



# **METRA CLARK**

*Refrigeration & Air-Conditioning Wholesale*

## **DYNAPLEX** DIGITAL SCROLL



*Catalogue*

## OUR MISSION AND CORE VALUES

Support our customers with friendly, skillful, and reliable expertise. Deliver refrigeration and air-conditioning products with the highest quality in the most efficient manner.

### Metraclark conducts business as follows:



Devoted to honourable and ethical business practices.



Committed to customer support and service.



Dedicated to employee development.



Committed to continuous product development with the goal of reducing environmental impact.



Dedicated to building and maintain customer and supplier relationships.



Devoted to supplying cost effective food preservation and comfort cooling products available throughout Southern Africa.

**QUALIFIED ENGINEERS    CONTINUOUS DEVELOPMENT**  
**EXPERIENCED QUALITY    INTERNATIONAL    ISO : 9001**  
**LOCAL MANUFACTURING    LATEST PRODUCTS**  
**RELIABILITY    BESPOKE**  
**INNOVATION    **DYNAMIC**    TECHNOLOGY**  
**BESPOKE    ENERGY SAVING    QUALIFIED ENGINEERS**  
**TECHNOLOGY    LARGEST SALES NETWORK IN AFRICA**  
**COST EFFECTIVE    ISO : 9001    CUSTOMER SERVICE**

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## COMMENTS

The DynaPlex condensing unit range has been designed utilising first order thermodynamic principles to ensure optimal component sizing and high refrigeration efficiency. Digital scroll capacity unloading technology ensures finely controlled cooling capacity that matches cooling demands, and decreases operating current with the added benefit of decreasing starting inrush current. Therefore, the DynaPlex range is the most complete and energy efficient range of outdoor condensing units suited for every commercial refrigeration application under the Metraclark Dynamic brand.

## DESIGN

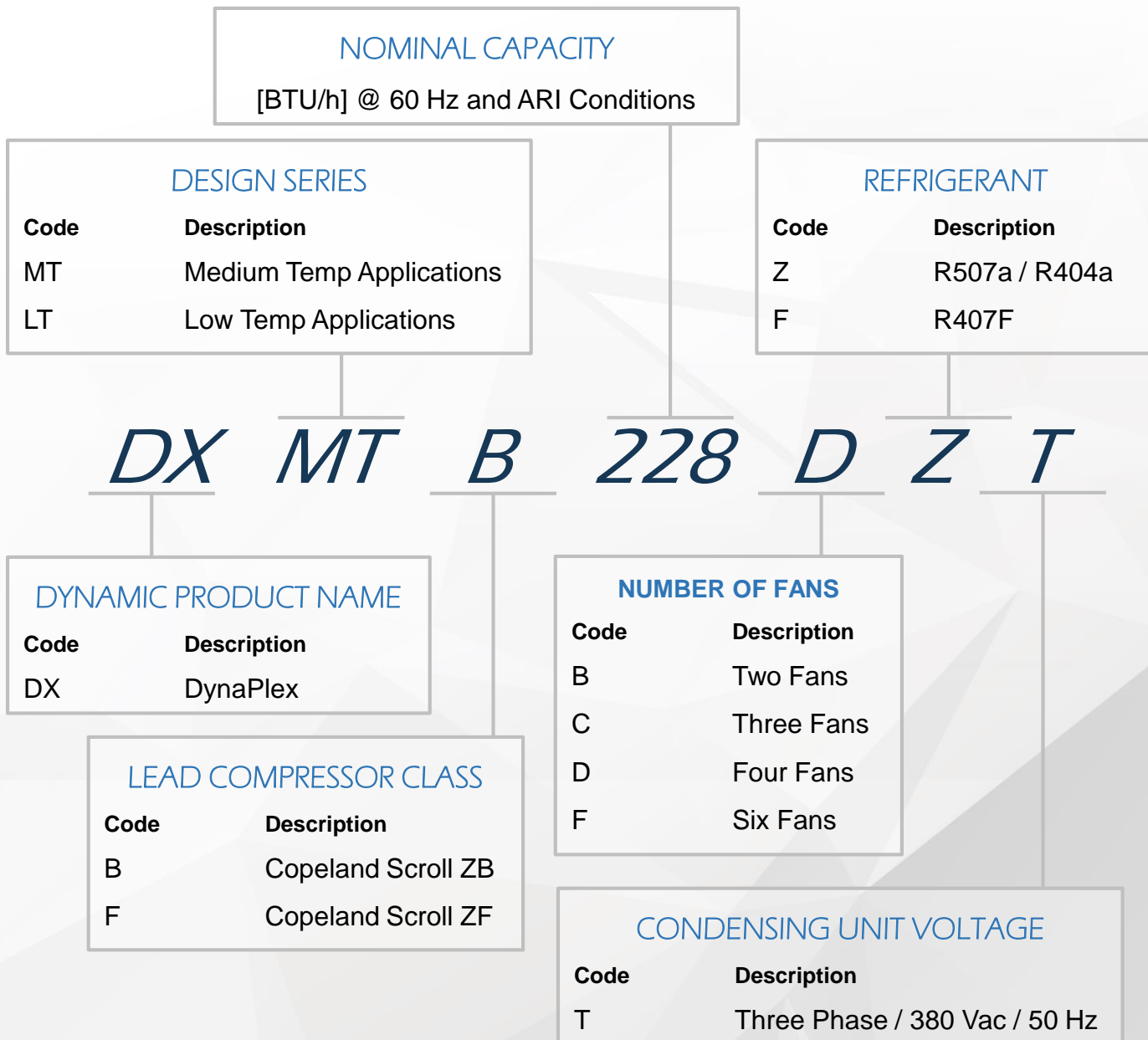
- Two, and three Copeland scroll ZB and ZF compressor model options with digital modulation capabilities.
- Rigid, high strength, fully welded S355JR steel frame.
- Complete inboard modular mechanical design with component layout aimed to aid serviceability and maintenance.
- Connected discharge and liquid lines.
- Electrical wiring and switchgear layout based on a modular design, and wiring done to SANS regulations.
- Mid point corner lifting lug locations.
- Centre of mass forklift channels, and corner castor wheel channels.
- Single or dual entry suction header for improved suction pressure distribution and oil return.
- Copper discharge header.
- Conventional oil separator for oil retention within the parallel compressor system.
- Low pressure oil management system with oil reservoir and oil return header, feeding into the Copeland scroll compressors via Emerson TraxOil electronic oil level management.
- Full sized horizontal liquid receiver mounted inboard with proper gravitational liquid flow.

