4.56	1.91	5.38	1.96	6.30	2.15	7.38	2.18	7.68	2.25	8.56	2.34
	35				3.43	1.99	4.29	2.05	5.16	2.11	6.05	2.21	6.97	2.34	7.31	2.40	7.88	2.50
MRC+ 80 	27	*	*	3	4.63	1.90	5.65	1.96	6.84	2.02	8.00	2.13	9.28	2.27	9.75	2.33	10.58	2.41
	30				4.47	2.04	5.45	2.10	6.60	2.17	7.75	2.28	8.93	2.42	9.41	2.48	10.14	2.59
	32				4.35	2.14	5.43	2.20	6.40	2.26	7.50	2.48	8.78	2.52	9.14	2.60	10.18	2.70
	35				4.08	2.30	5.11	2.37	6.14	2.44	7.20	2.55	8.30	2.71	8.70	2.77	9.37	2.90
MRC+ 90 	27	*	*	3 1/2	5.40	2.19	6.60	2.26	7.98	2.34	9.35	2.46	10.84	2.63	11.39	2.70	12.35	2.79
	30				5.21	2.37	6.37	2.43	7.71	2.51	9.04	2.64	10.43	2.80	10.98	2.88	11.84	3.00
	32				5.08	2.48	6.34	2.55	7.47	2.62	8.76	2.88	10.25	2.93	10.67	3.02	11.89	3.14
	35				4.77	2.67	5.96	2.75	7.17	2.83	8.40	2.96	9.69	3.15	10.16	3.23	10.94	3.37
MRC+ 100	27	*	*	4	6.19	2.89	7.71	2.97	9.14	3.08	10.71	3.24	12.41	3.45	13.05	3.54	14.15	3.65
	30				5.97	3.09	7.29	3.17	8.83	3.27	10.36	3.43	11.95	3.64	12.58	3.73	13.57	3.89
	32				5.82	3.21	7.02	3.25	8.56	3.39	10.03	3.72	11.75	3.78	12.22	3.88	13.62	4.04
	35				5.46	3.43	6.83	3.53	8.21	3.63	9.63	3.80	11.10	4.03	11.63	4.12	12.54	4.30
MRC+ 130	27		*	4 2/5	7.09	3.30	8.84	3.39	10.47	3.51	12.27	3.69	14.22	3.92	14.95	4.03	16.21	4.15
	30				6.84	3.53	8.36	3.62	10.11	3.74	11.87	3.91	13.69	4.15	14.42	4.25	15.54	4.43
	32				6.67	3.67	8.05	3.71	9.81	3.87	11.50	4.24	13.46	4.31	14.00	4.43	15.61	4.60
	35				6.25	3.92	7.83	4.04	9.41	4.15	11.03	4.33	12.72	4.60	13.33	4.70	14.36	4.91
MRC+ 150 	27	*	*	5	7.74	3.34	9.64	3.44	11.43	3.56	13.38	3.74	15.51	3.97	16.30	4.08	17.68	4.20
	30				7.46	3.57	9.11	3.67	11.03	3.78	12.95	3.96	14.93	4.20	15.72	4.30	16.95	4.49
	32				7.28	3.71	8.78	3.76	10.70	3.92	12.54	4.29	14.68	4.36	15.28	4.48	17.02	4.66
	35				6.82	3.97	8.54	4.09	10.26	4.20	12.03	4.39	13.87	4.66	14.54	4.76	15.67	4.97
MRC+ 165 	27		*	6	9.23	3.89	11.50	4.00	13.63	4.14	15.96	4.35	18.51	4.63	19.45	4.76	21.09	4.90
	30				8.90	4.16	10.87	4.28	13.16	4.41	15.44	4.62	17.81	4.91	18.76	5.03	20.22	5.25
	32				8.68	4.33	10.47	4.38	12.76	4.58	14.96	5.02	17.51	5.10	18.22	5.24	20.31	5.45
	35				8.14	4.64	10.19	4.78	12.24	4.91	14.35	5.13	16.55	5.45	17.34	5.57	18.69	5.82
MRC+ 180 	27		*	7 1/2	10.20	4.27	12.71	4.39	15.06	4.55	17.64	4.78	20.45	5.09	21.50	5.23	23.31	5.39
	30				9.84	4.57	12.02	4.70	14.55	4.85	17.07	5.08	19.68	5.39	20.73	5.53	22.35	5.77
	32				9.60	4.76	11.57	4.82	14.10	5.04	16.53	5.52	19.35	5.61	20.14	5.77	22.44	6.00
	35				8.99	5.11	11.26	5.26	13.53	5.40	15.86	5.65	18.29	6.00	19.17	6.14	20.66	6.41










