

High Ambient Condensing Units



THESE ROBUST UNITS HAVE A WIDE RANGE OF OPTIONS AND ARE AVAILABLE FOR THE MOST DEMANDING OF ENVIRONMENTS.

These high quality units are supplied with a low pressure bypass timer, suitable for starting in low ambient temperatures and a fan speed control making it the perfect choice for environments which experience a broad range of ambient temperatures.



MCU+HA CONDENSING UNITS ARE DESIGNED FOR USE WITH R134A REFRIGERATION FOR EXTERNAL AMBIENTS OF UP TO 55°C.

Specification

- Easy access for installation and service
- Suction and liquid service valves
- Fan speed head pressure control
- Sight glass
- Low ambient start timer
- 3 minute delay timer / random start timer
- Contactor
- LP switch (auto)
- HP switch (auto)
- Nitrogen holding charge
- Up to 45m pipe runs (equivalent length including 6m lift available) (Models 15-20 up to 20m)

Options

- Various corrosion protection options
- A wide range of electrical options
- Hot gas bypass for extreme low ambients
- Coil guards/Sand trap louvers
- Crankcase heaters
- Overload on 1 Phase (Standard on 3ph)
- Wall mounting kit
- Volt free relay / HP switch (with alarm output)
- Fitted isolator
- Compressor jacket
- Noise attenuation kit

For further information please contact our Technical Department on 01484 405666

Technical Information

MCU+ 45-220 Capacities R134A

Model	Air on °C	Evaporating Temperature										
		-15	-12.5	-10	-7.5	-5	-2.5	0	2.5	5	7.5	10
		TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
MCU+45	30	1.14	1.31	1.50	1.70	1.93	2.20	2.44	2.72	3.02	3.34	3.67
	34	1.08	1.24	1.42	1.62	1.83	2.07	2.32	2.59	2.88	3.18	3.51
	38	1.01	1.17	1.34	1.53	1.73	1.96	2.20	2.46	2.74	3.03	3.34
	41	-	1.12	1.28	1.46	1.66	1.88	2.11	2.36	2.63	2.91	3.22
	45	-	-	1.19	1.37	1.56	1.77	1.99	2.23	2.49	2.76	3.05
	50	-	-	-	1.25	1.43	1.62	1.84	2.06	2.30	2.56	2.84
	55	-	-	-	-	1.29	1.47	1.67	1.89	2.11	2.36	2.62
MCU+50	30	1.53	1.75	2.00	2.28	2.58	2.94	3.27	3.65	4.04	4.47	4.92
	34	1.44	1.66	1.90	2.17	2.45	2.77	3.10	3.47	3.85	4.27	4.70
	38	1.36	1.57	1.80	2.05	2.32	2.62	2.95	3.29	3.67	4.06	4.48
	41	-	1.50	1.71	1.96	2.23	2.52	2.83	3.16	3.53	3.90	4.31
	45	-	-	1.60	1.83	2.09	2.37	2.67	2.99	3.34	3.70	4.09
	50	-	-	-	1.67	1.92	2.18	2.46	2.76	3.09	3.43	3.80
	55	-	-	-	-	1.73	1.97	2.24	2.53	2.83	3.16	3.51
MCU+60	30	1.78	2.04	2.33	2.65	3.00	3.42	3.80	4.24	4.70	5.20	5.72
	34	1.68	1.93	2.21	2.52	2.85	3.22	3.61	4.04	4.48	4.96	5.46
	38	1.58	1.82	2.09	2.38	2.70	3.05	3.43	3.83	4.27	4.72	5.21
	41	-	1.74	1.99	2.28	2.59	2.93	3.29	3.68	4.10	4.54	5.01
	45	-	-	1.86	2.13	2.43	2.75	3.10	3.48	3.88	4.30	4.75
	50	-	-	-	1.94	2.23	2.53	2.86	3.21	3.59	3.99	4.42
	55	-	-	-	-	2.01	2.29	2.60	2.94	3.29	3.67	4.08
MCU+80	30	2.22	2.52	2.85	3.21	3.60	4.02	4.48	4.97	5.51	6.08	6.70
	34	2.09	2.38	2.70	3.04	3.42	3.83	4.24	4.74	5.26	5.81	6.40
	38	1.96	2.24	2.55	2.88	3.24	3.63	4.05	4.51	5.00	5.53	6.10
	41	-	2.14	2.43	2.75	3.10	3.48	3.88	4.33	4.81	5.32	5.88
	45	-	-	2.27	2.58	2.91	3.24	3.66	4.08	4.54	5.03	5.57
	50	-	-	-	2.36	2.67	3.01	3.37	3.77	4.20	4.67	5.17
	55	-	-	-	-	2.42	2.74	3.08	3.45	3.85	4.29	4.76
MCU+90	30	2.46	2.83	3.24	3.67	4.14	4.65	5.19	5.77	6.39	7.04	7.73
	34	2.30	2.66	3.04	3.47	3.92	4.41	4.94	5.50	6.10	6.74	7.42
	38	2.15	2.48	2.86	3.26	3.70	4.18	4.70	5.23	5.82	6.44	7.10
	41	-	2.36	2.72	3.11	3.53	4.00	4.49	5.03	5.60	6.21	6.85
	45	-	-	2.53	2.90	3.31	3.75	4.23	4.74	5.29	5.88	6.51
	50	-	-	-	2.63	3.02	3.43	3.88	4.37	4.90	5.46	6.06
	55	-	-	-	-	2.71	3.09	3.52	3.97	4.47	5.00	5.57
MCU+100	30	3.09	3.53	4.01	4.52	5.07	5.67	6.31	7.00	7.76	8.57	9.44
	34	2.88	3.31	3.78	4.27	4.81	5.38	6.00	6.67	7.39	8.17	9.01
	38	2.65	3.08	3.53	4.01	4.53	5.08	5.68	6.32	7.01	7.76	8.56
	41	-	2.89	3.34	3.81	4.31	4.85	5.43	6.05	6.72	7.44	8.22
	45	-	-	3.07	3.53	4.01	4.53	5.09	5.66	6.33	7.02	7.76
	50	-	-	-	3.16	3.62	4.12	4.65	5.21	5.82	6.47	7.17
	55	-	-	-	-	3.22	3.69	4.19	4.72	5.29	5.91	6.57
MCU+130	30	3.43	3.92	4.45	5.02	5.63	6.29	7.00	7.77	8.61	9.51	10.48
	34	3.20	3.67	4.20	4.74	5.34	5.97	6.66	7.40	8.20	9.07	10.00
	38	2.94	3.42	3.92	4.45	5.03	5.64	6.30	7.02	7.78	8.61	9.50
	41	-	3.21	3.71	4.23	4.78	5.38	6.03	6.72	7.46	8.26	9.12
	45	-	-	3.41	3.92	4.45	5.03	5.65	6.34	7.03	7.79	8.61
	50	-	-	-	3.51	4.02	4.57	5.16	5.78	6.46	7.18	7.96
	55	-	-	-	-	3.57	4.10	4.65	5.24	5.87	6.56	7.29

