

# High Efficiency Outdoor Scroll Condensing Units for QSRs, C-stores, hotels and supermarket applications



**COPELAND**



Pioneering technologies for best-in-class products that tackle challenges associated with operating a unit in the Middle East and Africa region



DUSTY AND HIGH AMBIENT CONDITIONS



ENERGY EFFICIENCY



HIGH PREMIUM ON RETAIL SPACES



UNIT SOUND



AESTHETICS



RELIABILITY

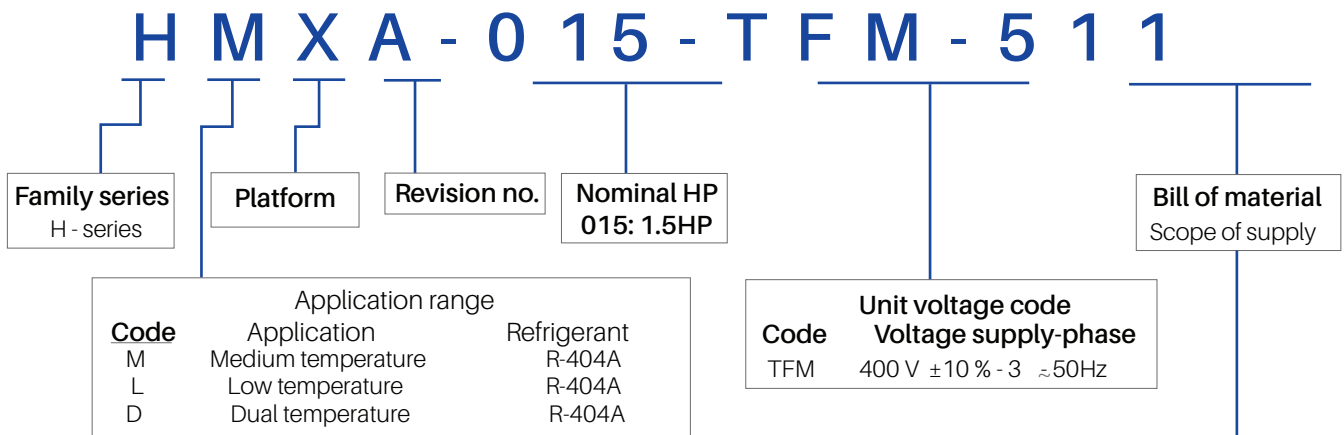


FACTORY FITTED LINE COMPONENTS

In order to address all the above challenges experienced by the end customer, Copeland has introduced the H-series condensing units.