MRC+ Technical Information

Based on R407F

MODEL	Ambient Temp	ELECTRICAL SUPPLY		HP	EVAPORATING TEMPERATURE °C													
		1Ph	3Ph		R407F COOLING CAPACITY AND POWER INPUT KW													
					-15		-10		-5		0		5		7		10	
Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power			
MRC+ 15	27	*		1/2	0.88	0.64	1.19	0.70	1.54	0.77	1.93	0.82	2.37	0.90	2.42	0.92	2.49	0.95
	30				0.83	0.65	1.12	0.70	1.46	0.78	1.81	0.85	2.26	0.92	2.30	0.94	2.37	0.98
	32				0.79	0.65	1.07	0.70	1.40	0.78	1.74	0.86	2.21	0.93	2.22	0.96	2.29	1.00
	35				0.74	0.64	1.01	0.70	1.32	0.80	1.64	0.88	2.05	0.96	2.08	0.98	2.14	1.03
MRC+ 20	27	*		5/8	1.15	0.82	1.54	0.90	2.00	0.99	2.50	1.06	3.08	1.17	3.14	1.20	3.23	1.24
	30				1.07	0.82	1.45	0.91	1.89	1.00	2.34	1.10	2.93	1.19	2.99	1.22	3.07	1.27
	32				1.03	0.83	1.39	0.92	1.81	1.01	2.26	1.12	2.87	1.21	2.88	1.25	2.97	1.30
	35				0.96	0.82	1.31	0.92	1.71	1.03	2.13	1.14	2.66	1.25	2.70	1.29	2.77	1.35
MRC+ 30	27	*	*	1 3/8	1.72	1.05	2.20	1.15	2.75	1.26	3.36	1.34	4.05	1.47	4.11	1.54	4.47	1.62
	30				1.61	1.06	2.08	1.16	2.61	1.28	3.15	1.40	3.84	1.51	3.91	1.58	4.24	1.67
	32				1.54	1.06	1.99	1.17	2.50	1.29	3.03	1.42	3.76	1.53	3.76	1.62	4.09	1.71
	35				1.44	1.06	1.87	1.18	2.36	1.31	2.85	1.45	3.50	1.57	3.53	1.67	3.82	1.79
MRC+ 40	27	*	*	1 1/2	2.49	1.58	3.14	1.68	3.89	1.80	4.72	1.92	5.48	2.16	5.81	2.25	6.34	2.39
	30				2.34	1.60	2.98	1.71	3.71	1.85	4.62	2.03	5.20	2.24	5.52	2.33	6.01	2.49
	32				2.25	1.61	2.87	1.73	3.56	1.88	4.28	2.06	5.08	2.29	5.30	2.39	5.79	2.55
	35				2.12	1.61	2.70	1.75	3.35	1.92	4.02	2.12	4.69	2.36	4.96	2.46	5.38	2.64
MRC+ 45	27	*		1 1/2	2.44	1.15	2.97	1.17	3.58	1.21	4.27	1.25	4.89	1.39	5.16	1.48	5.60	1.58
	30				2.35	1.23	2.86	1.25	3.46	1.29	4.06	1.37	4.71	1.49	4.97	1.57	5.39	1.70
	32				2.28	1.28	2.84	1.30	3.35	1.35	3.95	1.42	4.65	1.55	4.83	1.65	5.42	1.78
	35				2.19	1.37	2.66	1.39	3.20	1.44	3.77	1.52	4.36	1.66	4.59	1.76	4.97	1.91
MRC+ 50	27	*	*	2	3.26	1.69	4.00	1.72	4.85	1.76	5.80	1.79	6.67	1.93	7.05	1.98	7.69	2.04
	30				3.13	1.81	3.84	1.84	4.68	1.87	5.52	1.95	6.42	2.06	6.80	2.10	7.40	2.19
	32				3.04	1.89	3.82	1.91	4.53	1.95	5.37	2.02	6.33	2.13	6.61	2.19	7.43	2.28
	35				2.92	2.01	3.58	2.03	4.32	2.08	5.13	2.16	5.94	2.29	6.28	2.33	6.83	2.45
MRC+ 60	27	*	*	2 1/2	3.83	1.88	4.70	1.90	5.69	1.95	6.81	1.99	7.82	2.14	8.27	2.20	9.02	2.26
	30				3.68	2.02	4.51	2.04	5.49	2.08	6.48	2.17	7.53	2.29	7.98	2.34	8.68	2.44
	32				3.57	2.10	4.48	2.13	5.31	2.17	6.30	2.25	7.43	2.38	7.76	2.44	8.72	2.55