Technical Information

MCU+ 45-220 Capacities R134A

Model	Air on °C	Evaporating Temperature										
		-15	-12.5	-10	-7.5	-5	-2.5	0	2.5	5	7.5	10
		TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
MCU+150	30	4.02	4.59	5.22	5.88	6.60	7.38	8.21	9.11	10.10	11.15	12.28
	34	5.02	4.31	4.92	5.56	6.26	7.00	7.81	8.68	9.61	10.63	11.72
	38	6.02	4.01	4.59	5.22	5.89	6.61	7.39	8.22	9.12	10.10	11.14
	41	-	3.76	4.35	4.96	5.61	6.31	7.06	7.87	8.74	9.68	10.69
	45	-	-	3.99	4.59	5.22	5.89	6.62	3.33	8.24	9.13	10.10
	50	-	-	-	4.11	4.71	5.36	6.05	6.78	7.57	8.42	9.33
	55	-	-	-	-	4.19	4.80	5.45	6.14	6.88	7.69	8.55
MCU+165	30	4.80	5.44	6.14	6.91	7.75	8.66	9.65	10.70	11.85	13.10	14.40
	34	4.52	5.13	5.80	6.53	7.34	8.21	9.16	10.20	11.30	12.50	13.75
	38	4.25	4.82	5.45	6.15	6.92	7.75	8.66	9.65	10.70	11.85	13.10
	41	-	4.59	5.19	5.86	6.60	7.41	8.29	9.24	10.25	11.40	12.55
	45	-	-	4.85	5.48	6.17	6.94	7.77	8.68	9.66	10.70	11.85
	50	-	-	-	5.00	5.64	6.34	7.12	7.97	8.89	9.89	10.95
	55	-	-	-	-	5.10	5.75	6.46	7.24	8.10	9.03	10.05
MCU+180	30	5.51	6.21	6.98	7.82	8.73	9.71	10.80	11.95	13.15	14.50	15.95
	34	5.22	5.90	6.64	7.44	8.31	9.26	10.30	11.40	12.60	13.85	15.25
	38	4.92	5.57	6.28	7.05	7.89	8.80	9.78	10.85	12.00	13.20	14.55
	41	-	5.33	6.01	6.76	7.57	8.45	9.40	10.40	11.55	12.75	14.00
	45	-	-	5.64	6.36	7.13	7.97	8.87	9.85	10.90	12.05	13.30
	50	-	-	-	5.84	6.57	7.35	8.21	9.13	10.10	11.20	12.35
	55	-	-	-	-	5.99	6.72	7.52	8.38	9.31	10.30	11.40
MCU+200	30	6.07	6.89	7.80	8.80	9.90	11.06	12.24	13.92	15.75	17.18	18.48
	34	5.69	6.48	7.35	8.30	9.35	10.48	11.67	13.13	14.85	16.22	17.76
	38	5.46	6.21	7.04	7.94	8.93	10.03	11.10	12.48	14.01	15.33	16.88
	41	-	5.93	6.71	7.58	8.53	9.56	10.67	11.85	13.27	14.65	16.28
	45	-	-	6.34	7.16	8.04	9.01	10.01	11.17	12.36	13.71	15.48
	50	-	-	-	6.57	7.40	8.30	9.29	10.28	11.29	12.61	14.39
	55	-	-	-	-	6.74	7.58	8.50	9.37	10.26	11.48	13.30
MCU+220	30	7.59	8.56	9.62	10.78	12.03	13.38	14.88	16.47	18.12	19.98	21.98
	34	7.19	8.13	9.15	10.25	11.45	12.76	14.19	15.71	17.36	19.09	21.01
	38	6.78	7.68	8.65	9.71	10.87	12.13	13.48	14.95	16.54	18.19	20.05
	41	-	7.34	8.28	9.32	10.43	11.64	12.95	14.33	15.92	17.57	19.29
	45	-	-	7.77	8.76	9.83	10.98	12.22	13.57	15.02	16.60	18.33
	50	-	-	-	8.05	9.05	10.13	11.31	12.58	13.92	15.43	17.02
	55	-	-	-	-	8.25	9.26	10.36	11.55	12.83	14.19	15.71

