

IZSI Condensing Unit

For Refrigeration Applications



Copeland Scroll™


EMERSON
Climate Technologies

World Leader in Scroll Compressor Technology

Emerson Climate Technologies introduced a new phase of energy efficiency for the HVACR industry 25 years ago with the launch of Copeland Scroll™ technology in 1987. By 1992, the company had produced one million Copeland Scroll compressors.

Today, Emerson™ is the world's largest manufacturer of air-conditioning and refrigeration scroll compressors with over 100-million scroll compressors installed worldwide. Leveraging Emerson's vast global network and R&D resources, the company continues to innovate and invest in climate solutions that help improve human comfort, minimize the environmental impact, and ensure food quality.

IZSI Model for Low and Medium Temperature Applications

Simple and Reliable – Powered by Copeland Scroll with CoreSense™

- Liquid Injection Technology – controlled by CoreSense – manages discharge temperature for maximum performance and reliability
- CoreSense can detect and display sensor failure through its LEDs, enabling easier troubleshooting
- Copeland Scroll compressors have fewer moving parts than reciprocating compressors, thus making it more reliable
- Consistent quality achieved through factory built Condensing Unit

Wide Operating Envelope for Various Applications

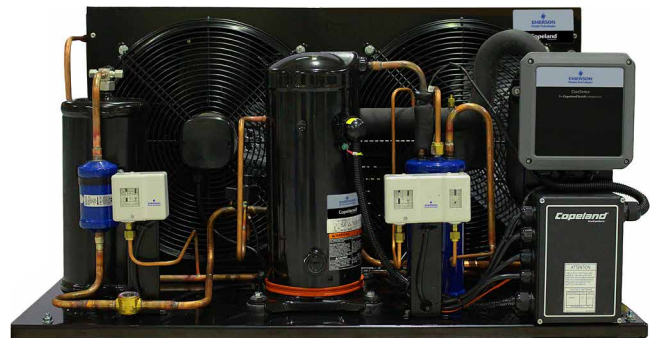
- Multiple Refrigerant Capabilities for different Applications
- Suitable for application ranging from Low Temperature and Medium Temperature cold rooms to Medium Temperature showcases

Efficient and Quiet – Key Scroll Attributes

- COP improvement leads to higher annual electrical savings as compared to systems with reciprocating compressors
- Low sound and vibration leading to quieter operation
- No complex internal suction and discharge valves for higher reliability

Low Applied Cost – Completely Factory Built

- IZSI comes with factory installed accessories (e.g. liquid line filter drier, sight glass/ moisture indicator, receiver, oil separator etc.) thus simplifying component sourcing



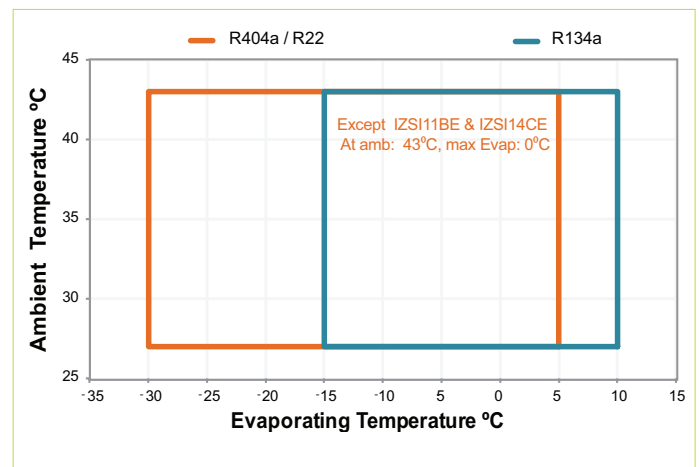
Nomenclature

I	Z	S	I	0	6	A	E	-	T	F	M	-	X	X	X
I = Indoor Type CDU	Z = Scroll	S = Wide Operating Range	I = Liquid Injection	Compressor Nominal Capacity (Btu/hr) at 60Hz Rating Condition		Chassis Type	E = POE Oil		PFZ = 220–240V 1 Ph–50 Hz TFM = 380–420V 3 Ph–50Hz				Bill of Material		
Condensing Series	Compressor Type	Operating Range		Nominal Capacity (Btu/hr)			Oil Charge								
Base Model									Electrical Code				BOM		