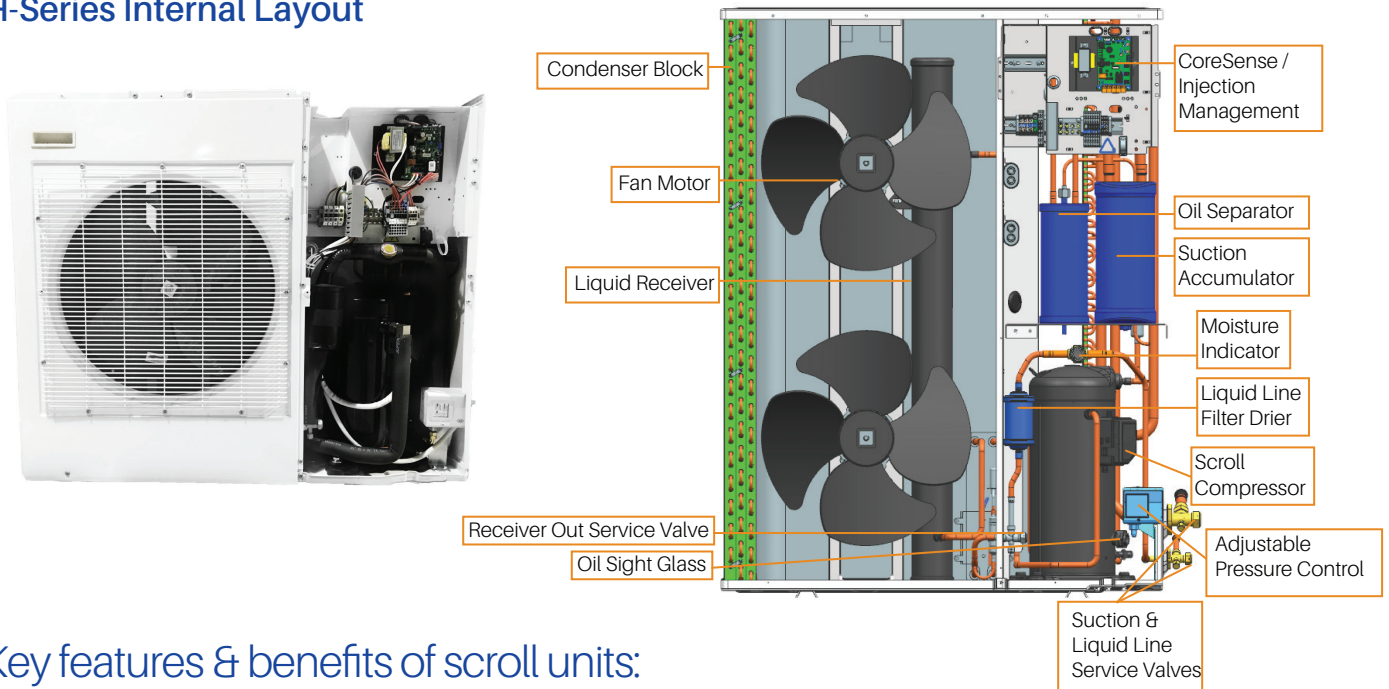


# Nomenclature



**511** Filter drier, Moisture Indicator, Liquid receiver, Suction & Liquid Line Service Valves, HP Cutout, Adjustable LP Cutout.  
**513** Filter drier, Moisture Indicator, Liquid receiver, Suction & Liquid Line Service Valves, HP Cutout, Adjustable LP Cutout, Oil separator, Suction accumulator, Coresense / Injection Management Module, Sub cooler, Vapour injection Expansion valve.

## H-Series Internal Layout



## Key features & benefits of scroll units:

### Efficiency

- High efficiency Copeland ZFIVapor injection compressor.
- Specially designed condenser.

### Reliability

- Compressor is provided with Copeland EVI CoreSense kits to control superheat of vapor injection and to maintain safe discharge temperature.
- Fully featured options such as filter drier, sight glass, oil separator and suction accumulator available as standard scope of supply in dual temperature models.
- Compressors are supplied with internal thermal protectors that safeguards against motor overheating and high current

### Envelope

- Unique operating envelope (-40°C to 7°C evaporating temperatures) and up to 49°C ambient, providing a broad range of selection.

- Inventory** - Same Units for Medium Temperature and Low Temperature units for majority of the range resulting in rationalization of unit inventory.
- Maintenance**
  - Optimal layout of components for easy serviceability.
  - Pre-wired Electric Junction box.
  - Liquid receiver, HP safety cartridge switch and adjustable LP control switch.
- Footprint** - Slim profile, light weight and front/roof/ground/wall mount options.
- Multi-evaporator** - One condensing unit could be connected to multiple evaporators. The lowest load operation should be more than 35% of the total load.



## The various components that comprise the scroll condensing unit and their features are as follows:

### Compressor

#### Efficiency

- Vapor injection technology improves system capacity by upto 30% and efficiency by upto 20%.
- New valving technology adjusts the scroll compression ratio based on operating condition, significantly improving performance

#### Reliability

- Dual Compliance: The ability of scroll to move in both axial and radial directions helps in better liquid and debris handling.
- EVI CoreSense Controller ensures constant superheat of vapor being injected during normal operation and contributes to safe control of discharge line temperature.

#### Smooth Operation

- Scroll compressor has an inbuilt check valve that isolates high pressure gas, allowing the compressor to start unloaded with low inrush currents.
- Less vibration

#### Scroll Wear-In

- Scroll involutes of Copeland scroll compressor wear in, rather than wear out
- No constant degradation of performance with time

#### Compactness

- Small footprint of Copeland scroll compressors enables compact system designs, reducing weight and dimensions

### Condenser

Internally grooved copper tubes with hydrophilic coated aluminium fins.

### Fan motors

Thermally protected, single-phase fans.

Operation with one of the approved oils is necessary and suitable identification of the specific oil usage is mandatory to prevent unauthorized lubricant oils from being filled into the system.

