

涡旋压缩机技术规格书

Specification For Scroll Compressor

型号(MODEL): XFV20F-C1-400

常州赛科为能源科技有限公司
Changzhou XECOM Energy Technologies Co.,Ltd.

编制 (DRAFT)	审核 (CHECK)	批准 (APPROVE)
		

规格书变更记录

RECORD OF REVISIONS

版本号 NO.	变更页码 PAGE	变更内容 DESCRIPTION	变更日期 DATE	修订人 REVD.

XFV20F-C1-400 Technical Specifications

Contents

1 . Specifications	1
2 . Configuration	1
3 . Attachments	2
4 . First Test Condition (°C)	2
5 . Internal Protection Parts	2
6. Performance Data	3
7. Application Envelope	4
8. Drawing	4

1 . Specifications

Model	XFV20F-C1-400	Power	3HP
Displacement(m ³ /h)	10.1	Refrigerant	R290
Cooling Cap.(W) ^(a)	3299	Input Power(W) ^(a)	1820
Rated Load Amps(A) ^(a)	10.0	COP ^(a)	1.81
Max. Vibration(mm) ^(a)	<0.10	Sound Level (dBA) ^(a)	75
Test Power Source ^(a)	60Hz-220V	Rated Speed (RPM) ^(a)	3500
Max. Moisture (mg)	< 500	Max. Impurity (mg)	< 100
Oil Circulation (%) ^(a)	<1%	Weight (kg, With Oil)	29.0
Electrical Specification	Power Source	208V-230V 1~60Hz	
	Run Capacitor	70μF/450V	
	Min. Operation Voltage(V) ^(b)	187	
	Max. Operation Voltage(V)	253	
	Min. Starting Voltage(V) ^(c)	177	
	Lock Rotor Amps(A)	121.50	
	Max. Operation Current ^(d)	25.1 (A)	
	Motor Insulation Temp.(°C)	130	
Terminal Resistance (Ω) (± 10%) At 25 °C	T1(C)-T2(S)	1.28	
	T2(S)-T3(R)	1.88	
	T3(R)-T1(C)	0.60	
Lubrication	Oil Type	RFL68-EPH	
	Initial Charge(L)	1.4	
	Recharge(L)	1.25	
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)	3.0	
	Low Side(MPa)	2.0	

Notes:

- a) Test Condition: Based On Test Power Voltage, First Rated Condition;
- b) Test Condition: ET 0°C, CT 60°C, SH 11.1K
- c) Test Condition: Discharge/Suction Pressure Set To Refrigeration Saturation Pressure At 40°C.
- d) Test Condition: ET 0°C, CT 60°C, SH11.1K, 90% Min. Rated Voltage;

2 . Configuration

Suction/Discharge	Injection	Sight Glass	Thermal Tube
-------------------	-----------	-------------	--------------

	Vapor		
--	-------	--	--

3 . Certifications

Certifications	Report N.O.
CB	/
CE	/
CCC	/
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.	-31.7
2	Condensing Temp.	40.6
3	Ambient Temp.	35.0
4	Super Heat	50
5	Sub Cooling	0

