

**Specification for
Embraco Scroll Compressor**

MODEL : EAF108E-A1-NAAG

RECORD OF REVISIONS

NO.	PAGE	DESCRIPTION	DATE	REVD.

EAF108E-A1-NAAG Technical Specifications

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1 . Specifications

Model	EAF108E-A1-NAAG	Power	9HP
Displacement(m³/h)	24.8	Refrigerant	R22
Cooling Cap.(W) ^(a)	26315	Input Power(W) ^(a)	7686
Rated Load Amps(A) ^(a)	14.2	COP ^(a)	3.42
Max. Vibration(mm) ^(a)	<0.10	Sound Level (dBA) ^(a)	76
Test Power Source ^(a)	50Hz-380V	Rated Speed (RPM) ^(a)	2900
Max. Moisture (mg)	< 500	Max. Impurity (mg)	< 100
Oil Circulation (%) ^(a)	<1%	Weight (kg , With Oil)	55
Electrical Specification	Power Source	380V-420V 3~50Hz 460V 3~60Hz	
	Run Capacitor	/	
	Min. Operation Voltage(V) ^(b)	342	
	Max. Operation Voltage(V)	462	
	Min. Starting Voltage(V) ^(c)	323	
	Lock Rotor Amps(A)	100.00	
	Max. Operation Current ^(d)	19.8 (A)	
	Motor Insulation Temp.(°C)	130	
Terminal Resistance (Ω) (± 10%) At 25 °C	T1(C)-T2(S)	1.34	
	T2(S)-T3(R)	1.26	
	T3(R)-T1(C)	1.31	
Lubrication	Oil Type	3GS	
	Initial Charge(L)	3.5	
	Recharge(L)	3	
Electrical Safety	Insulation Voltage(V)	2500	
	Leakage Current(mA)	≤5	
	Insulation Resistance(MΩ)	>20	
	Ground Resistance(Ω)	<0.1	
Max. Operation Pressure	High Side(MPa)	3	
	Low Side(MPa)	2	

Notes :

- a) Test Condition: Based On Test Power Voltage , First Rated Condition
- b) Test Condition: ET 13°C , CT 65°C , SH 11.1K
- c) Test Condition : Discharge/Suction Pressure Set To Refrigeration Saturation Pressure At 40°C
- d) Test Condition: ET 13°C , CT 65°C , SH11.1K , 90% Min. Rated Voltage

2 . Configuration

Suction/Discharge	Injection	Sight Glass	Thermal Tube
	NONE		

3 . Certifications

Certifications	Report N.O.
CB	CNCVC1150-A1
CE	LVDJX23-0057
CCC	CVC23008010772
PED	/
UL	/

4 . First Test Condition (°C)

Cooling Cap. and COP No Less Than 95% of Nominal Value , Power and Current No More Than 105% of Nominal Value (Performance And Sound Power Need 24hrs Break In At High Load Running Condition)。

Item	Parameter	Value
1	Evaporating Temp.	7.2
2	Condensing Temp.	54.4
3	Ambient Temp.	35.0
4	Super Heat	11.1
5	Sub Cooling	8.3

