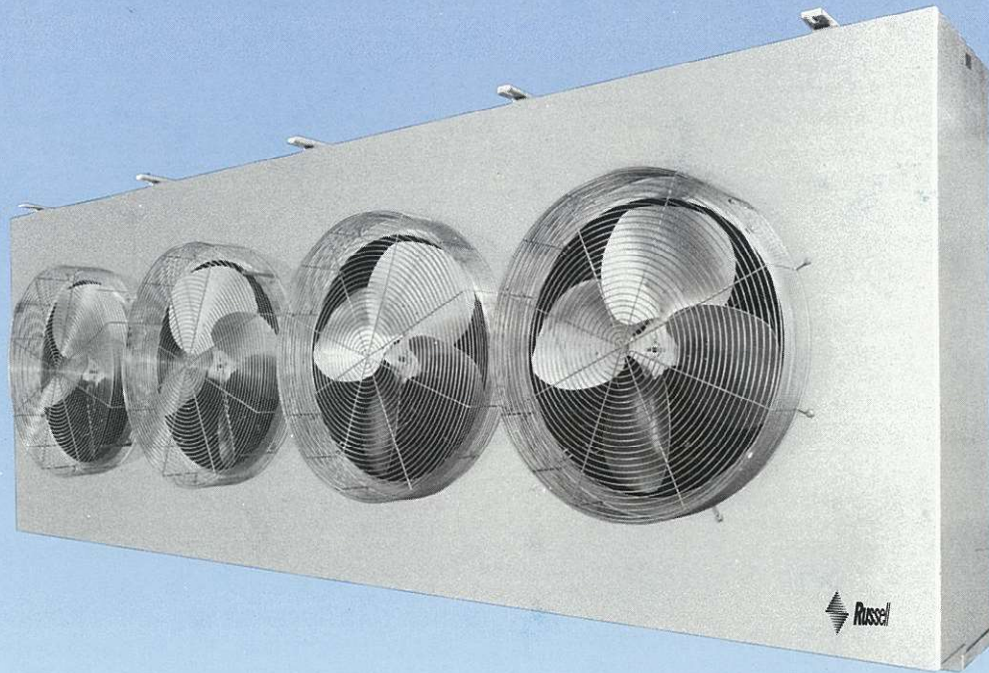


**Heavy Duty
Unit Cooler**

Technical Bulletin No. 101.4
February 1990

***For Large Walk-In Coolers and Freezers***

Air Defrost — 16,400 to 182,100 BTUH
Electric Defrost — 11,800 to 165,600 BTUH
Hot Gas Defrost — 11,800 to 165,600 BTUH

Features

- **APPLICATIONS** — Ultra-Temp unit coolers are ideally suited for a wide range of large coolers, freezers and blast freezers. The U●U and U●L models are designed for use below 25°F room temperature. The U●M and UAH models are designed for coolers in the medium and high temperature range.
- **SIZES** — There are 50 sizes available, ranging in capacity from 11,800 to 182,100 Btuh @ 10°TD, and ranging in air flow from 2,720 to 21,600 CFM.
- **HOUSING** — Rust-free, heavy gauge textured aluminum; lightweight but durable. Drain pans are hinged to allow convenient servicing and maintenance. Drain fittings are provided on each end of the unit.
- **LIFTING LEGS** — 2 fan and larger units come standard with removable lifting legs, allowing the unit to be fastened to shipping skid in an upright position. This enables easy installation with a fork lift. Slotted hangers are provided for fast installation.
- **COIL** — Seamless copper tubes are staggered and mechanically expanded into heavy gauge corrugated aluminum fins to assure maximum heat transfer. Die formed fin collars are provided for accurate fin spacing. Hangers are riveted directly to the tube sheets of the coil to provide high structural strength.
- **REFRIGERANTS** — For use with direct expansion R-12, R-22 and R-502. Specify refrigerant when ordering. Separate compartment is provided for all refrigeration connections, allowing ample room for internal mounting of expansion valve.
- **FANS** — Powerful, heavy-duty aluminum fans are individually balanced to provide vibration-free operation. Wire fan guards are coated for corrosion resistance. Optional air straighteners are available for increased air throw.
- **MOTORS** — All motors are high efficiency PSC, ball bearing type, life lubricated and thermally protected. U●U and U●L models use 3/4 HP, 1075 RPM or 3/4 HP, 1625 RPM motors. U●M and UAH models use 1/3 HP or 3/4 HP, 1075 RPM motors. All motors supplied with low temperature grease for applications down to -60°F suction temperature.
- **ELECTRICAL** — Available in 115/1, 208/230/1, 208/230/3, 460/1 and 460/3 (see page (5)). All components are factory wired to convenient screw type terminal blocks. A large compartment is supplied for all electrical components and is easily accessible by removing the end panel.
- **AIR DEFROST** — Available on UAM and UAH series only for use in coolers at 35°F and above. Complete Air Defrost systems are available from Russell.
- **ELECTRIC DEFROST** — Available on all but the UAH models. Placement of the heaters within the refrigeration coil allow for a more efficient and rapid defrost cycle. This arrangement enables the heat to be conducted from the center out for a more even defrost pattern. *All heaters are factory wired to screw-type terminal blocks, allowing for a quick field change over from 1 to 3 phase or 230V to 460V and vice versa with the use of jumpers.* An adjustable, remote bulb defrost termination and fan delay (DTFD) is mounted and wired. Drain pans are heated for fast, reliable drainage. Timer and contactors are available as options, see pages 6 & 7. Complete Electric Defrost systems are available from Russell.
- **HOT GAS RE-EVAP DEFROST** — Available on all but the UAH models. Includes an adjustable defrost termination and fan delay (DTFD), factory installed. A hot gas drain pan circuit is supplied, thus eliminating the need for electric heat and additional wiring. A Heat Exchanger/Re-Evaporator is supplied with every unit. Refer to the current Technical Bulletin HG for piping. Complete Hot Gas Re-Evap systems are available from Russell; consult factory.
- **HOT GAS REVERSE CYCLE DEFROST** — Available on all but the UAH models. Includes an adjustable defrost termination and fan delay (DTFD), factory installed. A hot gas drain pan circuit is supplied, thus eliminating the need for electric heat and additional wiring. Refer to the current Technical Bulletin HG for piping. This unit is also used for the Alternating Evaporator System.

