

XFL20B-C1-105 Technical Specifications

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1 . Specifications

| | | | |
|---|--|----------------------------------|-------|
| Model | XFL20B-C1-105 | Power | 3HP |
| Displacement(m ³ /h) | 10.1 | Refrigerant | R404A |
| Cooling Cap.(W) ^(a) | 2682 | Input Power(W) ^(a) | 2314 |
| Rated Load Amps(A) ^(a) | 11.5 | COP ^(a) | 1.16 |
| Max. Vibration(mm) ^(a) | <0.10 | Sound Level (dBA) ^(a) | 76 |
| 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/1Ph/60Hz | |
| | Run Capacitor | 70uf/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) | 20.5 (A) | |
| | Motor Insulation Temp.(°C) | 130 | |
| Terminal Resistance (Ω) (± 10%) At 25 °C | T1(C)-T2(S) | 0.60 | |
| | T2(S)-T3(R) | 1.88 | |
| | T3(R)-T1(C) | 1.28 | |
| Lubrication | Oil Type | POE(32cSt) | |
| | 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) | 3.2 | |
| | 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 |
|-------------------|-----------|-------------|--------------|
| | Liquid | | |

3 . Attachments

| Name | Part Number | Description | Qty. |
|----------------------|-------------|--------------------------------|------|
| Screws | 100-0006-00 | Flange Screw, M5x8,GB/T5789 | 4 |
| Mount Ground | 200-0001-00 | | 4 |
| Mount Sleeve | 019-0002-00 | | 4 |
| Terminal Cover | 017-0000-00 | | 1 |
| Terminal Fence | | | NONE |
| Terminal Cover Seal | | | NONE |
| Fusite Seal | | | NONE |
| DTC Valve | 505-0006-00 | | 1 |
| DTC Seal | 009-0015-00 | 11.5*14.5*1.3 | 1 |
| Suction Valve Seal | 009-0003-00 | 22*26.5*1.5 | 1 |
| Discharge Valve Seal | 009-0028-00 | 15.2*18.9*1.7 | 1 |

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 . Internal Protection Parts

- a) Internal Motor Protector;
- b) Internal Pressure Release Valve, Open Range (Pressure Difference Between Discharge And Suction) : 2.76--3.10Mpa

