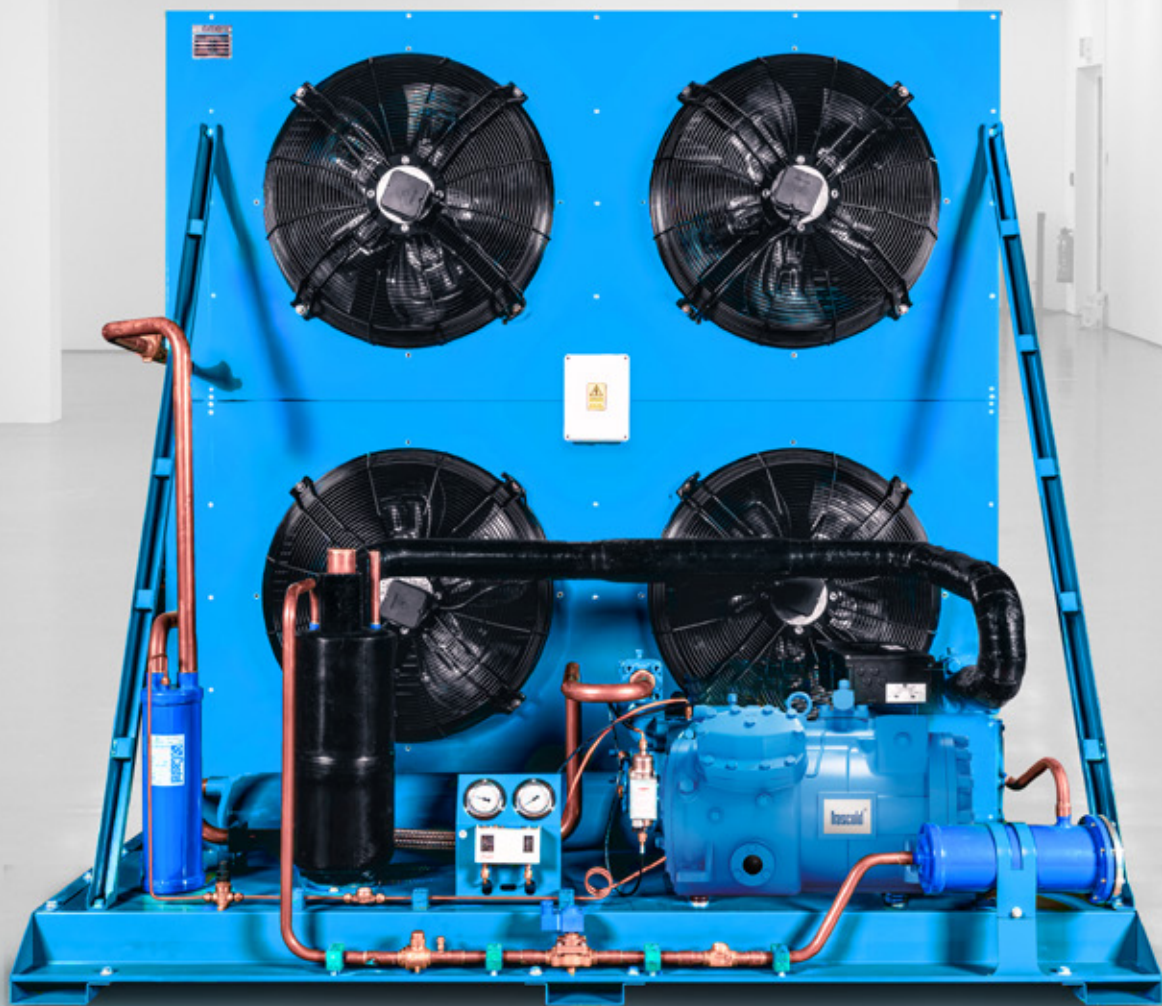


rime.

AIR COOLED **CONDENSING UNIT**

with FRASCOLD compressor (50 Hz)



ENGINEERED & MANUFACTURED BY RIME

CONTENTS

Key Features & Benefits

[Page 2](#)

Condensing Unit Standard Part

[Page 3](#)

Nomenclature & Application by Temperature

[Page 4](#)

Condensing Unit Models | Condenser Specifications

[Pages 5](#)

Dimensions

[Page 6](#)

Technical Data

[Pages 7-10](#)

Refrigerating Capacity & Compressor Power Input

[Pages 11-16](#)

Important information

[Pages 17-18](#)

CONTACT

For inquiries, consultations, or to learn more about our innovative refrigeration solutions, please get in touch with us:

sales@rimegroup.com

For customer support email us:

support@rimegroup.com

Company Overview

Rime is a global manufacturer of refrigeration products for the commercial and industrial sectors, offering an extensive range that includes heat exchangers, condensing units, refrigeration racks, and HVAC copper products. Strategically headquartered in the Jebel Ali Free Zone, Dubai, the company leverages its UAE location to ensure efficient distribution, timely deliveries, and industry excellence.

Our Mission

We strive to deliver high-quality, cost-effective refrigeration solutions focusing on advanced manufacturing and assembly. We aim to provide superior products and exceptional service, ensuring a seamless customer experience and ongoing support.

Our Vision

To lead the HVAC and Refrigeration industry from the GCC to the global stage, setting the benchmark for cost-effective and innovative solutions. Through advanced manufacturing and assembly practices, we strive to pioneer cutting-edge technologies that optimize energy efficiency, minimize environmental impact, and make a significant, positive difference worldwide.

Core Values

Responsiveness: We value responsiveness in our interactions with clients, partners, and team members. We prioritize open communication and timely actions to address their needs efficiently.

Integrity: It is at the core of our business. We uphold ethical practices, transparency, and honesty in all our endeavors, building trust and long-lasting relationships with our stakeholders.

Mindfulness: Extends to our workplace culture. We are committed to fostering a supportive and inclusive environment where employees well-being and personal growth are prioritized, ensuring a positive and collaborative work atmosphere.

Empowerment: We believe in empowering our team members to foster creativity, growth, and professional development. We encourage collaboration and foster an environment where everyone's ideas and contributions are valued.

Air Cooled Condensing Unit Overview

Our Air Cooled Condensing Units, equipped with FRASCOLD semi-hermetic reciprocating compressors, are engineered to deliver outstanding cooling performance, high energy efficiency, and dependable operation across a wide range of commercial and industrial refrigeration applications. Designed for stable capacity, low noise levels, and precise temperature control, these units provide reliable performance for both medium- and low-temperature refrigeration systems.