Sound Pressure Levels

SOUND PRESSURE LEVELS	
MCU+ 550 & 551 SERIES	
MODEL	dBA
MCU+ 45	49
MCU+ 50	49
MCU+ 60	50
MCU+ 80	49
MCU+ 90	52
MCU+ 100	53
MCU+ 130	52
MCU+ 150	55
MCU+ 165	57
MCU+ 180	59
MCU+ 200	62
MCU+ 220	61

Dimensions & Weights

DIMENSIONS AND WEIGHTS					
MODEL	WIDTH (mm)*	DEPTH (mm)	HEIGHT (mm)**	WEIGHT KG	
				1Ph	3Ph
MCU+ 45	1000	300	660	64	62
MCU+ 50	1000	300	660	64	62
MCU+ 60	1000	300	660	65	63
MCU+ 80	1000	300	660	66	64
MCU+ 90	1000	350	760	76	73
MCU+ 100	1000	350	760	-	81
MCU+ 130	1000	425	1020	-	101
MCU+ 150	1000	425	1020	-	103
MCU+ 165	1000	425	1020	-	103
MCU+ 180	1100	425	1215	-	118
MCU+ 200	1100	425	1215	-	173
MCU+ 220	1100	425	1215	-	145

* Does not include service valves, ** Add 60mm for feet

Technical Information

ELECTRICAL OPTIONS

A VARIETY OF ELECTRICAL OPTIONS TO SUIT STANDARD AND UNUSUAL APPLICATIONS

- Supply Options
The three phase no neutral electrical option is available for applications with a local 3 phase generator. The small single phase requirement (Maximum 5A @ 240V) for the fans and controls are generated through transforming 400V between phases down to 230V using a specially designed transformer within the condensing unit.
 - 1 Phase
 - 3 Phase with Neutral
 - 3 Phase no Neutral
 - 50 or 60Hz

- High IP rating fans and electrical enclosures are available for higher fluid and dust ingress protection
 - Moisture & dust ingress protection IP44 or IP65
 - Fan Motor IP44 or IP65
- For integration into modern building management systems
 - BMS Run
 - BMS Alarm
- A convenient option for saving time on site or where space is not available for external isolation
 - Fitted Isolator

CORROSION PROTECTION

A WIDE RANGE OF CASE AND HEAT EXCHANGER MATERIAL OPTIONS FOR CORROSIVE MARINE ENVIRONMENTS.

Coastal, Extreme High and Low Ambients, Harsh Dusty Environments and Large & Small Vessels.

- Case Material Options
 - Plastosol Coating
 - Stainless Steel
- Heat Exchanger Options
 - Copper Tube Aluminium Fins
 - Corrosion Protective Coating
 - Copper Tube & Fins



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TEV has earned management system accreditations – BSI 14001: 2015 Environmental Management and BSI 9001: 2015 Quality Management.



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Part No: 06617712-05