## STANDARD COMPONENTS

- Individual **Danfoss** discharge non-return check valve.
- Individual **Danfoss** suction shut-off and filter drier with replaceable solid core.
- Individual **Danfoss** HP and LP switches, with global HP and LP transducers, and gauges.
- Compressor discharge and suction line vibration eliminators.
- **Henry** conventional oil separator with ball and float.
- **Henry** main discharge line magnetic non-return check valve.
- Oil return line includes; hand shut-off valve, filter drier, solenoid valve, and sight glass.
- Oil return header with individual isolating valves.
- **Emerson** TraxOil electronic oil level regulator.
- **Danfoss** liquid line replaceable filter drier, sight glass, and ball valves.
- **Dixell** condenser fan speed control.
- Rack controller and digital compressor driver: **Dixell** IPRO208D and XEV02D.
- **Gokceller** horizontal liquid receiver manufactured and certified to European specifications, available in 80, 110 liters.
- Outdoor housing.
- **Recam** V-type condenser with 380Vac fans.

## NOMENCLATURE

The model designation contains the following technical information about the standard DynaPlex range:



FOR MORE INFORMATION PLEASE CONTACT YOUR NEAREST METRACLARK  
OUTLET OR THE METRACLARK ENGINEERING DEPARTMENT

MEDIUM TEMPERATURE		COOLING CAPACITY [kW]				R404A/R507	
MODEL REFERENCE	AMBIENT TEMP [°C]	SUCTION TEMPERATURE [°C]					
		-15	-10	-5	0	5	10
DXMTB228DZT	32	48	55	65	77	90	106
	34	46	53	62	74	87	102
	36	45	51	60	71	84	99
	38	43	49	58	68	80	95
	40	41	47	55	66	77	91
DXMTB264DZT	32	54	63	75	88	103	121
	34	53	61	72	85	100	117
	36	51	59	69	82	96	113
	38	49	57	67	79	93	109
	40	47	54	64	76	89	105
DXMTB304DZT	32	62	72	85	101	118	138
	34	60	70	82	98	114	133
	36	58	67	79	94	110	129
	38	56	65	76	90	106	124
	40	54	62	73	87	102	120
DXMTB334DZT	32	71	83	97	116	135	158
	34	69	80	94	112	131	153
	36	66	77	91	108	126	148
	38	64	74	87	104	121	142
	40	62	71	84	100	117	137
DXMTB414FZT	32	84	99	117	138	162	189
	34	82	95	113	134	156	183
	36	79	92	109	129	151	176
	38	76	89	104	124	145	170
	40	74	85	100	119	140	164
DXMTB494FZT	32	100	117	138	163	191	223
	34	97	113	133	158	185	216
	36	93	109	128	152	178	209
	38	90	105	124	147	172	201
	40	87	101	119	141	165	194
DXMTB554FZT	32	117	138	163	193	225	263
	34	114	133	157	186	218	254
	36	110	128	151	180	210	246
	38	106	124	146	173	203	237
	40	103	119	140	166	195	228

**DESIGN CRITERIA:** Subcooling: 0 [K] / Suction superheat: 10 [K]

\*Cooling capacities are based on a V-Type condenser at 1700 [m] above sea level.