Bill of Material

Standard BOM Content (BOM 702)	
IZSI Compressor (POE Only) With Stub Tube	HP Auto Reset Switch (Dual fan Units Only)
CoreSense™	Crank Case Heater
Heat Exchanger	Electrical Box
Fan Motor	Receiver With Valve
Oil Separator	Filter Drier-Sweat Connection
Accumulator	Moisture Indicator/ Sight Glass
Dual Pressure Switch	Unit Service Valve

Operating Envelope



Performance Data

R404a / R507a

Model	Ambient Temperature °C	Capacity (kW) Evaporating Temperature (°C)								Power Input (kW) Evaporating Temperature (°C)							
		-30	-25	-20	-15	-10	-5	0	5	-30	-25	-20	-15	-10	-5	0	5
IZSI 06AE-PFZ/TFM	32	1.82	2.21	2.67	3.18	3.75	4.38	5.06	5.79	1.71	1.77	1.83	1.89	1.95	2.01	2.06	2.11
	35	1.73	2.10	2.53	3.02	3.56	4.16	4.81	5.51	1.79	1.85	1.91	1.97	2.03	2.09	2.14	2.20
	38	1.63	1.99	2.40	2.86	3.37	3.94	4.56	5.22	1.88	1.93	2.00	2.06	2.12	2.18	2.24	2.30
	43	1.48	1.80	2.17	2.59	3.06	3.58	4.14	4.75	2.06	2.12	2.18	2.24	2.31	2.37	2.44	2.51
IZSI 08AE-PFZ/TFM	32	2.14	2.59	3.08	3.61	4.18	4.79	5.43	6.11	2.11	2.15	2.22	2.30	2.38	2.45	2.50	2.52
	35	2.04	2.46	2.93	3.43	3.96	4.53	5.13	5.76	2.19	2.24	2.31	2.38	2.46	2.54	2.59	2.61
	38	1.93	2.34	2.78	3.25	3.75	4.28	4.83	5.42	2.29	2.34	2.40	2.48	2.56	2.63	2.69	2.72
	43	1.75	2.13	2.53	2.95	3.39	3.85	4.34	4.85	2.46	2.54	2.60	2.69	2.77	2.84	2.90	2.93
IZSI 09BE-TFM	32	2.45	3.01	3.62	4.29	5.02	5.83	6.69	7.61	2.05	2.19	2.29	2.37	2.44	2.54	2.68	2.89
	35	2.30	2.82	3.41	4.04	4.74	5.51	6.33	7.21	2.18	2.32	2.42	2.50	2.57	2.67	2.81	3.01
	38	2.13	2.64	3.19	3.80	4.47	5.19	5.98	6.83	2.32	2.47	2.56	2.63	2.71	2.80	2.94	3.14