General

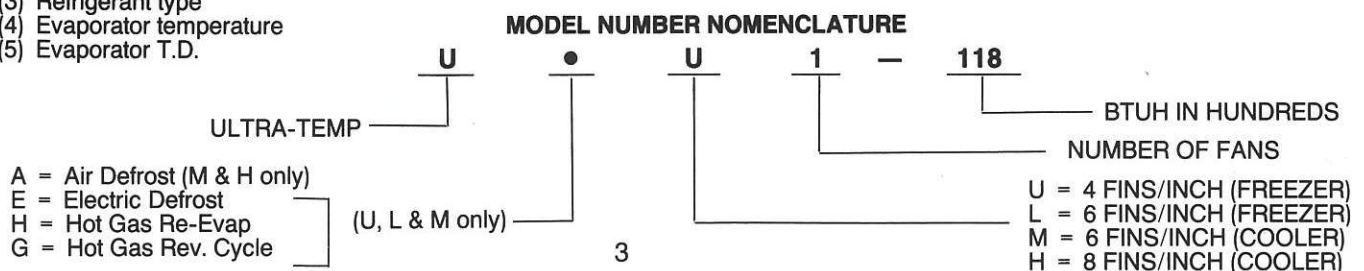
- **EXPANSION VALVES:** All units require externally equalized expansion valves. Available as an unmounted option. Certain models require (2) expansion valves; see Refrigerant Connections table.
- **AIR FLOW RESTRICTION:** 24" minimum clearance is required behind unit for return air. Ample space must be provided around the unit for proper air flow.
- **STANDARD CIRCUITING:** All units are designed for 10°F TD operation for R-12 and R-502, 15°F TD for R-22. For TD varying $\pm 3^\circ\text{F}$ from standard, the factory must be notified on the order so that the circuiting can be optimized to suit the specific application.
- **DRAIN CONNECTIONS:** A drain connection is supplied on each end of the unit cooler. To ensure proper drainage, slope unit with spacer bar supplied.
- **SHIPPING LEGS:** 2 Fan and larger models are shipped in the upright position for ease of installation with the use of shipping legs. These legs may be removed after installation.

