

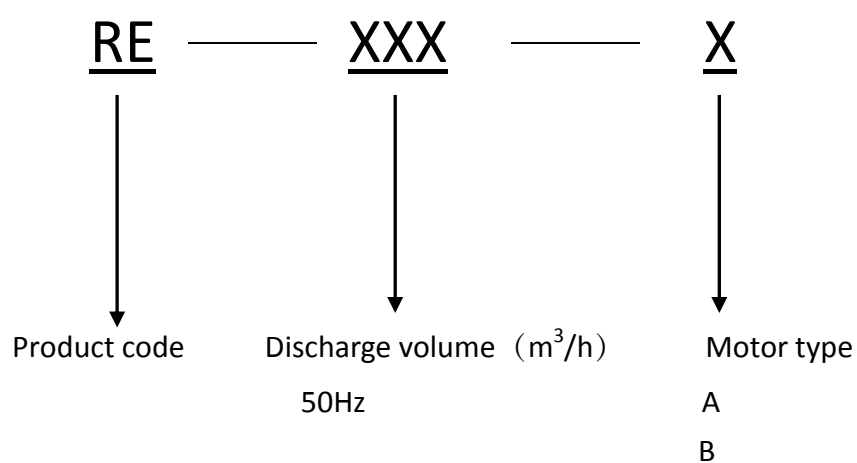
## RE Series Semi-hermetic Screw Compressor

### Product Description

Hanbell RE series compressor is developed for environmental refrigerant.

Because of the new tooth type structure, performance of RE series is 5%~8% higher than RC2 series and can meet the level 1 COP energy efficiency under GB19577-2015 standard.

### Nomenclature



## Product Feature

### Energy-saving design

RE series compressors adopt new screw rotor; through structural optimization, the compressor not only can achieve reliable performance at full load, but also can reach the best volume ratio at partial load; this is why RE series compressor can realize the purpose of energy saving.

### Capacity control

With the optimal layout of sliding valves, the RE compressor can control the capacity through oil pressure difference.

### Sturdy construction

The integration design of motor shell and shell make the installation size of RE compressor smaller.

### High-efficient motor

RE compressor adopt special cooling channel which can ensure the operation under poor working condition.

### Oil separator

Efficient structure design of oil separator can reduce oil circulation and improve operation efficiency.

### Protection module

RE series compressors are equipped with PTC and PT100 thermal resistor which can monitor the temperature and electrical condition of the motor.

## Product Specification

| Model             |                        |          | RE-230 | RE-260                               | RE-300 | RE-420 | RE-480 | RE-550 | RE-620   | RE-710 | RE-820 | RE-920 |     |
|-------------------|------------------------|----------|--------|--------------------------------------|--------|--------|--------|--------|----------|--------|--------|--------|-----|
| Compressor        | Discharge volume(50Hz) |          | Rpm    | 2950                                 |        |        |        |        |          |        |        |        |     |
|                   | Rotation speed(50Hz)   |          | m³/h   | 232                                  | 266    | 307    | 417    | 481    | 554      | 625    | 712    | 820    | 924 |
|                   | VI                     |          |        | 2.2   2.6   3.0   3.5   4.4          |        |        |        |        |          |        |        |        |     |
|                   | Capacity control       | Step     | %      | 25 , 50 , 75 , 100                   |        |        |        |        |          |        |        |        |     |
|                   |                        | Stepless | %      | 25~100                               |        |        |        |        |          |        |        |        |     |
| Motor             | Type                   |          |        | 3-phase 2-pole AC asynchronous motor |        |        |        |        |          |        |        |        |     |
|                   | Start type             |          | 550    | Y-△ ,PWS, DOL                        |        |        |        |        | Y-△, DOL |        |        |        |     |
|                   | Voltage （50Hz）         |          | V      | 380                                  |        |        |        |        |          |        |        |        |     |
|                   | Insulation level       |          |        | Level F                              |        |        |        |        |          |        |        |        |     |
|                   | Protection module      |          |        | PTC                                  |        |        |        |        |          |        |        |        |     |
| Oil fuel quantity |                        |          | L      | 14                                   | 16     | 16     | 16     | 17     | 19       | 23     | 26     | 28     | 28  |
| Oil heater        |                        |          | W      | 300                                  |        |        |        |        |          |        |        |        |     |
| Pressure test     |                        |          | Bar    | 32                                   |        |        |        |        |          |        |        |        |     |

## Performance data (50Hz, R134a, Without ECO)

### RE-420B

| Saturated Discharge Temp °C | Saturated Suction Temp °C   | -5    | 0     | 5     | 10    |
|-----------------------------|-----------------------------|-------|-------|-------|-------|
| 25                          | Refrigerating capacity (kW) | 224.0 | 274.6 | 334.0 | 402.9 |
|                             | Power (kW)                  | 38.4  | 38.7  | 38.9  | 38.7  |
|                             | Current(A)                  | 67.1  | 67.7  | 67.9  | 67.7  |
| 30                          | Refrigerating capacity (kW) | 212.7 | 261.4 | 318.4 | 384.8 |
|                             | Power (kW)                  | 42.9  | 43.5  | 43.9  | 44.0  |
|                             | Current(A)                  | 74.2  | 75.1  | 75.7  | 75.9  |
| 35                          | Refrigerating capacity (kW) | 201.3 | 247.9 | 302.6 | 366.4 |
|                             | Power (kW)                  | 48.0  | 48.8  | 49.5  | 49.8  |
|                             | Current(A)                  | 82.2  | 83.5  | 84.5  | 85.0  |
| 40                          | Refrigerating capacity (kW) | 189.4 | 234.1 | 286.5 | 347.7 |
|                             | Power (kW)                  | 53.5  | 54.6  | 55.5  | 56.1  |
|                             | Current(A)                  | 91.0  | 92.8  | 94.3  | 95.2  |
| 45                          | Refrigerating capacity (kW) | 177.2 | 219.8 | 270.0 | 328.6 |
|                             | Power (kW)                  | 59.5  | 60.9  | 62.0  | 62.9  |
|                             | Current(A)                  | 100.7 | 103.0 | 104.9 | 106.3 |
| 50                          | Refrigerating capacity (kW) | 164.4 | 205.1 | 253.0 | 309.1 |
|                             | Power (kW)                  | 66.0  | 67.6  | 69.1  | 70.2  |
|                             | Current(A)                  | 111.3 | 114.1 | 116.5 | 118.3 |

### RE-480B

| Saturated Discharge Temp °C | Saturated Suction Temp °C   | -5    | 0     | 5     | 10    |
|-----------------------------|-----------------------------|-------|-------|-------|-------|
| 25                          | Refrigerating capacity (kW) | 250.1 | 306.7 | 373.0 | 450.1 |
|                             | Power (kW)                  | 42.6  | 43.0  | 43.2  | 43.0  |
|                             | Current(A)                  | 81.9  | 82.4  | 82.6  | 82.4  |
| 30                          | Refrigerating capacity (kW) | 237.5 | 291.8 | 355.5 | 429.7 |
|                             | Power (kW)                  | 47.7  | 48.4  | 48.8  | 48.9  |
|                             | Current(A)                  | 88.2  | 89.1  | 89.6  | 89.7  |
| 35                          | Refrigerating capacity (kW) | 224.7 | 276.7 | 337.9 | 409.1 |
|                             | Power (kW)                  | 53.3  | 54.3  | 55.0  | 55.3  |
|                             | Current(A)                  | 95.6  | 96.9  | 97.8  | 98.3  |
| 40                          | Refrigerating capacity (kW) | 211.5 | 261.3 | 319.9 | 388.2 |
|                             | Power (kW)                  | 59.4  | 60.7  | 61.7  | 62.3  |
|                             | Current(A)                  | 104.1 | 105.9 | 107.4 | 108.3 |
| 45                          | Refrigerating capacity (kW) | 197.8 | 245.4 | 301.4 | 366.9 |
|                             | Power (kW)                  | 66.1  | 67.6  | 68.9  | 69.9  |
|                             | Current(A)                  | 114.0 | 116.3 | 118.3 | 119.8 |
| 50                          | Refrigerating capacity (kW) | 183.5 | 229.0 | 282.5 | 345.1 |
|                             | Power (kW)                  | 73.3  | 75.2  | 76.8  | 78.0  |
|                             | Current(A)                  | 125.1 | 128.1 | 130.7 | 132.7 |

**RE-550B**

| Saturated Discharge Temp℃ | Saturated Suction Temp℃     | -5    | 0     | 5     | 10    |
|---------------------------|-----------------------------|-------|-------|-------|-------|
| 25                        | Refrigerating capacity (kW) | 286.0 | 350.7 | 426.5 | 514.7 |
|                           | Power (kW)                  | 48.2  | 48.6  | 48.8  | 48.6  |
|                           | Current(A)                  | 88.8  | 89.4  | 89.6  | 89.4  |
| 30                        | Refrigerating capacity (kW) | 271.6 | 333.7 | 406.6 | 491.4 |
|                           | Power (kW)                  | 53.9  | 54.7  | 55.2  | 55.2  |
|                           | Current(A)                  | 96.4  | 97.4  | 98.1  | 98.2  |
| 35                        | Refrigerating capacity (kW) | 256.9 | 316.5 | 386.4 | 467.8 |
|                           | Power (kW)                  | 60.3  | 61.3  | 62.1  | 62.5  |
|                           | Current(A)                  | 105.3 | 106.9 | 108.0 | 108.6 |
| 40                        | Refrigerating capacity (kW) | 241.8 | 298.8 | 365.8 | 443.9 |
|                           | Power (kW)                  | 67.2  | 68.6  | 69.7  | 70.4  |
|                           | Current(A)                  | 115.6 | 117.8 | 119.5 | 120.6 |
| 45                        | Refrigerating capacity (kW) | 226.2 | 280.6 | 344.7 | 419.5 |
|                           | Power (kW)                  | 74.7  | 76.5  | 77.9  | 79.0  |
|                           | Current(A)                  | 127.4 | 130.2 | 132.5 | 134.3 |
| 50                        | Refrigerating capacity (kW) | 209.9 | 261.8 | 323.0 | 394.6 |
|                           | Power (kW)                  | 82.9  | 85.0  | 86.8  | 88.2  |
|                           | Current(A)                  | 140.6 | 144.1 | 147.1 | 149.5 |

**RE-620B**

| Saturated Discharge Temp℃ | Saturated Suction Temp℃     | -5    | 0     | 5     | 10    |
|---------------------------|-----------------------------|-------|-------|-------|-------|
| 25                        | Refrigerating capacity (kW) | 335.6 | 411.6 | 500.5 | 603.9 |
|                           | Power (kW)                  | 56.2  | 56.7  | 57.0  | 56.7  |
|                           | Current(A)                  | 99.6  | 100.3 | 100.6 | 100.3 |
| 30                        | Refrigerating capacity (kW) | 318.8 | 391.6 | 477.1 | 576.6 |
|                           | Power (kW)                  | 62.9  | 63.8  | 64.4  | 64.5  |
|                           | Current(A)                  | 109.2 | 110.5 | 111.4 | 111.5 |
| 35                        | Refrigerating capacity (kW) | 301.5 | 371.4 | 453.4 | 549.0 |
|                           | Power (kW)                  | 70.3  | 71.5  | 72.5  | 72.9  |
|                           | Current(A)                  | 120.4 | 122.4 | 123.8 | 124.5 |
| 40                        | Refrigerating capacity (kW) | 283.8 | 350.6 | 429.2 | 520.9 |
|                           | Power (kW)                  | 78.4  | 80.0  | 81.3  | 82.2  |
|                           | Current(A)                  | 133.3 | 135.9 | 138.1 | 139.4 |
| 45                        | Refrigerating capacity (kW) | 265.4 | 329.3 | 404.5 | 492.3 |
|                           | Power (kW)                  | 87.2  | 89.2  | 90.9  | 92.2  |
|                           | Current(A)                  | 147.7 | 151.1 | 154.0 | 156.0 |
| 50                        | Refrigerating capacity (kW) | 246.3 | 307.3 | 379.1 | 463.1 |
|                           | Power (kW)                  | 96.7  | 99.1  | 101.3 | 102.9 |
|                           | Current(A)                  | 163.6 | 167.8 | 171.4 | 174.2 |