	43	1.84	2.33	2.85	3.41	4.03	4.70	5.43	6.22	2.67	2.74	2.83	2.89	2.96	3.04	3.17	3.37
IZSI 11BE-TFM	32	2.84	3.58	4.34	5.16	6.06	7.05	8.15	9.35	2.30	2.53	2.69	2.81	2.93	3.08	3.30	3.63
	35	2.73	3.43	4.15	4.93	5.77	6.72	7.76	8.89	2.50	2.74	2.90	3.01	3.13	3.27	3.48	3.78
	38	2.61	3.28	3.96	4.69	5.48	6.37	7.35	8.43	2.74	2.97	3.12	3.23	3.33	3.46	3.65	3.93
	43	2.48	3.01	3.62	4.27	4.98	5.77	6.66		3.32	3.40	3.53	3.61	3.67	3.77	3.92	
IZSI 14CE-TFM	32	3.74	4.54	5.41	6.34	7.33	8.37	9.46	10.59	3.10	3.21	3.38	3.58	3.79	3.99	4.14	4.21
	35	3.57	4.33	5.15	6.03	6.95	7.92	8.92	9.97	3.26	3.36	3.53	3.74	3.96	4.16	4.31	4.40
	38	3.40	4.12	4.89	5.70	6.56	7.45	8.38	9.35	3.44	3.54	3.71	3.92	4.15	4.36	4.52	4.62
	43	3.08	3.77	4.45	5.16	5.90	6.66	7.45		3.71	3.93	4.10	4.32	4.56	4.78	4.96	
IZSI 15DE-TFM	32	4.13	5.21	6.36	7.61	9.00	10.57	12.34	14.32	3.47	3.50	3.62	3.80	4.04	4.33	4.64	4.96
	35	3.99	5.04	6.14	7.32	8.64	10.12	11.79	13.67	3.68	3.74	3.87	4.05	4.29	4.57	4.86	5.15
	38	3.86	4.87	5.91	7.02	8.26	9.64	11.21	12.98	3.89	3.98	4.12	4.32	4.55	4.81	5.09	5.36
	43	3.75	4.55	5.49	6.48	7.57	8.79	10.19	11.77	4.20	4.39	4.57	4.77	5.00	5.24	5.48	5.71
IZSI 18DE-TFM	32	5.23	6.37	7.66	9.09	10.67	12.40	14.27	16.28	4.22	4.40	4.64	4.92	5.21	5.49	5.74	5.93
	35	5.01	6.10	7.32	8.68	10.17	11.81	13.58	15.49	4.45	4.63	4.87	5.15	5.44	5.72	5.97	6.16
	38	4.78	5.82	6.97	8.26	9.67	11.21	12.88	14.69	4.70	4.88	5.12	5.40	5.69	5.98	6.23	6.43
	43	4.38	5.32	6.37	7.53	8.80	10.18	11.69	13.33	5.14	5.39	5.63	5.90	6.20	6.48	6.74	6.94