RIME's Air Cooled Condensing Units are built to ensure exceptional durability, long service life, and simplified maintenance. Combined with high-quality components and optimized system design, they provide a reliable and efficient solution for your cooling and freezing requirements.

KEY FEATURES	BENEFITS
Frascold Semi-Hermetic Reciprocating Compressors: Equipped with Frascold semi-hermetic reciprocating compressors, renowned for their reliability, high efficiency, and long service life across commercial and industrial refrigeration applications..	Reliable Cooling Performance: Delivers stable and efficient refrigeration under demanding operating conditions, ensuring consistent product preservation and process cooling.
Wide Temperature Range: Designed to operate efficiently over a broad range of evaporating and condensing temperatures, making the units suitable for medium- and low-temperature refrigeration applications.	Application Flexibility: Suitable for cold rooms, freezer rooms, food processing, supermarkets, and industrial refrigeration systems operating in high ambient conditions.
High-Efficiency Heat Rejection: Designed with a sturdy structure and finished with electrostatic powder coating to ensure enhanced durability and long service life.	Lower Energy Consumption: Optimized heat exchange improves system efficiency, reduces compressor workload, and lowers operating costs.
Heavy-Duty Construction: Manufactured using corrosion-resistant materials with a durable electrostatic powder-coated galvanized steel enclosure for long-lasting outdoor performance.	Extended Equipment Life: Provides excellent resistance against corrosion and harsh environmental conditions, minimizing maintenance requirements.
Precision Refrigerant Piping: Refrigerant piping is CNC-bent and assembled using automated brazing techniques to ensure leak-free and reliable operation.	Enhanced System Reliability: Minimizes refrigerant leakage, reduces pressure losses, and improves long-term operational stability.
Optimized Airflow Design: Aerodynamically designed fan section ensures uniform airflow distribution across the condenser surface for maximum heat rejection efficiency.	Improved Cooling Efficiency: Maximizes condenser performance while maintaining stable condensing pressures and reliable compressor operation.
Low Noise Operation: Equipped with dynamically balanced axial fans and vibration-isolated compressor mounting to reduce operating noise and vibration.	Quiet Performance: Suitable for commercial and industrial installations where reduced sound levels are required.
Easy Installation & Serviceability: Compact design with accessible service valves, electrical components, and maintenance points simplifies installation and routine servicing.	Reduced Maintenance Time: Facilitates faster installation, easier troubleshooting, and lower lifecycle maintenance costs.
Factory Tested Quality: Every condensing unit undergoes comprehensive quality inspections, pressure testing, leak testing, and electrical verification before dispatch.	Guaranteed Product Quality: Ensures dependable operation, reduced commissioning time, and high customer confidence.

STANDARD SCOPE OF SUPPLY



1. HP/LP Switch
2. Compressor with crankcase heater
3. Vibration absorber
4. Liquid Receiver
5. Oil pressure switch - INT 250
(For series S, V, W & Z)
- 6.. Oil separator
(For medium temperature applications, 30 HP & above)
(For low temperature applications, 8 HP & above)

ADDITIONAL COMPONENTS



1. Filter Driers
2. Solenoid Valve
3. Sight Glass
4. Hand Valve
5. Condenser Head Pressure Control (KP5)
6. Accumulator

rime.

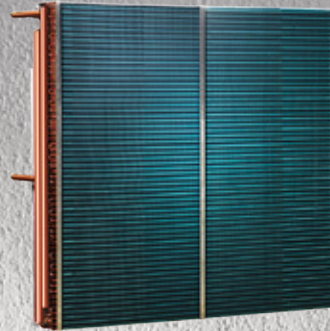
AIR COOLED CONDENSING UNIT

with FRASCOLD compressor



FAN

The condensing unit utilizes axial fans, which are engineered for high efficiency and low-decibel operation. These fans feature a detachable guard grille for easy maintenance and are equipped with IP54-rated, F-class insulated electric motors that are balanced and tested prior to installation.



CONDENSER COIL

The condenser coil is constructed with staggered, mechanically expanded copper tubes and fins designed with sine waves. This specific geometry increases the heat transfer coefficient by creating maximum turbulence within the airflow, ensuring optimal heat exchange between the tubes and fin plates.



COMPRESSOR

The system is powered by FRASCOLD semi-hermetic reciprocating compressors, known for being both energy-efficient and eco-friendly. These units are designed to deliver the necessary refrigeration capacity while maintaining minimal energy consumption.



RECEIVER

All horizontal and vertical receivers are manufactured and tested in accordance with ASME standards at a pressure of 45 bar, with the receiver storage capacity specifically selected to suit the compressor model and overall refrigeration system requirements.



HIGH AND LOW PRESSURE SWITCH

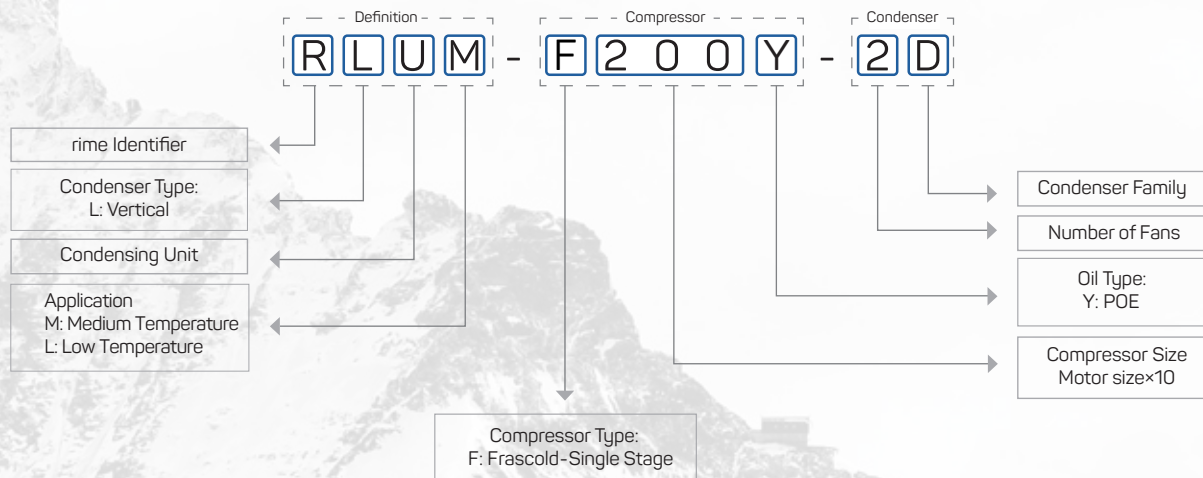
To ensure reliable system protection, RIME condensing units are equipped with KP15 pressure switches that monitor the suction and discharge pressures. The switches protect the compressor against excessively low suction or high discharge pressure by automatically interrupting or restoring compressor operation when the respective pressure limits are reached.