5. Compressor Protection Parts

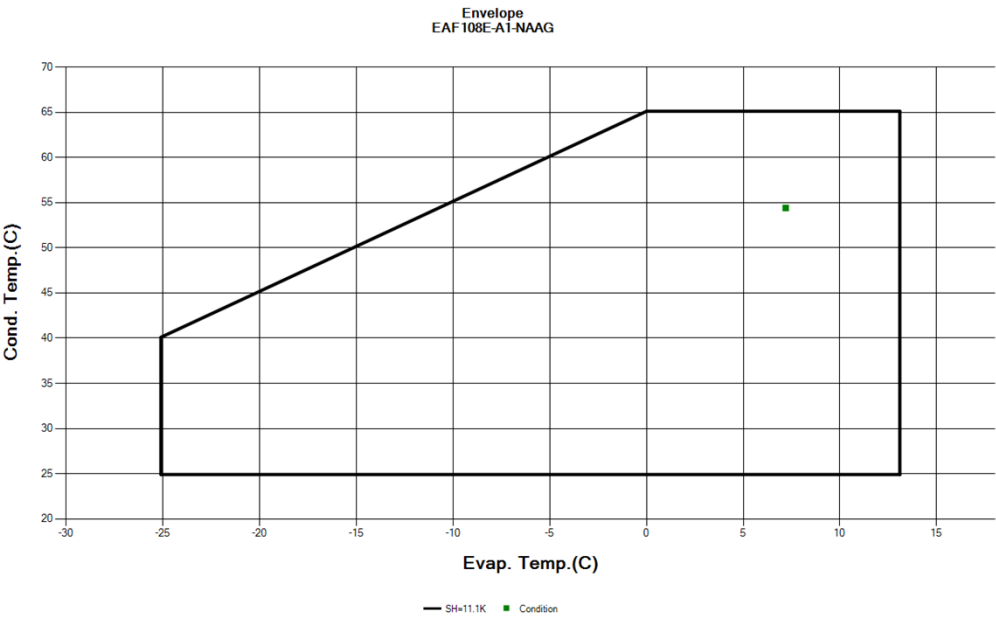
- a) Thermal Protection Inside:37HM546-20 ;
- b) Internal Pressure Release Valve , Open Range (Pressure Difference Between Discharge And Suction) : 2.76~3.10Mpa

6. Performance Data- EAF108E-A1-NAAG

kW	Temp. Cond.(°C)	Temp. Evap. (°C)								
		-25	-20	-15	-10	-5	0	5	10	13
Cooling Cap.	65						17.52	21.19	25.38	28.18
	60					15.44	18.85	22.72	27.14	30.09
	55				13.40	16.54	20.11	24.17	28.81	31.90
	50			11.45	14.31	17.59	21.31	25.55	30.38	33.62
	45		9.60	12.20	15.18	18.58	22.45	26.85	31.88	35.24
	40	7.90	10.22	12.92	16.01	19.53	23.53	28.09	33.30	36.79
	35	8.42	10.83	13.61	16.81	20.44	24.57	29.28	34.66	38.27
	30	8.92	11.42	14.29	17.58	21.32	25.58	30.42	35.97	39.71
	25	9.42	11.99	14.95	18.34	22.18	26.55	31.54	37.26	41.12
Input Power	65						9.67	9.66	9.68	9.70
	60					8.64	8.64	8.65	8.68	8.72
	55				7.70	7.73	7.74	7.77	7.81	7.85
	50			6.83	6.89	6.93	6.96	6.99	7.05	7.09
	45		6.01	6.11	6.18	6.23	6.27	6.31	6.37	6.42
	40	5.21	5.37	5.48	5.56	5.62	5.66	5.71	5.78	5.84
	35	4.64	4.81	4.93	5.01	5.07	5.13	5.18	5.26	5.31
	30	4.13	4.31	4.43	4.52	4.59	4.64	4.70	4.78	4.84
	25	3.67	3.85	3.98	4.07	4.14	4.20	4.26	4.34	4.40