Unit Model <i>number of fans</i>		Ambient temperature (°C)	Evaporating temperature (°C)										
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
HMXA-015-TFM-511  <i>1</i>	Q	35					1.85	2.25	2.69	3.19	3.74	4.36	4.62
		38					1.77	2.15	2.57	3.04	3.57	4.16	4.41
		43					1.63	1.97	2.36	2.79	3.28	3.81	4.04
		46					1.54	1.86	2.23	2.64	3.09	3.60	3.82
		49						1.75	2.09	2.47	2.91	3.38	3.59
	P	35					1.22	1.28	1.33	1.37	1.39	1.41	1.42
		38					1.28	1.35	1.40	1.44	1.47	1.49	1.50
		43					1.39	1.47	1.52	1.57	1.60	1.63	1.63
		46					1.46	1.54	1.60	1.65	1.69	1.71	1.72
		49						1.62	1.69	1.74	1.78	1.81	1.81
HLXA-015-TFM-511  <i>1</i>	Q	35	0.97	1.22	1.52	1.87	2.28	2.75					
		38	0.93	1.16	1.44	1.77	2.16	2.60					
		43	0.85	1.06	1.31	1.61	1.95	2.36					
		46	0.81	1.00	1.23	1.51	1.83	2.21					
		49	0.77	0.94	1.15	1.41	1.71	2.06					
	P	35	1.27	1.36	1.45	1.55	1.65	1.73					
		38	1.35	1.43	1.52	1.62	1.72	1.81					
		43	1.48	1.56	1.65	1.75	1.85	1.94					
		46	1.57	1.65	1.74	1.83	1.93	2.03					
		49	1.67	1.74	1.83	1.92	2.02	2.12					
HMXA-020-TFM-511  <i>1</i>	Q	35					2.28	2.81	3.38	4.00	4.67	5.39	5.69
		38					2.12	2.62	3.16	3.75	4.39	5.07	5.35
		43					1.82	2.29	2.79	3.33	3.90	4.52	4.77
		46					1.64	2.08	2.56	3.06	3.60	4.18	4.42
		49						1.86	2.31	2.79	3.29		
	P	35					1.90	1.90	1.90	1.91	1.92	1.95	1.96
		38					2.07	2.06	2.06	2.05	2.05	2.08	2.09
		43					2.40	2.37	2.35	2.33	2.31	2.32	2.33
		46					2.63	2.59	2.55	2.52	2.49	2.49	2.49
		49						2.83	2.78	2.73	2.69		

Q (kW) = Capacity  
P (kW) = Power input

Suction Return Temperature: 20.0°C  
Suction Return Temperature: 0.0°C

# Performance data

# R404A

Unit Model <i>number of fans</i>		Ambient temperature (°C)	Evaporating temperature (°C)											
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	
HLXA-020-TFM-511	Q	35	1.34	1.66	2.07	2.55	3.11	3.73						
		38	1.28	1.58	1.96	2.42	2.94	3.53						
		43	1.18	1.45	1.79	2.20	2.66	3.19						
		46	1.12	1.37	1.68	2.06	2.50	2.99						
		49	1.06	1.29	1.58	1.92	2.33	2.78						
	P	35	1.68	1.83	1.98	2.13	2.27	2.37						
		38	1.77	1.92	2.08	2.24	2.37	2.47						
		43	1.94	2.09	2.26	2.41	2.55	2.65						
		46	2.05	2.20	2.37	2.53	2.66	2.76						
		49	2.17	2.32	2.49	2.65	2.78	2.88						
HDXA-030-TFM-513	Q	35	1.76	2.02	2.42	2.94	3.46	4.11	4.79	5.49	6.17	6.82	7.06	
		38	1.64	1.90	2.29	2.78	3.36	4.00	4.67	5.35	6.01	6.64	6.87	
		43	1.49	1.75	2.14	2.62	3.18	3.80	4.45	5.10	5.73	6.32	6.55	
		46	1.38	1.64	2.03	2.51	3.06	3.67	4.30	4.94	5.55	6.13	6.34	
		49	1.27	1.53	1.91	2.29	2.93	3.53	4.15	4.77	5.37			
	P	35	1.42	1.53	1.63	1.73	1.93	2.05	2.18	2.33	2.50	2.70	2.80	
		38	1.58	1.70	1.82	1.92	2.04	2.16	2.29	2.44	2.61	2.82	2.91	
		43	1.78	1.90	2.02	2.14	2.25	2.38	2.51	2.67	2.84	3.04	3.13	
		46	1.92	2.05	2.17	2.29	2.41	2.54	2.67	2.83	3.00	3.20	3.29	
		49	2.08	2.22	2.34	2.49	2.59	2.72	2.86	3.01	3.19			
HDXA-040-TFM-513	Q	35	2.37	2.73	3.26	3.95	4.64	5.51	6.43	7.35	8.26	9.11	9.43	
		38	2.20	2.55	3.07	3.74	4.51	5.36	6.26	7.16	8.04	8.86	9.17	
		43	2.00	2.35	2.87	3.52	4.27	5.09	5.95	6.82	7.66	8.44	8.73	
		46	1.86	2.21	2.72	3.36	4.10	4.91	5.75	6.60	7.42	8.17		
		49	1.70	2.05	2.44	3.06	3.93	4.72	5.55	6.37	7.17			
	P	35	1.70	1.84	1.96	2.09	2.34	2.48	2.65	2.84	3.05	3.31	3.42	
		38	1.91	2.06	2.20	2.33	2.47	2.62	2.79	2.98	3.20	3.45	3.56	
		43	2.14	2.30	2.45	2.59	2.74	2.90	3.07	3.26	3.48	3.73	3.84	
		46	2.31	2.47	2.63	2.78	2.93	3.10	3.27	3.47	3.69	3.93		
		49	2.51	2.68	2.85	3.02	3.16	3.32	3.50	3.70	3.92			