VIBRATION ABSORBER

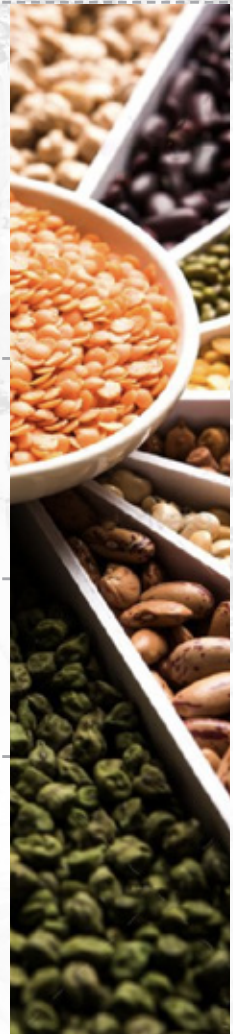
The unit incorporates Packless vibration absorbers made of deep-pitch corrugated tubing to provide flexibility and dampen mechanical noise. These are installed in the discharge lines to prevent the transmission of compressor-induced vibrations through the rest of the piping system.

NOMENCLATURE



APPLICATION BY TEMPERATURE

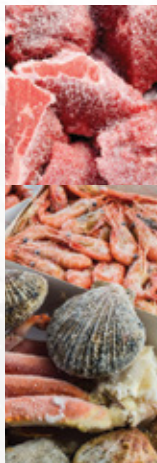
HIGH TEMPERATURE



MEDIUM TEMPERATURE



LOW TEMPERATURE



BLAST FREEZER



MODELS

Medium Temperature - R404A

No	MODEL NAME	COMPRESSOR	Q _c (kW)	P _i (kW)
1	RLUM-F015Y-1B	A 1.5 - 8 Y	2.9	2.1
2	RLUM-F020Y-1C	B 2 - 10.1 Y	4.2	2.9
3	RLUM-F030Y-1D	D 3 - 13.1 Y	5.8	3.9
4	RLUM-F040Y-1E	D 4 - 16.1 Y	7.5	5.4
5	RLUM-F070Y-2C	Q 7 - 28.1 Y	12.5	8.9
6	RLUM-F120Y-2D	S 12 - 42 Y	17.5	11.1
7	RLUM-F200Y-4A	S 20 - 56 Y	23.8	17.4
8	RLUM-F250Y-4B	V 25 - 71 Y	30.8	20.5
9	RLUM-F300Y-4C	V 30 - 84 Y	37.5	24.1

Q_c (Cooling Capacity) and P_i (Power Input) are based on

T_e = -8°C and T_c = +50°C, with SH = 6 K and SC = 0 K.

Low Temperature - R404A

No	MODEL NAME	COMPRESSOR	Q _c (kW)	P _i (kW)
1	RLUL-F015Y-1A	A 1.5 - 8 Y	1.3	1.5
2	RLUL-F015Y-1A1	B 1.5 - 10.1 Y	1.7	2.0
3	RLUL-F020Y-1B	D 2 - 13.1 Y	2.5	2.8
4	RLUL-F030Y-1C	D 3 - 16.1 Y	3.0	3.3
5	RLUL-F050Y-1E	Q 5 - 28.1 Y	5.2	5.7
6	RLUL-F080Y-2B	S 8 - 42 Y	8.0	7.7
7	RLUL-F150Y-2D	S 15 - 56 Y	11.3	11.3
8	RLUL-F150Y-2E	V 15 - 71 Y	13.9	14.0

Q_c (Cooling Capacity) and P_i (Power Input) are based on

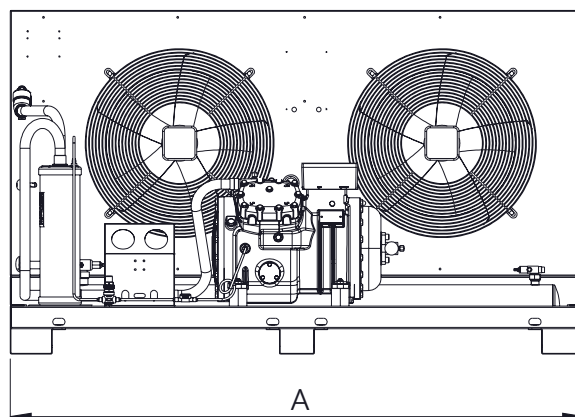
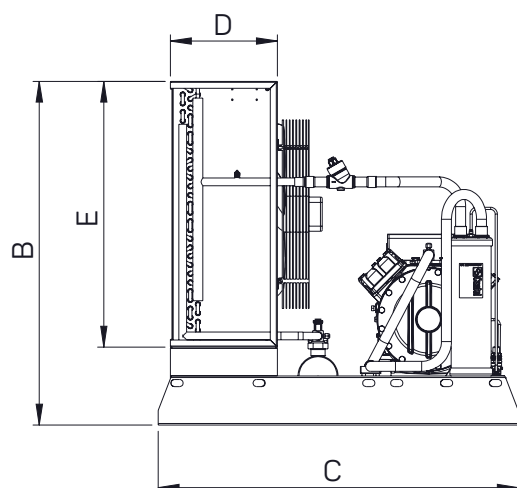
T_e = -25°C and T_c = +50°C, with SH = 5 K and SC = 0 K.

CONDENSER SPECIFICATIONS

Condenser Model	Fan			Electrical		Internal Volume (L)	Heat Transfer Area (m ²)	Header	
	Qty	Diameter (mm)	Air Flow (m ³ /h)*	Supply	Power input for each fan (W)			Inlet (inch)	Outlet (inch)
1A	1	350	2750	380-420 V / 3Ø / 50 Hz	135	1.2	9.5	1/2	1/2
1A1	1	450	5050	380-420 V / 3Ø / 50 Hz	250	1.9	10.2	1/2	1/2
1B	1	450	5050	380-420 V / 3Ø / 50 Hz	250	2.9	15.2	1/2	1/2
1C	1	450	5050	380-420 V / 3Ø / 50 Hz	250	3.8	29.5	5/8	1/2
1D	1	500	6500	380-420 V / 3Ø / 50 Hz	420	4.1	27.0	5/8	5/8
1E	1	500	9410	380-420 V / 3Ø / 50 Hz	850	5.5	42.6	3/4	5/8
2B	2	500	13000	380-420 V / 3Ø / 50 Hz	420	8.3	54.0	7/8	7/8
2C	2	500	18820	380-420 V / 3Ø / 50 Hz	850	8.3	54.0	7/8	7/8
2D	2	500	18820	380-420 V / 3Ø / 50 Hz	850	12.6	82.8	1 1/8	1 1/8
2E	2	500	18820	380-420 V / 3Ø / 50 Hz	850	16.2	110.4	1 1/8	1 1/8
4A	4	500	37640	380-420 V / 3Ø / 50 Hz	850	16.5	88.0	1 1/8	1 1/8
4B	4	500	37640	380-420 V / 3Ø / 50 Hz	850	22.0	170.4	1 1/8	1 1/8
4C	4	630	43200	380-420 V / 3Ø / 50 Hz	850	26.5	175.8	1 3/8	1 3/8

* : Air Flow are defined at 0 pa Back Pressure.