	35				3.43	2.24	4.20	2.27	5.08	2.32	6.02	2.41	6.98	2.55	7.37	2.61	8.01	2.73
MRC+ 80	27	*	*	3	4.56	2.15	5.59	2.19	6.77	2.24	8.10	2.28	9.31	2.47	9.85	2.53	10.74	2.61
	30				4.38	2.32	5.37	2.35	6.54	2.40	7.71	2.50	8.96	2.64	9.50	2.70	10.33	2.81
	32				4.25	2.42	5.33	2.45	6.32	2.50	7.50	2.60	8.85	2.75	9.23	2.82	10.38	2.94
	35				4.08	2.59	5.00	2.62	6.04	2.69	7.16	2.79	8.30	2.96	8.77	3.02	9.54	3.17
MRC+ 90	27	*	*	3 1/2	5.32	2.49	6.53	2.53	7.91	2.58	9.46	2.64	10.87	2.86	11.50	2.93	12.54	3.02
	30				5.11	2.69	6.27	2.72	7.63	2.78	9.01	2.90	10.47	3.06	11.10	3.13	12.06	3.27
	32				4.96	2.81	6.23	2.85	7.38	2.91	8.76	3.02	10.33	3.20	10.78	3.28	12.12	3.43
	35				4.76	3.01	5.84	3.05	7.05	3.13	8.36	3.25	9.69	3.44	10.24	3.52	11.13	3.69
MRC+ 100	27	*	*	4	6.10	3.29	7.63	3.33	9.06	3.41	10.83	3.47	12.46	3.75	13.17	3.84	14.36	3.95
	30				5.85	3.52	7.18	3.56	8.74	3.63	10.32	3.77	11.99	3.98	12.71	4.06	13.82	4.23
	32				5.69	3.64	6.90	3.63	8.46	3.76	10.03	3.91	11.83	4.12	12.35	4.23	13.89	4.41
	35				5.46	3.87	6.69	3.92	8.08	4.01	9.58	4.16	11.11	4.40	11.73	4.50	12.75	4.71
MRC+ 130	27		*	4 2/5	6.99	3.73	8.74	3.78	10.38	3.87	12.41	3.95	14.27	4.26	15.09	4.36	16.45	4.49
	30				6.70	4.00	8.23	4.04	10.02	4.13	11.82	4.29	13.74	4.53	14.56	4.62	15.83	4.81
	32				6.51	4.15	7.90	4.13	9.69	4.28	11.50	4.45	13.56	4.69	14.15	4.81	15.91	5.01
	35				6.25	4.40	7.66	4.46	9.26	4.57	10.98	4.74	12.72	5.01	13.44	5.12	14.61	5.36
MRC+ 150	27	*	*	5	7.62	3.78	9.53	3.83	11.32	3.92	13.54	4.00	15.57	4.31	16.46	4.41	17.95	4.55
	30				7.31	4.05	8.98	4.09	10.93	4.18	12.89	4.34	14.98	4.58	15.88	4.68	17.27	4.87
	32				7.10	4.20	8.62	4.18	10.57	4.34	12.54	4.50	14.79	4.75	15.43	4.88	17.35	5.08
	35				6.82	4.46	8.35	4.52	10.10	4.63	11.97	4.80	13.88	5.08	14.66	5.19	15.94	5.43
MRC+ 165	27		*	6	9.09	4.41	11.37	4.47	13.50	4.57	16.15	4.66	18.57	5.03	19.64	5.15	21.41	5.31
	30				8.72	4.73	10.71	4.78	13.03	4.88	15.38	5.07	17.87	5.36	18.95	5.47	20.60	5.70
	32				8.48	4.91	10.28	4.89	12.61	5.07	14.96	5.26	17.64	5.56	18.41	5.70	20.70	5.94
	35				8.13	5.22	9.97	5.29	12.05	5.41	14.28	5.62	16.55	5.95	17.49	6.08	19.01	6.37
MRC+ 180	27		*	7 1/2	10.05	4.84	12.57	4.91	14.92	5.03	17.85	5.12	20.53	5.53	21.71	5.66	23.66	5.84
	30				9.64	5.20	11.83	5.26	14.41	5.37	17.00	5.58	19.75	5.89	20.94	6.01	22.77	6.27
	32				9.37	5.40	11.36	5.37	13.93	5.58	16.53	5.79	19.50	6.12	20.35	6.28	22.88	6.54
	35				8.99	5.74	11.02	5.82	13.31	5.96	15.79	6.19	18.30	6.55	19.33	6.69	21.01	7.01