Performance Data

	MODEL	CFM	CAPACITY BTUH @ 10° TD						
			SUCTION TEMPERATURE						
			-30°F	-20°F	-10°F	+10°F	+20°F		
4 F.P.I.	U●U1-118	3,750	11,800	12,400	12,900	14,000	Not Rated		
	U●U2-236	7,500	23,600	24,700	25,700	27,900			
	U●U2-355	8,200	35,500	37,100	38,700	42,100			
	4 F.P.I.	U●U3-474	12,450	47,400	49,500	51,600	56,100	For Use In This Range	
		U●U4-711	16,400	71,100	72,800	74,500	81,000		
		U●U4-851	21,600	85,100	89,000	92,800	100,900		
U●U4-1080		21,600	108,000	112,900	117,700	128,000			
6 F.P.I.		U●L1-125	3,750	10,900	11,700	12,500	13,500		Not Rated For Use In This Range
		U●L1-152	3,650	13,200	14,200	15,200	16,400		
	U●L1-193	3,550	16,800	18,100	19,300	20,800			
	U●L2-240	7,600	20,900	22,400	24,000	25,900			
	U●L2-304	7,300	26,400	28,400	30,400	32,800			
	U●L2-361	8,300	31,400	33,800	36,100	39,000			
	6 F.P.I.	U●L2-408	8,100	35,500	38,200	40,800	44,100	For Use In This Range	
		U●L3-445	12,800	38,700	41,600	44,500	48,000		
		U●L3-540	12,450	47,000	50,500	54,000	58,300		
		U●L3-613	12,150	53,300	57,300	61,300	66,200		
		U●L3-660	11,800	57,400	61,700	66,000	71,200		
		U●L4-722	16,600	62,700	67,500	72,200	78,000		
	6 F.P.I.	U●L4-817	16,200	71,100	76,400	81,700	88,200	For Use In This Range	
		U●L4-950	21,500	82,500	88,900	95,000	102,600		
		U●L4-1100	21,200	95,700	102,900	110,000	118,800		
		U●L4-1260	20,800	109,600	117,800	126,000	136,000		
		U●L4-1380	20,400	120,000	129,000	138,000	149,000		
		U●M1-164	2,920						16,400
6 F.P.I.	U●M1-209	2,840					20,900		
	U●M2-270	7,000					27,000		
	U●M2-329	6,840	Not Rated For Use In This Range				32,900		
	U●M2-390	6,640					39,000		
	U●M2-441	6,480					44,100		
	U●M3-583	9,960					58,300		
	U●M3-662	9,720					66,200		
	U●M4-780	13,280					78,000		
	U●M4-882	12,960					88,200		
	U●M4-1320	21,200					132,000		
	U●M4-1656	20,400					165,600		
	8 F.P.I.	UAH1-182	2,800					18,200	
UAH1-232		2,720					23,200		
UAH2-300		6,880					30,000		
UAH2-365		6,600					36,500		
UAH2-433		6,400	Not Rated For Use In This Range				43,300		
UAH2-490		6,250					49,000		
UAH3-530		9,800					53,000		
UAH3-648		9,600					64,800		
UAH3-736		9,400					73,600		
UAH4-866		12,800					86,600		
UAH4-980		12,500					98,000		
UAH4-1100		12,200					110,000		
UAH4-1452	20,700					145,200			
UAH4-1821	19,900					182,100			

ORDERING INFORMATION REQUIRED:

- (1) Model number
- (2) Voltage, frequency and phase of motors and heaters (when applicable)
- (3) Refrigerant type
- (4) Evaporator temperature
- (5) Evaporator T.D.