**RE-710B**

| Saturated Discharge Temp℃ | Saturated Suction Temp℃     | -5    | 0     | 5     | 10    |
|---------------------------|-----------------------------|-------|-------|-------|-------|
| 25                        | Refrigerating capacity (kW) | 377.2 | 462.6 | 562.6 | 678.8 |
|                           | Power (kW)                  | 62.8  | 63.4  | 63.7  | 63.4  |
|                           | Current(A)                  | 107.3 | 108.3 | 108.7 | 108.3 |
| 30                        | Refrigerating capacity (kW) | 358.3 | 440.2 | 536.3 | 648.1 |
|                           | Power (kW)                  | 70.3  | 71.3  | 72.0  | 72.1  |
|                           | Current(A)                  | 120.1 | 121.8 | 122.8 | 123.0 |
| 35                        | Refrigerating capacity (kW) | 338.9 | 417.4 | 509.6 | 617.0 |
|                           | Power (kW)                  | 78.6  | 80.0  | 81.0  | 81.5  |
|                           | Current(A)                  | 134.2 | 136.6 | 138.3 | 139.2 |
| 40                        | Refrigerating capacity (kW) | 318.9 | 394.1 | 482.4 | 585.5 |
|                           | Power (kW)                  | 87.6  | 89.5  | 90.9  | 91.9  |
|                           | Current(A)                  | 149.6 | 152.7 | 155.2 | 156.8 |
| 45                        | Refrigerating capacity (kW) | 298.3 | 370.1 | 454.6 | 553.4 |
|                           | Power (kW)                  | 97.5  | 99.7  | 101.7 | 103.0 |
|                           | Current(A)                  | 166.4 | 170.3 | 173.5 | 175.9 |
| 50                        | Refrigerating capacity (kW) | 276.8 | 345.3 | 426.0 | 520.5 |
|                           | Power (kW)                  | 108.1 | 110.8 | 113.2 | 115.1 |
|                           | Current(A)                  | 184.5 | 189.2 | 193.3 | 196.5 |

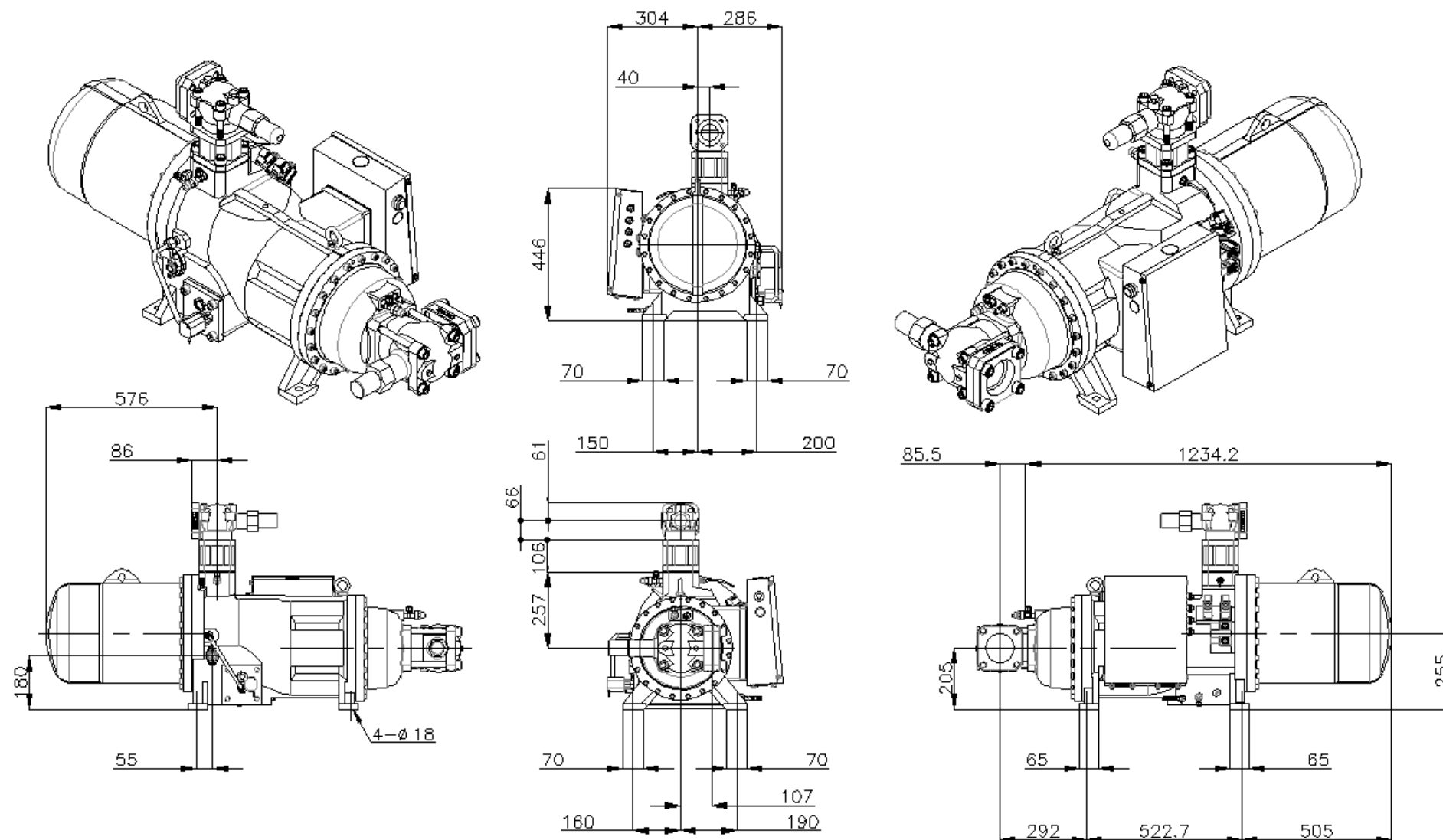
**RE-820B**

| Saturated Discharge Temp℃ | Saturated Suction Temp℃     | -5    | 0     | 5     | 10    |
|---------------------------|-----------------------------|-------|-------|-------|-------|
| 25                        | Refrigerating capacity (kW) | 444.9 | 545.2 | 662.6 | 798.6 |
|                           | Power (kW)                  | 73.9  | 74.6  | 74.9  | 74.6  |
|                           | Current(A)                  | 131.6 | 132.6 | 133.0 | 132.6 |
| 30                        | Refrigerating capacity (kW) | 422.7 | 519.3 | 632.4 | 763.7 |
|                           | Power (kW)                  | 82.8  | 83.9  | 84.7  | 84.8  |
|                           | Current(A)                  | 144.2 | 145.9 | 147.0 | 147.2 |
| 35                        | Refrigerating capacity (kW) | 399.8 | 492.5 | 601.3 | 727.8 |
|                           | Power (kW)                  | 92.5  | 94.1  | 95.3  | 95.9  |
|                           | Current(A)                  | 158.9 | 161.5 | 163.4 | 164.3 |
| 40                        | Refrigerating capacity (kW) | 376.1 | 465.0 | 569.3 | 690.9 |
|                           | Power (kW)                  | 103.1 | 105.2 | 107.0 | 108.1 |
|                           | Current(A)                  | 175.9 | 179.4 | 182.2 | 184.0 |
| 45                        | Refrigerating capacity (kW) | 351.8 | 436.6 | 536.4 | 653.0 |
|                           | Power (kW)                  | 114.7 | 117.3 | 119.6 | 121.2 |
|                           | Current(A)                  | 195.1 | 199.6 | 203.5 | 206.3 |
| 50                        | Refrigerating capacity (kW) | 326.7 | 407.4 | 502.7 | 614.2 |
|                           | Power (kW)                  | 127.2 | 130.4 | 133.2 | 135.4 |
|                           | Current(A)                  | 216.5 | 222.1 | 227.0 | 230.8 |

## RE-920B

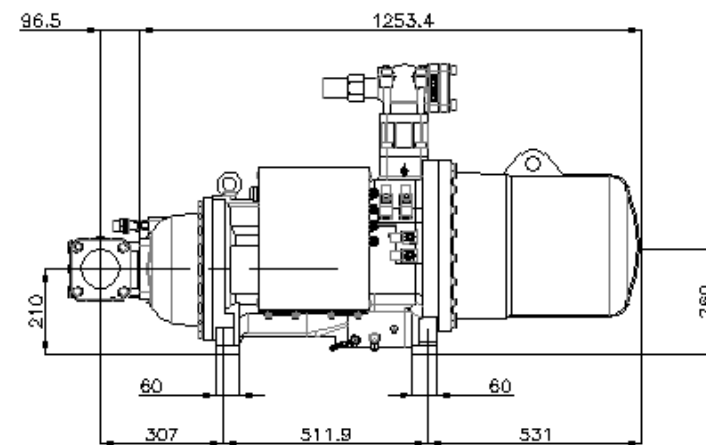
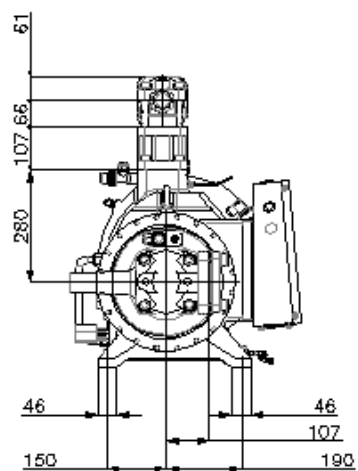
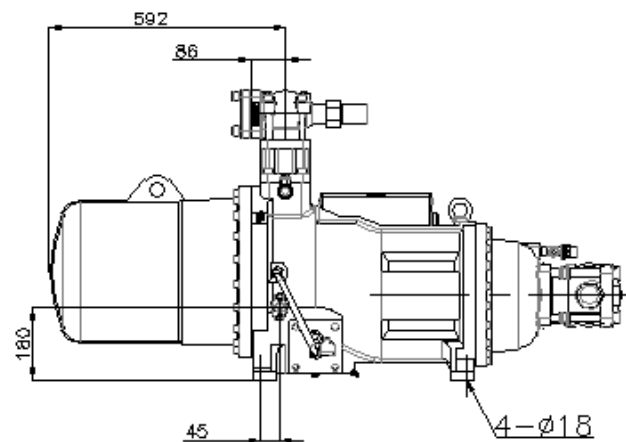
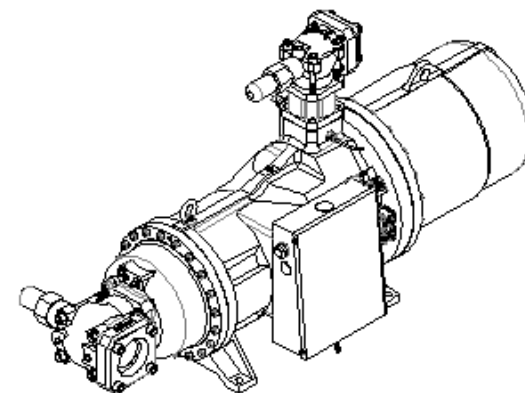
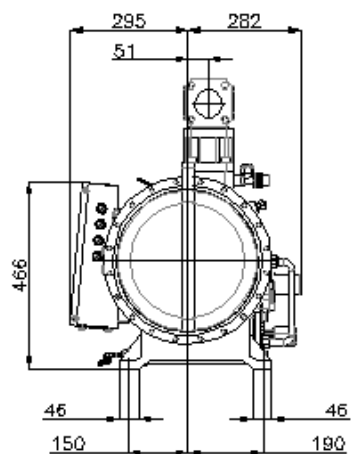
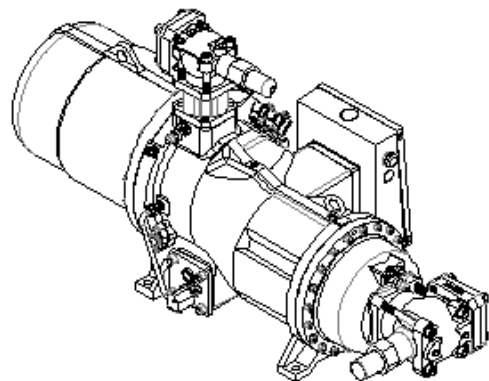
| Saturated Discharge Temp℃ | Saturated Suction Temp℃     | -5    | 0     | 5     | 10    |
|---------------------------|-----------------------------|-------|-------|-------|-------|
| 25                        | Refrigerating capacity (kW) | 502.4 | 616.1 | 749.5 | 904.4 |
|                           | Power (kW)                  | 83.5  | 84.7  | 85.1  | 84.4  |
|                           | Current(A)                  | 145.2 | 147.1 | 147.7 | 146.7 |
| 30                        | Refrigerating capacity (kW) | 477.1 | 586.2 | 714.3 | 863.3 |
|                           | Power (kW)                  | 93.3  | 95.1  | 96.1  | 95.9  |
|                           | Current(A)                  | 160.2 | 163.0 | 164.5 | 164.3 |
| 35                        | Refrigerating capacity (kW) | 451.2 | 555.8 | 678.7 | 821.8 |
|                           | Power (kW)                  | 103.8 | 106.2 | 107.7 | 108.0 |
|                           | Current(A)                  | 176.9 | 180.8 | 183.3 | 183.9 |
| 40                        | Refrigerating capacity (kW) | 424.7 | 524.8 | 642.4 | 779.7 |
|                           | Power (kW)                  | 114.9 | 117.9 | 120.0 | 120.9 |
|                           | Current(A)                  | 195.3 | 200.4 | 204.0 | 205.5 |
| 45                        | Refrigerating capacity (kW) | 397.2 | 492.9 | 605.4 | 736.9 |
|                           | Power (kW)                  | 126.7 | 130.3 | 133.1 | 134.5 |
|                           | Current(A)                  | 215.4 | 221.7 | 226.4 | 228.9 |
| 50                        | Refrigerating capacity (kW) | 368.7 | 459.9 | 567.4 | 693.1 |
|                           | Power (kW)                  | 139.3 | 143.7 | 147.1 | 149.1 |
|                           | Current(A)                  | 237.2 | 244.7 | 250.5 | 254.0 |