MRC+ Technical Information Based on R404A/R452A

MODEL	Ambient Temp	ELECTRICAL SUPPLY		HP	EVAPORATING TEMPERATURE °C													
					-15		-10		-5		0		5		7		10	
		1Ph	3Ph		R404A COOLING CAPACITY AND POWER INPUT KW													
		Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power			
MRC+ 15	27	*		1/2	0.95	0.66	1.23	0.73	1.54	0.79	1.86	0.84	2.26	0.90	2.28	0.91	2.32	0.93
	30				0.88	0.66	1.15	0.73	1.45	0.79	1.75	0.86	2.13	0.91	2.15	0.93	2.18	0.95
	32				0.84	0.66	1.10	0.73	1.38	0.80	1.67	0.86	2.04	0.92	2.06	0.94	2.08	0.97
	35				0.79	0.66	1.03	0.73	1.30	0.81	1.57	0.88	1.91	0.94	1.92	0.96	1.94	1.00
MRC+ 20	27	*		5/8	1.23	0.85	1.59	0.93	2.00	1.01	2.41	1.10	2.93	1.17	2.96	1.19	3.01	1.22
	30				1.15	0.85	1.49	0.94	1.88	1.02	2.27	1.11	2.76	1.19	2.79	1.21	2.82	1.24
	32				1.09	0.85	1.43	0.94	1.80	1.03	2.17	1.12	2.65	1.20	2.67	1.23	2.70	1.26
	35				1.02	0.85	1.33	0.94	1.68	1.04	2.03	1.14	2.48	1.23	2.50	1.26	2.52	1.30
MRC+ 30	27	*	*	1 3/8	1.84	1.09	2.28	1.19	2.75	1.29	3.24	1.39	3.85	1.47	3.89	1.53	4.16	1.59
	30				1.72	1.09	2.13	1.20	2.59	1.30	3.04	1.41	3.63	1.50	3.65	1.56	3.90	1.63
	32				1.64	1.09	2.04	1.20	2.48	1.31	2.91	1.42	3.48	1.52	3.49	1.59	3.73	1.66
	35				1.53	1.09	1.91	1.21	2.32	1.33	2.73	1.45	3.25	1.55	3.26	1.63	3.48	1.72
MRC+ 40	27	*	*	1 1/2	2.66	1.64	3.24	1.74	3.89	1.85	4.56	1.99	5.22	2.16	5.49	2.23	5.91	2.35
	30				2.51	1.65	3.06	1.76	3.67	1.89	4.47	2.04	4.90	2.22	5.15	2.30	5.53	2.42
	32				2.40	1.66	2.94	1.77	3.52	1.91	4.11	2.07	4.69	2.26	4.92	2.34	5.28	2.47
	35				2.25	1.66	2.75	1.80	3.30	1.95	3.84	2.12	4.36	2.32	4.58	2.41	4.89	2.54
MRC+ 45	27	*		1 1/2	2.61	1.19	3.07	1.21	3.58	1.24	4.12	1.29	4.66	1.39	4.87	1.47	5.22	1.56
	30				2.51	1.27	2.93	1.28	3.43	1.32	3.93	1.37	4.44	1.48	4.64	1.55	4.96	1.66
	32				2.43	1.32	2.91	1.33	3.31	1.37	3.80	1.43	4.29	1.53	4.48	1.62	4.94	1.73
	35				2.32	1.41	2.71	1.43	3.15	1.46	3.60	1.52	4.06	1.63	4.24	1.72	4.53	1.84
MRC+ 50 	27	*	*	2	3.49	1.76	4.13	1.78	4.85	1.80	5.59	1.85	6.35	1.93	6.66	1.96	7.16	2.00
	30				3.35	1.87	3.95	1.89	4.63	1.91	5.34	1.96	6.05	2.04	6.35	2.07	6.81	2.13
	32				3.24	1.94	3.91	1.96	4.48	1.98	5.16	2.03	5.85	2.11	6.13	2.15	6.78	2.21
	35				3.09	2.07	3.64	2.09	4.26	2.11	4.90	2.16	5.53	2.25	5.80	2.28	6.21	2.35
MRC+ 60 	27	*	*	2 1/2	4.10	1.95	4.85	1.97	5.69	2.00	6.56	2.05	7.45	2.14	7.82	2.18	8.41	2.22
	30				3.93	2.08	4.64	2.10	5.44	2.12	6.26	2.18	7.10	2.27	7.45	2.31	7.99	2.37
	32				3.81	2.16	4.59	2.18	5.26	2.21	6.06	2.26	6.86	2.35	7.20	2.40	7.95	2.47