5 . Compressor Protection Parts

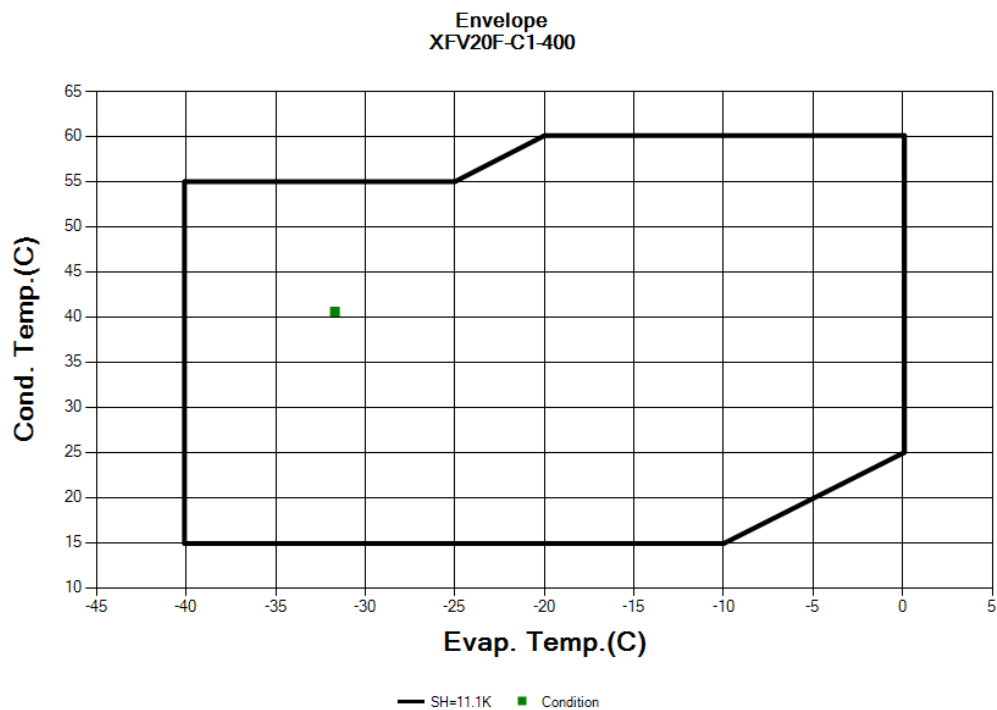
- a) Thermal Protection Inside;;
- b) Internal Pressure Release Valve, Open Range (Pressure Difference Between Discharge And Suction) : 2.76~3.10Mpa

6. Performance Data- XFV20F-C1-400

kW	Temp. Cond.(°C)	Temp. Evap. (°C)								
		-40	-35	-30	-25	-20	-15	-10	-5	0
Cooling Cap.	60					4.56	5.30	6.13	7.05	8.07
	55					4.67	5.44	6.31	7.28	8.36
	50	2.36	2.85	3.42	4.06	4.78	5.59	6.50	7.52	8.65
	45	2.37	2.89	3.47	4.14	4.90	5.74	6.70	7.76	8.95
	40	2.40	2.93	3.54	4.23	5.02	5.91	6.90	8.02	9.26
	35	2.43	2.98	3.61	4.33	5.15	6.08	7.12	8.28	9.57
	30	2.46	3.03	3.69	4.44	5.30	6.26	7.35	8.56	9.90
	25	2.51	3.10	3.78	4.57	5.46	6.46	7.59	8.85	10.24
	20	2.56	3.18	3.89	4.70	5.63	6.67	7.85	9.15	
	15	2.63	3.26	4.00	4.85	5.82	6.90	8.12		
Input Power	60					2.63	2.75	2.86	2.96	3.05
	55					2.50	2.61	2.70	2.78	2.86
	50	1.94	2.05	2.16	2.26	2.35	2.44	2.52	2.59	2.66
	45	1.83	1.92	2.01	2.09	2.17	2.25	2.32	2.39	2.45
	40	1.68	1.75	1.82	1.89	1.96	2.03	2.10	2.16	2.23
	35	1.48	1.54	1.60	1.67	1.73	1.80	1.86	1.93	2.00
	30	1.25	1.30	1.35	1.41	1.48	1.54	1.61	1.69	1.76
	25	0.97	1.02	1.07	1.13	1.20	1.27	1.35	1.43	1.52
	20	0.66	0.71	0.77	0.83	0.90	0.98	1.07	1.17	
	15	0.32	0.37	0.43	0.50	0.59	0.68	0.78		