Fan Specifications

MODEL	FAN DIA	MOTORS			Optional Heat Exchanger Not Mounted	Heat Exch/ Re-Evap Not Mounted
		NO	HP	RPM		
U●U1-118	20	1	3/4	1625	RXH-150	HEA2A
U●U2-236	20	2	3/4	1625	RXH-250	HEA3A
U●U2-355	24	2	3/4	1075	RXH-350	HEA4A
U●U3-474	24	3	3/4	1075	RXH-350	HEA5A
U●U4-711	24	4	3/4	1075	RXH-500	HEA6A
U●U4-851	24	4	3/4	1075	(2)RXH-500	(2)HEA5A
U●U4-1080	24	4	3/4	1075	(2)RXH-500	(2)HEA5A
U●L1-125	20	1	3/4	1625	RXH-150	HEA3A
U●L1-152	20	1	3/4	1625	RXH-150	HEA3A
U●L1-193	20	1	3/4	1625	RXH-150	HEA3A
U●L2-240	20	2	3/4	1625	RXH-250	HEA4A
U●L2-304	20	2	3/4	1625	RXH-250	HEA4A
U●L2-361	24	2	3/4	1075	RXH-350	HEA4A
U●L2-408	24	2	3/4	1075	RXH-350	HEA5A
U●L3-445	24	3	3/4	1075	RXH-500	HEA5A
U●L3-540	24	3	3/4	1075	RXH-500	HEA5A
U●L3-613	24	3	3/4	1075	RXH-500	HEA6A
U●L3-660	24	3	3/4	1075	RXH-500	HEA6A
U●L4-722	24	4	3/4	1075	RXH-500	HEA6A
U●L4-817	24	4	3/4	1075	RXH-500	(2)HEA5A
U●L4-950	24	4	3/4	1075	RXH-500	(2)HEA5A
U●L4-1100	24	4	3/4	1075	(2)RXH-500	(2)HEA5A
U●L4-1260	24	4	3/4	1075	(2)RXH-500	(2)HEA6A
U●L4-1380	24	4	3/4	1075	(2)RXH-500	(2)HEA6A
U●M1-164	20	1	1/3	1075	RXH-150	HEA3A
U●M1-209	20	1	1/3	1075	RXH-150	HEA3A
U●M2-270	20	2	1/3	1075	RXH-250	HEA4A
U●M2-329	20	2	1/3	1075	RXH-250	HEA4A
U●M2-390	24	2	1/3	1075	RXH-250	HEA4A
U●M2-441	24	2	1/3	1075	RXH-250	HEA5A
U●M3-583	24	3	1/3	1075	RXH-350	HEA5A
U●M3-662	24	3	1/3	1075	RXH-350	HEA6A
U●M4-780	24	4	1/3	1075	RXH-350	HEA6A
U●M4-882	24	4	1/3	1075	RXH-500	(2)HEA5A
U●M4-1320	24	4	3/4	1075	(2)RXH-350	(2)HEA5A
U●M4-1656	24	4	3/4	1075	(2)RXH-500	(2)HEA6A
UAH1-182	20	1	1/3	1075	RXH-150	—
UAH1-232	20	1	1/3	1075	RXH-150	—
UAH2-300	20	2	1/3	1075	RXH-250	—
UAH2-365	20	2	1/3	1075	RXH-250	—
UAH2-433	24	2	1/3	1075	RXH-250	—
UAH2-490	24	2	1/3	1075	RXH-250	—
UAH3-530	24	3	1/3	1075	RXH-250	—
UAH3-648	24	3	1/3	1075	RXH-350	—
UAH3-736	24	3	1/3	1075	RXH-350	—
UAH4-866	24	4	1/3	1075	RXH-350	—
UAH4-980	24	4	1/3	1075	RXH-500	—
UAH4-1100	24	4	1/3	1075	(2)RXH-350	—
UAH4-1452	24	4	3/4	1075	(2)RXH-350	—
UAH4-1821	24	4	3/4	1075	(2)RXH-500	—

OPTIMUM AIR THROW

Air throw is affected by installation variables. Optimum air throw is obtained by high ceilings with no interference from beams, product or return air restrictions.

MODEL	STANDARD	WITH AIR STRAIGHTENERS
U●U / U●L	60 - 80 feet	80 - 100 feet
U●M / UAH	50 - 70 feet	70 - 90 feet