Q (kW) = Capacity  
P (kW) = Power input

Suction Return Temperature: 20.0°C  
Suction Return Temperature: 0.0°C

Unit Model <i>number of fans</i>		Ambient temperature (°C)	Evaporating temperature (°C)										
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
HDXA-050-TFM-513	Q	35	2.92	3.36	4.02	4.88	5.75	6.84	7.99	9.17	10.33	11.43	11.85
		38	2.73	3.16	3.81	4.64	5.60	6.67	7.80	8.94	10.07	11.14	11.54
		43	2.50	2.93	3.57	4.38	5.32	6.36	7.44	8.54	9.62	10.63	11.01
		46	2.33	2.77	3.40	4.20	5.13	6.15	7.21	8.29	9.33	10.31	10.68
		49	2.14	2.58	3.21	4.01	4.92	5.92	6.97	8.02	9.04	9.99	
	P	35	2.17	2.32	2.47	2.61	2.89	3.05	3.24	3.45	3.70	4.00	4.13
		38	2.40	2.58	2.73	2.89	3.04	3.21	3.40	3.61	3.86	4.16	4.29
		43	2.67	2.85	3.02	3.18	3.35	3.52	3.71	3.92	4.17	4.46	4.59
		46	2.87	3.06	3.23	3.40	3.56	3.74	3.93	4.15	4.39	4.68	4.80
		49	3.10	3.30	3.48	3.65	3.82	3.99	4.19	4.40	4.65	4.92	
HDXA-065-TFM-513	Q	35	3.79	4.28	4.98	5.87	6.86	8.08	9.47	11.00	12.66	14.43	15.17
		38	3.78	4.22	4.87	5.72	6.76	7.96	9.32	10.82	12.45	14.20	14.92
		43	3.78	4.18	4.78	5.59	6.58	7.74	9.05	10.50	12.08	13.77	14.48
		46	3.79	4.15	4.73	5.51	6.47	7.59	8.87	10.29	11.84	13.50	14.19
		49	3.79	4.13	4.67	5.42	6.34	7.44	8.69	10.07	11.58	13.21	
	P	35	2.64	2.80	2.96	3.12	3.47	3.65	3.84	4.03	4.22	4.41	4.49
		38	2.93	3.11	3.30	3.49	3.67	3.87	4.06	4.26	4.46	4.66	4.74
		43	3.22	3.43	3.64	3.84	4.05	4.26	4.48	4.69	4.91	5.12	5.21
		46	3.43	3.65	3.87	4.09	4.31	4.53	4.76	4.98	5.20	5.43	5.52
		49	3.66	3.90	4.13	4.36	4.59	4.83	5.06	5.30	5.53	5.76	
HDXA-075-TFM-513	Q	35	4.78	5.39	6.26	7.38	8.60	10.13	11.85	13.75	15.80	17.98	18.89
		38	4.77	5.32	6.13	7.19	8.47	9.97	11.66	13.51	15.53	17.67	18.57
		43	4.77	5.26	6.02	7.02	8.24	9.68	11.30	13.09	15.04	17.11	17.98
		46	4.78	5.23	5.95	6.91	8.10	9.49	11.07	12.82	14.72	16.75	
		49	4.79	5.12	5.75	6.62	7.94	9.29	10.82	12.53	14.38		
	P	35	3.25	3.46	3.67	3.88	4.35	4.59	4.85	5.11	5.38	5.65	5.76
		38	3.62	3.86	4.10	4.35	4.61	4.87	5.14	5.41	5.69	5.98	6.09
		43	4.00	4.27	4.54	4.82	5.10	5.38	5.68	5.97	6.28	6.58	6.71
		46	4.27	4.55	4.84	5.13	5.43	5.73	6.04	6.35	6.67	6.99	
		49	4.57	5.02	5.31	5.61	5.80	6.12	6.44	6.77	7.10		