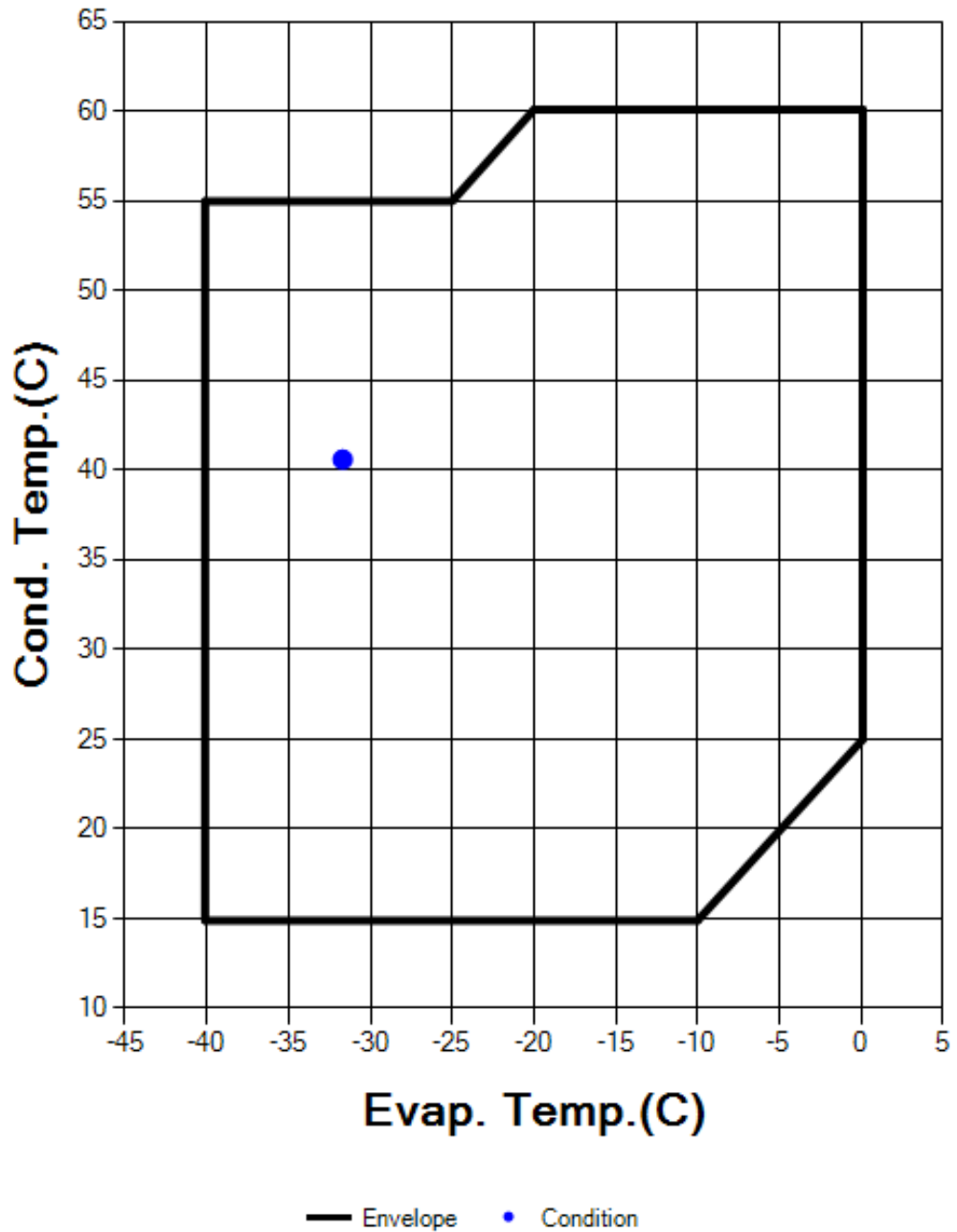
6. Performance Data

| kW | Temp. Cond.(°C) | Temp. Evap. (°C) | | | | | | | | |
|--------------|-----------------|------------------|------|------|------|------|------|------|------|-------|
| | | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 |
| Cooling Cap. | 60 | | | | | 2.91 | 3.47 | 4.09 | 4.76 | 5.46 |
| | 55 | | | | | 3.32 | 3.98 | 4.71 | 5.50 | 6.34 |
| | 50 | 1.59 | 1.99 | 2.47 | 3.04 | 3.70 | 4.44 | 5.28 | 6.19 | 7.16 |
| | 45 | 1.72 | 2.17 | 2.70 | 3.32 | 4.05 | 4.88 | 5.82 | 6.84 | 7.93 |
| | 40 | 1.85 | 2.34 | 2.91 | 3.60 | 4.39 | 5.30 | 6.33 | 7.45 | 8.67 |
| | 35 | 1.98 | 2.50 | 3.12 | 3.86 | 4.72 | 5.71 | 6.82 | 8.05 | 9.37 |
| | 30 | 2.11 | 2.67 | 3.33 | 4.13 | 5.05 | 6.11 | 7.30 | 8.62 | 10.05 |
| | 25 | 2.24 | 2.84 | 3.55 | 4.39 | 5.38 | 6.51 | 7.79 | 9.20 | 10.73 |