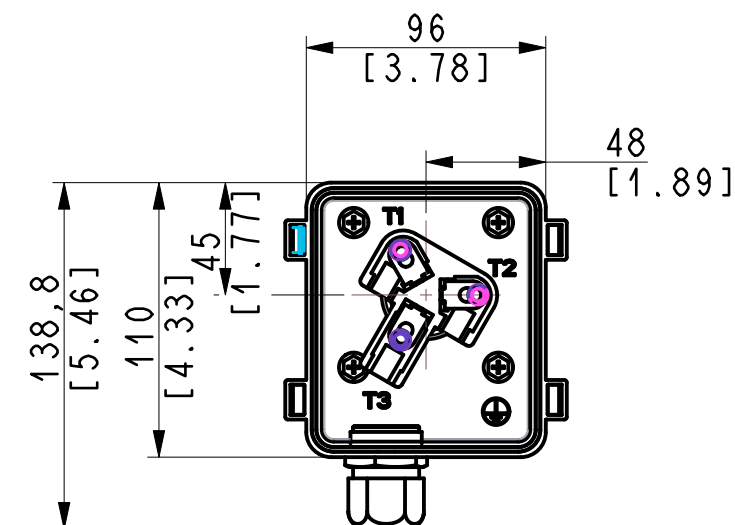
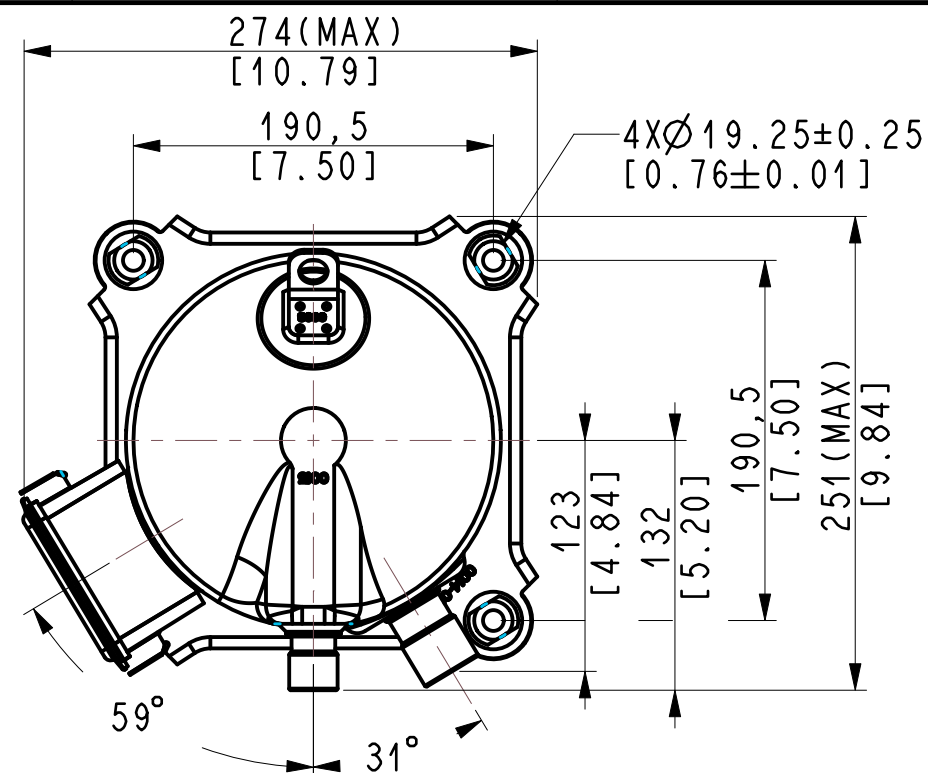
Notes : Capacity Calculation Based On SH=11.1K,SC=8.3K