DIMENSIONS



Dimensions in mm

Condenser Model	A	B	C	D	E
1A	630	720	880	220	580
1A1	785	820	950	290	680
1B					
1C					
1D	880	970	1000	310	830
1E					
2B	1640	985	1030	310	845
2C					
2D	1855	1105	1050	290	965
2E					
4A	1650	1755	1100	310	1615
4B					
4C	2060	2250	1350	370	2100

TECHNICAL DATA

Medium Temperature Application - R404A

PARAMETER	UNIT	UNIT MODEL: RLUM				
		F015Y-1B	F020Y-1C	F030Y-1D	F040Y-1E	F070Y-2C
Nominal QC	kW	2.9	4.2	5.8	7.5	12.5
Nominal Pi	kW	2.1	2.9	3.9	5.4	8.9
COMPRESSOR						
Model		A1.5-8Y	B2-10.1Y	D3-13.1Y	D4-16.1Y	Q7-28.1Y
Number of cylinders		2	2	2	2	4
MOC*	A	4.8	6.7	8.8	11.6	17.6
Starting Current	A	20.6	35.9	43.7	52.0	87.3
Power Supply		380-420V / 3Φ / 50Hz				
Motor connection		DOL-Y	DOL-Y	DOL-Y	DOL-Y	DOL-Y
Motor protection		INT69	INT69	INT69	INT69	INT69
Crankcase heater	W	50.0	50.0	50.0	50.0	70.0
Oil charge	Liter	1.0	1.0	0.95	1.1	1.3
Oil type		POE32	POE32	POE32	POE32	POE32
Net Weight	kg	36	40	49	55	79
CONDENSER FAN						
Quantity		1	1	1	1	2
Diameter	mm	450	450	500	500	500
Input Current	A	0.55	0.6	1.0	1.6	1.6
Power Supply		380-420V / 3Φ / 50Hz				
Power input	W	250	250	420	850	850
Air Flow at 0 Pa***	m³/h	5050	5050	6500	9410	18820
CONDENSER COIL						
Area	m²	15.2	29.5	27.0	42.6	54.0
Volume	Liter	2.9	3.8	4.1	5.5	8.3
LIQUID RECEIVER						
Capacity	Liter	5	5	7	7	14
REFRIGERANT PIPING						
Suction Diameter	Inch	5/8	5/8	1 1/8	1 1/8	1 3/8
	mm	15.9	15.9	28.6	28.6	34.9
Liquid Diameter	Inch	3/8	3/8	1/2	1/2	1/2
	mm	9.5	9.5	12.7	12.7	12.7
Unit weight	kg	118	125	150	170	255

*MOC: Maximum Operating Current for each fan.

***: Air Flow at 0 Pa for all fans.

TECHNICAL DATA

Medium Temperature Application - R404A

PARAMETER	UNIT	UNIT MODEL: RLUM			
		F120Y-2D	F200Y-4A	F250Y-4B	F300Y-4C
Nominal QC	kW	17.5	23.8	30.8	37.5
Nominal Pi	kW	11.1	17.4	20.5	24.1
COMPRESSOR					
Model		S12-42Y	S20-56Y	V25-71Y	V30-84Y
Number of cylinders		4	4	4	4
MOC*	A	22.4	38.4	43.5	49.2
Starting Current	A	59.1	87.5	118.3	132.6
Power Supply		380-420V / 3Φ /50Hz			
Motor connection		PWS	PWS	PWS	PWS
Motor protection		INT69	INT69	INT69TML	INT69TML
Crankcase heater	W	70	150	150	150
Oil charge	Liter	2.9	2.9	4.0	4.0
Oil type		POE32	POE32	POE68	POE68
Net Weight	kg	120	132	184	187
CONDENSER FAN					
Quantity		2	4	4	4
Diameter	mm	500	500	500	630
Input current	A	1.6	1.6	1.6	1.6
Power Supply		380-420V / 3Φ /50Hz			
Power Input	W	850	850	850	850
Air Flow at 0 Pa***	m³/h	18820	37640	37640	43200
CONDENSER COIL					
Area	m²	82.8	88.0	170.0	175.8
Volume	Liter	12.6	16.5	22.0	26.5
LIQUID RECEIVER					
Capacity	Liter	20	30	30	40
REFRIGERANT PIPING					
Suction Diameter	Inch	1 3/8	1 5/8	2 1/8	2 1/8
	mm	34.9	41.3	54.0	54.0
Liquid Diameter	Inch	5/8	7/8	7/8	7/8
	mm	15.9	22.2	22.2	22.2
Unit weight	kg	320	400	460	620

*MOC: Maximum Operating Current for each fan.

***: Air Flow at 0 Pa for all fans.

TECHNICAL DATA

Low Temperature Application - R404A

PARAMETER	UNIT	UNIT MODEL: RLUL			
		F015Y-1A	F015Y-1A1	F020Y-1B	F030Y-1C
Nominal QC	kW	1.3	1.7	2.5	3.0
Nominal Pi	kW	1.5	2.0	2.8	3.3
COMPRESSOR					
Model		A1.5-8Y	B1.5-10.1Y	D2-13.1Y	D3-16.1Y
Number of cylinders		2	2	2	2
MOC*	A	4.8	5.5	7.1	9.9
Starting Current	A	20.6	26.8	35.9	43.7
Power Supply		380-420V / 3Φ /50Hz			
Motor connection		DOL-Y	DOL-Y	DOL-Y	DOL-Y
Motor protection		INT69	INT69	INT69	INT69
Crankcase heater	W	50	50	50	50
Oil charge	Liter	1.0	1.0	1.0	1.0
Oil type		POE32	POE32	POE32	POE32
Net Weight	kg	36	38	45	49
CONDENSER FAN					
Quantity		1	1	1	1
Diameter	mm	350	450	450	450
Input Current	A	0.3	0.6	0.6	0.6
Power Supply		380-420V / 3Φ /50Hz			
Power Input	W	135	250	250	250
Air Flow at 0 Pa***	m³/h	2750	5050	5050	5050
CONDENSER COIL					
Area	m²	9.5	10.2	15.2	29.5
Volume	Liter	1.2	1.9	2.9	3.8
LIQUID RECEIVER					
Capacity	Liter	3	3	5	5
REFRIGERANT PIPING					
Suction Diameter	Inch	5/8	5/8	7/8	1 1/8
	mm	15.9	15.9	22.2	28.6
Liquid Diameter	Inch	3/8	3/8	3/8	3/8
	mm	9.5	9.5	9.5	9.5
Unit weight	kg	95	110	125	135

