



Powered by Copeland Scroll ZF
Liquid Injection Technology

**Save Energy. Save Costs.
Secure More Profits.**

ENZO-ZF CONDENSING UNITS

BE COOL. BE SURE.



PRAGYA REFRIGERATION
& ELECTRICALS
Energy Efficient Cooling...



ENZO-ZF CONDENSING UNITS



CONDENSING UNIT

FROM THE HOUSE OF 25 YEARS OF EXPERIENCE IN THE FIELD

BE
COOL.
BE
SURE.

*Customer satisfaction is our principle objective.
We offer you best in class indigenous products with global standard quality.
We value your growth by controlling project costs.
We respect your time by providing efficient deliveries and swift service.
We regard your efforts by providing easily servicable modular installation concepts.*

**ENZO-ZF LOW TEMPERATURE
CONDENSING UNITS**
POWERED WITH
LIQUID INJECTION TECHNOLOGY

**CAPACITY RANGE
2HP TO 17HP**

**OPERATING ENVELOPE
-40°C TO +7°C**

APPLICATIONS IN VARIOUS INDUSTRIES & SECTORS



Vaccines



Ice-Cream



Pharmaceuticals



Poultry & Fisheries



Food & Vegetables



Dairy





Wide Range:



Condensing Units range from 5kW-19kW for Low Temp (-40°C)

Interchangeability:



Monitoring and easy access to the mechanics of a refrigerants system. Comprehensive accessories are available to help our customers develop, install, regulate capacity.

High Efficiency:



HIGH EFFICIENCY ALL YEAR AROUND

Delivers unmatched energy efficiency: 5%-10% improvement.
Near 5% to 10% Improvement with respect to reciprocating technology.

Serviceability:



ENZO-ZF Condensing Units built to suit for easy installation, Openable Chasis in larger models for easier and quick service.

Robustness:



Condensing Unit constructed with High Quality Materials, Corrosion Resistance and Low maintenance.

Reliability:



ENZO-ZF CDUs have proven system protectors, built with complete protection and Flow Controls.





ENZO - ZF - Expansion Valve Selection

CDU Model	Refrigerant	TXV Selection		Orifice No.
ENZS1704LT2A (ZF06)	R404a	Copeland Brand	TAE SCS SAE	TA0-002
ENZS2304LT2A (ZF09)			TAE SCS SAE	TA0-003
ENZS2904LT2A (ZF11)			TAE SCS SAE	TA0-004
ENZS3324LT2A (ZF13)			TAE SCS SAE	TA0-004
ENZS4104LT2A (ZF15)			TAE SCS SAE	TA0-004
ENZS4904LT2A (ZF18)			TAE SCS SAE	TA0-005
ENZS6204LT2A (ZF25)			TAE SCS SAE	TA0-005
ENZS7104LT2A (ZF28)			TAE SCS SAE	TA0-005
ENZS8204LT2A (ZF34)		TCLE 3S	TCLE 3S	XB-1019 SW110-1B
ENZS1014LT2A (ZF41)			TCLE 3S	XB-1019 SW110-1B
ENZS1224LT2A (ZF49)			TCLE 4 1/2 S	XB-1019 SW110-1B
ENZS1334LT2A (ZF54)			TCLE 4 1/2 S	XB-1019 SW110-1B



ENZO-ZF CDU's
every part
is built in-house
to ensure...

BETTER

QUALITY
COOLING
PERFORMANCE
DURABILITY
RELIABILITY



ENZO-ZF Accessories

Copeland ZF Low Temp Scroll compressors are provided with several protection devices:



DTC Valve For Liquid Injection



Crankcase Heater



Discharge Line Thermostat



Suction/Discharge Valve Kits

ENZO - ZF Performance Summary with R404a

CDU Model	SST (deg C)		-40	-35	-30	-25	-20	-15	-10
ENZS1704LT2A (ZF06)	Refrigeration Capacity (kW)	Ambient Temp (°C)							
		32	1.11	1.44	1.77	2.22	2.67	3.28	3.89
		38	0.99	1.30	1.60	2.02	2.43	2.99	3.55
		43	0.90	1.18	1.46	1.85	2.23	2.75	3.27
		47	0.83	1.09	1.35	1.71	2.07	2.55	3.04
	Input Power* (kW)	32	1.50	1.57	1.65	1.74	1.84	1.95	2.06
		38	1.67	1.74	1.80	1.89	1.99	2.09	2.20
		43	1.81	1.87	1.93	2.02	2.11	2.21	2.32
		47	1.92	1.98	2.04	2.12	2.21	2.31	2.41