| | 20 | 2.39 | 3.02 | 3.78 | 4.68 | 5.73 | 6.93 | 8.29 | 9.80 | |
| 15 | 2.54 | 3.22 | 4.03 | 4.99 | 6.10 | 7.38 | 8.83 | | | |
| Input Power | 60 | | | | | 3.71 | 3.85 | 3.98 | 4.09 | 4.17 |
| | 55 | | | | | 3.38 | 3.51 | 3.62 | 3.72 | 3.80 |
| | 50 | 2.54 | 2.68 | 2.81 | 2.94 | 3.07 | 3.19 | 3.30 | 3.39 | 3.47 |
| | 45 | 2.32 | 2.44 | 2.56 | 2.68 | 2.79 | 2.91 | 3.01 | 3.10 | 3.17 |
| | 40 | 2.12 | 2.22 | 2.32 | 2.43 | 2.54 | 2.65 | 2.75 | 2.84 | 2.92 |
| | 35 | 1.93 | 2.02 | 2.11 | 2.21 | 2.32 | 2.42 | 2.52 | 2.62 | 2.70 |
| | 30 | 1.75 | 1.83 | 1.92 | 2.02 | 2.12 | 2.22 | 2.33 | 2.43 | 2.52 |
| | 25 | 1.59 | 1.66 | 1.75 | 1.84 | 1.95 | 2.05 | 2.16 | 2.27 | 2.37 |
| | 20 | 1.44 | 1.51 | 1.59 | 1.69 | 1.80 | 1.91 | 2.03 | 2.14 | |
| 15 | 1.31 | 1.37 | 1.46 | 1.56 | 1.67 | 1.80 | 1.92 | | | |