7. Application Envelope

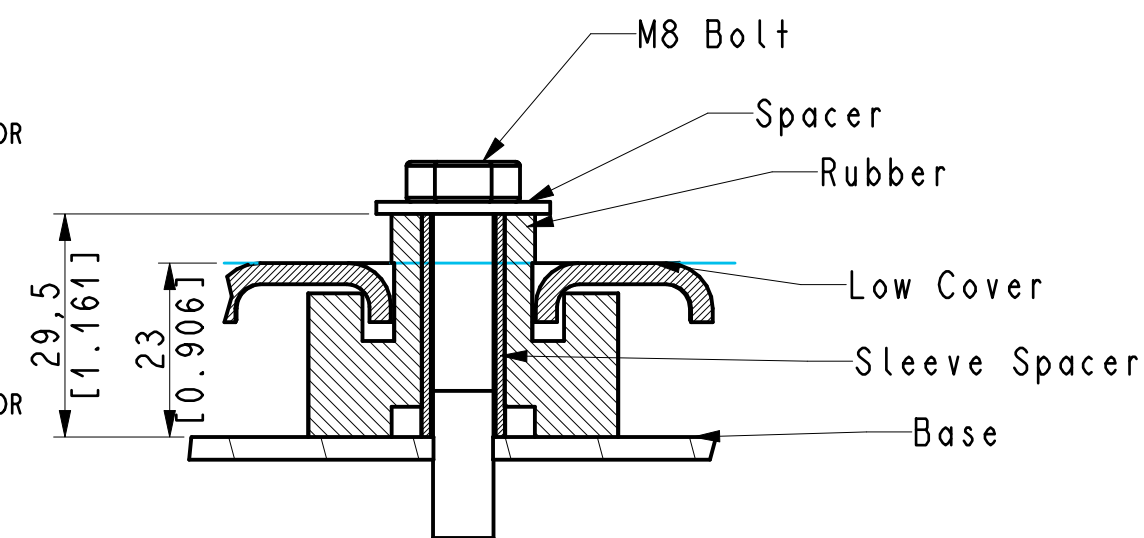


For Compressor Safty, Shutdown Compressor When DLT Above 125°C ;ReStart Compressor When DLT Below 85°C