*MOC: Maximum Operating Current for each fan.

***: Air Flow at 0 Pa for all fans.

TECHNICAL DATA

Low Temperature Application - R404A

PARAMETER	UNIT	UNIT MODEL: RLUL			
		F050Y-1E	F080Y-2B	F150Y-2D	F150Y-2E
Nominal QC	kW	5.2	8.0	11.3	13.9
Nominal Pi	kW	5.7	7.7	11.3	14.0
COMPRESSOR					
Model		Q5-28.1Y	S8-42Y	S15-56Y	V15-71Y
Number of cylinders		4	4	4	4
MOC*	A	14.0	20.3	30.7	32.2
Starting Current	A	63	53	75	75
Power Supply		380-420V / 3Φ /50Hz			
Motor connection		DOL-Y	PWS	PWS	PWS
Motor protection		INT69	INT69	INT69	INT69TML
Crankcase heater	W	70	70	70	150
Oil charge	Liter	1.3	2.9	2.9	4.0
Oil type		POE32	POE32	POE32	POE68
Net Weight	kg	79	117	130	170
CONDENSER FAN					
Quantity		1	2	2	2
Diameter	mm	500	500	500	500
Input Current	A	1.6	1.0	1.6	1.6
Power Supply		380-420V / 3Φ /50Hz			
Power Input	W	850	420	850	850
Air Flow at 0 Pa***	m³/h	9411	13000	18822	18822
CONDENSER COIL					
Area	m²	9.5	10.2	15.2	29.5
Volume	Liter	1.2	1.9	2.9	3.8
LIQUID RECEIVER					
Capacity	Liter	7	14	20	30
REFRIGERANT PIPING					
Suction Diameter	Inch	1 3/8	1 3/8	1 5/8	1 5/8
	mm	34.9	34.9	41.3	41.3
Liquid Diameter	Inch	1/2	1/2	5/8	7/8
	mm	12.7	12.7	15.9	22.2
Unit weight	kg	195	295	345	400

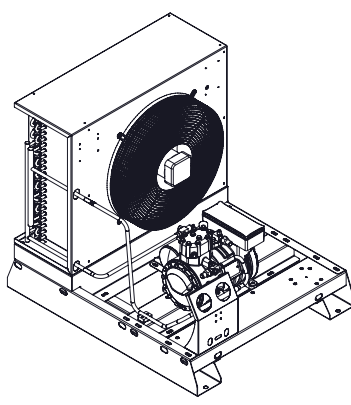
*MOC: Maximum Operating Current for each fan.

***: Air Flow at 0 Pa for all fans.

RLUM SERIES

Refrigerating Capacity (Q) And Compressor Power Input (P) with SH = 6 K and SC = 0 K

Medium Temperature Application | R404A | 50HZ

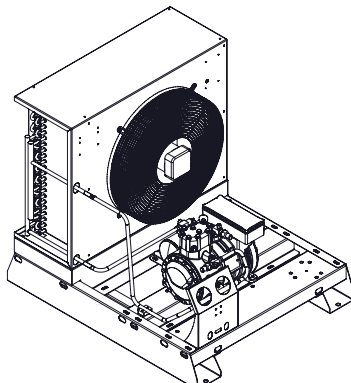
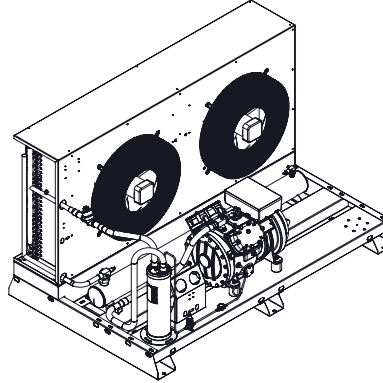
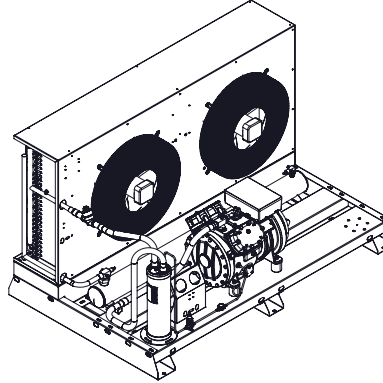
Model	Ta(°C)\Te(°C)	-20	-15	-10	-5	0	5	Diagram
RLUM-F015Y-1B	Q(kW)	35	2	2.5	3.2	4	4.8	
		38	1.8	2.4	3	3.7	4.5	
		40	1.8	2.3	2.8	3.5	4.4	
		44	1.5	2	2.5	3.2	3.9	
		47	1.4	1.8	2.3	2.9	3.7	
		50	1.2	1.6	2	2.6	3.3	
	P(kW)	35	1.4	1.6	1.8	1.9	2.1	
		38	1.5	1.6	1.8	2	2.2	
		40	1.5	1.7	1.8	2	2.2	
		44	1.5	1.7	1.9	2.1	2.3	
		47	1.5	1.7	1.9	2.1	2.3	
		50	1.6	1.8	2	2.2	2.4	
RLUM-F020Y-1C	Q(kW)	35	2.9	3.6	4.4	5.4	6.3	
		38	2.7	3.4	4.1	5	5.9	
		40	2.6	3.2	4	4.8	5.8	
		44	2.3	2.9	3.6	4.4	5.2	
		47	2.1	2.7	3.3	4.1	4.9	
		50	1.9	2.5	3	3.7	4.5	
	P(kW)	35	2	2.2	2.5	2.7	2.9	
		38	2	2.3	2.5	2.8	3	
		40	2.1	2.3	2.5	2.8	3	
		44	2.1	2.4	2.6	2.9	3.2	
		47	2.2	2.4	2.7	3	3.2	
		50	2.2	2.4	2.7	3	3.3	
RLUM-F030Y-1D	Q(kW)	35	3.9	5	6	7.3	8.6	
		38	3.7	4.6	5.7	6.8	8	
		40	3.5	4.4	5.4	6.5	7.8	
		44	3.2	3.9	4.9	6	7	
		47	2.9	3.7	4.5	5.5	6.6	
		50	2.7	3.4	4.2	5	O.S.	
	P(kW)	35	2.6	2.9	3.2	3.5	3.8	
		38	2.6	2.9	3.2	3.6	3.9	
		40	2.7	3	3.3	3.7	4	
		44	2.7	3.1	3.4	3.8	4.2	
		47	2.8	3.2	3.6	3.9	4.3	
		50	2.9	3.3	3.6	4.1	O.S.	