## RE-230A/B Drawing (With valve)

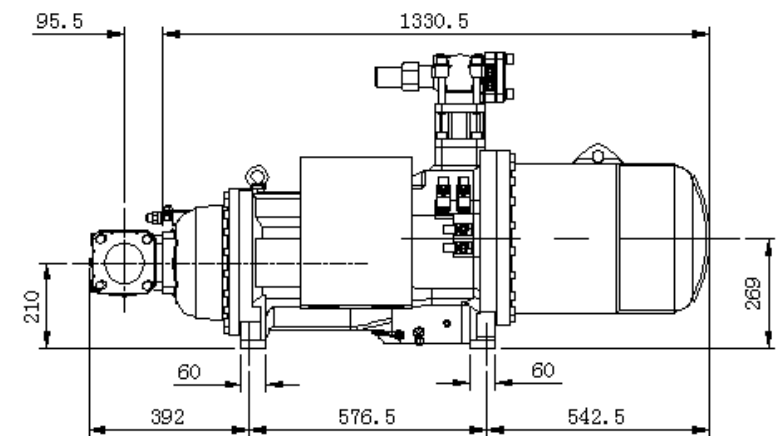
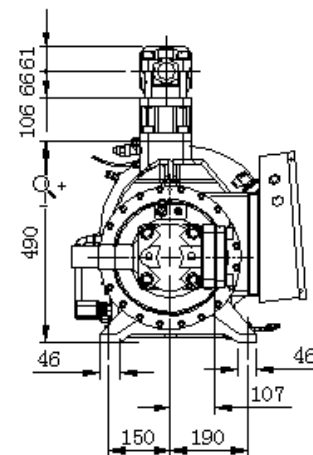
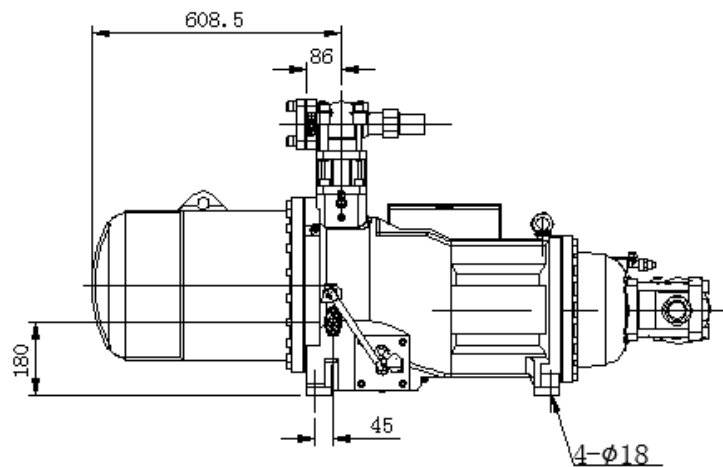
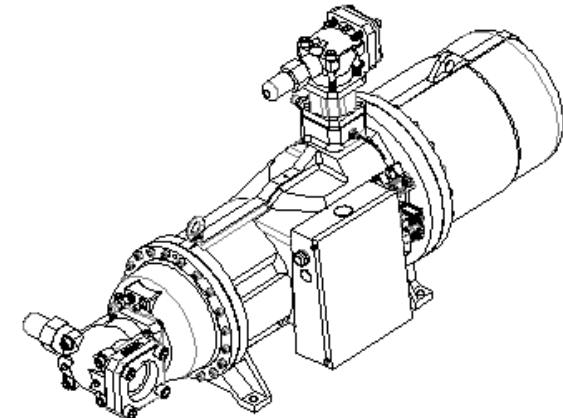
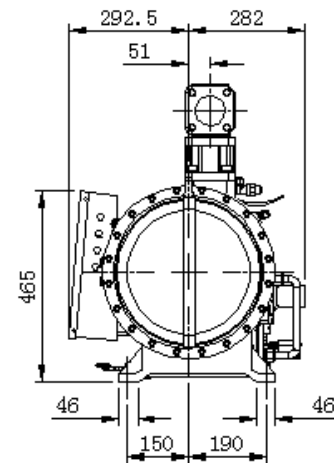
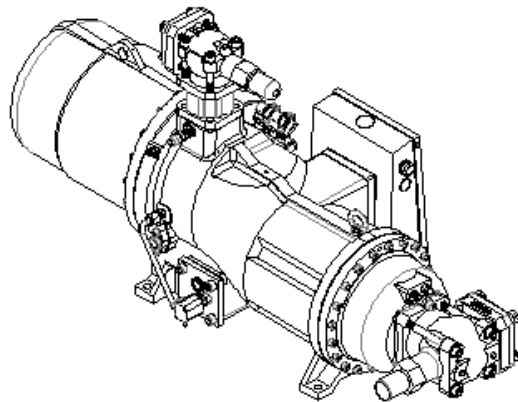




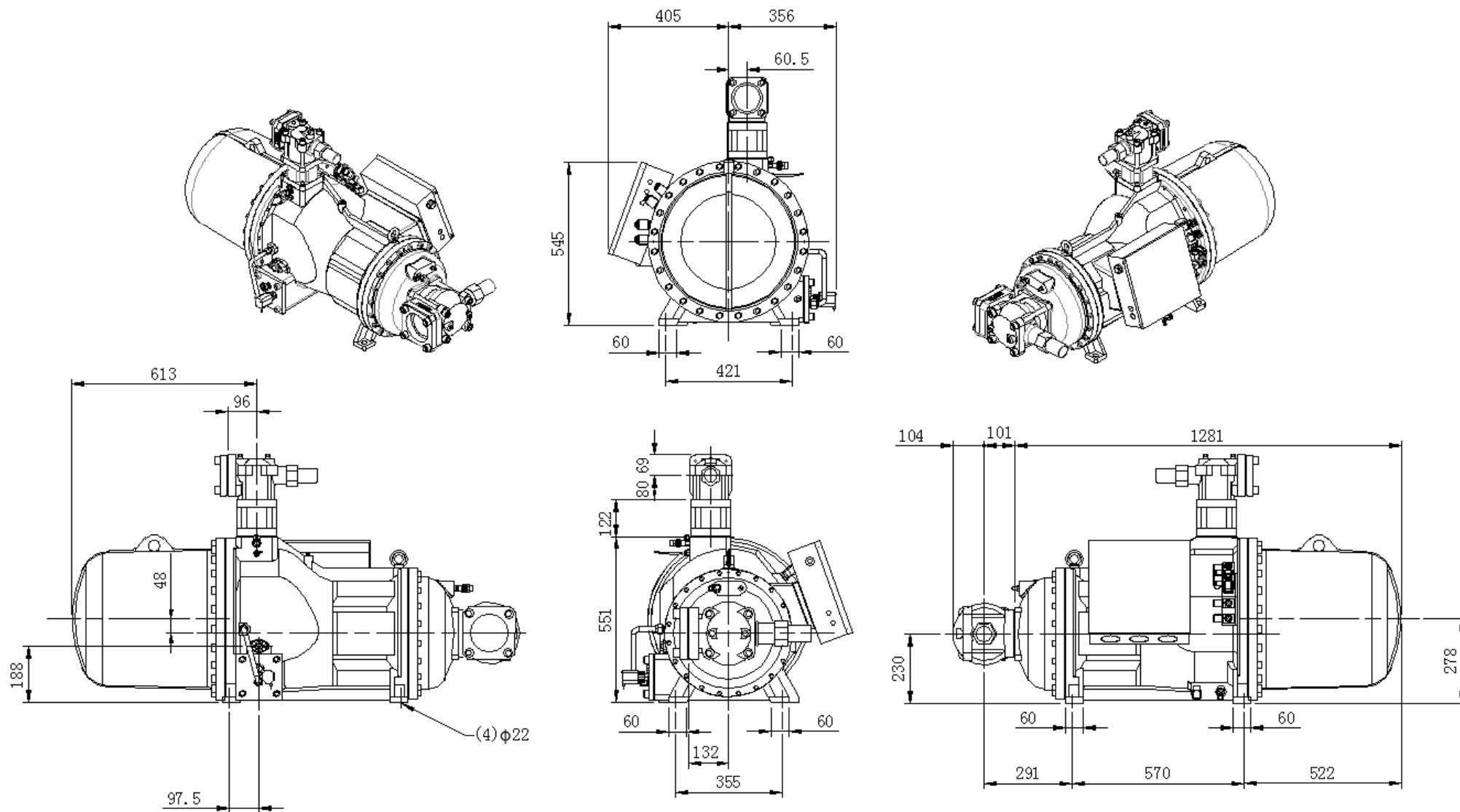
## RE-260A/B Drawing (With valve)