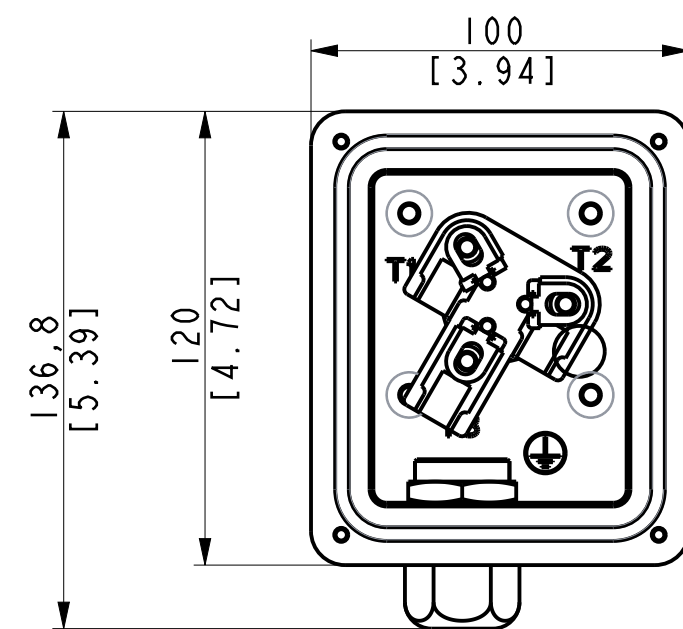
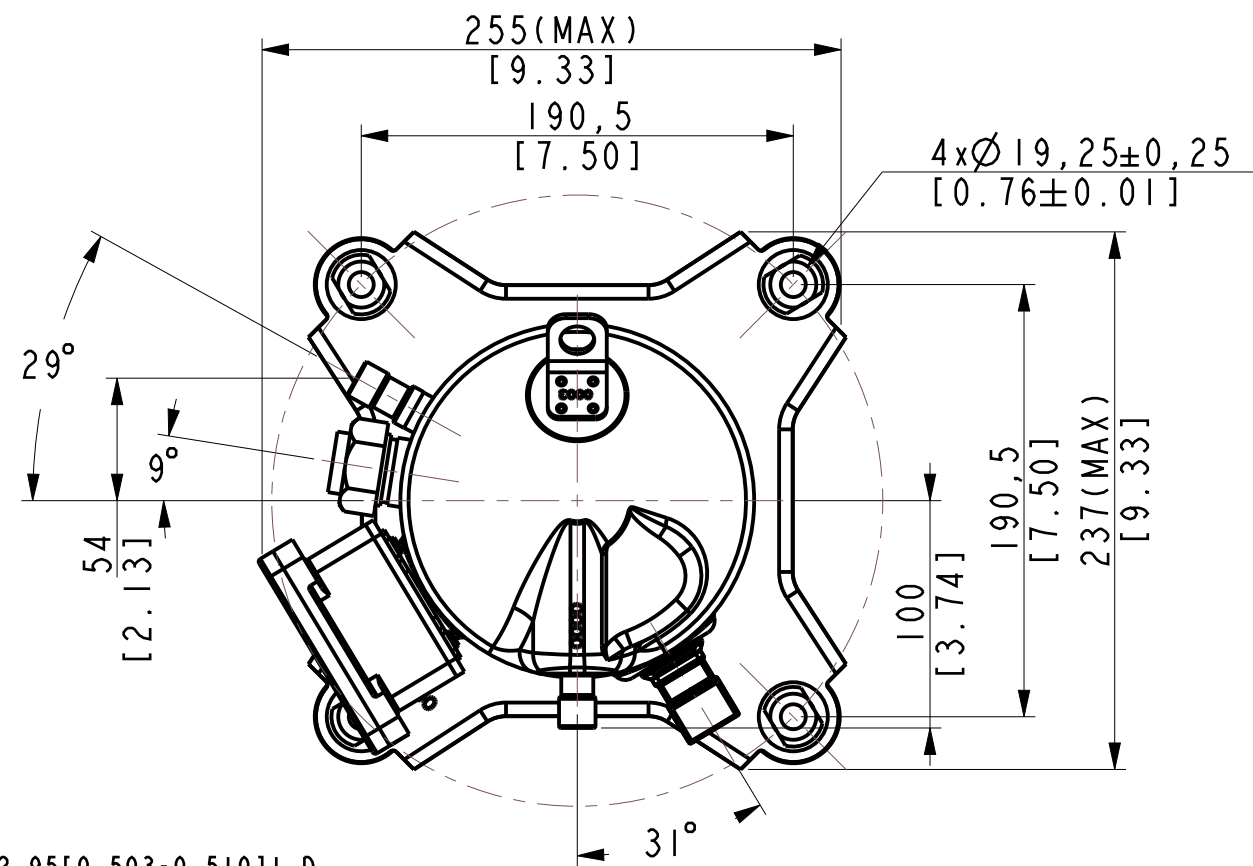
Notes: Capacity Calculation Based On 18.3°C Return Gas And Zero Sub Cooling, With Economizer In System($SIT=0.8*ET+0.5*CT-6.3$, $TD=5.6$, $SH=5.6$)