	Out of Scope
	Normal Working Range

RLUM SERIES

Refrigerating Capacity (Q) And Compressor Power Input (P) with SH = 6 K and SC = 0 K

Medium Temperature Application | R404A | 50HZ

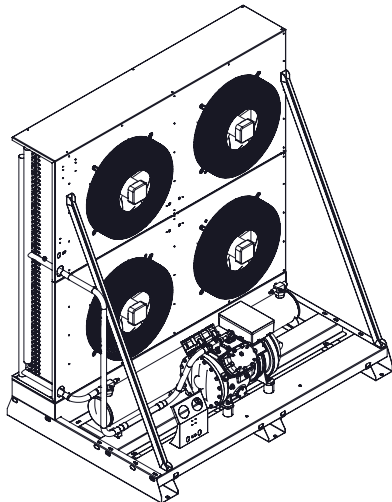
Model	Ta(°C)\Te(°C)	-20	-15	-10	-5	0	5	Diagram
RLUM-F040Y-1E	Q(kW)	35	5.1	6.4	7.7	9.4	11.1	
		38	4.7	6	7.4	8.8	10.6	
		40	4.5	5.7	7	8.6	10.1	
		44	4.2	5.3	6.3	7.7	9.3	
		47	3.8	4.8	6	7.1	8.6	
		50	3.5	4.4	5.5	6.7	O.S.	
	P(kW)	35	3.4	3.8	4.2	4.6	5	
		38	3.5	3.9	4.3	4.7	5.1	
		40	3.5	4	4.4	4.8	5.3	
		44	3.6	4	4.5	5	5.4	
		47	3.6	4.1	4.6	5.1	5.5	
		50	3.7	4.2	4.7	5.1	O.S.	
RLUM-F070Y-2C	Q(kW)	35	8.9	10.8	13.3	16.1	18.9	
		38	8.2	10.3	12.3	15	18.1	
		40	7.8	9.8	12	14.3	17.2	
		44	7	8.8	10.8	13.2	15.4	
		47	6.4	8	9.9	12	14.6	
		50	5.9	7.5	9.2	10.9	13.2	
	P(kW)	35	5.4	6	6.6	7.2	7.8	
		38	5.5	6.1	6.8	7.4	8	
		40	5.5	6.2	6.8	7.5	8.2	
		44	5.7	6.4	7.1	7.8	8.5	
		47	5.8	6.5	7.2	8	8.7	
		50	5.8	6.6	7.3	8.2	9	
RLUM-F120Y-2D	Q(kW)	35	11.9	15	18.7	22.4	26.5	
		38	11.3	13.9	17.3	20.8	25.3	
		40	10.7	13.1	16.4	20.2	24	
		44	9.4	12	15.1	18.1	21.6	
		47	8.5	10.9	13.7	16.5	20.3	
		50	7.9	10.1	12.4	15.5	O.S.	
	P(kW)	35	6.8	7.8	8.7	9.7	10.7	
		38	6.9	7.9	8.9	9.9	10.9	
		40	7	8	9	10	11.1	
		44	7	8.1	9.2	10.3	11.5	
		47	7.1	8.2	9.3	10.5	11.7	
		50	7.1	8.2	9.4	10.6	O.S.	

	Out of Scope
	Normal Working Range

RLUM SERIES

Refrigerating Capacity (Q) And Compressor Power Input (P) with SH = 6 K and SC = 0 K

Medium Temperature Application | R404A | 50HZ

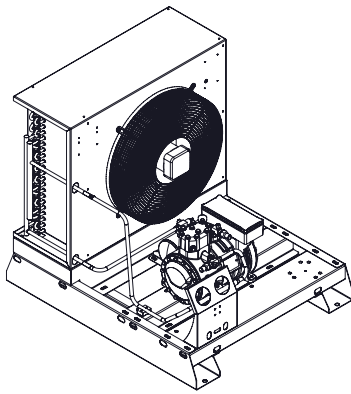
Model	Ta(°C)\Te(°C)	-20	-15	-10	-5	0	5	Diagram
RLUM-F200Y-4A	Q(kW)	35	16.3	20.4	25.3	30.4	37	
		38	15.4	18.9	23.5	28.9	34.4	
		40	14.6	18.4	22.2	27.4	32.6	
		44	12.8	16.3	20.3	24.4	30	
		47	11.5	14.7	18.4	22.9	27.3	
		50	10.6	13.6	16.5	20.6	25.5	
	P(kW)	35	10.2	11.5	12.8	14.2	15.5	
		38	10.4	11.8	13.1	14.5	16	
		40	10.5	11.9	13.4	14.8	16.3	
		44	10.8	12.2	13.7	15.3	16.8	
		47	10.9	12.4	13.9	15.5	17.2	
		50	11	12.5	14.1	15.8	17.4	
RLUM-F250Y-4B	Q(kW)	35	21	26.4	32	39.2	46.4	
		38	19.4	24.5	30.4	36.4	44.2	
		40	18.8	23.1	28.8	35.4	42	
		44	16.7	21.2	25.7	31.7	38.7	
		47	15.1	19.3	24.1	28.9	35.4	
		50	13.6	17.4	21.8	27.1	O.S.	
	P(kW)	35	12.7	14.3	16	17.5	19.2	
		38	12.9	14.6	16.2	17.9	19.5	
		40	13	14.7	16.4	18.1	19.9	
		44	13.2	14.9	16.8	18.6	20.3	
		47	13.3	15.1	16.9	18.9	20.7	
		50	13.4	15.2	17.1	19.1	O.S.	
RLUM-F300Y-4C	Q(kW)	35	25.7	32.2	38.9	47.5	56.1	
		38	23.8	29.9	36.1	44.2	52.2	
		40	22.5	28.4	35.2	42	50.9	
		44	20.7	25.3	31.5	38.7	45.8	
		47	18.8	23.8	28.7	35.4	43.2	
		50	17	21.5	26.9	32.2	O.S.	
	P(kW)	35	15.4	17.2	19.2	21	22.9	
		38	15.6	17.6	19.7	21.6	23.7	
		40	15.8	17.8	19.8	22	23.9	
		44	16.1	18.3	20.5	22.6	25	
		47	16.4	18.6	21	23.3	25.5	
		50	16.7	19	21.3	23.9	O.S.	