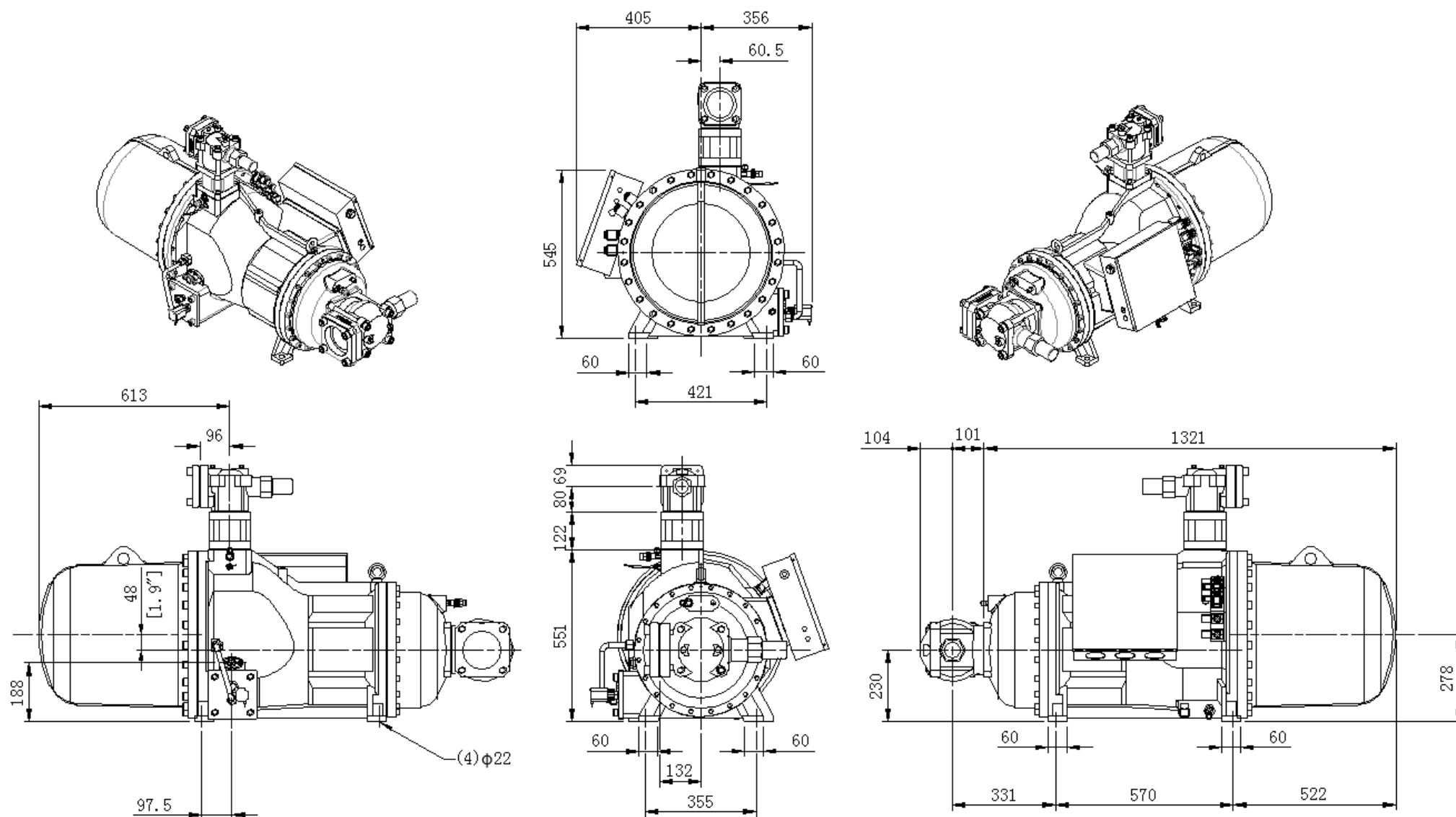
## RE-300A/B Drawing (With valve)



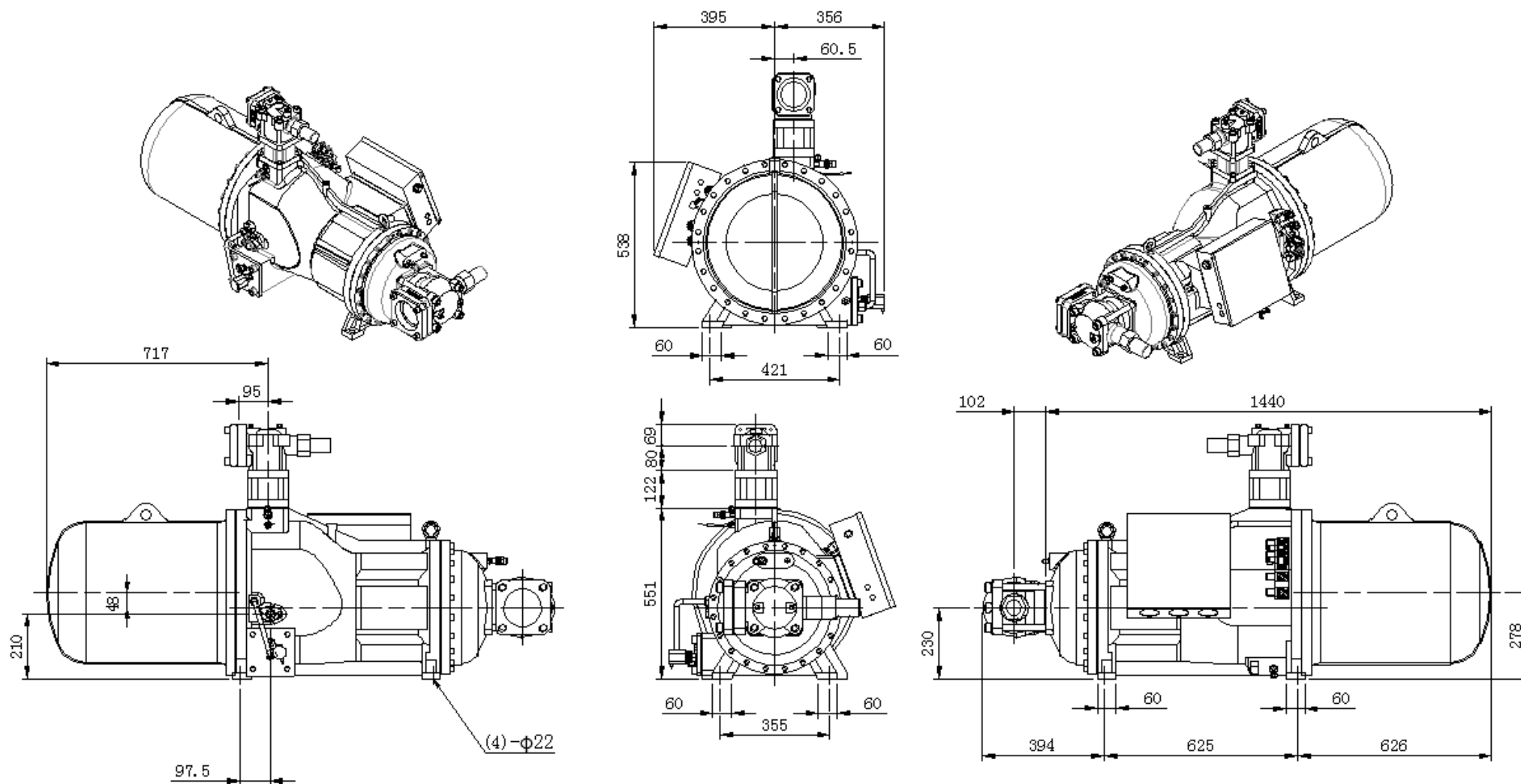
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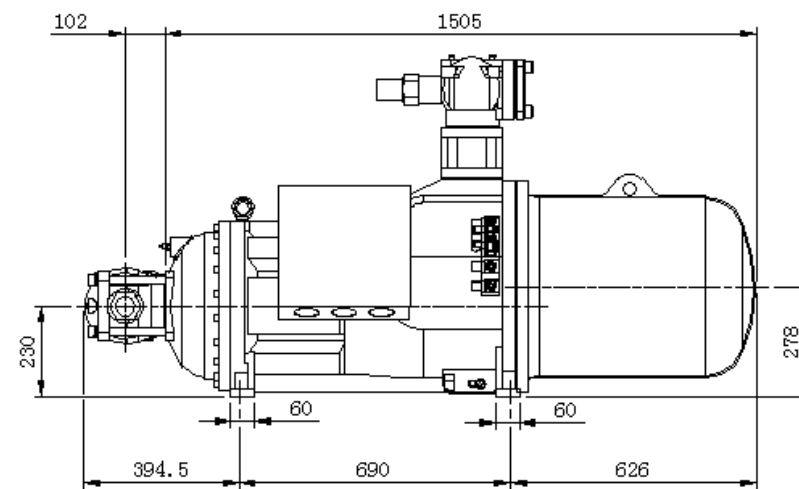
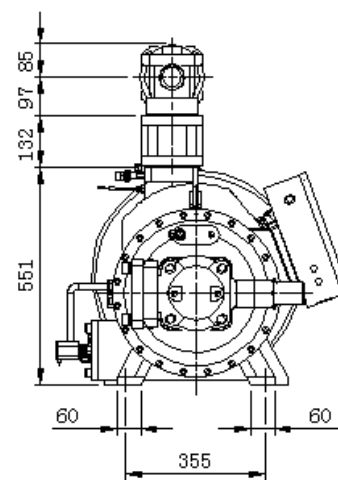
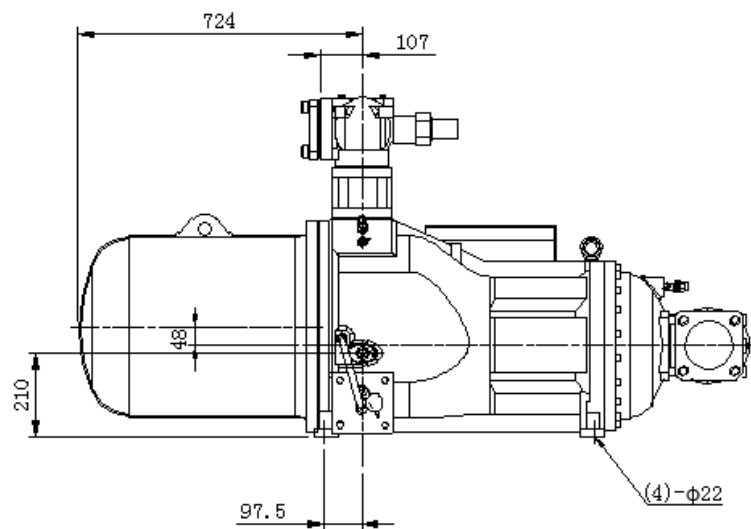
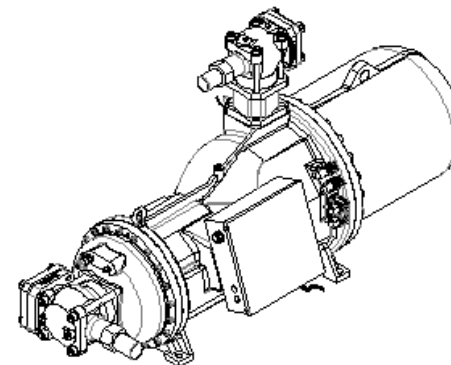
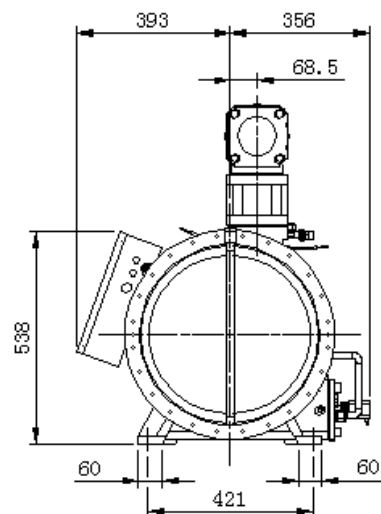
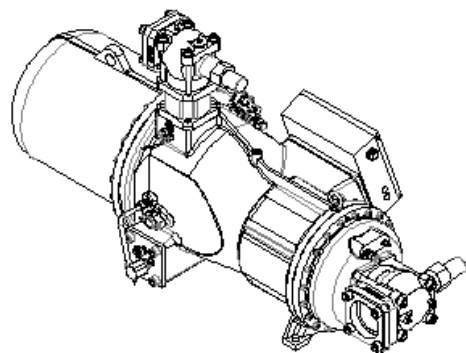
## RE-420B Drawing (With valve)