Q (kW) = Capacity  
P (kW) = Power input

Suction Return Temperature: 20.0°C  
Suction Return Temperature: 0.0°C

Unit Model <i>number of fans</i>		Ambient temperature (°C)	Evaporating temperature (°C)										
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
HDXA-030-TFM-513	Q	35	1.37	1.68	2.06	2.51	3.03	3.64	4.32	5.09	5.94	6.88	7.28
		38	1.30	1.62	2.00	2.44	2.95	3.54	4.21	4.95	5.77	6.67	7.05
		43	1.26	1.57	1.94	2.38	2.88	3.45	4.09	4.81	5.60	6.46	6.83
		46	1.23	1.54	1.90	2.33	2.83	3.39	4.02	4.72	5.49	6.33	
		49	1.20	1.51	1.87	2.29	2.77	3.32	3.93	4.61	5.36		
	P	35	1.25	1.33	1.42	1.51	1.62	1.74	1.86	2.01	2.18	2.36	2.44
		38	1.38	1.46	1.55	1.65	1.76	1.88	2.01	2.17	2.34	2.53	2.61
		43	1.52	1.60	1.68	1.78	1.90	2.02	2.16	2.32	2.49	2.69	2.78
		46	1.61	1.69	1.78	1.88	1.99	2.12	2.26	2.42	2.60	2.81	
		49	1.72	1.80	1.88	1.98	2.10	2.23	2.37	2.54	2.73		
HDXA-040-TFM-513	Q	35	1.82	2.23	2.73	3.33	4.02	4.82	5.73	6.74	7.86	9.09	9.61
		38	1.72	2.15	2.65	3.23	3.92	4.69	5.57	6.55	7.62	8.80	9.30
		43	1.66	2.08	2.57	3.15	3.81	4.57	5.42	6.36	7.39	8.52	9.00
		46	1.63	2.04	2.53	3.09	3.75	4.48	5.31	6.23	7.24	8.33	
		49	1.60	2.00	2.48	2.85	3.67	4.39	5.20	6.09	7.07		
	P	35	1.50	1.59	1.70	1.82	1.94	2.09	2.25	2.44	2.64	2.87	2.97
		38	1.66	1.76	1.86	1.98	2.12	2.27	2.43	2.62	2.84	3.08	3.18
		43	1.82	1.92	2.03	2.15	2.28	2.44	2.61	2.81	3.03	3.29	3.39
		46	1.93	2.03	2.14	2.26	2.40	2.56	2.74	2.94	3.17	3.43	
		49	2.06	2.16	2.27	2.41	2.54	2.70	2.88	3.09	3.33		
HDXA-050-TFM-513	Q	35	2.23	2.74	3.35	4.09	4.94	5.93	7.05	8.31	9.71	11.25	11.90
		38	2.12	2.63	3.25	3.97	4.82	5.78	6.87	8.09	9.45	10.95	11.55
		43	2.04	2.55	3.16	3.87	4.70	5.64	6.69	7.88	9.19	10.65	11.25
		46	2.00	2.51	3.11	3.81	4.62	5.54	6.58	7.73	9.01	10.40	11.00
		49	1.96	2.46	3.05	3.74	4.53	5.43	6.44	7.57	8.82	10.20	
	P	35	1.92	2.03	2.15	2.29	2.44	2.61	2.80	3.01	3.25	3.51	3.63
		38	2.11	2.23	2.35	2.49	2.65	2.82	3.01	3.23	3.47	3.74	3.86
		43	2.30	2.42	2.54	2.68	2.84	3.02	3.22	3.44	3.69	3.97	4.09
		46	2.43	2.55	2.67	2.82	2.98	3.16	3.36	3.59	3.84	4.13	4.25
		49	2.58	2.70	2.82	2.97	3.13	3.31	3.52	3.75	4.01	4.31	