	35				3.63	2.31	4.28	2.33	4.99	2.36	5.75	2.41	6.49	2.51	6.80	2.55	7.29	2.63
MRC+ 80 	27	*	*	3	4.88	2.24	5.77	2.27	6.77	2.29	7.81	2.36	8.87	2.47	9.31	2.51	10.01	2.56
	30				4.68	2.39	5.52	2.42	6.47	2.45	7.46	2.51	8.45	2.62	8.87	2.66	9.51	2.74
	32				4.53	2.49	5.46	2.52	6.26	2.55	7.21	2.61	8.17	2.72	8.57	2.77	9.47	2.85
	35				4.32	2.67	5.09	2.70	5.95	2.72	6.84	2.79	7.73	2.91	8.10	2.95	8.68	3.04
MRC+ 90 	27	*	*	3 1/2	5.69	2.59	6.74	2.62	7.91	2.65	9.12	2.73	10.35	2.86	10.87	2.90	11.68	2.96
	30				5.46	2.77	6.44	2.80	7.56	2.84	8.71	2.91	9.87	3.04	10.35	3.09	11.10	3.18
	32				5.29	2.89	6.38	2.92	7.31	2.96	8.42	3.03	9.54	3.16	10.00	3.22	11.05	3.32
	35				5.04	3.11	5.94	3.14	6.94	3.17	7.99	3.25	9.02	3.39	9.45	3.44	10.14	3.54
MRC+ 100	27	*	*	4	6.52	3.43	7.88	3.46	9.06	3.50	10.45	3.60	11.86	3.75	12.45	3.81	13.39	3.88
	30				6.25	3.63	7.38	3.67	8.66	3.70	9.97	3.80	11.31	3.95	11.86	4.01	12.72	4.12
	32				6.06	3.75	7.06	3.73	8.37	3.83	9.65	3.92	10.93	4.08	11.46	4.15	12.66	4.26
	35				5.78	3.99	6.81	4.03	7.95	4.07	9.15	4.16	10.33	4.33	10.83	4.39	11.61	4.52
MRC+ 130	27		*	4 2/5	7.47	3.89	9.03	3.92	10.38	3.97	11.97	4.08	13.59	4.26	14.26	4.32	15.34	4.41
	30				7.17	4.12	8.45	4.16	9.92	4.21	11.42	4.32	12.95	4.49	13.59	4.55	14.57	4.68
	32				6.95	4.27	8.09	4.24	9.59	4.35	11.05	4.46	12.52	4.64	13.13	4.72	14.50	4.85
	35				6.62	4.55	7.80	4.59	9.11	4.63	10.49	4.74	11.84	4.94	12.41	5.00	13.30	5.15
MRC+ 150 	27	*	*	5	8.15	3.94	9.84	3.97	11.32	4.02	13.06	4.13	14.82	4.31	15.56	4.38	16.73	4.46
	30				7.82	4.17	9.22	4.22	10.82	4.26	12.46	4.37	14.13	4.55	14.82	4.61	15.89	4.75
	32				7.58	4.32	8.83	4.29	10.46	4.41	12.06	4.52	13.65	4.70	14.32	4.78	15.82	4.92
	35				7.22	4.60	8.51	4.65	9.94	4.69	11.44	4.80	12.91	5.00	13.53	5.07	14.51	5.22
MRC+ 165 	27		*	6	9.72	4.59	11.74	4.63	13.50	4.69	15.58	4.82	17.68	5.03	18.56	5.11	19.95	5.21
	30				9.32	4.87	11.00	4.93	12.90	4.98	14.87	5.11	16.86	5.31	17.68	5.39	18.96	5.55
	32				9.04	5.05	10.53	5.02	12.48	5.16	14.38	5.29	16.29	5.49	17.08	5.60	18.87	5.75
	35				8.61	5.39	10.15	5.44	11.85	5.49	13.64	5.62	15.41	5.85	16.15	5.93	17.31	6.11
MRC+ 180 	27		*	7 1/2	10.74	5.04	12.98	5.09	14.92	5.16	17.22	5.30	19.54	5.53	20.52	5.62	22.05	5.73
	30				10.30	5.36	12.16	5.42	14.26	5.47	16.43	5.62	18.63	5.85	19.54	5.93	20.95	6.10
	32				9.99	5.56	11.64	5.52	13.79	5.67	15.90	5.82	18.00	6.05	18.88	6.16	20.86	6.33
	35				9.52	5.93	11.22	5.99	13.10	6.05	15.08	6.19	17.03	6.45	17.84	6.53	19.13	6.73