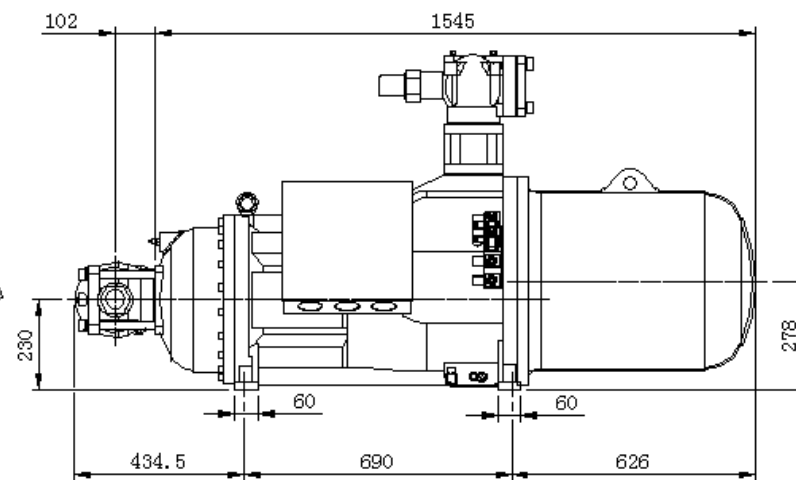
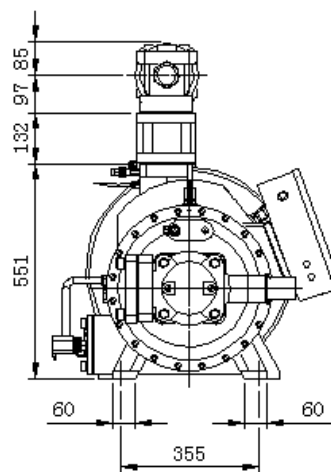
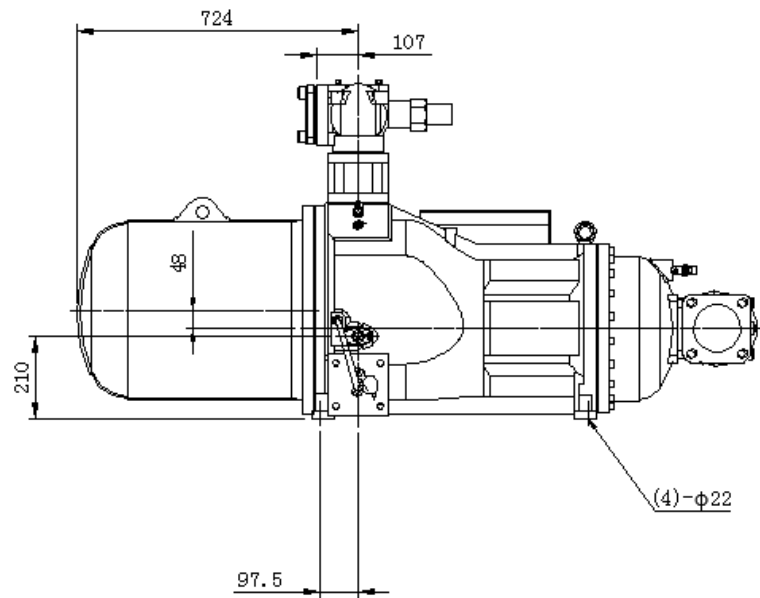
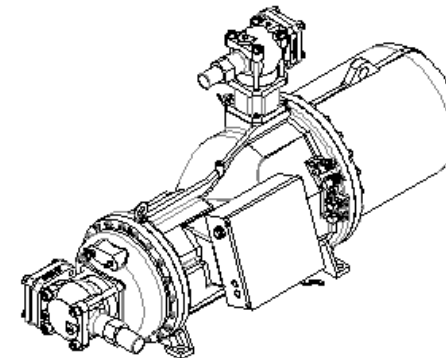
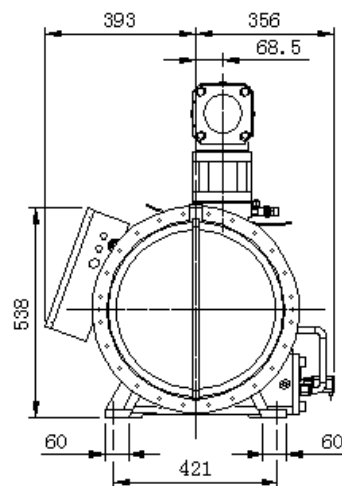
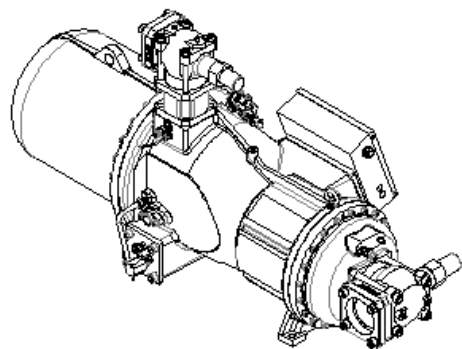
## RE-480A/B Drawing (With valve)



## RE-550A Drawing (With valve)



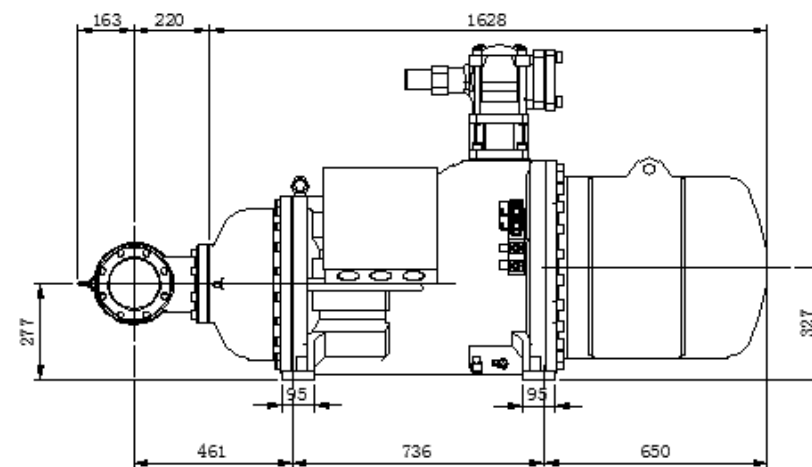
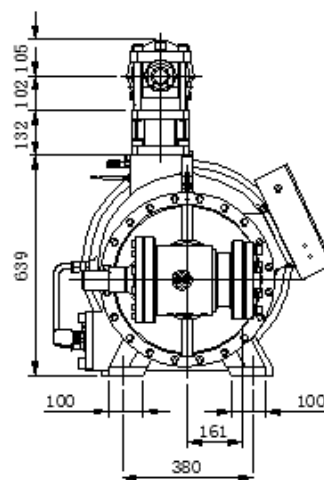
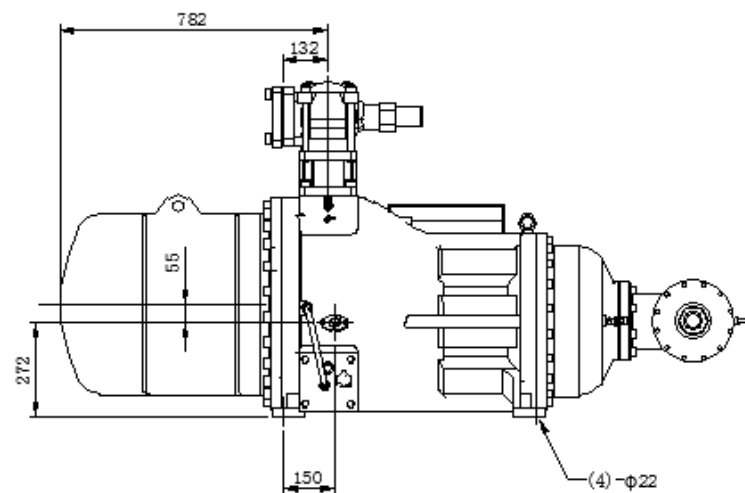
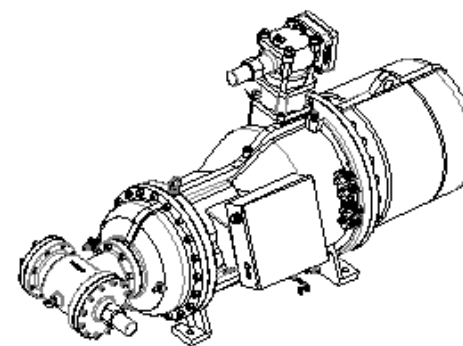
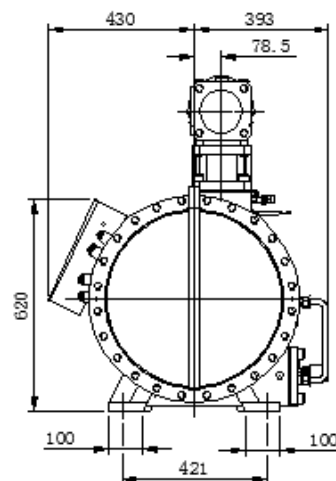
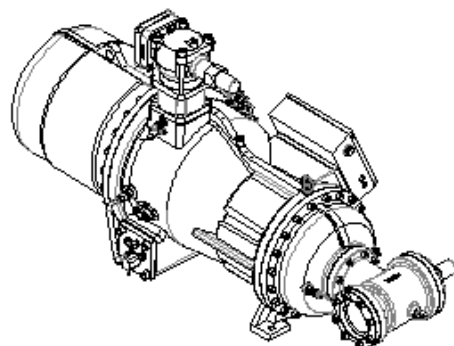
## RE-550B Drawing (With valve)