CDU Model	SST (deg C)		-40	-35	-30	-25	-20	-15	-10
ENZS2304LT2A (ZF09)	Refrigeration Capacity (kW)	Ambient Temp (°C)							
		32	1.46	1.91	2.35	2.95	3.55	4.34	5.13
		38	1.32	1.73	2.14	2.68	3.22	3.95	4.67
		43	1.20	1.58	1.96	2.45	2.95	3.62	4.28
		47	1.11	1.46	1.81	2.27	2.73	3.35	3.98
	Input Power* (kW)	32	1.86	1.57	1.65	1.74	1.84	1.95	2.06
		38	2.07	2.11	2.15	2.22	2.30	2.41	2.53
		43	2.25	2.28	2.31	2.38	2.45	2.56	2.67
		47	2.39	2.42	2.44	2.51	2.57	2.68	2.78

CDU Model	SST (deg C)		-40	-35	-30	-25	-20	-15	-10
ENZS2904LT2A (ZF11)	Refrigeration Capacity (kW)	Ambient Temp (°C)							
		32	1.87	2.42	2.97	3.72	4.46	5.46	6.45
		38	1.69	2.19	2.70	3.38	4.05	4.96	5.88
		43	1.54	2.00	2.47	3.49	3.72	4.56	5.40
		47	1.42	1.85	2.28	2.86	3.44	4.23	5.01
	Input Power* (kW)	32	2.25	2.30	2.36	2.47	2.58	2.73	2.89
		38	2.47	2.52	2.58	2.60	2.79	2.93	3.08
		43	2.66	2.71	2.76	2.86	2.96	3.10	3.25
		47	2.80	2.85	2.91	3.00	3.10	3.24	3.38

CDU Model	SST (deg C)		-40	-35	-30	-25	-20	-15	-10
ENZS3324LT2A (ZF13)	Refrigeration Capacity (kW)	Ambient Temp (°C)							
		32	2.12	2.77	2.42	4.29	5.17	6.30	7.44
		38	1.93	2.50	3.08	3.87	4.66	5.71	6.76
		43	1.78	2.29	2.80	3.52	4.24	5.21	6.19
		47	1.65	2.11	2.57	3.23	3.90	4.82	5.74
	Input Power* (kW)	32	2.39	2.49	2.59	2.73	2.87	3.05	3.22
		38	2.67	2.77	2.87	3.00	3.14	3.31	3.48
		43	2.90	3.00	3.10	3.23	3.36	3.53	3.69
		47	3.08	3.18	3.28	3.41	3.50	3.70	3.86

CDU Model	SST (deg C)		-40	-35	-30	-25	-20	-15	-10
ENZS4104LT2A (ZF15)	Refrigeration Capacity (kW)	Ambient Temp (°C)							
		32	2.62	3.45	4.28	5.38	6.48	7.93	9.38
		38	2.38	3.12	3.85	4.84	5.83	7.17	8.50
		43	2.19	2.85	3.50	4.40	5.30	6.53	7.76
		47	2.03	2.63	3.22	4.05	4.87	6.02	7.17
	Input Power* (kW)	32	2.87	3.03	3.27	3.39	3.59	3.83	4.07
		38	3.18	3.36	3.53	3.73	3.93	4.16	4.40
		43	3.45	3.63	3.81	4.01	4.21	4.44	4.67
		47	3.66	3.85	4.04	4.24	4.44	4.66	4.89