Operating Condition 20 °C Return Gas Temperature

Stated power input values are inclusive of fan power.

Performance Data

R134a *

Model	Ambient Temperature °C	Capacity (kW) Evaporating Temperature (°C)						Power Input (kW) Evaporating Temperature (°C)					
		-15	-10	-5	0	5	10	-15	-10	-5	0	5	10
IZSI 06AE-PFZ/TFM	32	1.86	2.28	2.77	3.32	3.95	4.64	1.03	1.08	1.14	1.20	1.25	1.31
	35	1.80	2.22	2.69	3.22	3.83	4.49	1.08	1.14	1.20	1.26	1.32	1.38
	38	1.75	2.15	2.60	3.12	3.70	4.34	1.13	1.19	1.25	1.32	1.39	1.47
	43	1.65	2.03	2.45	2.94	3.49	4.10	1.22	1.28	1.35	1.42	1.50	1.58
IZSI 08AE-PFZ/TFM	32	2.09	2.57	3.11	3.73	4.42	5.18	1.15	1.22	1.29	1.36	1.43	1.50
	35	2.04	2.50	3.02	3.61	4.28	5.01	1.21	1.28	1.35	1.43	1.51	1.60
	38	1.97	2.42	2.92	3.49	4.14	4.84	1.27	1.34	1.42	1.50	1.58	1.67
	43	1.86	2.28	2.75	3.28	3.89	4.55	1.37	1.45	1.53	1.62	1.71	1.81
IZSI 09BE-TFM	32	2.58	3.20	3.93	4.77	5.70	6.75	1.50	1.54	1.59	1.64	1.70	1.76
	35	2.49	3.10	3.81	4.61	5.52	6.52	1.58	1.63	1.67	1.73	1.80	1.88
	38	2.40	2.99	3.68	4.45	5.33	6.30	1.67	1.71	1.77	1.83	1.89	1.96
	43	2.31	2.81	3.45	4.19	5.01	5.96	1.82	1.88	1.93	2.00	2.07	2.14
IZSI 11BE-TFM	32	3.11	3.82	4.62	5.52	6.54	7.65	1.56	1.65	1.75	1.85	1.95	2.06
	35	3.02	3.70	4.48	5.35	6.33	7.40	1.64	1.73	1.83	1.94	2.04	2.15
	38	2.93	3.59	4.33	5.17	6.12	7.15	1.71	1.81	1.92	2.03	2.14	2.26
	43	2.76	3.38	4.07	4.86	5.75	6.72	1.85	1.95	2.07	2.18	2.31	2.44
IZSI 14CE-TFM	32	3.83	4.69	5.66	6.75	7.97	9.30	1.93	2.06	2.18	2.32	2.46	2.60
	35	3.72	4.55	5.48	6.53	7.71	8.99	2.03	2.16	2.29	2.43	2.58	2.73
	38	3.60	4.40	5.30	6.31	7.44	8.67	2.13	2.26	2.40	2.55	2.71	2.88
	43	3.39	4.13	4.97	5.92	6.98	8.14	2.30	2.44	2.59	2.75	2.91	3.08
IZSI 15DE-TFM	32	4.33	5.44	6.69	8.11	9.71	11.46	2.48	2.56	2.63	2.71	2.81	2.90
	35	4.19	5.27	6.48	7.86	9.41	11.11	2.61	2.69	2.77	2.85	2.95	3.04
	38	4.05	5.09	6.27	7.60	9.10	10.74	2.75	2.83	2.91	3.00	3.10	3.20
	43	3.91	4.80	5.91	7.17	8.57	10.16	3.01	3.10	3.18	3.27	3.38	3.48
IZSI 18DE-TFM	32	5.17	6.43	7.90	9.59	11.45	13.54	2.85	2.93	3.04	3.15	3.28	3.43
	35	4.98	6.20	7.63	9.26	11.07	13.09	3.01	3.10	3.20	3.32	3.45	3.60
	38	4.79	5.97	7.36	8.94	10.68	12.62	3.18	3.27	3.38	3.50	3.64	3.79
	43	4.60	5.58	6.89	8.37	10.02	11.93	3.48	3.59	3.71	3.83	3.98	4.13

Operating Condition 20 °C Return Gas Temperature

Stated power input values are inclusive of fan power.