Q (kW) = Capacity  
P (kW) = Power input

Suction Return Temperature: 20.0°C  
Suction Return Temperature: 0.0°C



Unit Model <i>number of fans</i>		Ambient temperature (°C)	Evaporating temperature (°C)										
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
HDXA-065-TFM-513	Q	35	2.60	3.29	4.10	5.02	6.07	7.25	8.58	10.05	11.70	13.50	14.25
		38	2.54	3.23	4.02	4.92	5.93	7.08	8.35	9.78	11.35	13.05	13.80
		43	2.48	3.16	3.94	4.81	5.80	6.91	8.15	9.52	11.05	12.70	13.40
		46	2.43	3.11	3.88	4.74	5.71	6.80	8.01	9.36	10.85	12.45	13.15
		49	2.38	3.05	3.81	4.66	5.61	6.68	7.87	9.19	10.65	12.25	
	P	35	2.39	2.50	2.61	2.73	2.87	3.03	3.21	3.42	3.66	3.93	4.04
		38	2.65	2.78	2.91	3.05	3.20	3.37	3.56	3.77	4.01	4.28	4.40
		43	2.88	3.04	3.19	3.35	3.51	3.69	3.89	4.11	4.36	4.63	4.75
		46	3.04	3.21	3.38	3.55	3.72	3.91	4.11	4.34	4.59	4.87	4.99
		49	3.21	3.40	3.58	3.76	3.95	4.15	4.36	4.59	4.85	5.13	
HDXA-075-TFM-513	Q	35	3.40	4.32	5.37	6.57	7.93	9.46	11.20	13.10	15.15	17.45	18.40
		38	3.33	4.23	5.26	6.43	7.74	9.22	10.85	12.70	14.70	16.90	17.85
		43	3.24	4.14	5.14	6.28	7.56	8.99	10.60	12.35	14.30	16.40	17.30
		46	3.18	4.06	5.06	6.18	7.44	8.84	10.40	12.10	14.00	16.10	
		49	3.10	3.98	4.89	6.05	7.30	8.68	10.20	11.90	13.75		
	P	35	3.01	3.16	3.31	3.48	3.68	3.89	4.14	4.43	4.75	5.12	5.28
		38	3.34	3.52	3.70	3.90	4.11	4.34	4.61	4.90	5.24	5.61	5.77
		43	3.65	3.86	4.07	4.29	4.52	4.78	5.06	5.37	5.71	6.10	6.26
		46	3.85	4.08	4.32	4.55	4.80	5.07	5.36	5.68	6.03	6.43	
		49	4.07	4.33	4.63	4.80	5.10	5.38	5.68	6.02	6.38		

Q (kW) = Capacity  
P (kW) = Power input

Suction Return Temperature: 20.0°C  
Suction Return Temperature: 0.0°C

## Mechanical data

Condensing Unit	Compressor model	Receiver Capacity (l)	Air Flow (m <sup>3</sup> /s)	Dimensions Depth/Width/Height (mm)	Suction Size	Liquid Size	Net Weight
HMXA-015-TFM-511	ZS11KAE-TFD-600	4.6	2922	1029 x 424 x 840	3/4"	1/2"	81
HLXA-015-TFM-511	ZF06KAE-TFD-618	4.6	2922	1029 x 424 x 840	3/4"	1/2"	81
HMXA-020-TFM-511	ZB15KQE-TFD-558	4.6	2922	1029 x 424 x 840	3/4"	1/2"	85
HLXA-020-TFM-511	ZF09KAE-TFD-618	4.6	2922	1029 x 424 x 840	3/4"	1/2"	82
HDXA-030-TFM-513	ZFI09KQE-TFD-550	4.6	2922	1029 x 424 x 840	3/4"	1/2"	85
HDXA-040-TFM-513	ZFI13KQE-TFD-550	4.6	2922	1029 x 424 x 840	3/4"	1/2"	91
HDXA-050-TFM-513	ZFI17KQE-TFD-550	6.7	5910	1029 x 424 x 1242	7/8"	1/2"	106
HDXA-065-TFM-513	ZFI21KQE-TFD-550	6.7	5910	1029 x 424 x 1242	7/8"	1/2"	120
HDXA-075-TFM-513	ZFI23KQE-TFD-550	6.7	5910	1029 x 424 x 1242	7/8"	1/2"	125