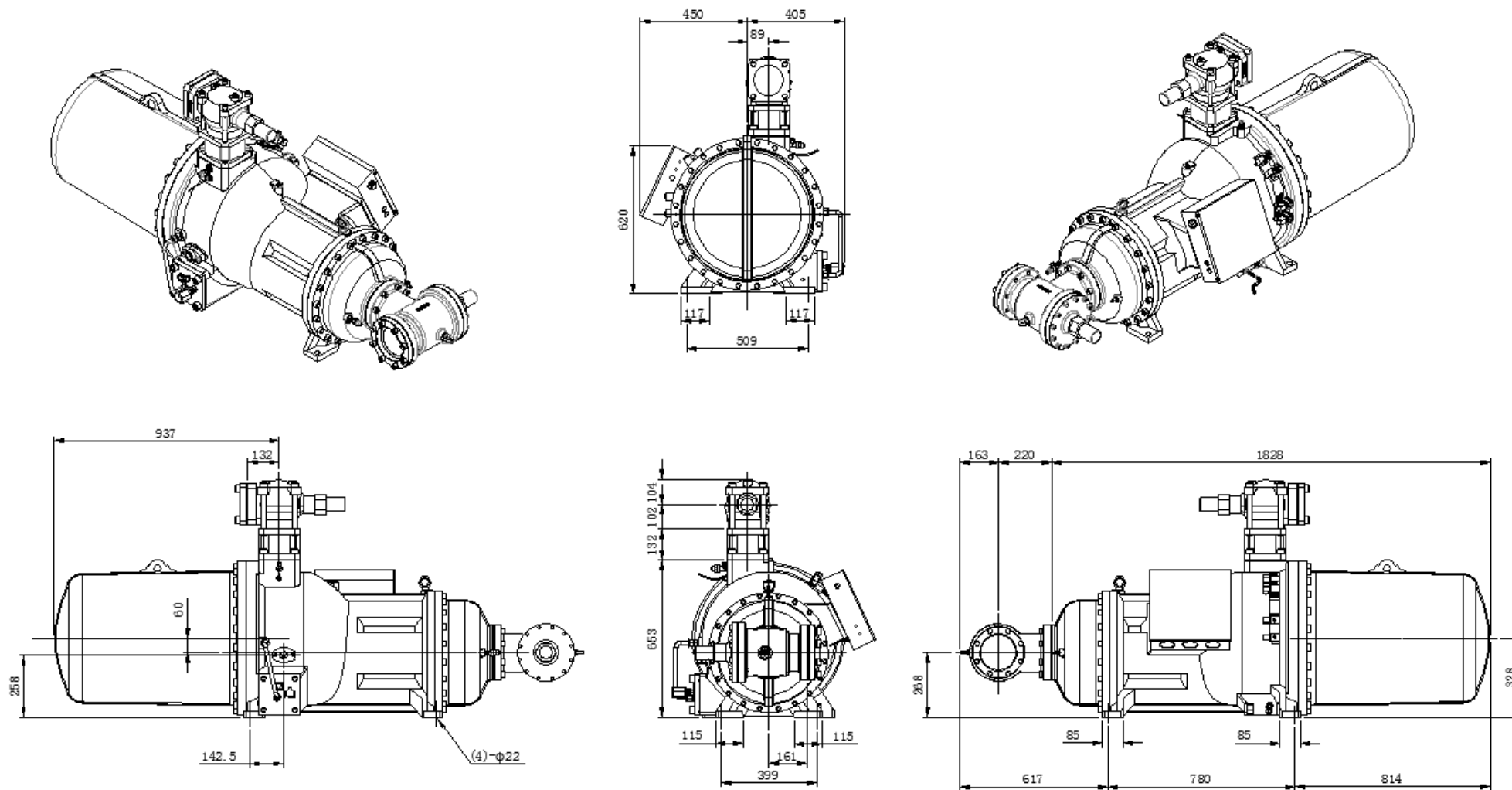




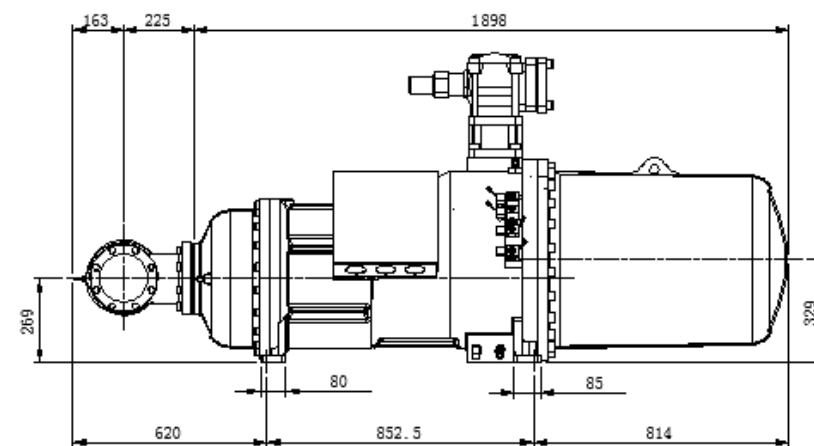
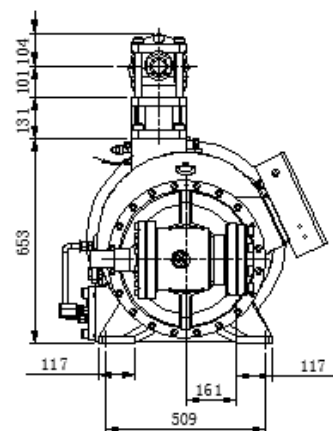
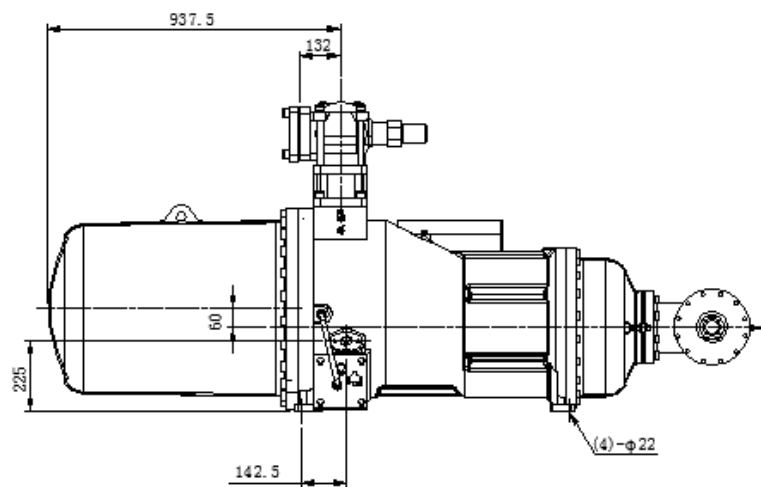
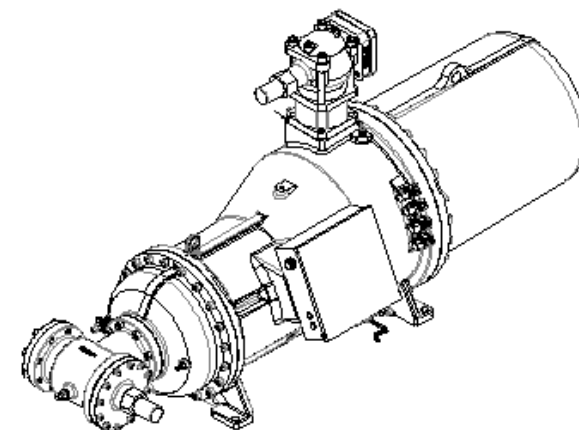
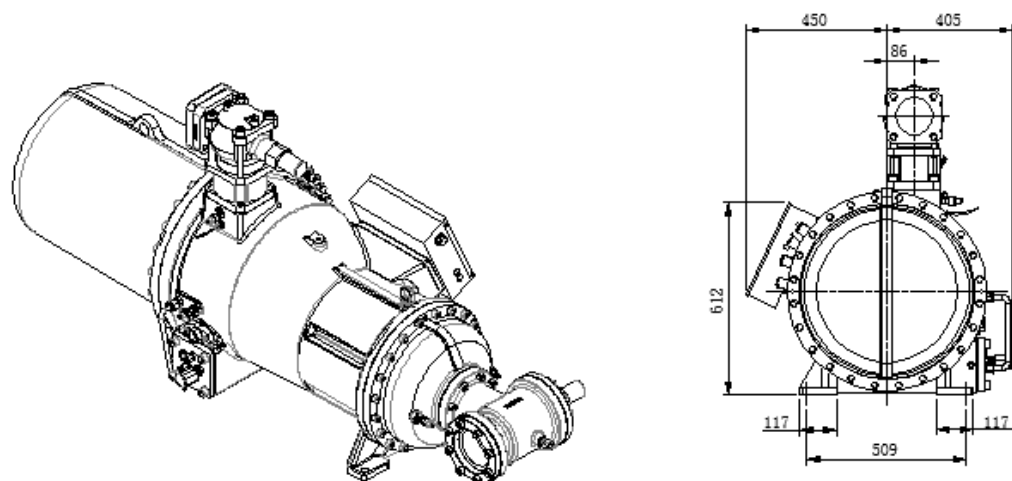
## RE-710A/B Drawing (With valve)



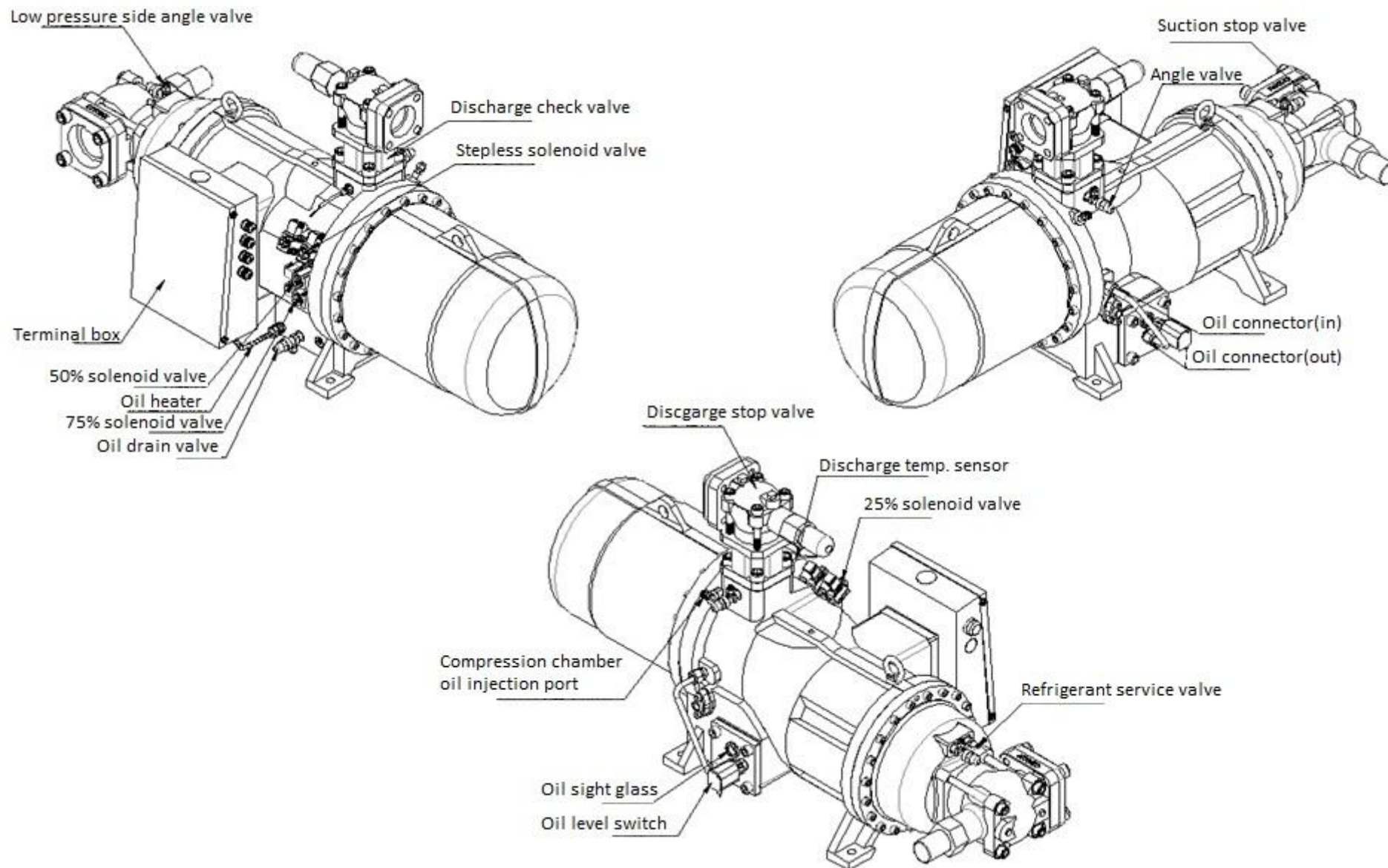
## RE-820A/B Drawing (With valve)