\*\*Cooling capacities listed are estimated values.

\*\*\*Cooling capacities subject to change without notice.

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## TECHNICAL SPECIFICATION

MODEL REFERENCE	CONDENSER MODEL	STUB CONNECTIONS		RECEIVER VOLUME [L]	DIMENSIONS			POWER SUPPLY [Vac]	FLA [A]
		Liquid	Suction		L [m]	W [m]	H [m]		
DXMTB228DZT	CVD 4F6R5s	1x 1 1/8"	1x 2 1/8"	80	2.120	1.743	2.454	400 V / 3Ø	79
DXMTB264DZT	CVD 4F6R5	1x 1 1/8"	1x 2 1/8"	80	2.120	1.743	2.454	400 V / 3Ø	84
DXMTB304DZT	CVD 4F3R6	1x 1 3/8"	1x 2 5/8"	80	2.120	2.050	2.848	400 V / 3Ø	109
DXMTB334DZT	CVD 4F3R6	1x 1 3/8"	1x 2 5/8"	110	2.120	2.050	2.848	400 V / 3Ø	119
DXMTB414FZT	CVD 6F6R5	1x 1 3/8"	2x 2 1/8"	110	3.100	1.743	2.454	400 V / 3Ø	126
DXMTB494FZT	CVD 6F3R6	1x 1 5/8"	2x 2 1/8"	160	3.100	2.050	2.848	400 V / 3Ø	168
DXMTB554FZT	CVD 6F3R6	1x 1 5/8"	2x 2 5/8"	160	3.100	2.050	2.848	400 V / 3Ø	189