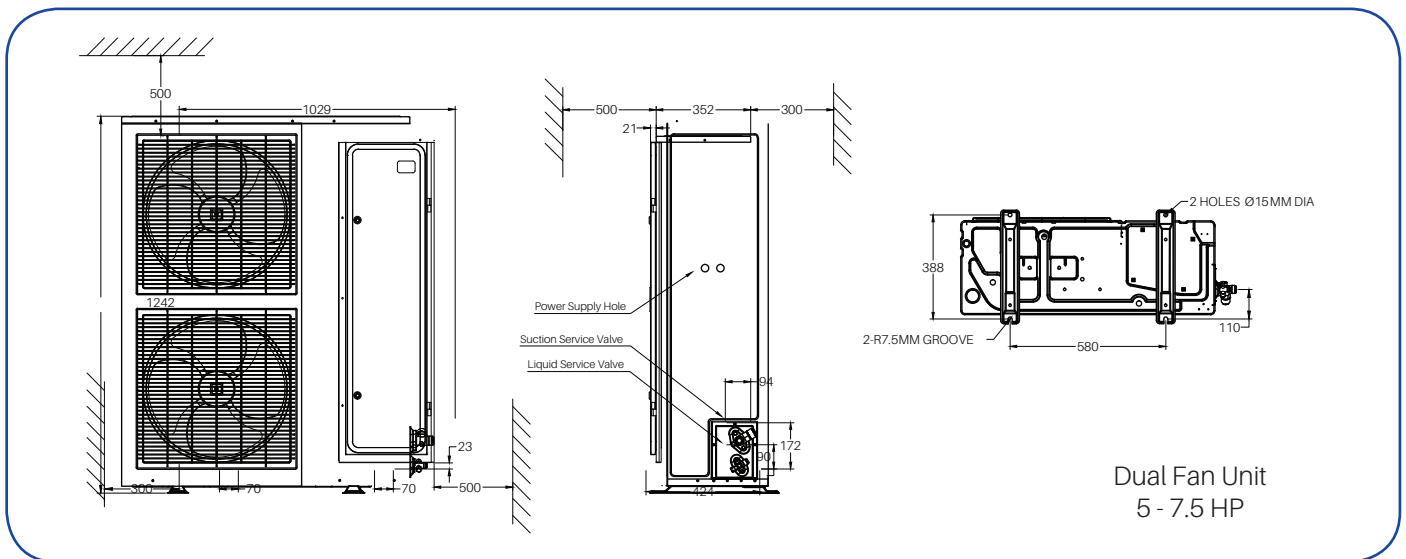
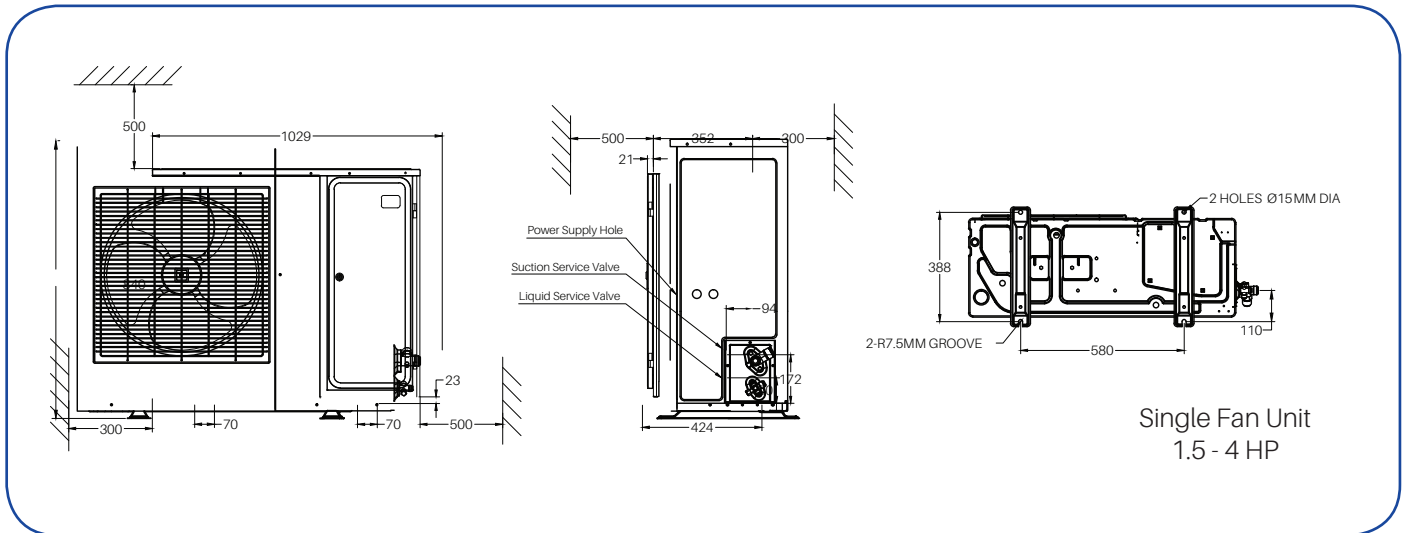
## Electrical data