**ENZO - ZF Performance Summary with R404a**

CDU Model	SST (deg C)		-40	-35	-30	-25	-20	-15	-10
ENZS4904LT2A (ZF18)	Refrigeration Capacity (kW)	Ambient Temp (°C)							
		32	3.39	4.30	5.22	6.38	7.54	9.02	10.50
		38	3.12	3.95	4.79	5.84	6.89	8.22	9.56
		43	2.89	3.66	4.44	5.39	6.34	7.56	8.78
		47	2.78	3.55	4.3	4.78	4.9	5.2	5.4
	Input Power* (kW)	32	3.49	3.66	3.82	4.03	4.24	4.49	4.74
		38	3.83	4.00	4.17	4.38	4.59	4.83	5.06
		43	4.12	4.29	4.46	4.67	4.88	5.10	5.33
		47	4.2	4.5	4.6	4.78	5.1034	5.326	5.546

CDU Model	SST (deg C)		-40	-35	-30	-25	-20	-15	-10
ENZS6204LT2A (ZF25)	Refrigeration Capacity (kW)	Ambient Temp (°C)							
		32	3.99	5.17	6.34	7.97	9.59	11.58	13.57
		38	3.65	4.70	5.75	7.23	8.71	10.56	12.40
		43	3.37	4.31	5.26	6.62	7.98	9.70	11.43
		47	3.14	4.00	4.86	6.12	7.39	9.02	10.65
	Input Power* (kW)	32	4.04	4.32	4.59	5.02	5.45	5.93	6.41
		38	4.28	4.55	4.82	5.35	5.87	6.38	6.88
		43	4.48	4.74	5.00	5.61	6.22	6.75	7.27
		47	4.64	4.90	5.15	5.83	6.50	7.04	7.58

CDU Model	SST (deg C)		-40	-35	-30	-25	-20	-15	-10
ENZS7104LT2A (ZF28)	Refrigeration Capacity (kW)	Ambient Temp (°C)							
		32	4.51	5.82	7.13	8.93	10.74	12.93	15.13
		38	4.12	5.28	6.44	8.09	9.74	11.76	13.78
		43	3.80	4.84	5.87	7.39	8.90	10.78	12.66
		47	3.54	4.48	5.42	6.82	8.23	10.00	11.76
	Input Power* (kW)	32	4.84	5.29	5.74	6.19	6.65	7.26	7.88
		38	5.13	5.65	6.16	6.66	7.16	7.81	8.45
		43	5.38	5.95	6.52	7.05	7.59	8.26	8.92
		47	5.58	6.19	6.80	7.37	7.94	8.62	9.30

CDU Model	SST (deg C)		-40	-35	-30	-25	-20	-15	-10
ENZS8204LT2A (ZF34)	Refrigeration Capacity (kW)	Ambient Temp (°C)							
		32	5.08	6.67	8.26	10.33	12.39	15.06	17.74
		38	4.55	6.01	7.46	9.34	11.22	13.66	16.11
		43	4.11	5.45	6.79	8.52	10.24	12.49	14.75
		47	3.75	5.00	6.26	7.86	9.46	11.56	13.66
	Input Power* (kW)	32	5.31	5.67	6.03	6.44	6.85	7.31	7.78
		38	5.75	6.14	6.54	6.97	7.40	7.86	8.32
		43	6.12	6.54	6.96	7.41	7.85	8.31	8.77
		47	6.41	6.86	7.30	7.76	8.22	8.68	9.14

CDU Model	SST (deg C)		-40	-35	-30	-25	-20	-15	-10
ENZS1014LT2A (ZF41)	Refrigeration Capacity (kW)	Ambient Temp (°C)							
		32	6.42	8.35	10.27	12.76	15.26	18.51	21.76
		38	5.76	7.54	9.31	11.57	13.83	16.78	19.73
		43	5.22	6.86	8.51	10.57	12.64	15.34	18.04
		47	4.78	6.32	7.87	9.78	11.68	14.18	16.69
	Input Power* (kW)	32	6.32	6.78	7.25	7.76	8.28	8.86	9.44
		38	6.88	7.37	7.86	8.39	8.92	9.50	10.08
		43	7.35	7.86	8.38	8.92	9.46	10.04	10.62
		47	7.73	8.26	8.79	9.34	9.89	10.47	11.5