7. Application Envelope



For Compressor Safty, Shutdown Compressor When DLT Above 125°C; When Compressor Running, Control DLT<= 110°C ;ReStart Compressor When DLT Below 85°C

8. Drawing

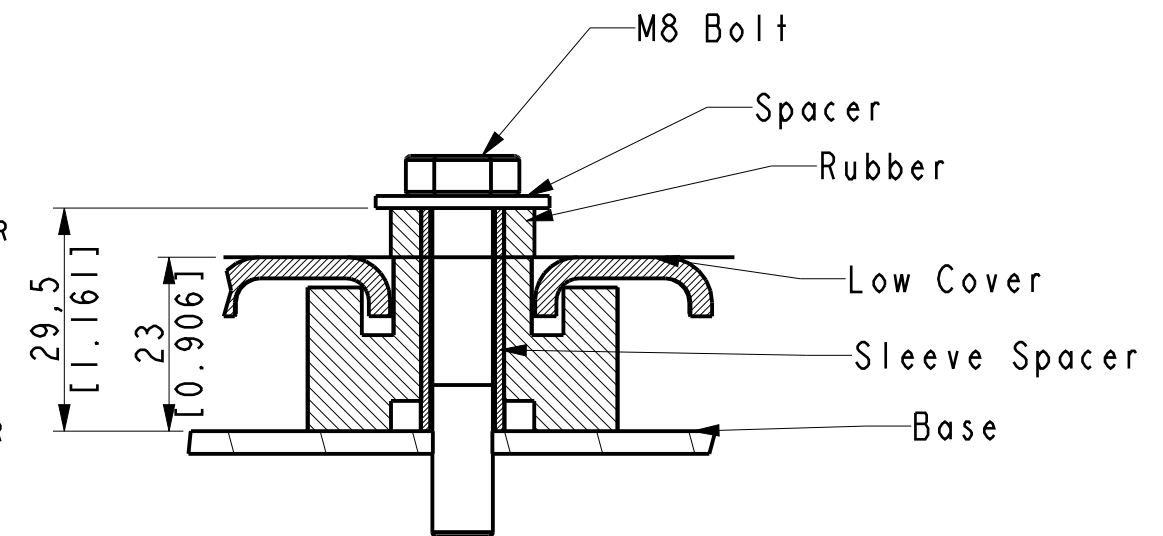
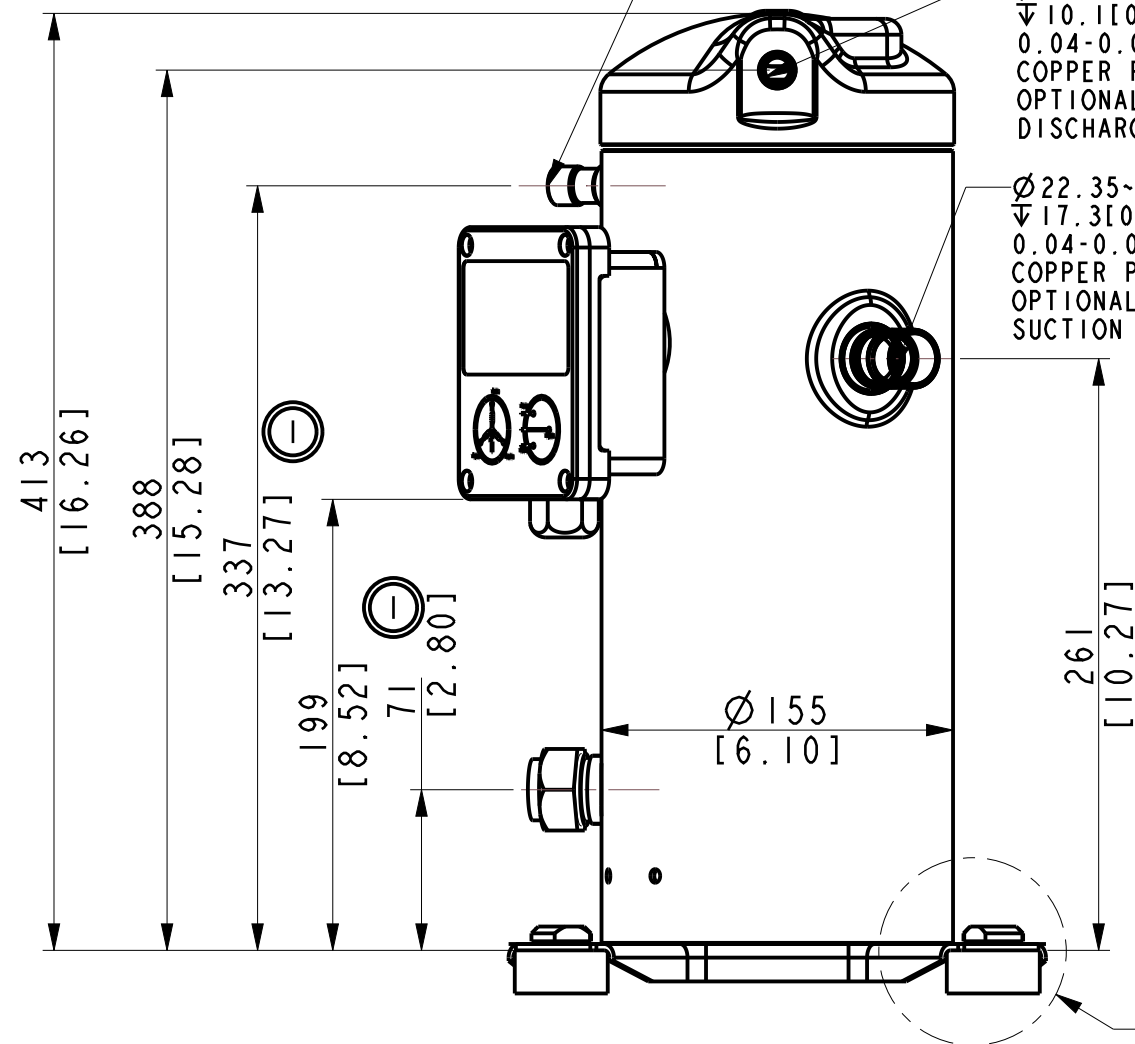