Electrical Data

MODEL	TOTAL MOTOR AMPS 60 HZ					ELECTRIC DEFROST AMPERAGE RATINGS — 60 HZ						WATTS
	115V		208/230V		460V	208V		230V		460V		
	1 Ph	3 Ph	1 Ph	3 Ph	1 Ph	1 Ph	3 Ph	1 Ph	3 Ph	1 Ph	3 Ph	
U●U1-118	—	4.2	—	2.1	—	19.9	13.2	22.0	14.6	11.0	9.5	5,512
U●U2-236	—	8.4	—	4.2	—	35.5	23.5	39.3	26.0	19.6	17.0	9,832
U●U2-355	—	8.4	—	4.2	—	35.5	23.5	39.3	26.0	19.6	17.0	9,832
U●U3-474	—	12.6	7.3	—	3.6	—	33.8	—	37.4	28.2	24.5	14,152
U●U4-711	—	16.8	11.1	—	5.6	—	43.3	—	47.8	—	24.3	18,440
U●U4-851	—	16.8	11.1	—	5.6	—	57.7	—	63.8	—	31.9	27,660
U●U4-1080	—	16.8	11.1	—	5.6	—	57.7	—	63.8	—	31.9	27,660
U●L1-125	—	4.2	—	2.1	—	19.9	13.2	22.0	14.6	11.0	9.5	5,512
U●L1-152	—	4.2	—	2.1	—	19.9	13.2	22.0	14.6	11.0	9.5	5,512
U●L1-193	—	4.2	—	2.1	—	19.9	13.2	22.0	14.6	11.0	9.5	5,512
U●L2-240	—	8.4	—	4.2	—	35.5	23.5	39.3	26.0	19.6	17.0	9,832
U●L2-304	—	8.4	—	4.2	—	35.5	23.5	39.3	26.0	19.6	17.0	9,832
U●L2-361	—	8.4	—	4.2	—	35.5	23.5	39.3	26.0	19.6	17.0	9,832
U●L2-408	—	8.4	—	4.2	—	35.5	23.5	39.3	26.0	19.6	17.0	9,832
U●L3-445	—	12.6	7.3	—	3.6	—	33.8	—	37.4	28.2	24.5	14,152
U●L3-540	—	12.6	7.3	—	3.6	—	33.8	—	37.4	28.2	24.5	14,152
U●L3-613	—	12.6	7.3	—	3.6	—	33.8	—	37.4	28.2	24.5	14,152
U●L3-660	—	12.6	7.3	—	3.6	—	33.8	—	37.4	28.2	24.5	14,152
U●L4-722	—	16.8	11.1	—	5.6	—	43.3	—	47.8	—	24.3	18,440
U●L4-817	—	16.8	11.1	—	5.6	—	43.3	—	47.8	—	24.3	18,440
U●L4-950	—	16.8	11.1	—	5.6	—	57.7	—	63.8	—	31.9	18,440
U●L4-1100	—	16.8	11.1	—	5.6	—	57.7	—	63.8	—	31.9	27,660
U●L4-1260	—	16.8	11.1	—	5.6	—	57.7	—	63.8	—	31.9	27,660
U●L4-1380	—	16.8	11.1	—	5.6	—	57.7	—	63.8	—	31.9	27,660
U●M1-164	7.1	3.2	—	1.3	—	19.9	13.2	22.0	14.6	11.0	9.5	5,512
U●M1-209	7.1	3.2	—	1.3	—	19.9	13.2	22.0	14.6	11.0	9.5	5,512
U●M2-270	14.2	6.4	—	2.6	—	35.5	23.5	39.3	26.0	19.6	17.0	9,832
U●M2-329	14.2	6.4	—	2.6	—	35.5	23.5	39.3	26.0	19.6	17.0	9,832
U●M2-390	14.2	6.4	—	2.6	—	35.5	23.5	39.3	26.0	19.6	17.0	9,832
U●M2-441	14.2	6.4	—	2.6	—	35.5	23.5	39.3	26.0	19.6	17.0	9,832
U●M3-583	21.3	9.6	5.5	3.9	2.9	—	33.8	—	37.4	—	24.5	14,152
U●M3-662	21.3	9.6	5.5	3.9	2.9	—	33.8	—	37.4	—	24.5	14,152
U●M4-780	28.4	12.8	8.5	5.2	4.5	—	43.3	—	47.8	—	24.3	18,440
U●M4-882	28.4	12.8	8.5	5.2	4.5	—	43.3	—	47.8	—	24.3	18,440
U●M4-1320	—	16.8	11.1	8.4	5.6	—	57.7	—	63.8	—	31.9	27,660
U●M4-1656	—	16.8	11.1	8.4	5.6	—	57.7	—	63.8	—	31.9	27,660
UAH1-182	7.1	3.2	—	1.3	—	UAH MODELS AVAILABLE ONLY IN AIR DEFROST NOT RECOMMENDED FOR APPLICATIONS BELOW 35°F BOX TEMPERATURE						
UAH1-232	7.1	3.2	—	1.3	—							
UAH2-300	14.2	6.4	—	2.6	—							
UAH2-365	14.2	6.4	—	2.6	—							
UAH2-433	14.2	6.4	—	2.6	—							
UAH2-490	14.2	6.4	—	2.6	—							
UAH3-530	21.3	9.6	5.5	3.9	2.9							
UAH3-648	21.3	9.6	5.5	3.9	2.9							
UAH3-736	21.3	9.6	5.5	3.9	2.9							
UAH4-866	28.4	12.8	8.5	5.2	4.5							
UAH4-980	28.4	12.8	8.5	5.2	4.5							
UAH4-1100	28.4	12.8	8.5	5.2	4.5							
UAH4-1452	—	16.8	11.1	8.4	5.6							
UAH4-1821	—	16.8	11.1	8.4	5.6							

All models are standard single phase motors. For three phase requirements, three and four fan models can be delta wired three phase; specify when ordering.

All electric defrost models are standard three phase heaters. For single phase requirements, contact factory.