### ENGINEERING NOTES:

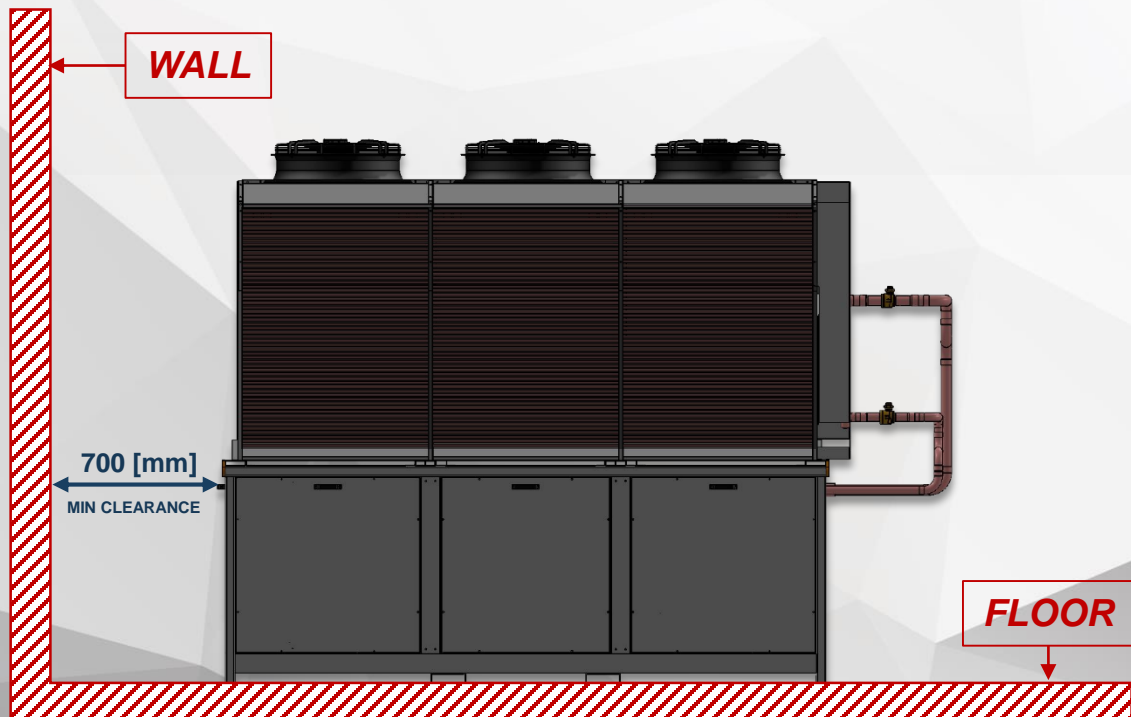
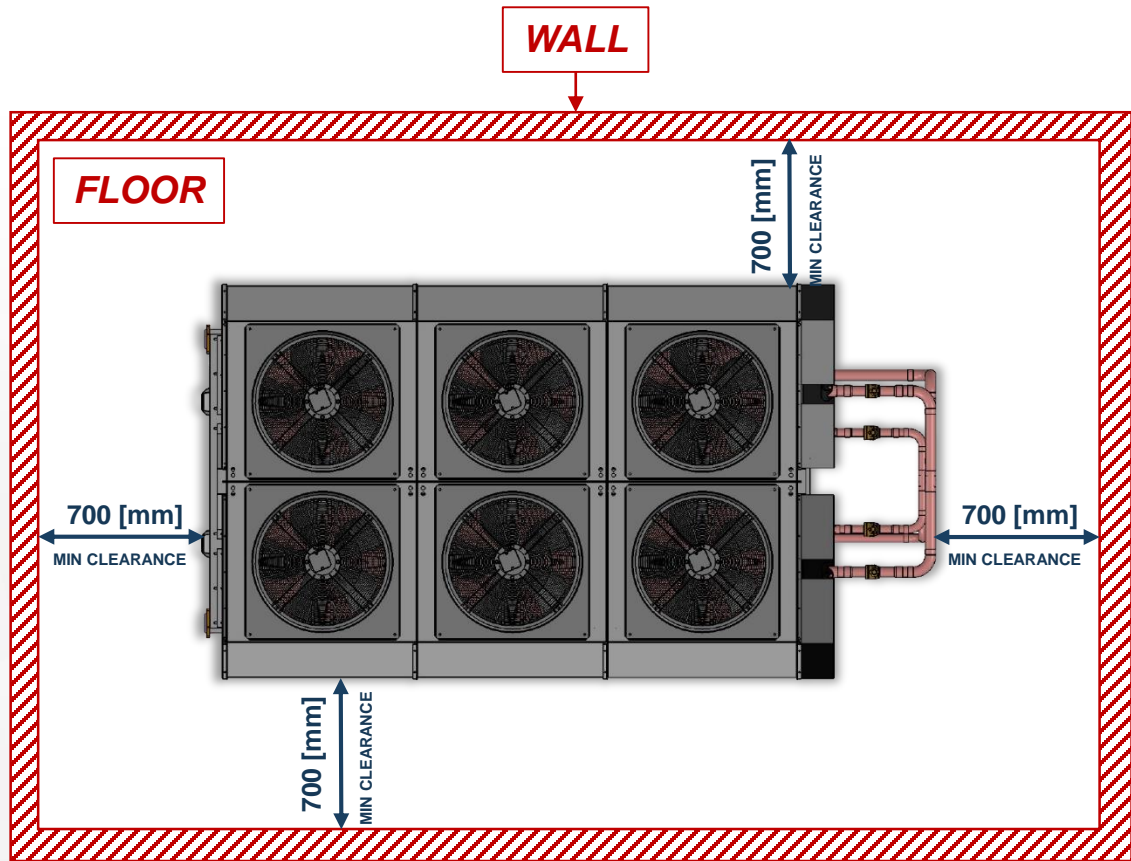
\*DynaPlex units are to be installed and operated outside, in a well ventilated area, with suggested minimum wall clearance.

\*\*Anti-vibration pads are to be used under the feet of the unit.

\*\*\*Contact the Metraclark Engineering department for alternative DynaPlex configurations.