MRC+ Technical Information

Based on R448A - R449A

MODEL	Ambient Temp	ELECTRICAL SUPPLY		HP	EVAPORATING TEMPERATURE °C													
					-15		-10		-5		0		5		7		10	
		1Ph	3Ph		R448A - R449A COOLING CAPACITY AND POWER INPUT KW													
		Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	
MRC+ 15	27	*		1/2	0.83	0.59	1.10	0.67	1.41	0.73	1.74	0.79	2.17	0.86	2.21	0.87	2.28	0.91
	30				0.77	0.60	1.04	0.67	1.35	0.73	1.66	0.81	2.08	0.87	2.12	0.89	2.18	0.92
	32				0.74	0.60	1.00	0.67	1.29	0.74	1.60	0.80	2.01	0.87	2.05	0.90	2.10	0.94
	35				0.71	0.60	0.95	0.67	1.24	0.75	1.54	0.82	1.92	0.89	1.95	0.92	2.00	0.96
MRC+ 20	27	*		5/8	1.08	0.77	1.42	0.85	1.83	0.93	2.26	1.03	2.81	1.12	2.87	1.14	2.95	1.19
	30				1.01	0.77	1.34	0.86	1.75	0.94	2.16	1.04	2.69	1.13	2.74	1.16	2.81	1.20
	32				0.97	0.77	1.30	0.86	1.68	0.95	2.08	1.05	2.61	1.14	2.66	1.17	2.73	1.22
	35				0.92	0.78	1.23	0.86	1.60	0.96	1.99	1.07	2.49	1.17	2.54	1.20	2.60	1.25
MRC+ 30	27	*	*	1 3/8	1.61	0.98	2.04	1.09	2.52	1.19	3.04	1.30	3.69	1.40	3.77	1.47	4.08	1.55
	30				1.51	0.99	1.92	1.10	2.40	1.20	2.89	1.32	3.54	1.43	3.59	1.49	3.89	1.58
	32				1.45	0.99	1.86	1.09	2.32	1.20	2.80	1.33	3.43	1.44	3.48	1.52	3.77	1.61
	35				1.38	1.00	1.76	1.10	2.20	1.23	2.67	1.36	3.27	1.47	3.31	1.56	3.59	1.66
MRC+ 40	27	*	*	1 1/2	2.33	1.48	2.90	1.59	3.56	1.70	4.27	1.87	5.00	2.06	5.33	2.14	5.80	2.29
	30				2.21	1.50	2.76	1.61	3.41	1.74	4.25	1.91	4.78	2.11	5.07	2.20	5.52	2.34
	32				2.13	1.51	2.68	1.61	3.29	1.76	3.95	1.94	4.62	2.15	4.90	2.23	5.34	2.39
	35				2.02	1.52	2.54	1.64	3.14	1.80	3.76	1.98	4.38	2.20	4.66	2.30	5.05	2.44
MRC+ 45	27	*		1 1/2	2.28	1.07	2.74	1.10	3.27	1.14	3.86	1.21	4.47	1.33	4.72	1.41	5.12	1.52
	30				2.21	1.16	2.64	1.17	3.18	1.22	3.73	1.28	4.33	1.41	4.56	1.48	4.95	1.60
	32				2.15	1.20	2.65	1.21	3.10	1.26	3.65	1.34	4.23	1.45	4.47	1.55	4.99	1.67
	35				2.09	1.29	2.50	1.31	2.99	1.35	3.52	1.42	4.08	1.55	4.31	1.64	4.67	1.77
MRC+ 50	27	*	*	2	3.05	1.58	3.69	1.62	4.44	1.66	5.24	1.73	6.09	1.84	6.46	1.88	7.02	1.95
	30				2.95	1.70	3.56	1.72	4.30	1.76	5.07	1.84	5.90	1.94	6.25	1.98	6.80	2.06
	32				2.87	1.77	3.56	1.79	4.19	1.82	4.96	1.90	5.76	2.00	6.11	2.05	6.85	2.14
	35				2.78	1.90	3.36	1.91	4.05	1.95	4.79	2.02	5.56	2.14	5.90	2.18	6.41	2.26
MRC+ 60	27	*	*	2 1/2	3.59	1.76	4.33	1.80	5.20	1.84	6.15	1.92	7.14	2.04	7.59	2.09	8.25	2.16
	30				3.46	1.89	4.19	1.92	5.05	1.95	5.95	2.04	6.92	2.16	7.33	2.21	7.97	2.29
	32				3.37	1.97	4.18	1.99	4.92	2.03	5.82	2.11	6.76	2.23	7.18	2.29	8.04	2.39