* Preliminary Data

Performance Data

R22

Model	Ambient Temperature °C	Capacity (kW) Evaporating Temperature (°C)								Power Input (kW) Evaporating Temperature (°C)							
		-30	-25	-20	-15	-10	-5	0	5	-30	-25	-20	-15	-10	-5	0	5
IZSI 06AE-PFZ/TFM	32	1.58	2.00	2.44	2.93	3.49	4.15	4.93	5.71	1.53	1.59	1.65	1.70	1.76	1.82	1.88	1.94
	35	1.56	1.98	2.41	2.88	3.42	4.05	4.80	5.54	1.63	1.69	1.76	1.82	1.88	1.94	2.01	2.07
	38	1.54	1.95	2.37	2.82	3.34	3.94	4.65	5.35	1.73	1.80	1.87	1.94	2.01	2.07	2.14	2.20
	43	1.48	1.87	2.27	2.69	3.16	3.72	4.38	5.02	1.91	2.00	2.08	2.15	2.22	2.29	2.35	2.41
IZSI 08AE-PFZ/TFM	32	1.92	2.32	2.82	3.41	4.07	4.79	5.54	6.42	1.96	1.99	2.05	2.13	2.22	2.30	2.36	2.47
	35	1.85	2.23	2.72	3.30	3.94	4.64	5.37	6.22	2.04	2.07	2.14	2.22	2.32	2.41	2.47	2.59
	38	1.78	2.15	2.62	3.18	3.80	4.49	5.20	6.04	2.12	2.16	2.23	2.33	2.43	2.53	2.62	2.75
	43	1.65	2.00	2.44	2.98	3.58	4.24	5.00	5.84	2.30	2.34	2.43	2.54	2.67	2.80	2.98	3.16
IZSI 09BE-TFM	32	2.00	2.54	3.15	3.84	4.64	5.55	6.57	7.66	1.91	1.97	2.04	2.12	2.21	2.30	2.37	2.47
	35	1.95	2.47	3.06	3.73	4.50	5.38	6.37	7.43	2.03	2.09	2.16	2.25	2.34	2.43	2.51	2.62
	38	1.89	2.39	2.96	3.61	4.35	5.20	6.16	7.18	2.15	2.21	2.29	2.39	2.48	2.58	2.67	2.78
	43	1.79	2.26	2.79	3.39	4.09	4.88	5.78	6.73	2.38	2.45	2.54	2.64	2.75	2.86	2.96	3.09
IZSI 11BE-TFM	32	2.71	3.34	4.02	4.80	5.71	6.77	8.01	9.29	2.34	2.45	2.55	2.66	2.77	2.92	3.12	3.29
	35	2.61	3.22	3.88	4.64	5.52	6.55	7.76	9.00	2.44	2.56	2.66	2.77	2.89	3.05	3.25	3.42
	38	2.51	3.10	3.74	4.47	5.32	6.33	7.51	8.72	2.57	2.69	2.79	2.90	3.03	3.20	3.42	3.61
	43	2.35	2.91	3.52	4.20	5.01	5.96	7.09		2.87	3.00	3.11	3.23	3.38	3.57	3.83	
IZSI 14CE-TFM	32	3.26	4.13	5.04	6.04	7.17	8.45	9.91	11.40	2.77	2.90	3.08	3.29	3.51	3.72	3.90	4.15
	35	3.15	3.99	4.87	5.84	6.93	8.17	9.59	11.03	2.96	3.11	3.30	3.52	3.75	3.97	4.15	4.40
	38	3.03	3.85	4.71	5.65	6.70	7.89	9.27	10.65	3.16	3.33	3.54	3.77	4.01	4.24	4.42	4.67
	43	2.85	3.64	4.45	5.34	6.33	7.46	8.62		3.54	3.74	3.98	4.23	4.49	4.73	5.01	
IZSI 15DE-TFM	32	4.05	5.00	6.04	7.21	8.56	10.13	11.95	13.83	3.21	3.31	3.46	3.65	3.84	4.02	4.18	4.40
	35	3.89	4.81	5.81	6.94	8.24	9.76	11.51	13.32	3.38	3.50	3.66	3.85	4.05	4.24	4.40	4.63
	38	3.73	4.63	5.59	6.67	7.93	9.38	11.08	12.82	3.56	3.69	3.87	4.07	4.28	4.48	4.65	4.88
	43	3.50	4.34	5.24	6.25	7.42	8.79	10.39	12.02	3.90	4.06	4.26	4.48	4.71	4.92	5.10	5.34
IZSI 18DE-TFM	32	4.77	5.83	7.06	8.48	10.09	11.90	13.92	16.11	3.88	4.05	4.25	4.47	4.73	5.00	5.29	5.62
	35	4.64	5.67	6.86	8.23	9.79	11.54	13.48	15.59	4.18	4.38	4.59	4.84	5.10	5.37	5.66	5.98
	38	4.50	5.50	6.66	7.98	9.48	11.16	13.04	15.06	4.51	4.72	4.96	5.21	5.48	5.75	6.03	6.34
	43	4.24	5.19	6.29	7.53	8.93	10.51	12.27	14.16	5.07	5.31	5.56	5.82	6.09	6.35	6.60	6.87