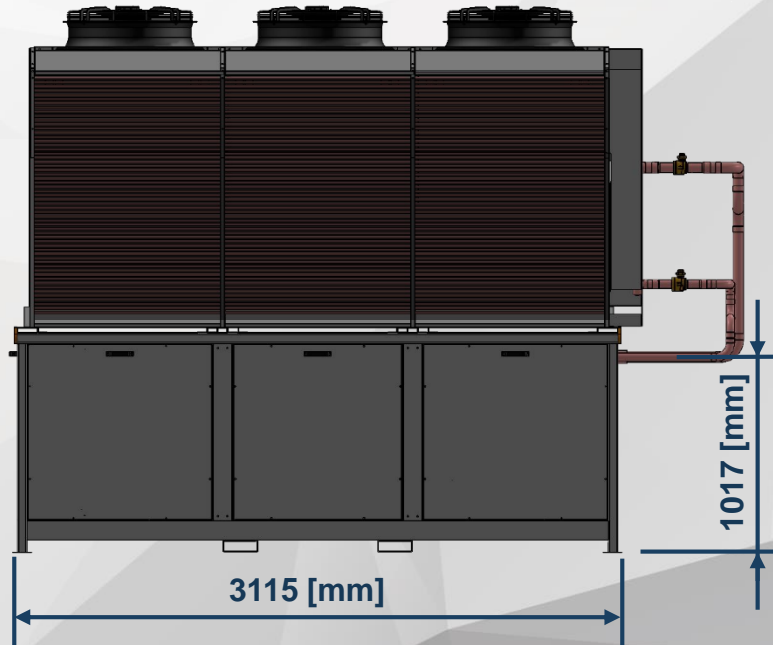
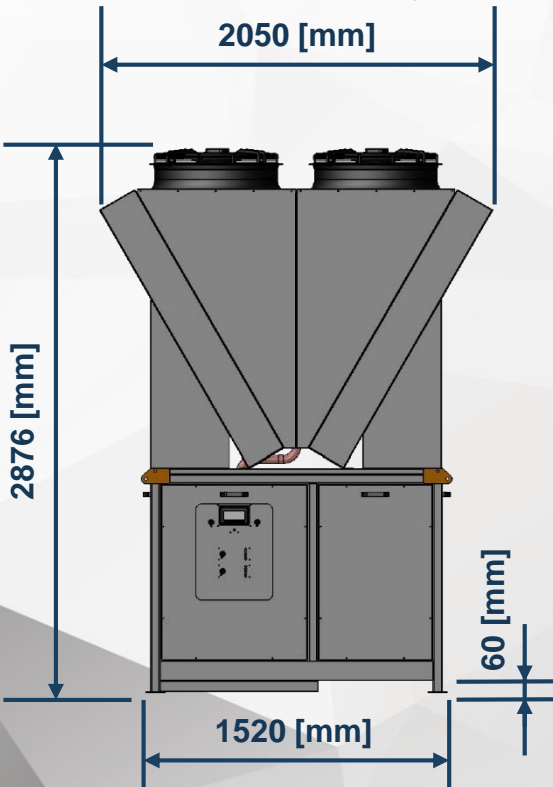
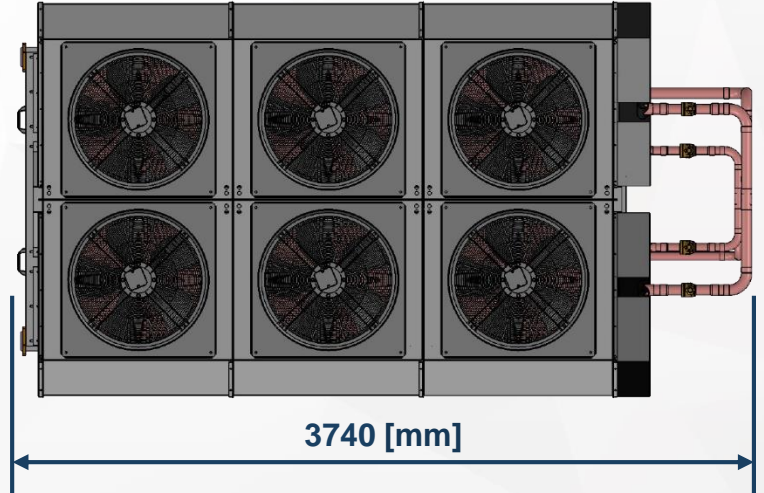
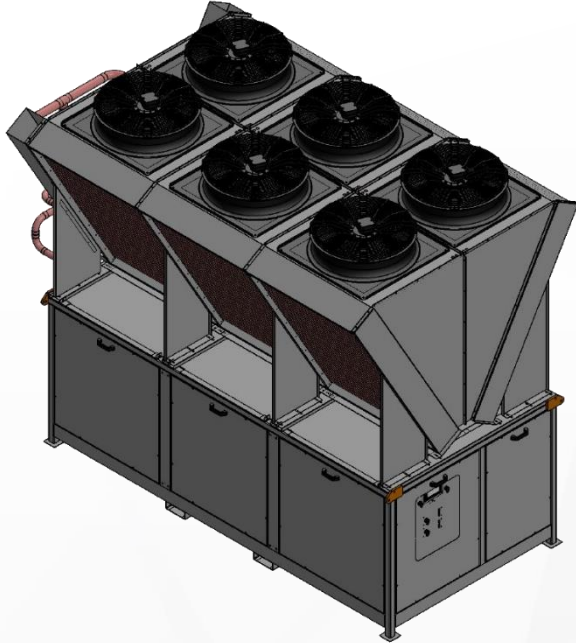