TERMINAL BOX LAYOUT
SCALE 1:2

Ø12.78~12.95[0.503-0.510]I.D.
▽10.1[0.40]MIN.
0.04-0.08[0.002-0.003]THICK
EXTERIOR AND INTERIOR
COPPER PLATED STEEL INJECTION FITTING

Ø12.78~12.95[0.503-0.510]I.D.
▽10.1[0.40]MIN.
0.04-0.08[0.002-0.003]THICK EXTERIOR AND INTERIOR
COPPER PLATED STEEL DISCHARGE FITTING
OPTIONAL:[1.00-14 UNS-2A] THREAD ROTALOCK SPUD
DISCHARGE FITTING

Ø22.35~22.45[0.880-0.884]I.D.
▽17.3[0.681]MIN.
0.04-0.08[0.002-0.003]THICK EXTERIOR AND INTERIOR
COPPER PLATED STEEL SUCTION FITTING
OPTIONAL:[1.25-12 UNF-2A]THREAD ROTALOCK SPUD
SUCTION FITTING

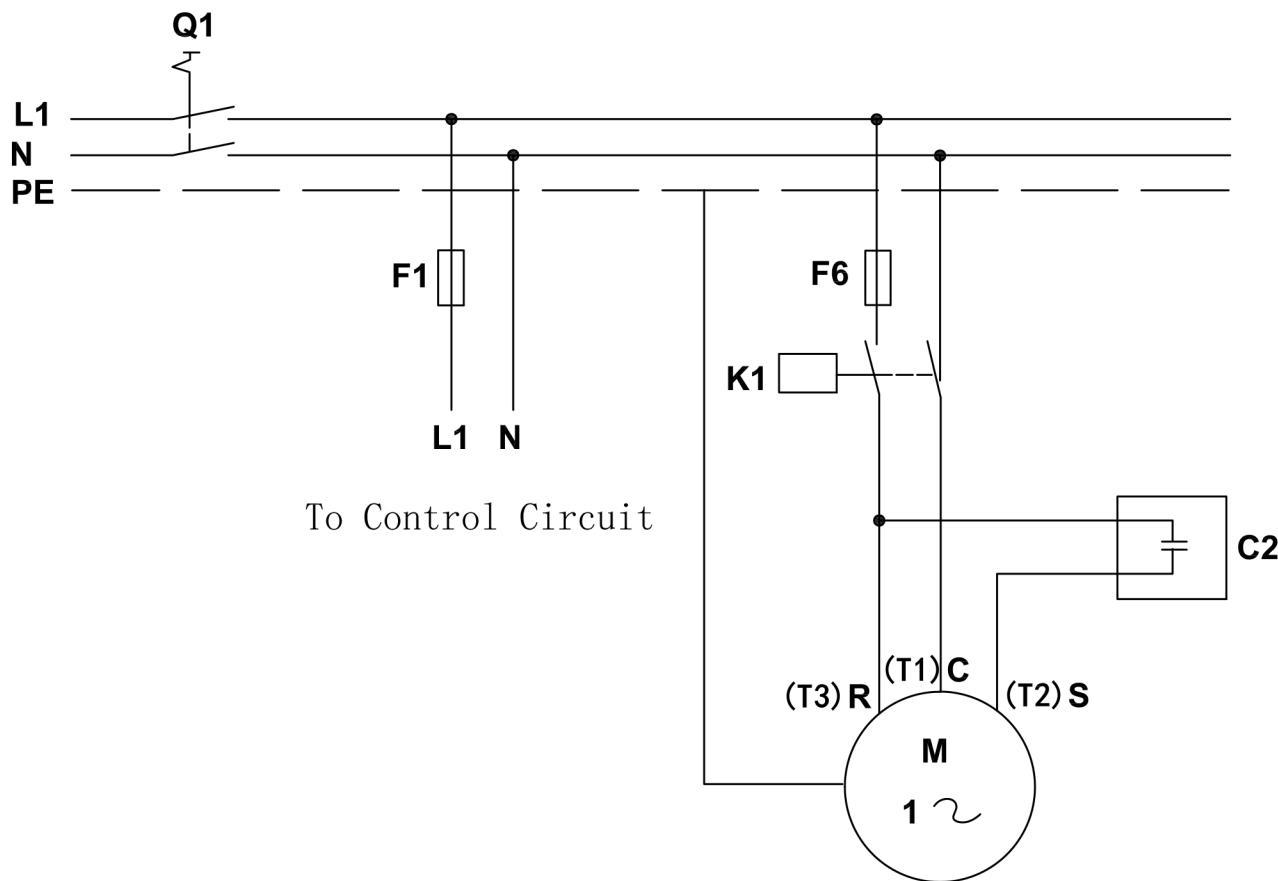


DETAIL FOOT

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]

						常州赛科为能源科技有限公司 Xecom Energy Technologies Ltd.				
2	1		ECN0038		24/12/18					
1	2		ECN0014		23/03/28					
标记	处数	视图	ECN代码	签字	日期	② 150外形图 (XFV) (XAV/XWV/XDV视液镜款)				
赛科为图纸通用标准				绘图		版本标记		重量	比例	
ASME.Y14.5		20°C测量		校对				2	0,125	
第三 视角		默认 公差	X ±0.4 X.X ±0.15 X.XX ±0.15 默认: ±0.5	批准		共 1 张 第 1 张				
801-0000-13EN										



Electrical Schematics

L1/N/PE: Single Phase Lines(line/neutral/ground)