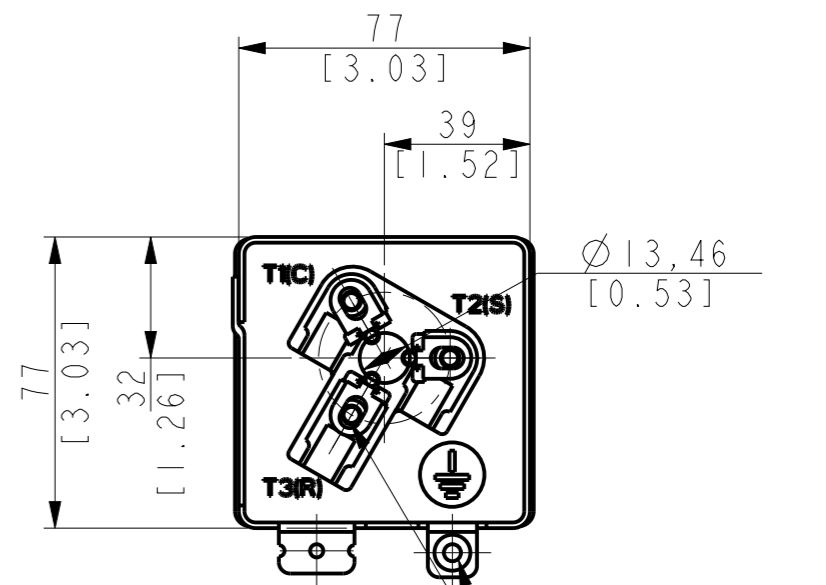
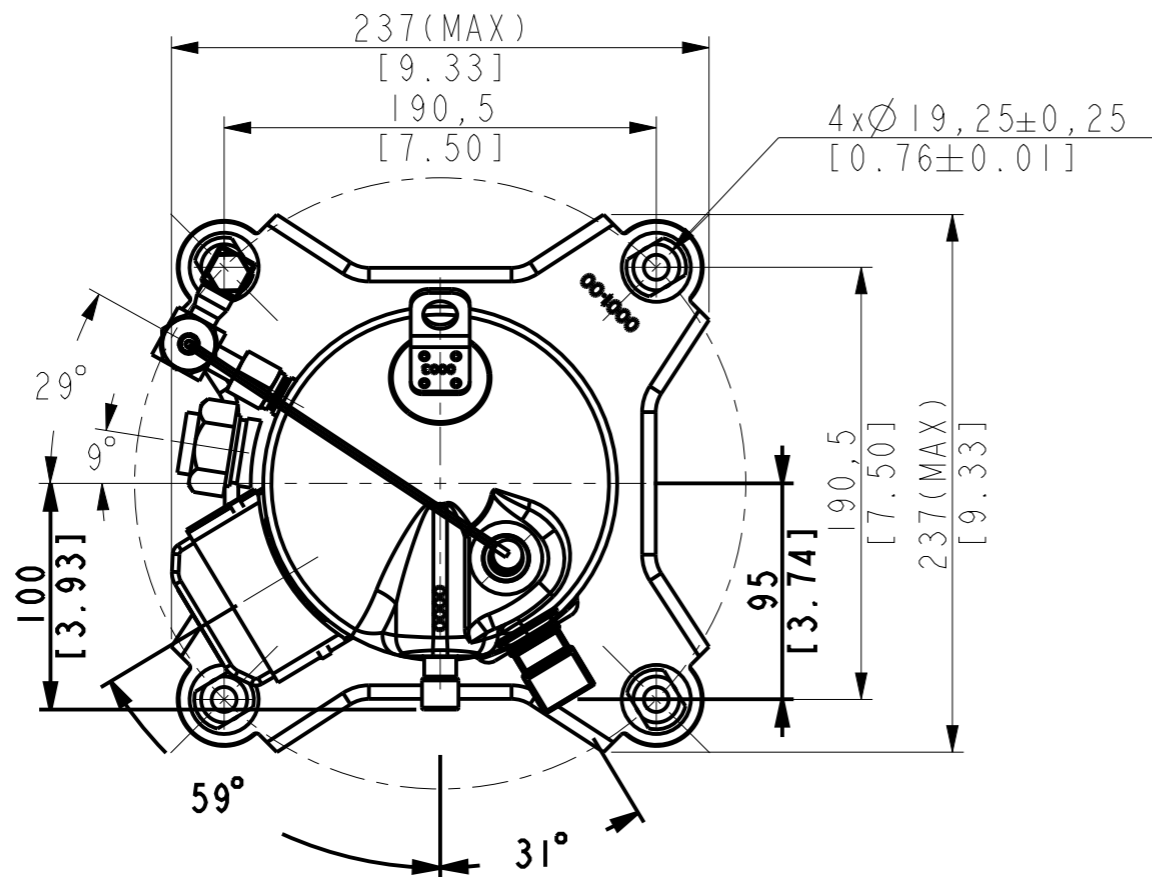
Notes: Capacity Calculation Based On 18.3°C Return Gas And Zero Sub Cooling