Electric Defrost Kits

MODEL	1 Unit Cooler Per System		2 Unit Coolers Per System		3 Unit Coolers Per System	
	230/3	460/3	230/3	460/3	230/3	460/3
UEU1-118	ED-11	ED-12	ED-21	ED-22	ED-33	ED-32
UEU2-236	ED-11	ED-12	ED-25	ED-24	ED-35	ED-36
UEU2-355	ED-11	ED-12	ED-25	ED-24	ED-35	ED-36
UEU3-474	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEU4-711	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEU4-851	ED-16	ED-14	ED-28	ED-26	—	ED-38
UEU4-1080	ED-16	ED-14	ED-28	ED-26	—	ED-38
UEL1-125	ED-11	ED-12	ED-21	ED-22	ED-33	ED-32
UEL1-152	ED-11	ED-12	ED-21	ED-22	ED-33	ED-32
UEL1-193	ED-11	ED-12	ED-21	ED-22	ED-33	ED-32
UEL2-240	ED-11	ED-12	ED-25	ED-24	ED-35	ED-36
UEL2-304	ED-11	ED-12	ED-25	ED-24	ED-35	ED-36
UEL2-361	ED-11	ED-12	ED-25	ED-24	ED-35	ED-36
UEL2-408	ED-11	ED-12	ED-25	ED-24	ED-35	ED-36
UEL3-445	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEL3-540	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEL3-613	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEL3-660	ED-14	ED-12	ED-26	ED-24	ED-48	ED-36
UEL4-722	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEL4-817	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEL4-950	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEL4-1100	ED-16	ED-14	ED-28	ED-26	—	ED-38
UEL4-1260	ED-16	ED-14	ED-28	ED-26	—	ED-38
UEL4-1380	ED-16	ED-14	ED-28	ED-26	—	ED-38
UEM1-164	ED-11	ED-12	ED-21	ED-22	ED-33	ED-32
UEM1-209	ED-11	ED-12	ED-21	ED-22	ED-33	ED-32
UEM2-270	ED-11	ED-12	ED-25	ED-24	ED-35	ED-36
UEM2-329	ED-11	ED-12	ED-25	ED-24	ED-35	ED-36
UEM2-390	ED-11	ED-12	ED-25	ED-24	ED-35	ED-36
UEM2-441	ED-11	ED-12	ED-25	ED-24	ED-35	ED-36
UEM3-583	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEM3-662	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEM4-780	ED-14	ED-12	ED-26	ED-24	ED-38	ED-36
UEM4-882	ED-14	ED-12	ED-28	ED-24	ED-38	ED-36
UEM4-1320	ED-16	ED-14	ED-28	ED-26	—	ED-38
UEM4-1656	ED-16	ED-14	ED-28	ED-26	—	ED-38

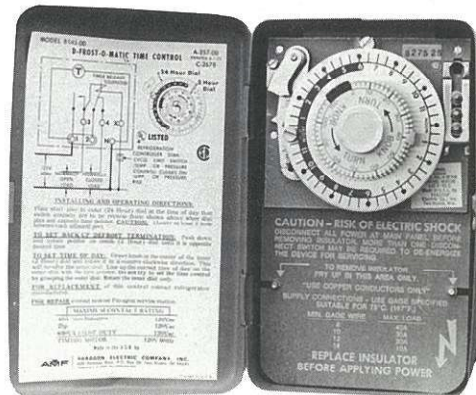
Defrost kits selected for single phase motors on one and two fan models; three and four fan models will be wired delta three phase.

Electric Defrost Kit Components

KIT NO.		CONTENTS					
		TIMER	AUXILIARY SWITCH	BLOCK-OUT RELAY	DEFROST CONTACTOR	FAN CONTACTOR	SEQUENCING RELAY
1 UNIT COOLER	ED10	1	—	1-30A	—	—	—
	ED11	1	1	—	1-30A	—	—
	ED12	1	1	—	1-30A	1-25A	—
	ED13	1	1	—	1-50A	—	—
	ED14	1	1	—	1-50A	1-25A	—
	ED15	1	1	—	2-50A	—	—
	ED16	1	1	—	2-50A	1-25A	—
2 UNIT COOLERS	ED20	1	—	1-30A	—	—	2
	ED21	1	1	—	2-15A	—	2
	ED22	1	1	—	2-15A	1-25A	2
	ED23	1	1	—	2-25A	—	2
	ED24	1	1	—	2-25A	1-25A	2
	ED25	1	1	—	2-50A	—	2
	ED26	1	1	—	2-50A	1-25A	2
	ED27	1	1	—	2-75A	—	2
ED28	1	1	—	2-75A	1-25A	2	
3 UNIT COOLERS	ED30	1	—	1-30A	—	—	3
	ED32	1	1	—	3-10A	1-25A	3
	ED33	1	1	—	3-16A	—	3
	ED34	1	1	—	3-16A	1-25A	3
	ED35	1	1	—	3-30A	—	3
	ED36	1	1	—	3-30A	1-25A	3
	ED37	1	1	—	3-50A	—	3
	ED38	1	1	—	3-50A	1-40A	3

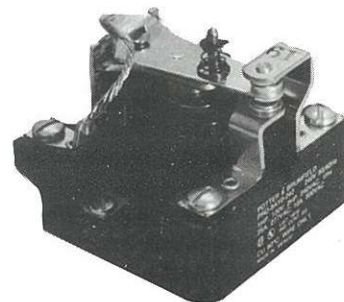
Timer:

Initiates the defrost cycle. Also used as over-ride protection for defrost termination.