## INSTALLATION GUIDELINE DRAWINGS





## DIMENSIONAL DRAWINGS



LOW TEMPERATURE		COOLING CAPACITY [kW]					R404A/R507
MODEL REFERENCE	AMBIENT TEMP [°C]	SUCTION TEMPERATURE [°C]					
		-40	-35	-30	-25	-20	-15
DXLTF050BZT	32	12.9	15.8	19.0	22.6	26.4	30.4
	34	12.7	15.6	18.8	22.3	26.1	30.0
	36	12.6	15.4	18.5	22.0	25.7	29.5
	38	12.4	15.2	18.3	21.7	25.3	29.0
	40	12.2	14.9	18.0	21.3	24.8	28.5
DXLTF059BZT	32	15.1	18.5	22.2	26.4	31.0	36.0
	34	15.0	18.2	21.9	26.0	30.5	35.5
	36	14.8	18.0	21.6	25.6	30.1	34.9
	38	14.6	17.8	21.3	25.3	29.6	34.3
	40	14.4	17.5	21.0	24.9	29.1	33.7
DXLTF066BZT	32	16.8	20.6	24.8	29.6	34.9	40.8
	34	16.6	20.3	24.5	29.2	34.4	40.2
	36	16.4	20.1	24.2	28.8	33.9	39.6
	38	16.2	19.8	23.9	28.4	33.4	38.9
	40	16.0	19.5	23.5	27.9	32.9	38.3
DXLTF075CZT	32	19.3	23.6	28.5	33.9	39.7	45.7
	34	19.1	23.3	28.2	33.5	39.1	45.0
	36	18.8	23.0	27.8	33.0	38.5	44.2
	38	18.6	22.7	27.4	32.5	37.9	43.5
	40	18.3	22.4	27.0	32.0	37.3	42.7
DXLTF093CZT	32	23.9	29.0	34.9	41.4	48.7	56.8
	34	23.6	28.7	34.4	40.9	48.0	56.0
	36	23.3	28.4	34.0	40.3	47.3	55.1
	38	23.0	28.0	33.5	39.7	46.6	54.2
	40	22.7	27.6	33.1	39.1	45.8	53.2
DXLTF107CZT	32	27.2	33.3	40.1	47.8	56.5	66.3
	34	26.9	32.9	39.6	47.2	55.7	65.4
	36	26.6	32.5	39.1	46.6	55.0	64.4
	38	26.2	32.1	38.6	45.9	54.1	63.4
	40	25.9	31.6	38.0	45.2	53.3	62.4

**DESIGN CRITERIA:** Subcooling: 0 [K] / Suction superheat: 10 [K]

\*Cooling capacities are based on a V-Type condenser at 1700 [m] above sea level.

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## TECHNICAL SPECIFICATION

MODEL REFERENCE	CONDENSER MODEL	STUB CONNECTIONS		RECEIVER VOLUME [L]	DIMENSIONS			POWER SUPPLY [Vac]	FLA [A]
		Liquid	Suction		L [m]	W [m]	H [m]		
DXLTF050BZT	CVD 2F4R5s*	1x 7/8"	1x 2 1/8"	80	2.120	1.520	2.454	400 V / 3Ø	41
DXLTF059BZT	CVD 2F4R5s	1x 7/8"	1x 2 1/8"	80	2.120	1.520	2.454	400 V / 3Ø	50
DXLTF066BZT	CVD 2F6R5s	1x 7/8"	1x 2 1/8"	80	2.120	1.520	2.848	400 V / 3Ø	54
DXLTF075CZT	CVD 3F4R5s*	1x 7/8"	1x 2 5/8"	80	3.100	1.520	2.454	400 V / 3Ø	59
DXLTF093CZT	CVD 3F4R5s	1x 1 1/8"	1x 2 5/8"	80	3.100	1.520	2.454	400 V / 3Ø	77
DXLTF107CZT	CVD 3F6R5s	1x 1 1/8"	1x 2 5/8"	80	3.100	1.520	2.454	400 V / 3Ø	85