Operating Condition 20 °C Return Gas Temperature

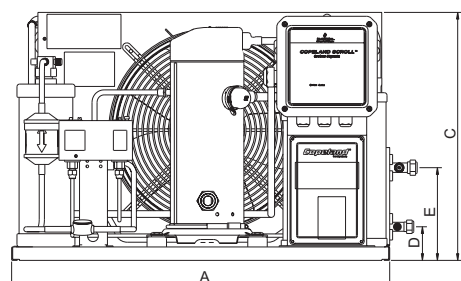
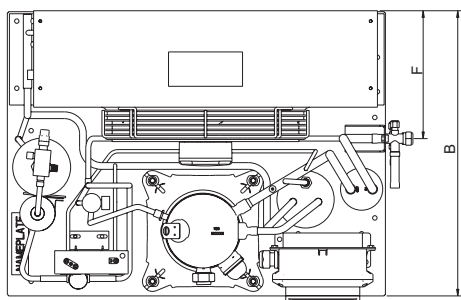
Stated power input values are inclusive of fan power.

Technical Data

Condensing Unit Model	IZSI 06AE	IZSI 08AE	IZSI 06AE	IZSI 08AE	IZSI 09BE	IZSI 11BE	IZSI 14CE	IZSI 15DE	IZSI 18DE	
Electrical Code	PFZ		TFM							
Compressor Model	ZSI 06KQE	ZSI 08KQE	ZSI 06KQE	ZSI 08KQE	ZSI 09KQE	ZSI 11KQE	ZSI 14KQE	ZSI 15KQE	ZSI 18KQE	
Compressor Voltage / Phase / Frequency	220-240V / 1 / 50Hz		380-420V / 3 / 50Hz							
Compressor Locked Rotor Current (A)	56.6	71.5	39.2	39.2	39.2	51.5	51.5	51.5	74.0	
Compressor Maximum Operating Current (A)	13.6	15.6	5.7	6.1	6.7	7.5	9.2	11.9	13.7	
Compressor Displacement (m3 / hr)	6.1	7.1	6.1	7.1	8.0	9.9	12.7	14.4	17.1	
Compressor Oil Charge (l)	0.74					1.36			1.89	
Oil Type	POE-Emkarate RL 32 3MAF									
Fan Voltage / Phase / Frequency	220-240V / 1 / 50Hz									
Fan Qty x Current (A)	1 x 0.75				1 x 1.15			2 x 1.15		
Chassis Type	A				B		C	D		
Chassis W x D x H (mm)	715 x 538 x 469				737 x 673 x 520		737 x 673 x 571	1044 x 678 x 547		
Receiver (l)	2.5				5					7.5
Suction - Liquid Line Service Valve	5/8" - 3/8"					7/8" - 3/8"	7/8" - 1/2"			
Net Weight (kg)	65				70	78	80	82	85	

Dimensional Drawings

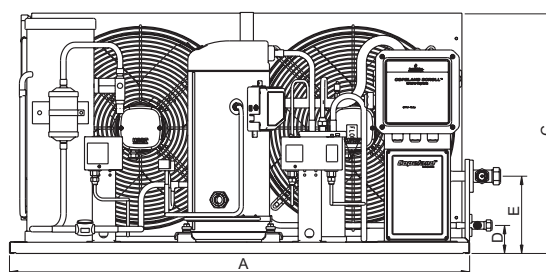
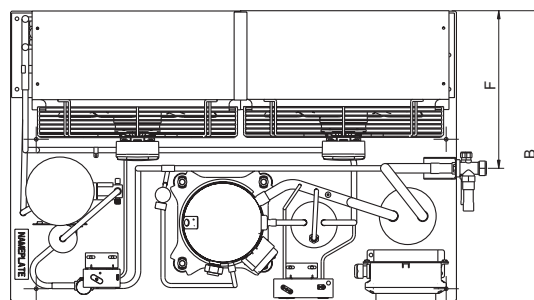
Single Fan



UNIT	A	B	C	D	E	F
Chassis A	715	538	469	64	175	242
Chassis B	737	673	520	64	175	275
Chassis C	737	673	571	64	175	276

Note: All Dimensions are in MM

Dual Fan



UNIT	A	B	C	D	E	F
Chassis D	1044	678	547	64	175	369

Note: All Dimensions are in MM

Contact List

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