	Out of Scope
	Normal Working Range

RLUL SERIES

Refrigerating Capacity (Q) And Compressor Power Input (P) with SH = 5 K and SC = 0 K

Low Temperature Application | R404A | 50HZ

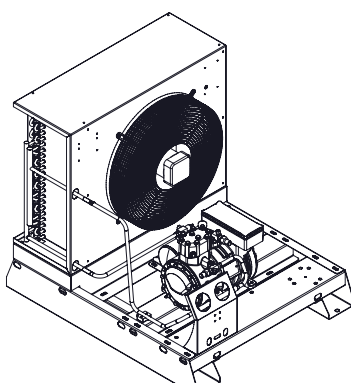
Model		Ta(°C)\Te(°C)	-30	-25	-20	-15	-10	-5	Diagram
RLUL-F015Y-1A	Q(kW)	35	1.1	1.4	1.8	2.2	2.8	3.4	
		38	1	1.3	1.6	2	2.5	3.1	
		40	0.9	1.2	1.5	1.9	2.4	2.9	
		44	0.8	1	1.3	1.7	2.1	2.6	
		47	0.7	0.9	1.2	1.5	1.9	2.4	
	P(kW)	35	1.1	1.3	1.5	1.7	1.8	2	
		38	1.1	1.3	1.5	1.7	1.9	2.1	
		40	1.1	1.3	1.5	1.7	1.9	2.1	
		44	1.1	1.3	1.5	1.7	2	2.2	
		47	1.1	1.3	1.6	1.8	2	2.2	
RLUL-F015Y-1A1	Q(kW)	35	1.6	2.1	2.6	3.3	3.9	4.6	
		38	1.5	1.9	2.5	3	3.7	4.4	
		40	1.4	1.8	2.3	2.9	3.5	4.2	
		44	1.3	1.7	2.1	2.6	O.S.	O.S.	
		47	1.2	1.5	2	O.S.	O.S.	O.S.	
	P(kW)	35	1.5	1.7	2	2.2	2.5	2.8	
		38	1.5	1.8	2	2.3	2.5	2.8	
		40	1.5	1.8	2	2.3	2.6	2.9	
		44	1.6	1.8	2.1	2.4	O.S.	O.S.	
		47	1.6	1.8	2.1	O.S.	O.S.	O.S.	
RLUL-F020Y-1B	Q(kW)	35	2.3	2.9	3.7	4.6	5.5	6.5	
		38	2.2	2.8	3.5	4.2	5.1	6	
		40	2.1	2.7	3.3	4.1	4.9	5.9	
		44	1.8	2.4	3	3.7	O.S.	O.S.	
		47	1.7	2.2	O.S.	O.S.	O.S.	O.S.	
	P(kW)	35	2.1	2.4	2.7	3.1	3.4	3.8	
		38	2.2	2.5	2.8	3.2	3.6	4	
		40	2.2	2.5	2.9	3.2	3.6	4	
		44	2.3	2.6	3	3.4	O.S.	O.S.	
		47	2.3	2.7	O.S.	O.S.	O.S.	O.S.	

	Out of Scope
	Normal Working Range

RLUL SERIES

Refrigerating Capacity (Q) And Compressor Power Input (P) with SH = 5 K and SC = 0 K

Low Temperature Application | R404A | 50HZ

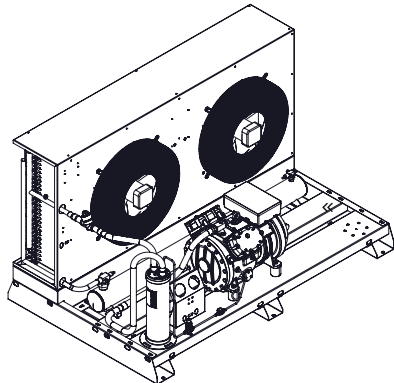
Model	Ta(°C)\Te(°C)	-30	-25	-20	-15	-10	-5	Diagram
RLUL-F030Y-1C	Q(kW)	35	2.8	3.6	4.6	5.6	6.7	
		38	2.6	3.4	4.2	5.1	6.2	
		40	2.4	3.2	4	4.9	6	
		44	2.2	2.8	3.6	4.4	O.S.	
		47	2	2.5	O.S.	O.S.	O.S.	
	P(kW)	35	2.6	3	3.4	3.9	4.5	
		38	2.6	3	3.5	4	4.6	
		40	2.6	3.1	3.6	4.1	4.6	
		44	2.6	3.1	3.7	4.2	O.S.	
		47	2.7	3.2	O.S.	O.S.	O.S.	
RLUL-F050Y-1E	Q(kW)	35	4.9	6.2	7.8	9.5	11.4	
		38	4.5	5.8	7.2	8.8	10.5	
		40	4.2	5.5	6.8	8.3	10.2	
		44	3.8	4.8	6.2	7.5	O.S.	
		47	3.4	4.3	O.S.	O.S.	O.S.	
	P(kW)	35	4.1	4.7	5.4	6.1	6.9	
		38	4.1	4.8	5.5	6.2	7	
		40	4.1	4.8	5.5	6.3	7.1	
		44	4.1	4.9	5.6	6.4	O.S.	
		47	4.1	4.9	O.S.	O.S.	O.S.	