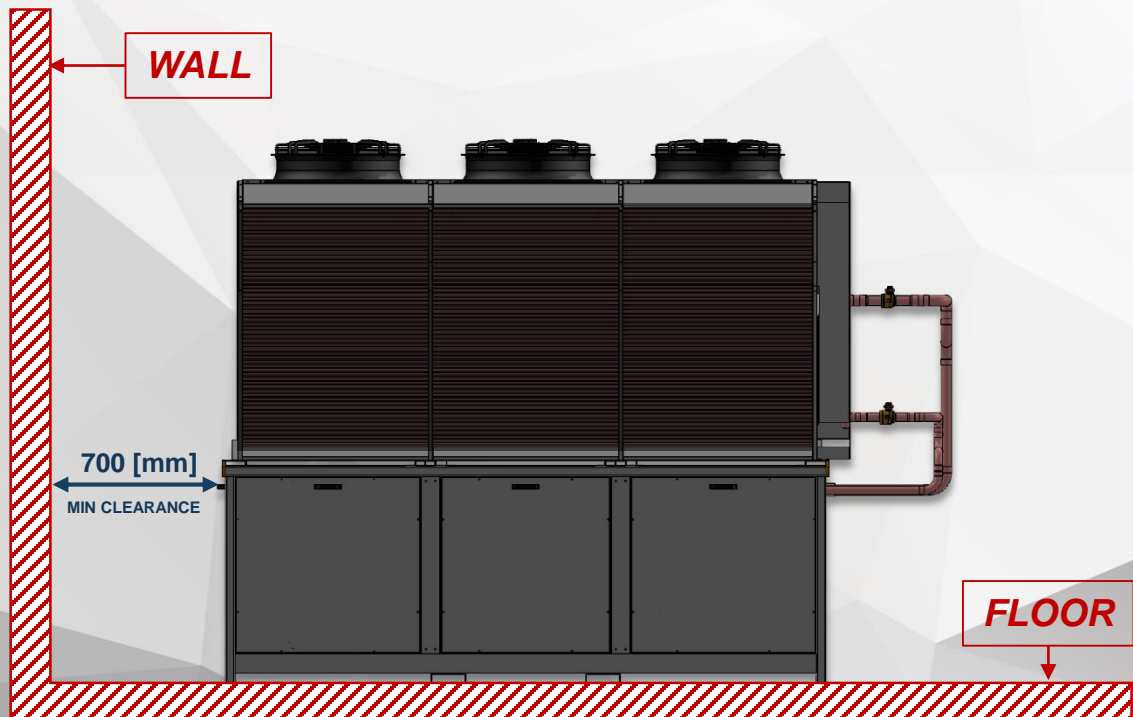
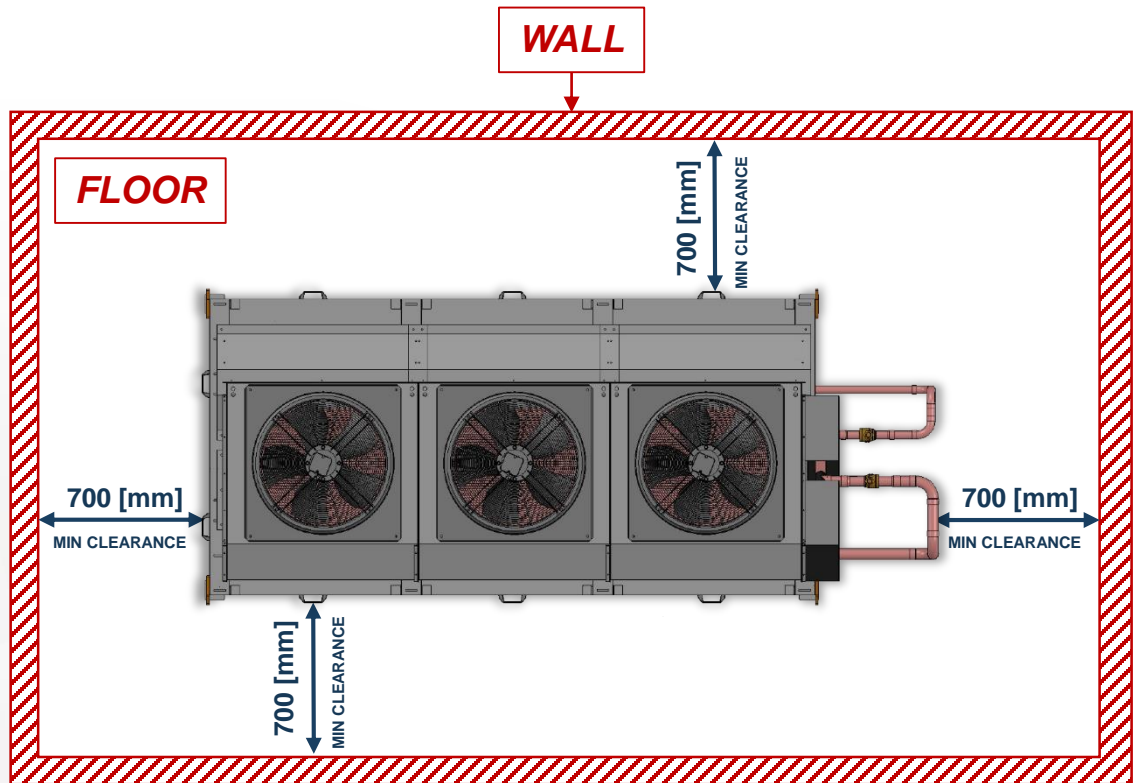
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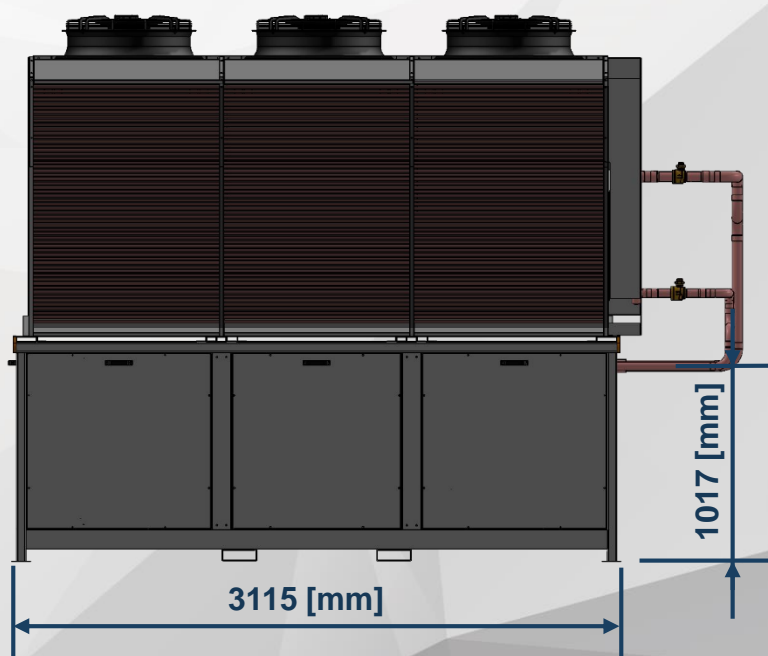
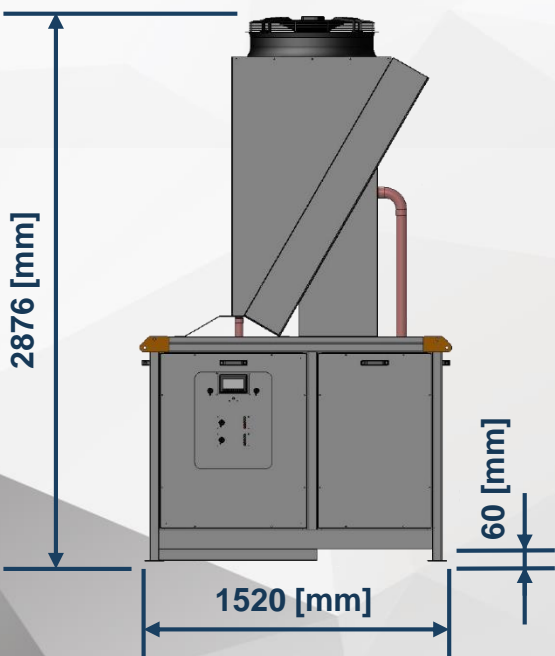
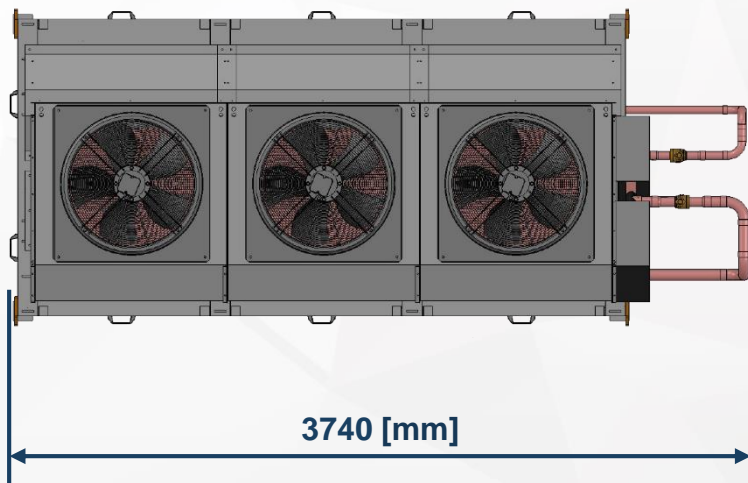
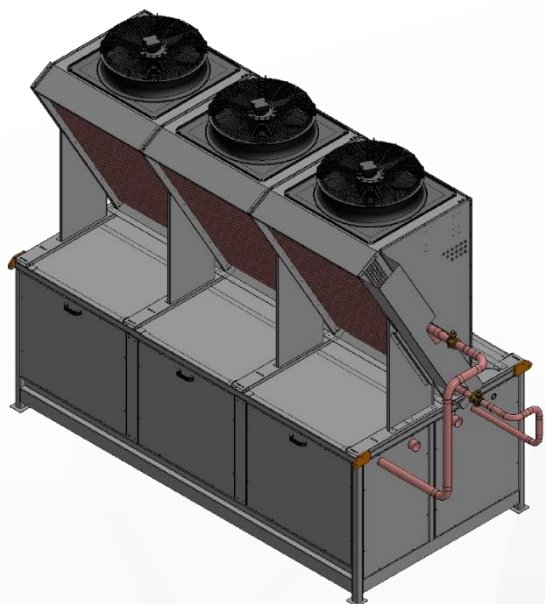
\*\*Anti-vibration pads are to be used under the feet of the unit.

\*\*\*Contact the Metraclark Engineering department for alternative DynaPlex configurations.

## INSTALLATION GUIDELINE DRAWINGS



## DIMENSIONAL DRAWINGS





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