ENZO - ZF Performance Summary with R404a

CDU Model	SST (deg C)	-40	-35	-30	-25	-20	-15	-10
ENZS1224LT2A (ZF49)	Refrigeration Capacity (kW)	Ambient Temp (°C)						
		32	7.76	10.06	12.36	15.46	18.56	-
		38	6.96	9.07	11.18	14.00	16.83	-
		43	6.28	8.24	10.19	12.79	15.38	-
		47	5.74	7.57	9.40	11.81	14.23	-
	Input Power* (kW)	32	8.56	9.00	9.45	10.06	10.68	-
		38	9.31	9.76	10.20	10.83	11.45	-
		43	9.93	10.38	10.84	11.46	12.09	-
		47	10.42	10.88	11.34	11.97	12.60	-

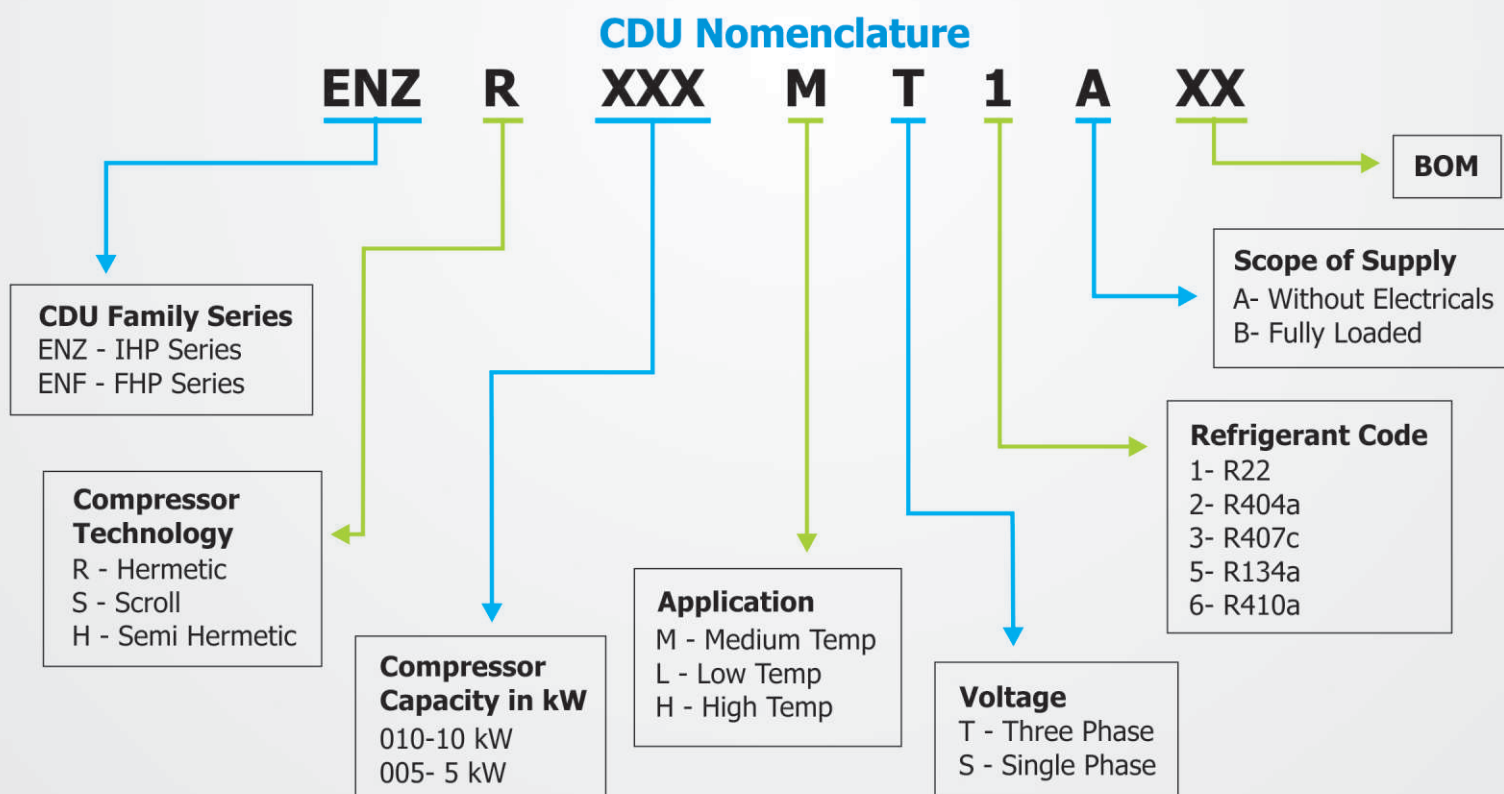
CDU Model	SST (deg C)	-40	-35	-30	-25	-20	-15	-10
ENZS1334LT2A (ZF54)	Refrigeration Capacity (kW)	Ambient Temp (°C)						
		32	8.50	11.02	13.55	16.96	20.36	-
		38	7.61	9.93	12.25	15.36	18.46	-
		43	6.87	9.02	11.17	14.03	16.88	-
		47	6.28	8.29	10.31	12.96	15.62	-
	Input Power* (kW)	32	9.53	10.03	10.52	11.23	11.93	-
		38	10.38	10.88	11.39	12.11	12.83	-
		43	11.09	11.60	12.11	12.84	13.57	-
		47	11.65	12.17	12.69	13.43	14.16	-