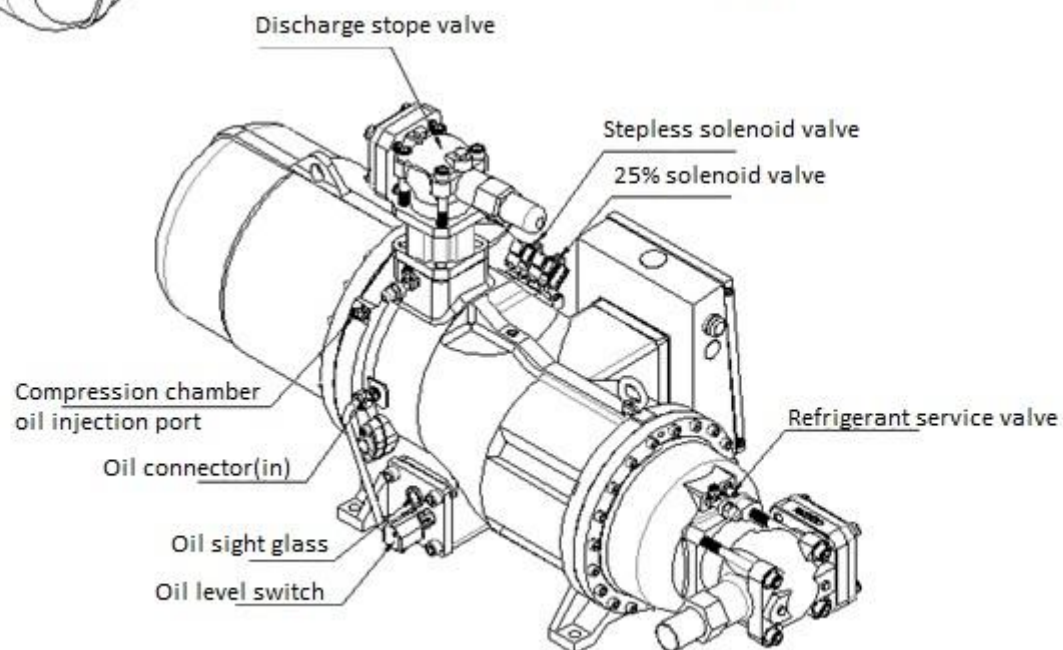
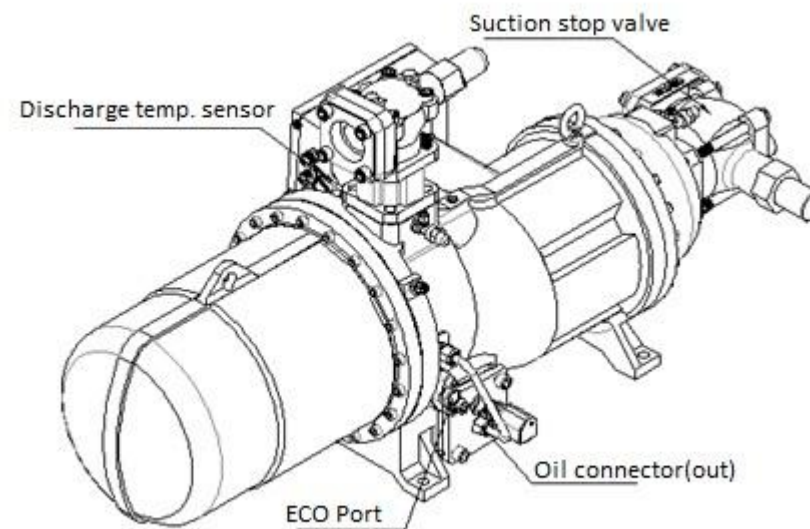
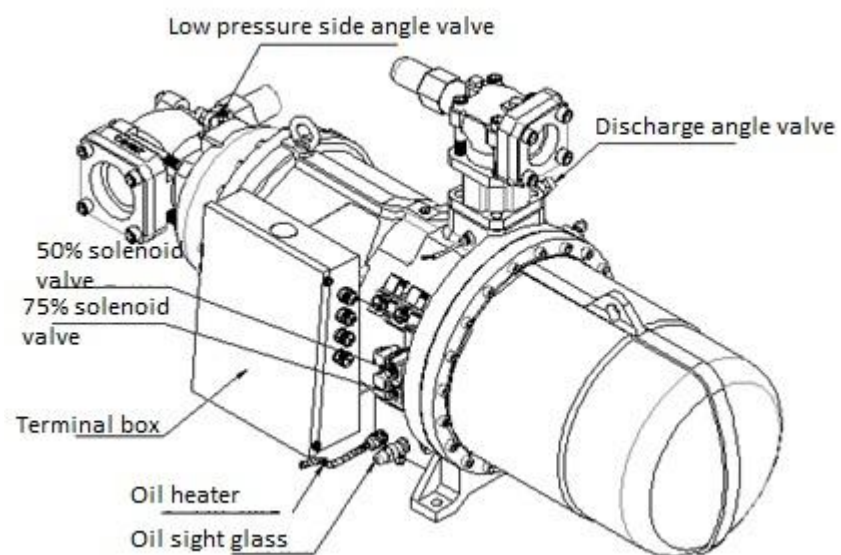
## RE-920A/B Drawing (With valve)