8. Drawing



TERMINAL BOX LAYOUT
SCALE 1:3

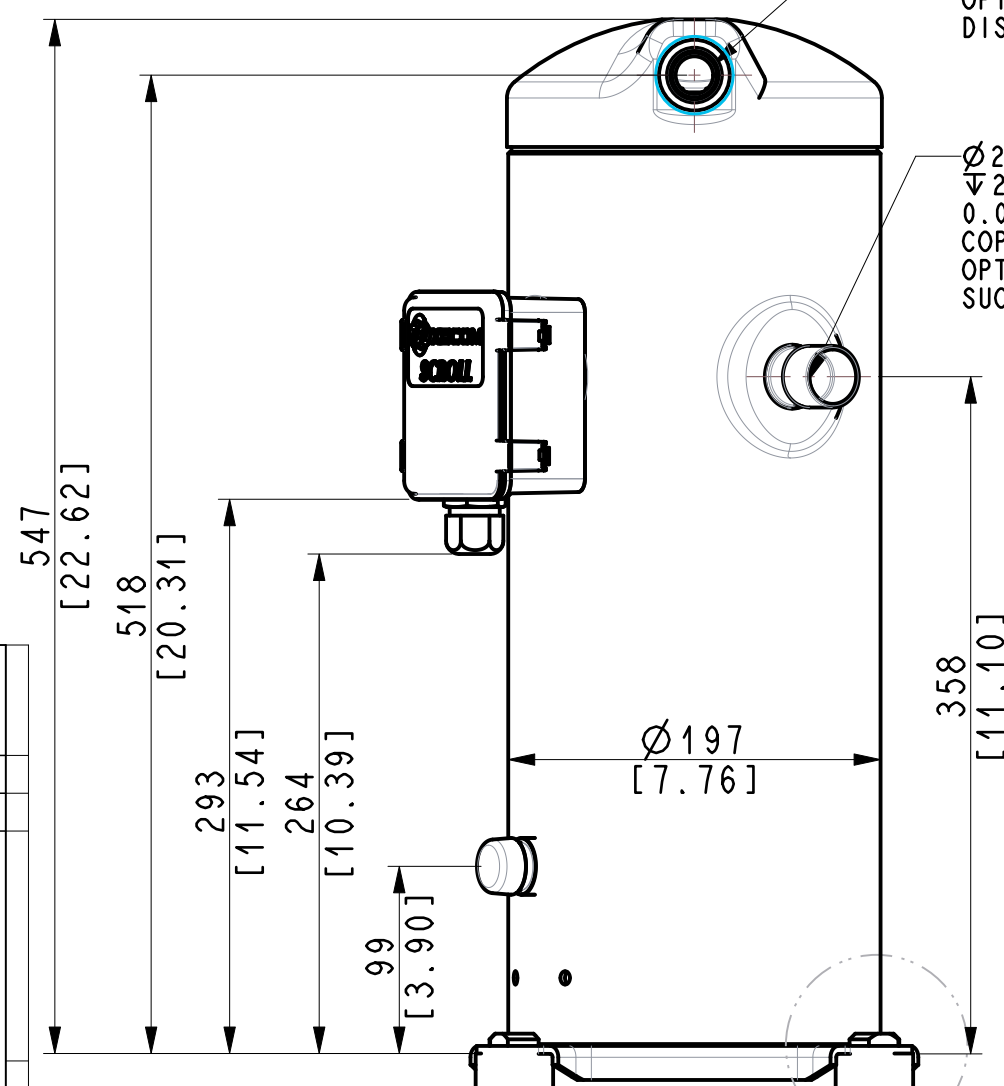


DETAIL FOOT

$\varnothing 22.35-22.45$ [0.880-0.884] I.D.
 $\nabla 17.3$ [0.68] MIN.
 0.04-0.08 [0.002-0.003] THICK EXTERIOR AND INTERIOR
 COPPER PLATED STEEL DISCHARGE FITTING
 OPTIONAL: [1.25-12 UNF-2A] THREAD ROTALOCK SPUD
 DISCHARGE FITTING

$\varnothing 28.83-28.93$ [1.135-1.139] I.D.