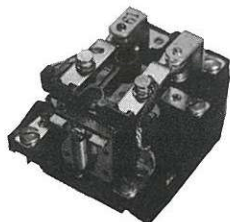
Block-Out Relay:

Serves the same function as auxiliary switch, except used when defrost contactor is not required (single phase only).



Sequencing Relays:

Provides interconnection of multiple unit coolers on a single system so that each unit cooler is allowed to individually terminate defrost on temperature.



Auxiliary Switch:

Is mounted on the compressor contactor and prevents the defrost contactor from operating whenever the compressor is energized.



Fan Contactor:

Used with 460V motors or when 230V motors are wired 3 phase.

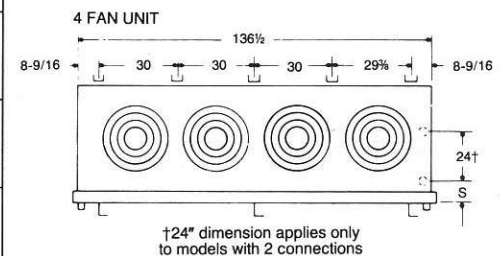
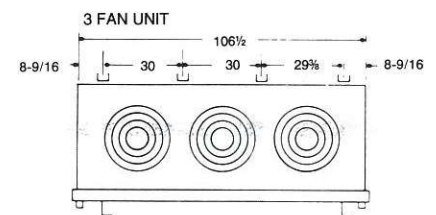
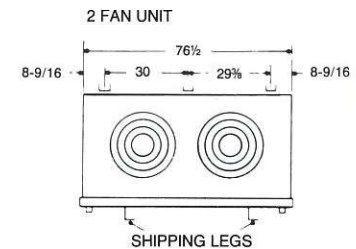
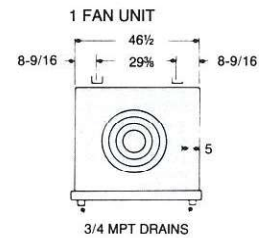
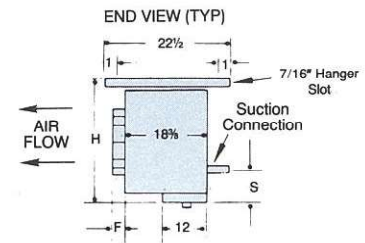
Defrost Contactor:

Carries amperage load for heaters.