	35				3.27	2.12	3.95	2.13	4.74	2.18	5.62	2.25	6.53	2.38	6.91	2.43	7.52	2.53
MRC+ 80	27	*	*	3	4.27	2.02	5.16	2.07	6.19	2.11	7.32	2.21	8.50	2.36	9.03	2.41	9.82	2.49
	30				4.12	2.18	4.98	2.21	6.01	2.26	7.09	2.35	8.24	2.49	8.73	2.55	9.49	2.65
	32				4.01	2.27	4.97	2.30	5.86	2.35	6.93	2.44	8.05	2.58	8.54	2.65	9.57	2.76
	35				3.89	2.45	4.70	2.47	5.65	2.51	6.69	2.61	7.77	2.76	8.24	2.81	8.96	2.93
MRC+ 90	27	*	*	3 1/2	5.07	2.36	6.16	2.41	7.42	2.46	8.79	2.55	10.19	2.70	10.79	2.75	11.77	2.83
	30				4.90	2.53	5.95	2.58	7.18	2.65	8.50	2.73	9.86	2.87	10.44	2.93	11.36	3.03
	32				4.79	2.65	5.94	2.69	7.01	2.76	8.30	2.84	9.63	2.99	10.23	3.06	11.43	3.17
	35				4.63	2.86	5.62	2.91	6.76	2.96	8.01	3.06	9.27	3.21	9.82	3.27	10.65	3.37
MRC+ 100	27	*	*	4	5.78	3.12	7.14	3.16	8.43	3.23	10.03	3.37	11.66	3.54	12.38	3.62	13.55	3.71
	30				5.60	3.31	6.76	3.37	8.16	3.42	9.68	3.55	11.28	3.72	11.97	3.80	13.06	3.93
	32				5.46	3.43	6.53	3.42	7.96	3.54	9.45	3.66	11.02	3.84	11.68	3.93	13.13	4.06
	35				5.29	3.66	6.38	3.72	7.68	3.77	9.11	3.89	10.60	4.08	11.29	4.15	12.29	4.30
MRC+ 130	27	*	*	4 2/5	6.98	3.54	8.63	3.58	10.10	3.65	11.88	3.79	13.82	4.01	14.67	4.10	15.98	4.23
	30				6.74	3.79	8.15	3.82	9.78	3.89	11.47	4.02	13.32	4.24	14.14	4.32	15.39	4.49
	32				6.57	3.94	7.84	3.92	9.54	4.03	11.19	4.17	13.03	4.38	13.82	4.49	15.49	4.65
	35				6.30	4.23	7.64	4.26	9.17	4.32	10.77	4.45	12.54	4.68	13.29	4.76	14.49	4.95
MRC+ 150	27	*	*	5	7.61	3.59	9.40	3.62	11.02	3.69	12.96	3.84	15.07	4.05	16.01	4.15	17.42	4.27
	30				7.35	3.83	8.89	3.87	10.67	3.93	12.51	4.07	14.53	4.30	15.42	4.38	16.78	4.55
	32				7.16	3.98	8.56	3.96	10.41	4.09	12.21	4.23	14.20	4.44	15.08	4.55	16.90	4.71
	35				6.87	4.27	8.34	4.32	10.00	4.38	11.75	4.51	13.67	4.74	14.49	4.83	15.81	5.02
MRC+ 165	27	*	*	6	9.02	4.13	11.12	4.19	13.09	4.28	15.43	4.46	17.93	4.73	19.02	4.83	20.81	4.99
	30				8.70	4.42	10.54	4.49	12.64	4.57	14.92	4.74	17.32	5.00	18.40	5.08	20.08	5.32
	32				8.49	4.60	10.18	4.58	12.33	4.74	14.54	4.93	16.96	5.18	17.95	5.32	20.23	5.52
	35				8.13	4.94	9.90	5.00	11.90	5.08	14.06	5.25	16.29	5.54	17.34	5.64	18.89	5.88
MRC+ 180	27	*	*	7 1/2	9.96	4.63	12.28	4.69	14.38	4.78	16.93	4.94	19.64	5.25	20.91	5.37	22.92	5.55
	30				9.57	4.93	11.57	5.01	13.87	5.08	16.38	5.27	19.02	5.57	20.27	5.67	22.02	5.90
	32				9.33	5.13	11.16	5.10	13.54	5.27	16.00	5.46	18.64	5.74	19.77	5.89	22.16	6.12
	35				8.93	5.48	10.88	5.55	13.05	5.63	15.43	5.81	17.97	6.12	19.13	6.23	21.44	6.50