Condensing Unit	Compressor model	Unit MOC	Compressor			Total Fan Current
			LRA	MOC	RLA	
HMXA-015-TFM-511	ZS11KAE-TFD-600	4.2	27.0	3.3	4.3	0.9
HLXA-015-TFM-511	ZF06KAE-TFD-618	5.1	28.0	4.2	3.8	0.9
HMXA-020-TFM-511	ZB15KQE-TFD-558	5.8	26.0	4.9	5.0	0.9
HLXA-020-TFM-511	ZF09KAE-TFD-618	6.2	41.6	5.3	4.9	0.9
HDXA-030-TFM-513	ZFI09KQE-TFD-550	6.2	23.5	5.3	4.9	0.9
HDXA-040-TFM-513	ZFI13KQE-TFD-550	7.5	40.0	6.6	6.4	0.9
HDXA-050-TFM-513	ZFI17KQE-TFD-550	9.8	50.0	8.1	6.9	1.7
HDXA-065-TFM-513	ZFI21KQE-TFD-550	12.6	64.0	10.9	8.9	1.7
HDXA-075-TFM-513	ZFI23KQE-TFD-550	14.1	74.0	12.4	10.6	1.7

# Container fitment

Condensing unit model	Number of fans	20 ft. container	40 ft. container
HMXA-015-TFM-511	1	40	80
HLXA-015-TFM-511	1	40	80
HMXA-020-TFM-511	1	40	80
HLXA-020-TFM-511	1	40	80
HDXA-030-TFM-513	1	40	80
HDXA-040-TFM-513	1	40	80
HDXA-050-TFM-513	2	20	40
HDXA-065-TFM-513	2	20	40
HDXA-075-TFM-513	2	20	40

## Dimensional drawings



# Application guidelines

## Multi-evaporator guidelines

The evaporators being connected to the condensing unit are required to be of similar evaporating temperatures (For Example: Combi Freezer). The lowest load operation should be more than 35% of total load.

## Liquid line insulation for HDX units

Liquid line should be insulated for all HDX models with a 19 mm insulation thickness during the installation. Temperature could be as low as -15°C.

## Condensing unit on rubber pads

Please ensure that the condensing units are mounted on the rubber pads and not mounted directly on the concrete platform or welded directly on any frame.

## Auto cycling HP cutout

As our condensing units are provided with Auto reset HP cutout, please ensure that the controller used in the system takes care of short cycling through HP cutout. Frequent cycling leads to oil getting pumped out of the compressor as sufficient time is not available for the oil return.

## Continuous pump down cycle

Wherever pump down cycle is provided, please ensure that this is of one time pump down cycle. In case of continuous pump down, any minor leakage in the liquid line solenoid valve or system with larger refrigerant charge might lead to frequent cycling of compressor during thermostat OFF cycle. Short cycling protection is required when continuous pump down is implemented.

## LP cutout adjustment

Our LP cutout is with the factory default values. Please ensure that these are adjusted as per the application requirement. The adjustment stopper needs to be removed before the adjustment and to be fitted back in to the switch for proper operation of the cutouts.

## Reverse rotation

- Scroll compressors pump in one direction only
- Identification of incorrect rotation
  - Low current
  - More noise
  - Balanced suction & discharge pressure
- Correct by interchanging any two phases
- Short term reverse rotation will not damage the compressor

## Refrigerant charging

- Pre-charging must be with liquid refrigerant through the liquid line or the liquid receiver. At least 70% of the refrigerant to be pre charged in the system before starting the compressor.
- Additional charge to be added as controlled liquid in the suction side. Please don't bypass the HP/LP cutout during charging process.

## Disclaimer

Technical data given was correct at the time of printing. Updates may occur, and should you need confirmation of a specific value, please contact Copeland stating clearly the information required. Copeland cannot be held responsible for errors in capacities, dimensions, etc., stated herein. Products, specifications and data in this literature are subject to change without notice. The information given herein is based on data and tests which Copeland believes to be reliable and which are in accordance with today's technical knowledge. It is intended for use by persons having the appropriate technical knowledge and skill, at their own discretion and risk. The products given here are designed and adapted for stationary applications only. For transport applications, Please consult with your Copeland representative.

The components listed in this catalogue are not released for use with caustic, poisonous or flammable substances. Copeland cannot be held responsible for any damage caused by using these substances.

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internal-reference-doc  
Suction Return Temperature: 20.0°C