Q1: Manual Switch

F1/F6: Fuse

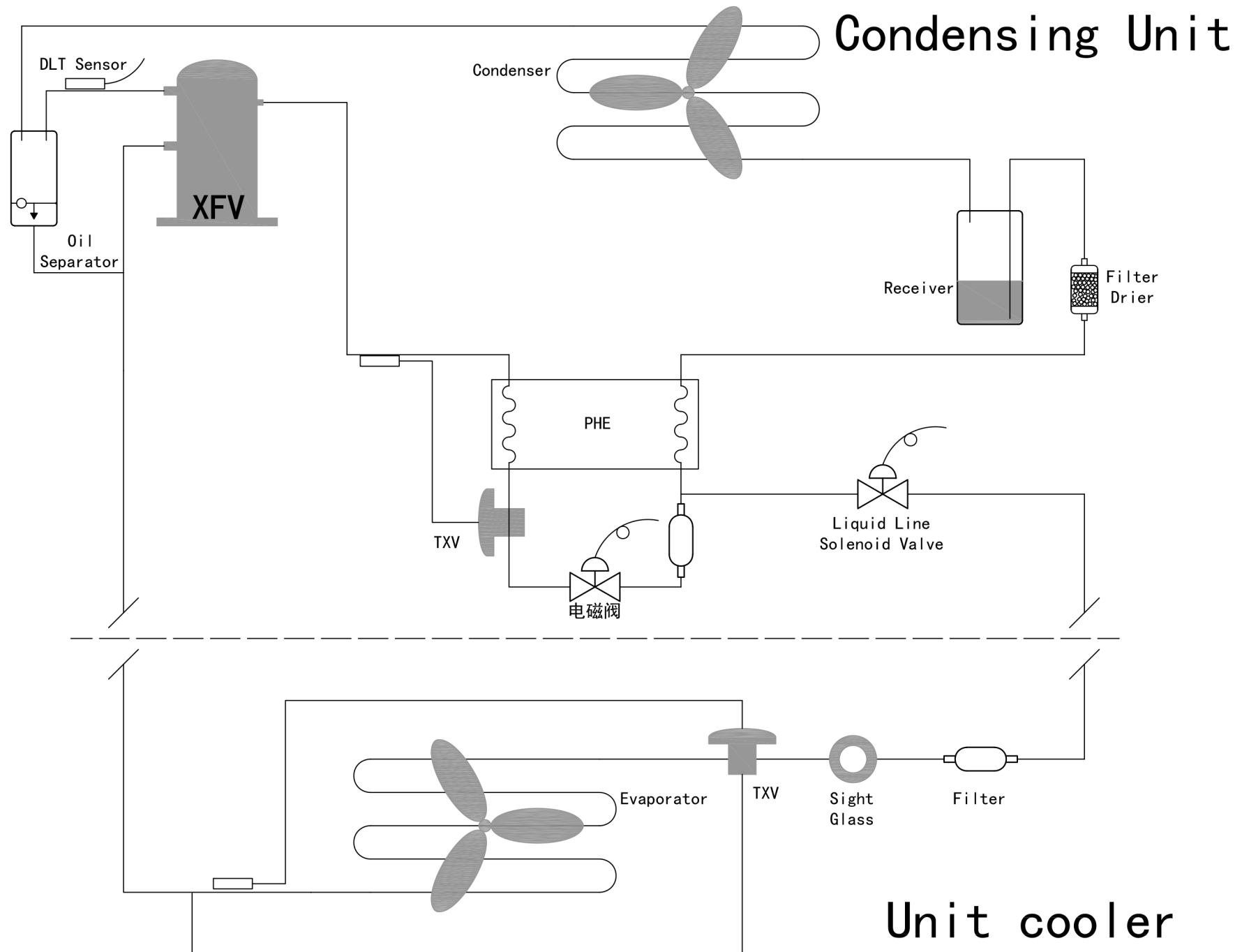
K1: Compressor Contactor

C2: Run Capacitor

M: Compressor Motor

R/C/S: Compressor Terminal

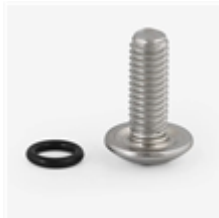
Vapor injection schematic



附件列表
Accessories List

Part N.O.	Specification	Qty	Part Name	Picture	Type	Description
020- 0001-00		Terminal Seal		1	Standard	
019- 0002-00	11.1*29.5	Sleeve Spacer		4	Standard	
200- 0001-00		Rubber		4	Standard	
100- 0011-00	M5*10	Waterproof bolts		4	Standard	

附件列表
Accessories List

100- 0012-00	M4*12	Round head Phillips bolts		4	Standard	
017- 0007-04		Terminal Cover		1	Standard	
016- 0001-00		T-Box		1	Standard	
034- 0000-03		Sound Jacket		1	Optional	

附件列表
Accessories List

028- 0000-00	155 外径, 70W, 220V, 长度 486, 7	Crank Heater		1	Optional	
031- 0019-00	1"-14UN 2A 螺纹口	RotoLock Connector		1	Optional	
031- 0017-00	螺纹 1-1/4"-12UNF-A	RotoLock Connector		1	Optional	
009- 0040-00	内径 109*2.65	Terminal Seal		1	Standard	
029- 0001-00		Explosion- proof gland		1	Standard	

附件列表

Accessories List

009- 0038-00	外径 37*4	Terminal Seal		1	Standard	
-----------------	---------	------------------	--	---	----------	---