7. Application Envelope

Envelope
XFL20B-C1-105

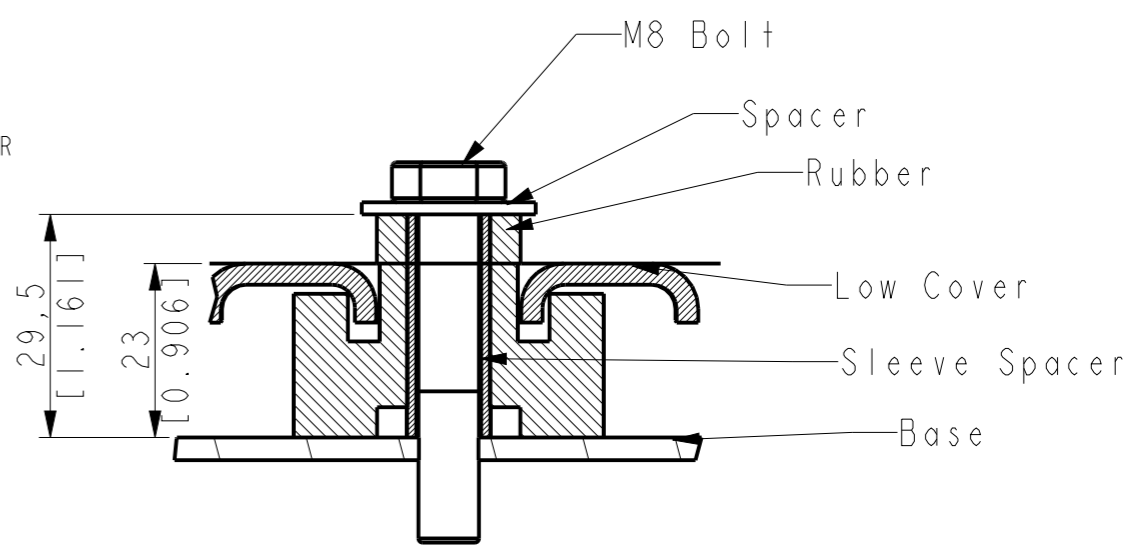
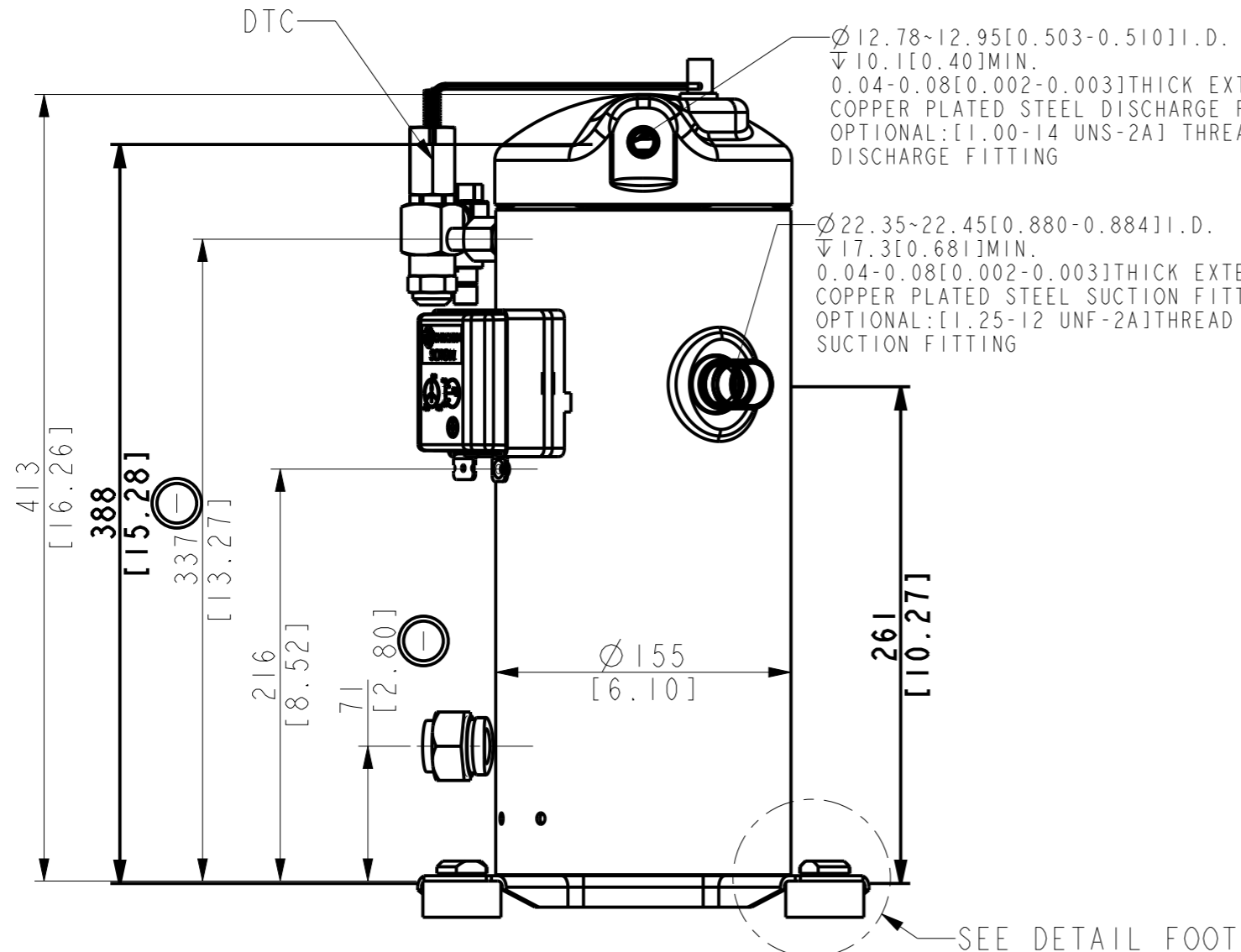