 $\nabla 22.6$ [0.89] MIN.
 0.04-0.08 [0.002-0.003] THICK EXTERIOR AND INTERIOR
 COPPER PLATED STEEL SUCTION FITTING
 OPTIONAL: [1.75-12 UN-2A] THREAD ROTALOCK SPUD
 SUCTION FITTING

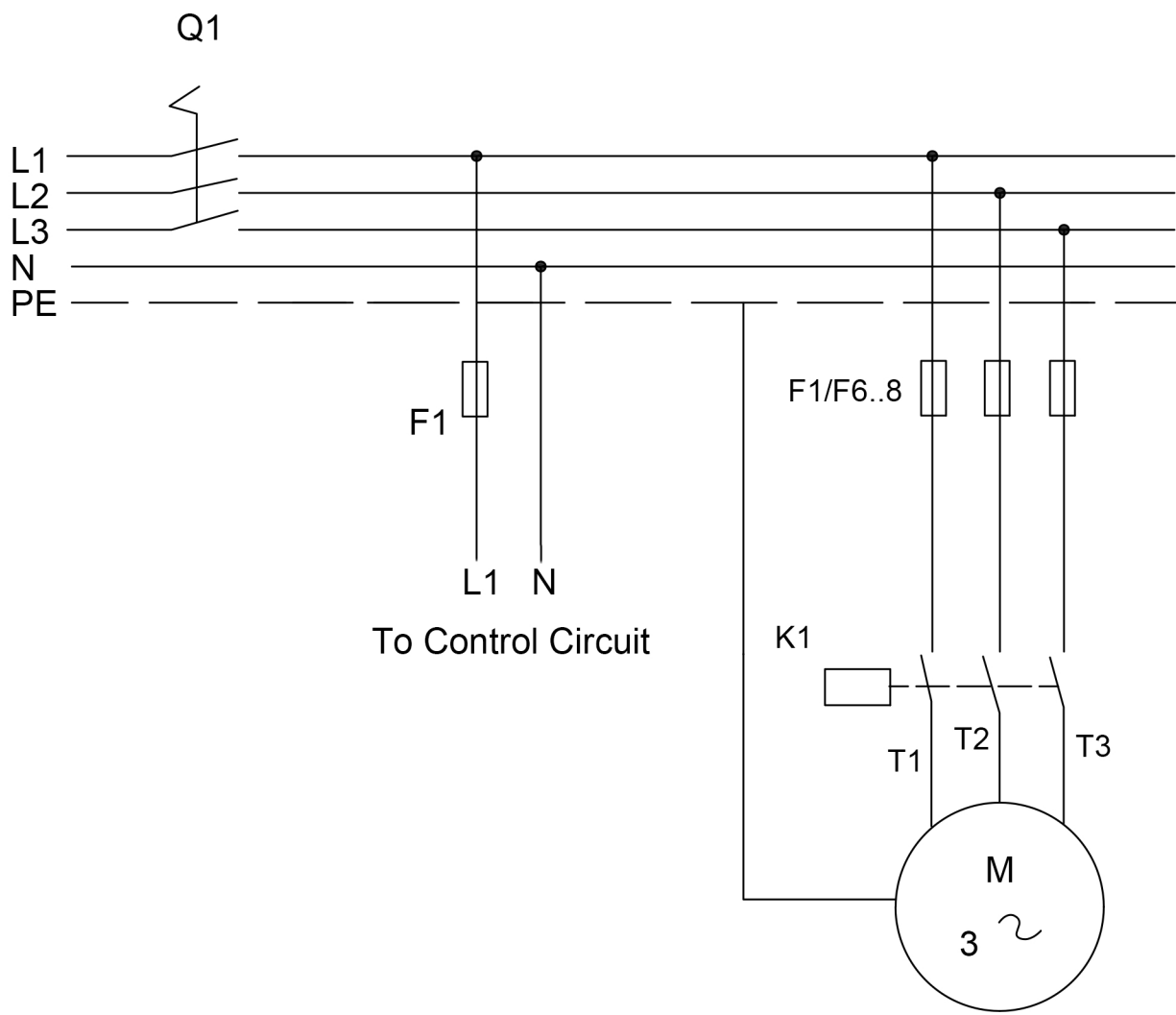
- Notes:
- (1) All tolerances 1.5mm [0.06in] unless otherwise specified
 - (2) All fittings: + 3.0mm 0.12in
 - (3) Tube ends must be plugged
 - (4) All units are in mm[inch]