MRC+ LT Technical Information Specification

- Suction and Liquid Valves
- Emerson or Saginomiya (Danfoss) Fan Speed Controllers
- HP Protection Switches with Auto Reset (PED cat VI)
- Ranco adjustable LP Protection Switches with Auto Reset
- Contactor (overload on 3Ph units)
- Crankcase Heater (reciprocating only)
- Liquid receiver
- Microchannel Heat Exchangers
- Low noise fans
- UK manufactured plate work
- Sight glass
- Refrigeration drier
- UK Solenoid (Kraus & Naimer) Detachable Isolator
- Noise attenuation insulation
- MRC+ LT 40-60 Tecumseh Compressors with capacitor start relay
- MRC + LT 80-100 Emerson Scroll ZF Compressors

Based on R407A

MODEL	Ambient Temp	ELECTRICAL SUPPLY		HP	EVAPORATING TEMPERATURE °C									
		1Ph	3Ph		-40		-35		-30		-25		-20	
					Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power
MRC+ 40	27	*		1 1/2	0.56	0.78	0.81	0.82	1.13	0.93	1.51	1.00	1.96	1.16
	32				0.49	0.76	0.74	0.84	1.00	0.96	1.42	1.05	1.87	1.16
MRC+ 50	27	*	*	2	0.77	1.03	1.13	1.20	1.54	1.38	2.08	1.52	2.64	1.78
	32				0.61	1.02	1.05	1.23	1.41	1.43	1.98	1.61	2.58	1.80
MRC+ 60	27	*	*	2 1/2	1.04	1.18	1.54	1.48	2.11	1.71	2.83	1.90	3.65	2.24
	32				0.85	1.27	1.37	1.52	1.94	1.76	2.69	2.00	3.47	2.27
MRC+ 80	27		*	4	1.75	1.70	2.20	1.75	2.76	1.80	3.40	1.90	4.10	2.00
	32				1.60	1.95	2.10	2.00	2.55	2.05	3.20	2.10	3.90	2.20
MRC+ 90	27		*	5	2.36	2.32	2.97	2.45	3.64	2.71	4.44	2.83	5.29	3.19
	32				2.16	2.60	2.83	2.75	3.44	2.98	4.25	3.18	5.09	3.47
MRC+ 100	27		*	6	2.70	2.77	3.41	3.00	4.21	3.20	4.80	3.30	6.06	3.69
	32				2.39	3.24	3.26	3.40	4.04	3.53	4.96	3.80	5.94	4.05

Based on R407F

MODEL	Ambient Temp	ELECTRICAL SUPPLY		HP	EVAPORATING TEMPERATURE °C									
		1Ph	3Ph		-40		-35		-30		-25		-20	
					Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power
MRC+ 40	27	*		1 1/2	0.58	0.82	0.84	0.86	1.17	1.01	1.57	1.05	2.08	1.22
	32				0.51	0.78	0.76	0.87	1.05	1.00	1.46	1.10	1.96	1.22
MRC+ 50	27	*	*	2	0.80	1.09	1.18	1.27	1.60	1.49	2.17	1.59	2.81	1.86
	32				0.64	1.05	1.08	1.26	1.48	1.50	2.04	1.69	2.70	1.88
MRC+ 60	27	*	*	2 1/2	1.07	1.25	1.61	1.56	2.20	1.85	2.95	2.00	3.88	2.35
	32				0.89	1.31	1.40	1.56	2.04	1.85	2.77	2.09	3.63	2.37
MRC+ 80	27		*	4	1.81	1.80	2.30	1.85	2.87	1.95	3.55	2.00	4.36	2.10
	32				1.68	2.00	2.14	2.05	2.68	2.15	3.30	2.20	4.08	2.30
MRC+ 90	27		*	5	2.39	2.40	3.05	2.60	3.78	3.00	4.71	3.20	5.74	3.45
	32				2.22	2.75	2.90	2.90	3.60	3.30	4.43	3.60	5.39	3.90
MRC+ 100	27		*	6	2.83	3.00	3.60	3.15	4.49	3.75	5.52	4.05	6.80	4.25
	32				2.64	3.60	3.44	3.70	4.22	4.20	5.18	4.55	6.28	4.85

Based on R404A

MODEL	Ambient Temp	ELECTRICAL SUPPLY		HP	EVAPORATING TEMPERATURE °C									
		1Ph	3Ph		-40		-35		-30		-25		-20	
					Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power	Cap.	Power
MRC+ 40	27	*		1 1/2	0.69	0.93	0.97	0.99	1.34	1.13	1.76	1.25	2.27	1.39
	32				0.61	0.88	0.87	0.98	1.18	1.12	1.60	1.25	2.07	1.40
MRC+ 50	27	*	*	2	0.94	1.23	1.36	1.45	1.83	1.67	2.43	1.89	3.07	2.13
	32				0.76	1.18	1.23	1.43	1.66	1.67	2.23	1.92	2.85	2.17
MRC+ 60	27	*	*	2 1/2	1.27	1.42	1.85	1.79	2.51	2.07	3.30	2.37	4.24	2.69
	32				1.06	1.47	1.61	1.76	2.28	2.06	3.03	2.38	3.83	2.73
MRC+ 80	27		*	4	2.14	2.04	2.65	2.12	3.28	2.18	3.97	2.37	4.76	2.40
	32				2.00	2.25	2.46	2.32	3.00	2.40	3.61	2.50	4.31	2.65
MRC+ 90	27		*	5	2.89	2.80	3.58	2.90	4.33	3.30	5.19	3.55	6.14	3.85
	32				2.70	3.00	3.32	3.10	4.05	3.50	4.79	3.80	5.63	4.20
MRC+ 100	27		*	6	3.30	3.35	4.11	3.55	5.00	3.90	5.60	4.15	7.04	4.45
	32				2.99	3.75	3.95	3.85	4.75	4.15	5.60	4.55	6.56	4.90