	Out of Scope
	Normal Working Range

RLUL SERIES

Refrigerating Capacity (Q) And Compressor Power Input (P) with SH = 5 K and SC = 0 K

Low Temperature Application | R404A | 50HZ

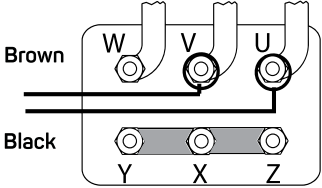
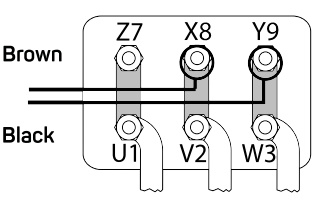
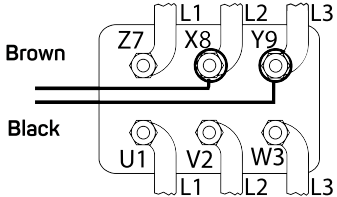
Model		Ta(°C)\Te(°C)	-30	-25	-20	-15	-10	-5	Diagram
RLUL-F080Y-2B	Q(kW)	35	7.6	9.7	12.0	14.7	17.5	20.7	
		38	7.0	9.2	11.0	13.5	15.9	19.0	
		40	6.6	8.6	10.4	13.1	15.6	18.0	
		44	5.8	7.5	9.5	11.4	O.S.	O.S.	
		47	5.3	7.0	O.S.	O.S.	O.S.	O.S.	
	P(kW)	35	5.8	6.8	7.8	8.8	9.9	11	
		38	5.8	6.8	7.9	8.9	10.1	11.3	
		40	5.8	6.8	7.9	9	10.1	11.3	
		44	5.8	6.9	8	9.1	O.S.	O.S.	
		47	5.8	6.9	O.S.	O.S.	O.S.	O.S.	
RLUL-F150Y-2D	Q(kW)	35	10.8	13.7	16.8	20.7	24.8	29.5	
		38	10.2	12.7	15.9	19.2	23	27.4	
		40	9.6	12	15.1	18.2	22.4	26.7	
		44	8.5	10.9	13.4	16.7	O.S.	O.S.	
		47	7.6	9.9	12.5	O.S.	O.S.	O.S.	
	P(kW)	35	8	9.3	10.7	12.1	13.6	15.1	
		38	8	9.4	10.8	12.4	13.9	15.5	
		40	8.1	9.5	11	12.5	14	15.7	
		44	8.2	9.6	11.2	12.8	O.S.	O.S.	
		47	8.2	9.7	11.3	O.S.	O.S.	O.S.	
RLUL-F150Y-2E	Q(kW)	35	12.9	16.4	20.0	24.1	28.8	O.S.	
		38	12.2	15.2	18.5	22.9	27.4	O.S.	
		40	11.5	14.3	18.0	21.7	26.0	O.S.	
		44	10.1	13.0	15.9	O.S.	O.S.	O.S.	
		47	9.0	11.8	O.S.	O.S.	O.S.	O.S.	
	P(kW)	35	10.3	12.0	14.0	16.0	18.1	O.S.	
		38	10.3	12.2	14.3	16.3	18.4	O.S.	
		40	10.4	12.3	14.3	16.5	18.7	O.S.	
		44	10.5	12.4	14.6	O.S.	O.S.	O.S.	
		47	10.5	12.5	O.S.	O.S.	O.S.	O.S.	

	Out of Scope
	Normal Working Range

IMPORTANT INFORMATION

Only qualified personnel are permitted to install and repair compressors. All electrical connections of the compressor and its accessories must be carried out by authorized personnel only.

MOTOR POWER SUPPLY

Series A B C D F Q	Series S V Z W	
D O L 380-420/3/50	D O L 380-420/3/50	P W S 380-420/3/50
		

Terminal connections

Black and brown cables are related to a module protection device.

If the compressor has got this device, the connection of the two cables must be done as indicated in the drawings

When a 3-phase asynchronous motor is started directly online, an inrush current occurs, typically 3 to 8 times the nominal operating current, depending on the motor type.

For Frascold Series S, V, Z, and W compressors, both DOL (Direct-On-Line) and PWS (Part-Winding Start) motor starting methods are supported; however, PWS is the recommended starting method.

For larger compressors used in our units, the motor connection is Y/YY. In this type, the stator winding is divided into two parallel insulated parts. This allows sequential switching of the part windings, resulting in a significantly reduced starting current.

CRANKCASE (OIL HEATER)

The oil heater must be energized inversely to the compressor operation.

- Compressor OFF → Oil heater ON
- Compressor ON → Oil heater OFF

REFRIGERATION OILS FOR FRASCOLD COMPRESSORS

Compressor	Oil Charge
Series A, B, D, Q & S	POE32
Series V, Z & W	POE68

Refrigerant Circuit Vacuum

Perform evacuation in accordance with EN 378-2 and applicable local regulations.

- Open all shut-off and solenoid valves to evacuate the complete refrigerant circuit.
- Use a double-stage vacuum pump and suitable manifold/hoses.
- Achieve a minimum vacuum of **20 Pa**.
- Maintain the vacuum after energizing the oil heater until the compressor oil temperature reaches approximately **20 K above the ambient temperature**.
- After stopping the pump, the vacuum level should not increase by more than **20%**. If it does, check for leaks and repeat the evacuation procedure.

ELECTRONIC SAFETY DEVICE FOR LUBRICATION CONTROL

The Frascold compressors of the V, Z & W series are supplied with an electronic pressure switch for lubrication control. The device monitors the differential pressure in the lubrication system and stops the compressor in case of detected measurement not complying with the set safety values. The electronic pressure switch is connected directly to the compressor oil pump and does not require additional fittings.



Oil pump with INT250 Switch pressure switch

DISCHARGE TEMPERATURE CUTOFF

The discharge temperature In certain extreme conditions (such as high condensing temperatures, low evaporating pressures or extremely high compression ratios), may reach values that can damage the compressor. All V, Z & W series models are supplied with a safety device which, in combination with the electronic control module, stops the compressor In the event that the discharge temperature exceeds the set safety limit.



Discharge temperature sensor

INT69

Standard protection equipment on A, B, D, Q and S series compressors consists of a chain of PTC or AMS thermistors inserted in the electric motor stator and connected to the Kriwan INT69 electronic control module inside the electrical box. the INT 69 device is triggered and stops the compressor in the event of thermal overload due to electric motor or mechanical issues



Terminal connection M5 for compressors A-Q to be connected to the faston of the device (for S compressors is M6)

Terminal connection M8 for compressors V-W to be connected to the faston of the device

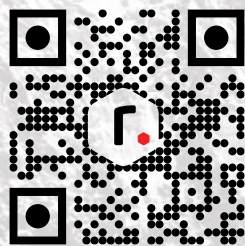
INT69 TML DIAGNOSE

Kriwan INT69 TML Diagnose protection device. This unit provide all of the protection data logging & remote monitoring capabilities of the INT69 & INT69 Diagnose but with the additional lubrication protection.

Frascold V, Z & W series compressors come standard with INT69 TML diagnose module.

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Contact Us

For inquiries, consultations, or to learn more about our innovative refrigeration solutions, please get in touch with us:

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For customer support email us:

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