Note:- 1. Performance considered @ 10K Superheat and 5K Subcooling | * Input Power is including Fan Motor Power (W)

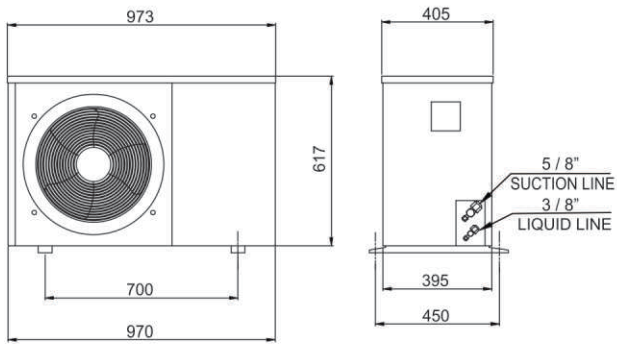
Standard Scope of Supply:

Compressors with DTC Valve, Crank Case Heater & Discharge Line Thermostat, Filter Drier, HP/LP, Solenoid Valve, Suction Accumulator, Receiver, Moisture Indicator, Oil Separator Service Valves, Axial Fans with Body.

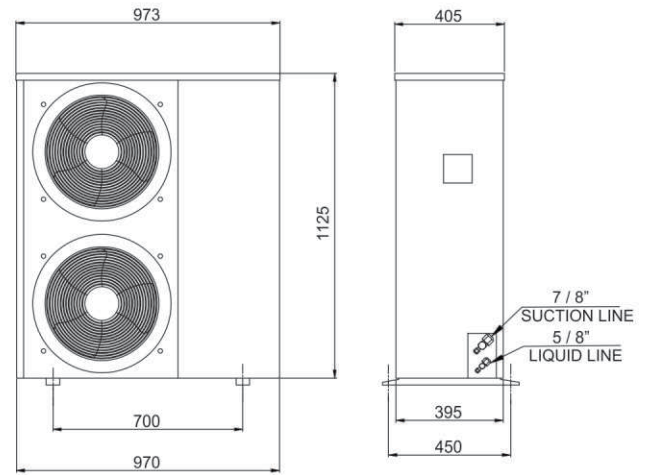
CDU Nomenclature



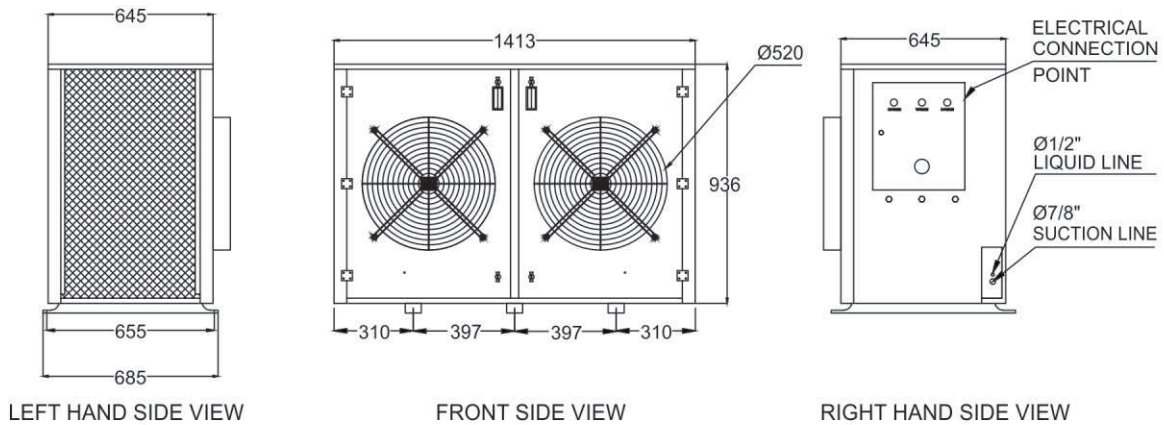
Dimensional Drawings (All dimensions are in 'mm' except Suction/Liquid Line dimensions)



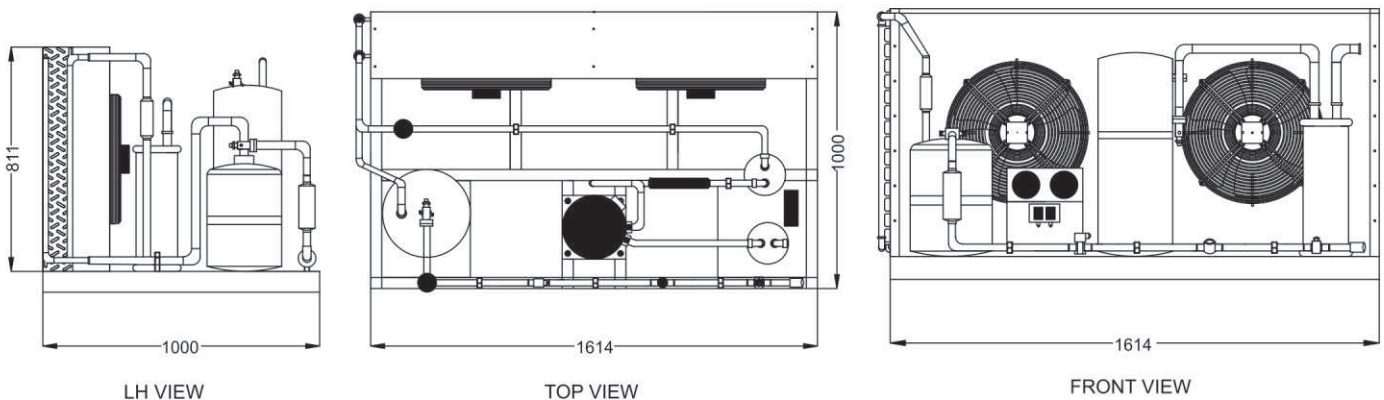
ENZO - ZF 06 to 09



ENZO - ZF 11 to 18



ENZO - ZF 25 to 41



ENZO - ZF 49 to 54



PRAGYA REFRIGERATION
& ELECTRICALS
Energy Efficient Cooling...

Head Office: Shop No. 2, City Centre, New # 66 (39), Thirumalai Pillai Road, T. Nagar, Chennai - 600 017.
INDIA. | Phone: +91 - 44 - 2815 6311. | Mobile: +91 - 93814 07129. | Fax: +91 - 44 - 4211 1568.

Email: info@rishabhenterprises.in | Website: www.pragyarefrigeration.in

Branch Offices: Coimbatore, Madurai.

Sales Offices: Bangalore / Delhi / Mumbai / Kolkata



RISHABH ENTERPRISES
HVAC&R PVT. LTD.

Innovative Solutions through
Energy Efficient Technologies