Dimensional Data

MODEL	Refrigerant Connections			Dimensions			Shipping Legs	Ship Wt. (Lbs.)
	Liquid	Suction	Hot Gas	H	S	F		
U●U1-118	1/2 F.N.	1 1/8 ODS	7/8 ODS	25 1/2	5 1/4	3 1/2	No	190
U●U2-236	7/8 ODS	1 3/8	7/8	25 1/2	3 3/4	3 1/2	Yes	370
U●U2-355	7/8	1 5/8	7/8	31 1/2	2 1/4	3 1/2	Yes	440
U●U3-474	7/8	1 5/8	7/8	31 1/2	2 1/4	3 1/2	Yes	570
U●U4-711	7/8	2 1/8	1 1/8	31 1/2	2 7/8	3 1/2	Yes	665
U●U4-851	7/8(2)	2 1/8(2)	1 1/8	49 1/2	2 7/8	5	Yes	875
U●U4-1080	7/8(2)	2 1/8(2)	1 1/8	49 1/2	2 7/8	5	Yes	900
U●L1-125	1/2 F.N.	1 1/8 ODS	7/8 ODS	25 1/2	5 1/4	3 1/2	No	180
U●L1-152	1/2 F.N.	1 1/8	7/8	25 1/2	5 1/4	3 1/2	No	200
U●L1-193	5/8 ODS	1 1/8	7/8	25 1/2	3 3/4	3 1/2	No	220
U●L2-240	7/8 ODS	1 3/8	7/8	25 1/2	3 3/4	3 1/2	Yes	370
U●L2-304	7/8	1 3/8	7/8	25 1/2	3 3/4	3 1/2	Yes	400
U●L2-361	7/8	1 5/8	7/8	31 1/2	2 1/4	3 1/2	Yes	425
U●L2-408	7/8	1 5/8	7/8	31 1/2	2 1/4	3 1/2	Yes	446
U●L3-445	7/8	2 1/8	7/8	31 1/2	2 1/4	3 1/2	Yes	525
U●L3-540	7/8	2 1/8	7/8	31 1/2	2 1/4	3 1/2	Yes	585
U●L3-613	7/8	2 1/8	7/8	31 1/2	2 1/4	3 1/2	Yes	620
U●L3-660	7/8	2 1/8	7/8	31 1/2	2 1/4	3 1/2	Yes	645
U●L4-722	7/8	2 1/8	1 1/8	31 1/2	2 7/8	3 1/2	Yes	675
U●L4-817	1 3/8	2 1/8	1 1/8	31 1/2	2 7/8	3 1/2	Yes	726
U●L4-950	7/8(2)	2 1/8(2)	1 1/8	49 1/2	2 7/8	5	Yes	850
U●L4-1100	7/8(2)	2 1/8(2)	1 1/8	49 1/2	2 7/8	5	Yes	885
U●L4-1260	7/8(2)	2 1/8(2)	1 1/8	49 1/2	2 7/8	5	Yes	895
U●L4-1380	7/8(2)	2 1/8(2)	1 1/8	49 1/2	2 7/8	5	Yes	910
U●M1-164	1/2 F.N.	1 1/8 ODS	7/8 ODS	25 1/2	5 1/4	3 1/2	No	200
U●M1-209	5/8 ODS	1 1/8	7/8	25 1/2	3 3/4	3 1/2	No	220
U●M2-270	5/8	1 3/8	7/8	25 1/2	3 3/4	3 1/2	Yes	360
U●M2-329	5/8	1 3/8	7/8	25 1/2	3 3/4	3 1/2	Yes	400
U●M2-390	7/8	1 3/8	7/8	31 1/2	2 1/4	3 1/2	Yes	425
U●M2-441	7/8	1 3/8	7/8	31 1/2	2 1/4	3 1/2	Yes	446
U●M3-583	7/8	1 5/8	7/8	31 1/2	2 1/4	3 1/2	Yes	585
U●M3-662	7/8	1 5/8	7/8	31 1/2	2 1/4	3 1/2	Yes	620
U●M4-780	7/8	1 5/8	1 1/8	31 1/2	2 7/8	3 1/2	Yes	675
U●M4-882	1 1/8	2 1/8	1 1/8	31 1/2	2 7/8	3 1/2	Yes	726
U●M4-1320	7/8(2)	1 5/8(2)	1 1/8	49 1/2	2 7/8	5	Yes	885
U●M4-1656	7/8(2)	2 1/8(2)	1 1/8	49 1/2	2 7/8	5	Yes	910
UAH1-182	1/2 F.N.	1 1/8 ODS	—	25 1/2	5 1/4	3 1/2	No	210
UAH1-232	5/8 ODS	1 1/8	—	25 1/2	3 3/4	3 1/2	No	230
UAH2-300	7/8	1 3/8	—	25 1/2	3 3/4	3 1/2	Yes	370
UAH2-365	7/8	1 3/8	—	25 1/2	3 3/4	3 1/2	Yes	410
UAH2-433	7/8	1 3/8	—	31 1/2	2 1/4	3 1/2	Yes	435
UAH2-490	7/8	1 5/8	—	31 1/2	2 1/4	3 1/2	Yes	458
UAH3-530	7/8	1 5/8	—	31 1/2	2 1/4	3 1/2	Yes	550
UAH3-648	7/8	1 5/8	—	31 1/2	2 1/4	3 1/2	Yes	600
UAH3-736	7/8	1 5/8	—	31 1/2	2 1/4	3 1/2	Yes	635
UAH4-866	1 1/8	2 1/8	—	31 1/2	2 7/8	3 1/2	Yes	690
UAH4-980	1 3/8	2 1/8	—	31 1/2	2 7/8	3 1/2	Yes	746
UAH4-1100	1 1/8	2 1/8	—	31 1/2	2 7/8	3 1/2	Yes	785
UAH4-1452	1 3/8(2)	1 5/8(2)	—	49 1/2	2 7/8	5	Yes	905
UAH4-1821	1 3/8(2)	2 1/8(2)	—	49 1/2	2 7/8	5	Yes	930



NOTE: Connection sizes or quantities may change if operating conditions are different from catalog specifications. Consult factory for specifics. See page 2 for standard circuiting.