SEE DETAIL FOOT

MATERIAL :		embraco Nidec		GEN. TOL. :	
				ANG. TOL. :	
				SCALE : 1,000	
				UNIT: mm	
CODE :		TITLE, DOCUMENT TYPE		REPLACE:	
				V0	
				No.	
DRAWN :		1900Outline drawing (Welded sight glass)		801-0003-40EN	
APP.:					
ECM :					
DATE :		THIS MATERIAL IS CONFIDENTIAL AND PROPRIETARY TO EMBRACO, AND MAY NOT BE REPRODUCED, DISCLOSED, DISTRIBUTED OR USED WITHOUT PERMISSION		SHEET NUMBER: 1 OF 1	

THIS MATERIAL IS CONFIDENTIAL AND PROPRIETARY TO EMBRACO,
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Electrical Schematics

L1/L2/L3N/PE: 3 Phase Lines (line/neutral/ground)

Q1:Manual Switch

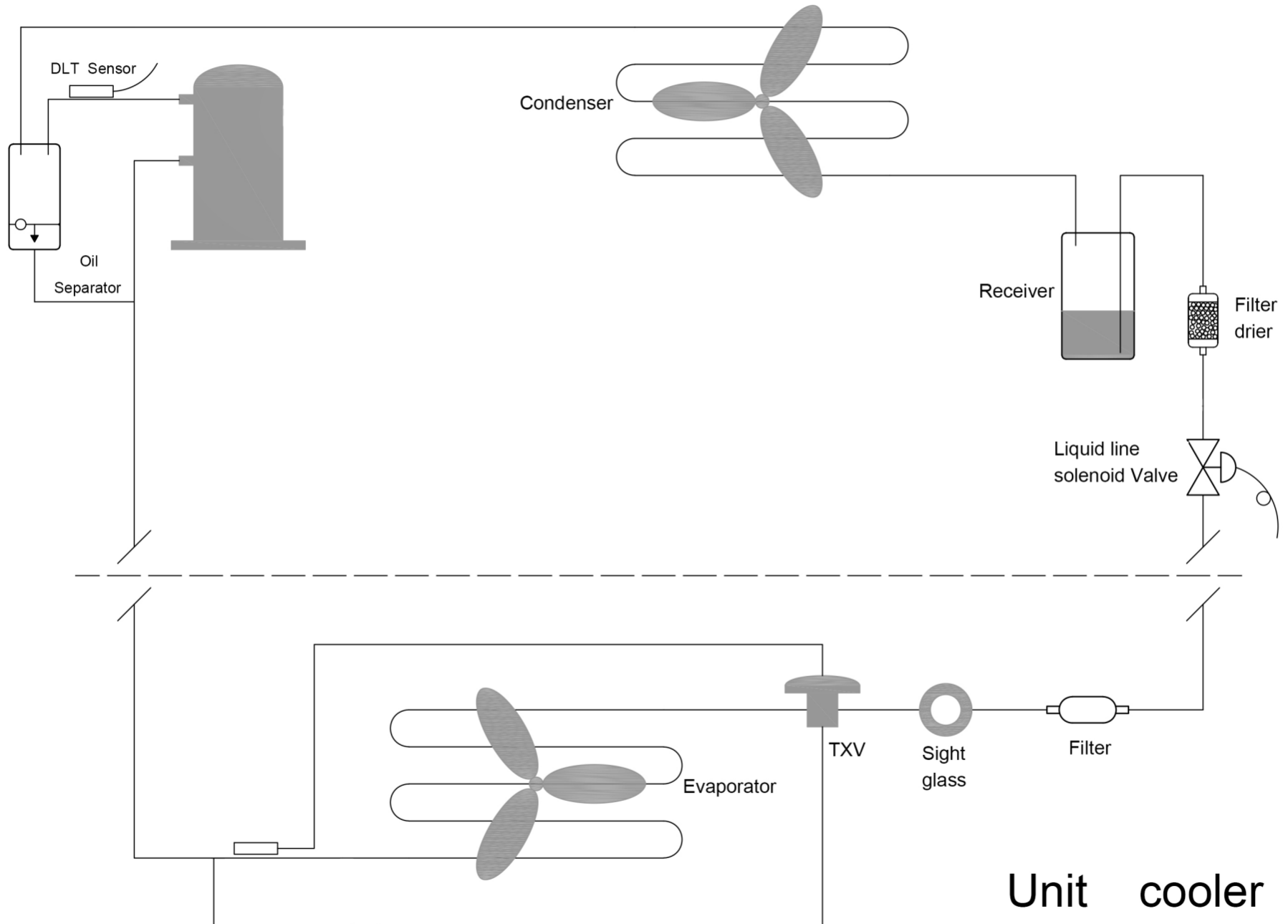
F1/F6..8:Fuse

K1:Compressor Contactor

M:Compressor Motor

R/C/S:Compressor Terminal

General System Schematic



附件列表
Accessories List

Part N.O.	Specification	Part Name	Description	Qty	Type	Picture
019-0002-00	11.1*29.5	Sleeve Spacer		4	Standard	
200-0001-00		Rubber		4	Standard	
100-0006-00	M5x8,GB/T5789	Bolt		7	Standard	

附件列表
Accessories List

034-0003-03		Sound Jacket		1	Optional	
028-0002-00	OD:197 90W 220V, L:618.6	Crank Heater		1	Optional	
017-0001-00	IP54	Terminal Box		1	Standard	
009-0025-00		Terminal Cover Seal		1	Standard	

附件列表
Accessories List

009-0023-00		Terminal Seal		1	Standard	
017-0002-00	IP54	Terninal Cover		1	Standard	
031-0015-00		Oil Adapter		1	Optional	
033-0005-00	OUT580R/GOA114	Oil Regulator		1	Optional	

附件列表
Accessories List

031-0017-00	1-1/4"-12UNF-A	RotaLock Connector		1	Optional	
031-0018-00	1 3/4-12UNF 2A	RotaLock Connector		1	Optional	
530-0001-00		Sight glasses		1	Standard	
200-0002-00		Steel		4	Optional	