8. Drawing



TERMINAL BOX LAYOUT
SCALE 1:2

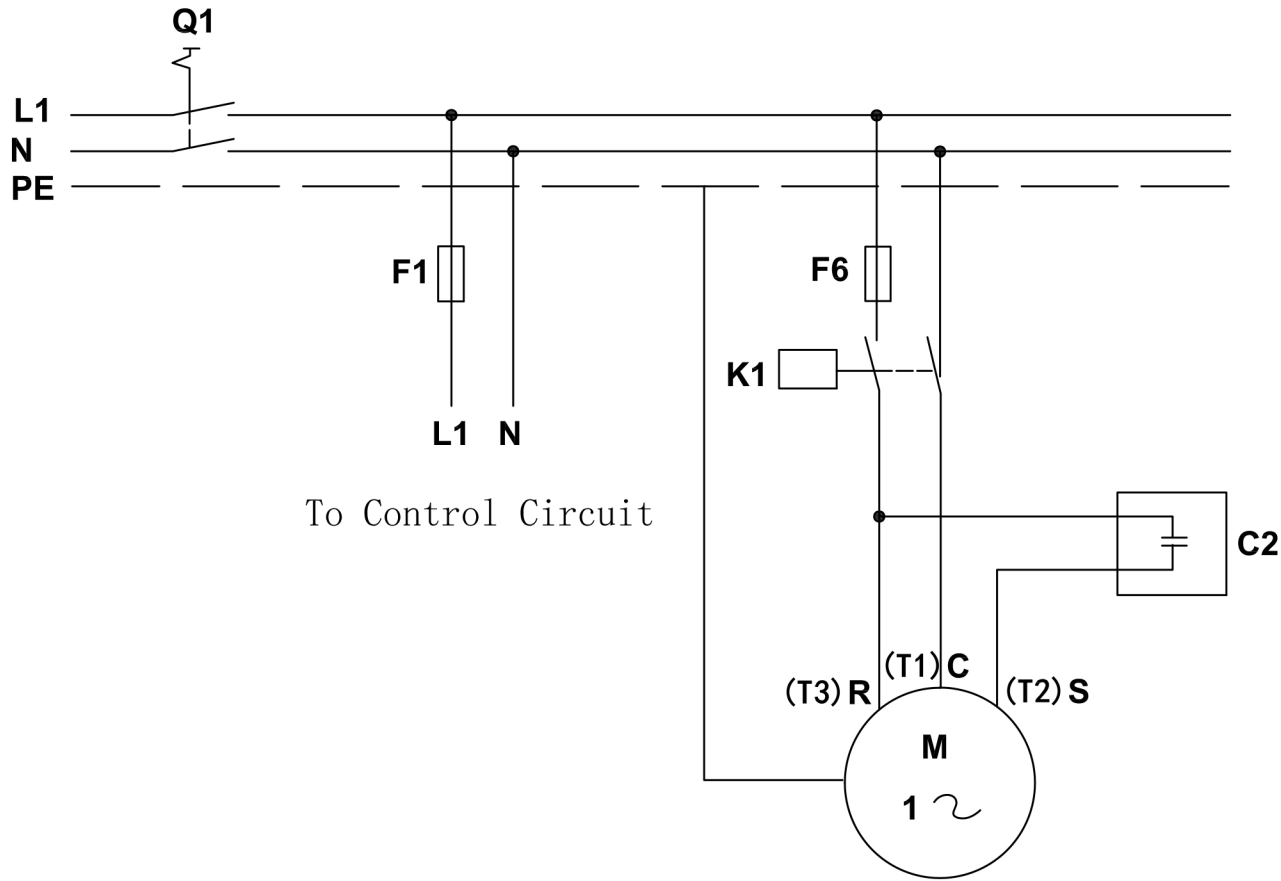
4-M5X10
TORQUE: 2-3N.m



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. | | |
| 1 | 2 | ECN0014 | 2023/3/28 | | 150外形图 (XFL) | | |
| 标记 | 处数 | 视图 | ECN代码 | 签字 | | | |
| 赛科为图纸通用标准 | | | 绘图 | 版本标记 | 重量 | 比例 | 801-0000-04EN |
| ASME.Y14.5 | | 20°C测量 | 校对 | | | 0,125 | |
| 第三 视角 | 默认 公差 | X ±0.4 X.X ±0.15 X.XX ±0.15 角尺: ±0.5° | 批准 | 共 张 第 张 | | | |



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

Liquid injection schematic