## RE-230A/B Drawing (With valve)

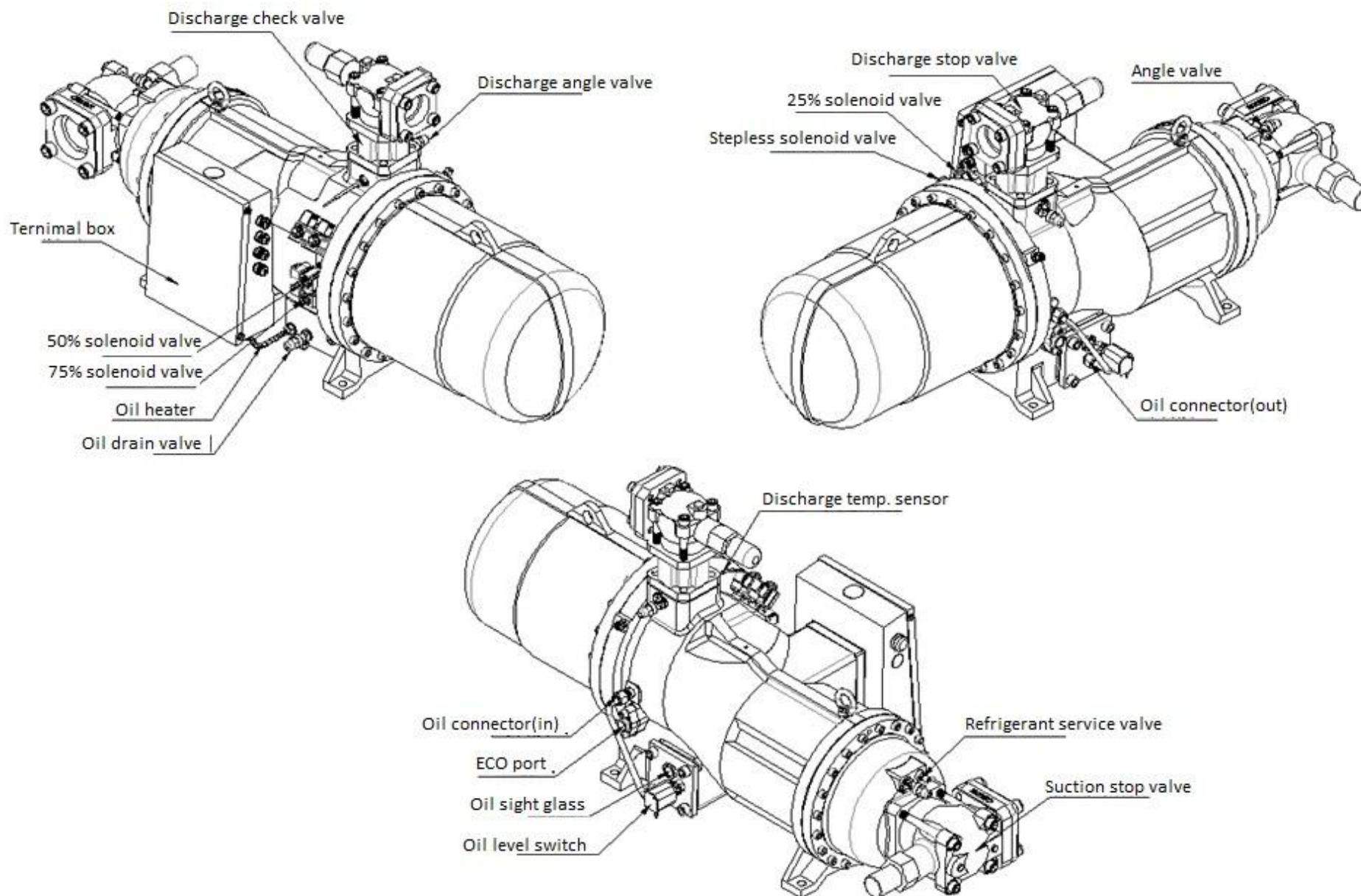


## RE-260A/B Drawing (With valve)

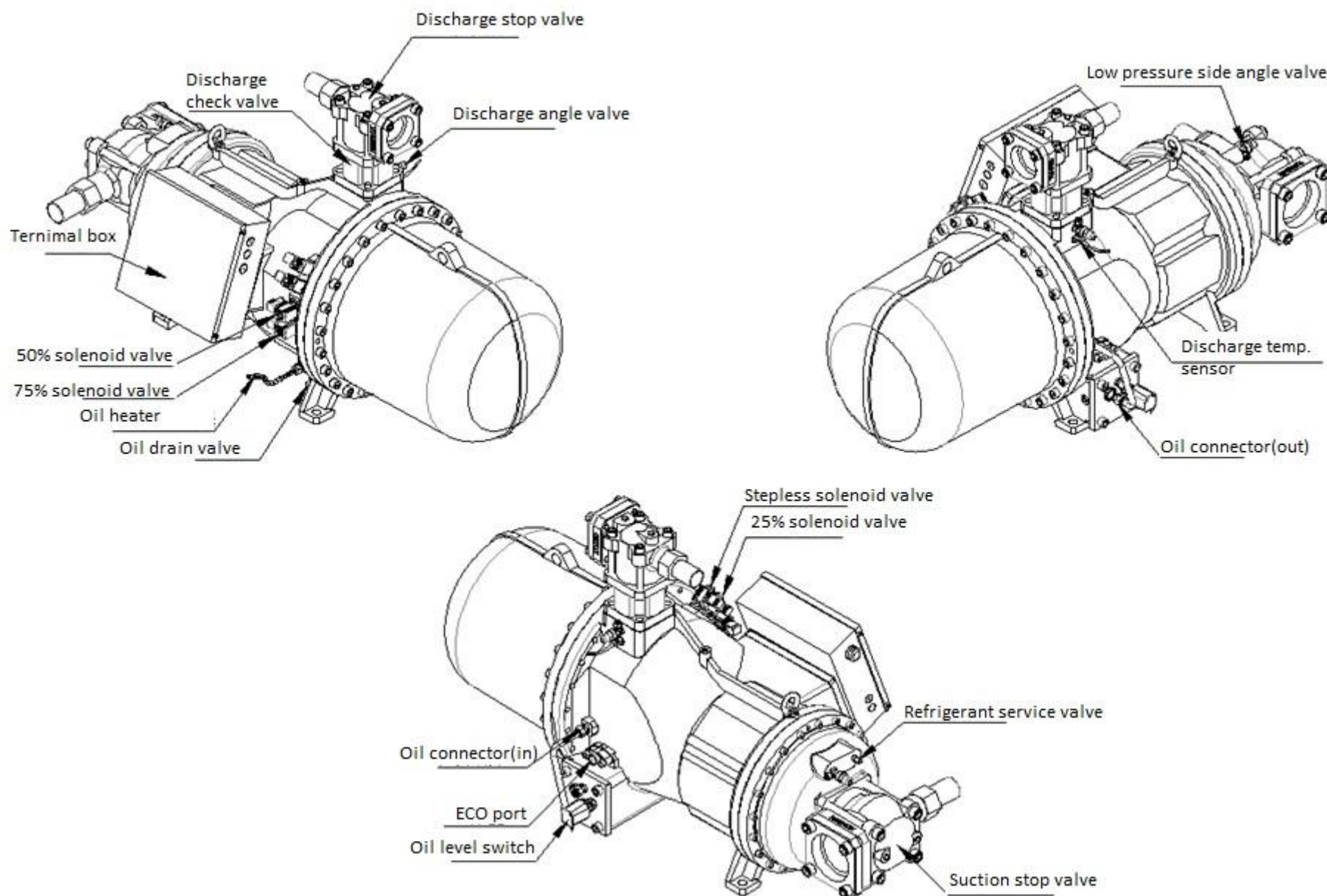




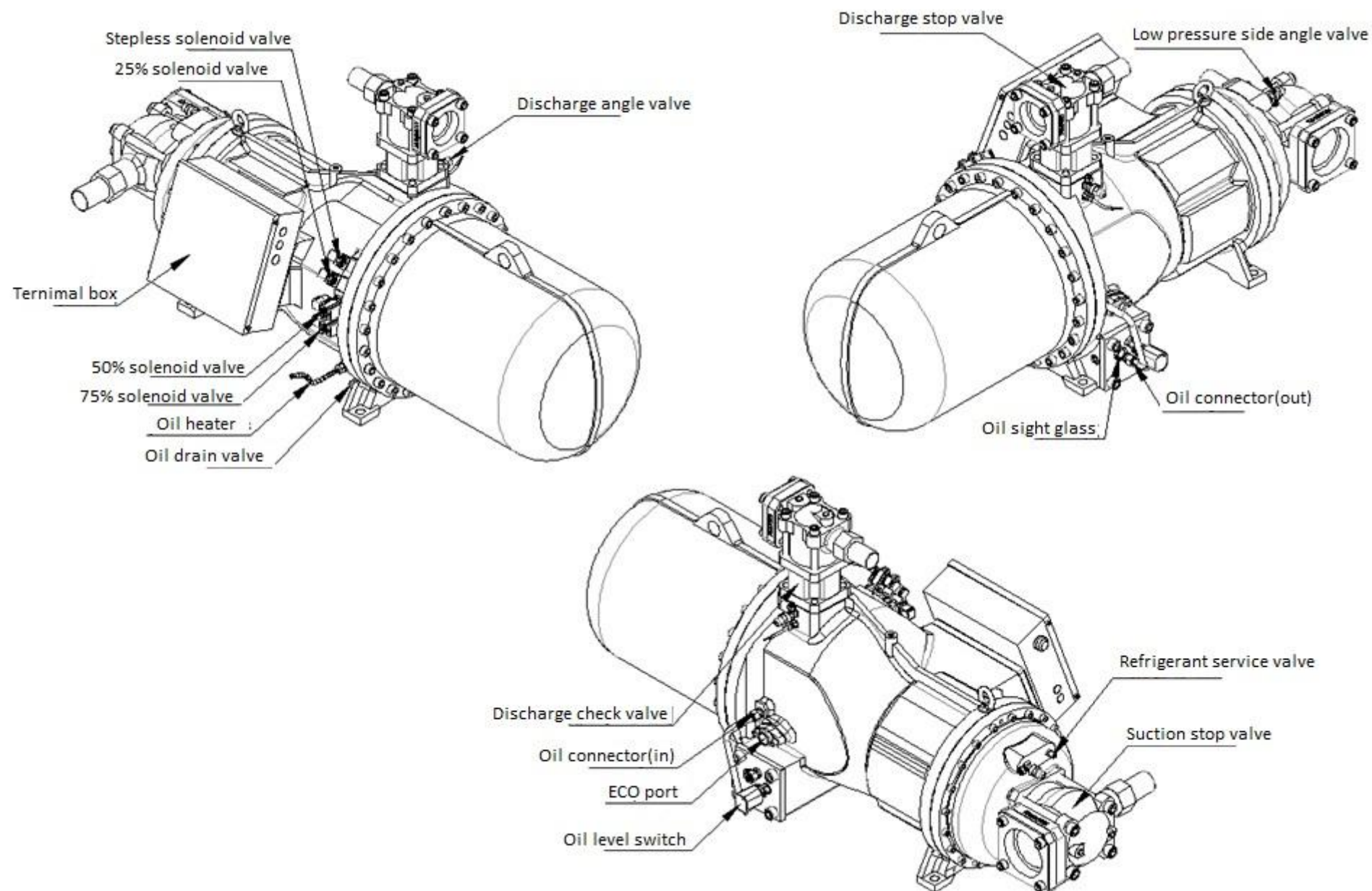
## RE-300A/B Drawing (With valve)



## RE-420A/B Drawing (With valve)

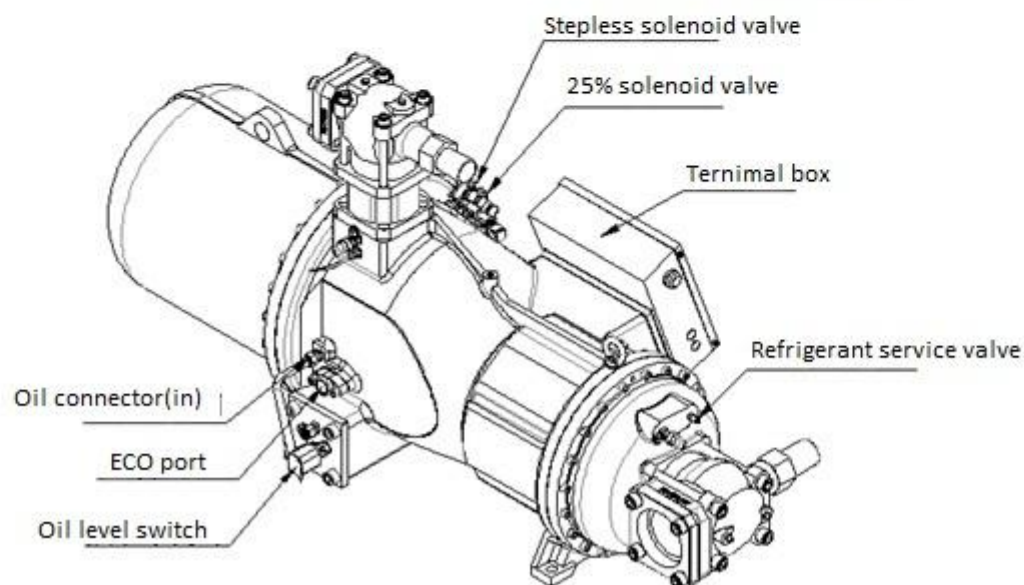
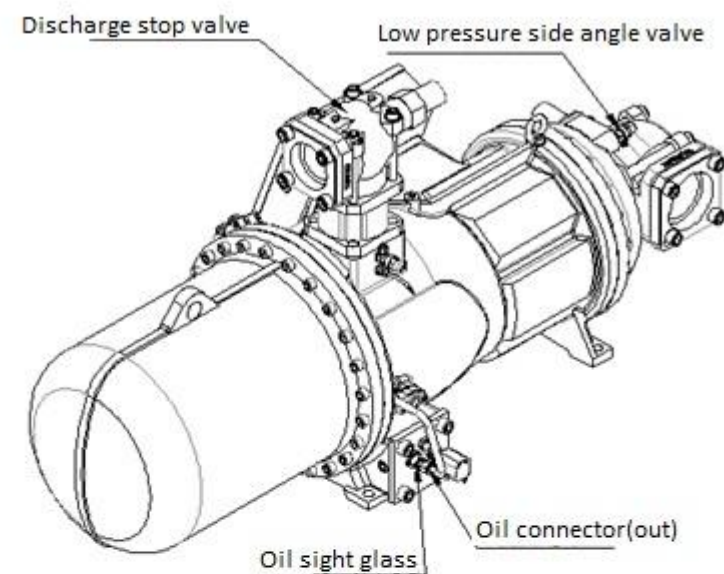
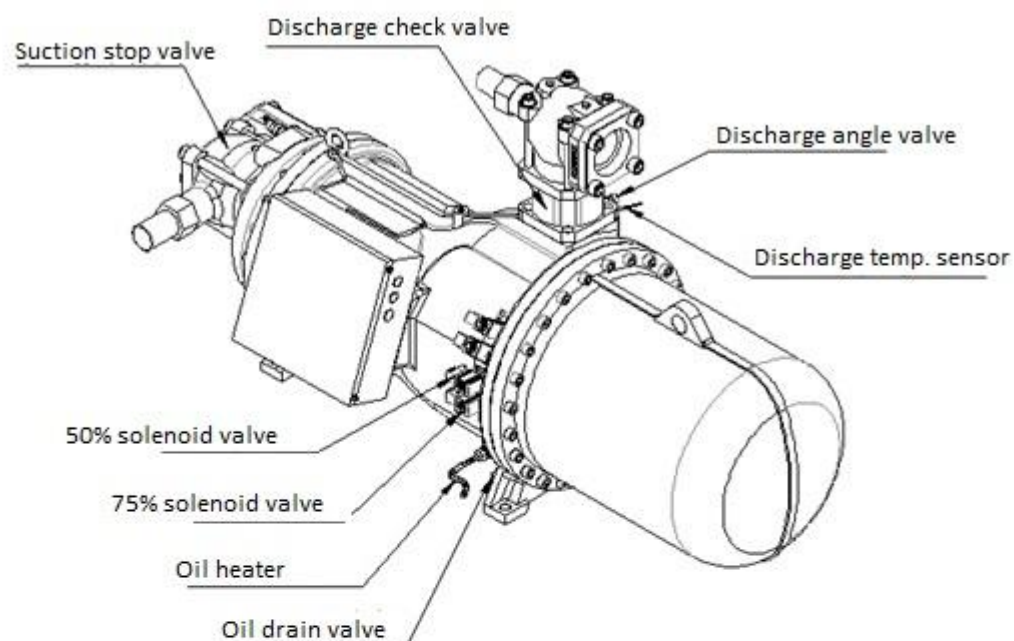


## RE-480A/B Drawing (With valve)

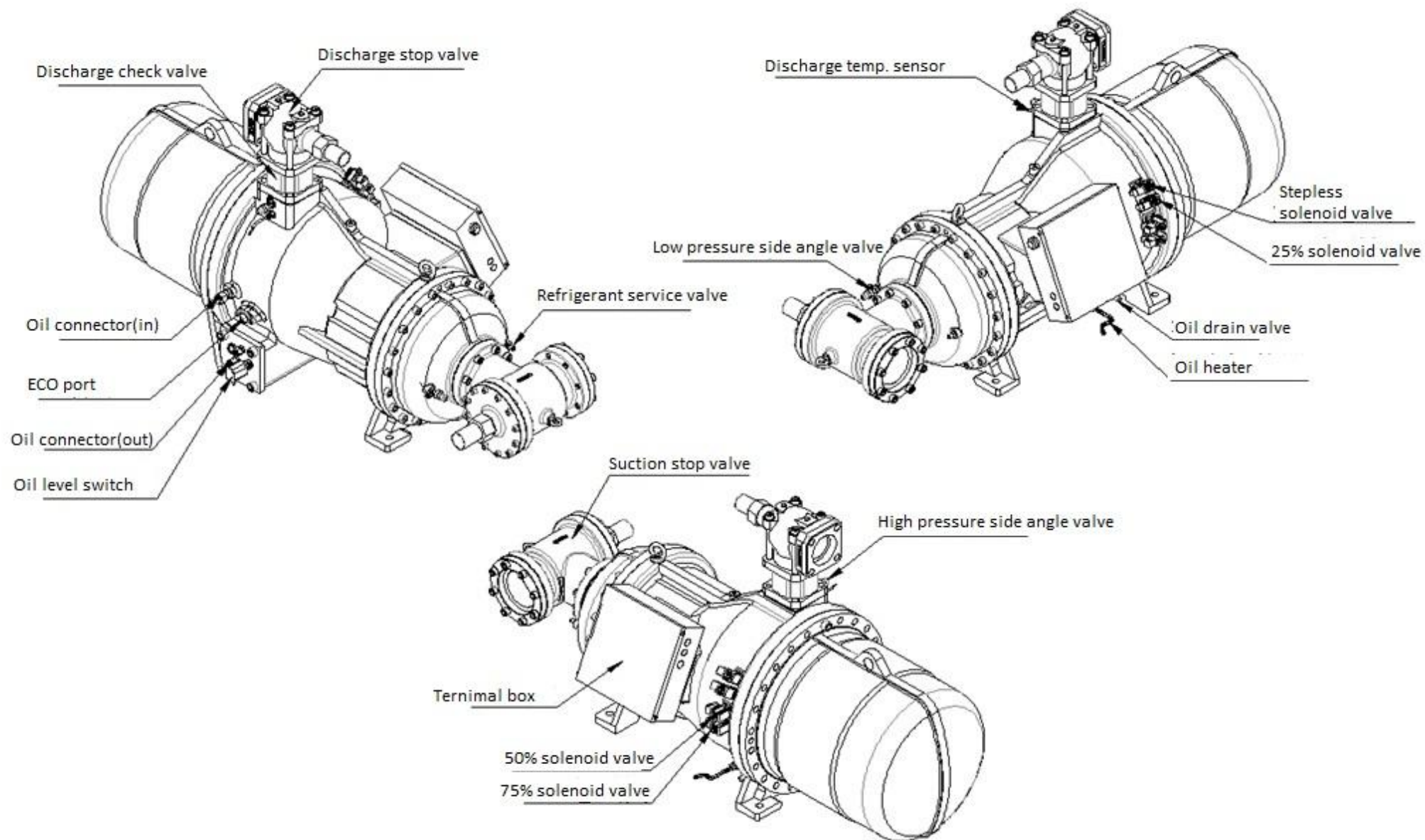




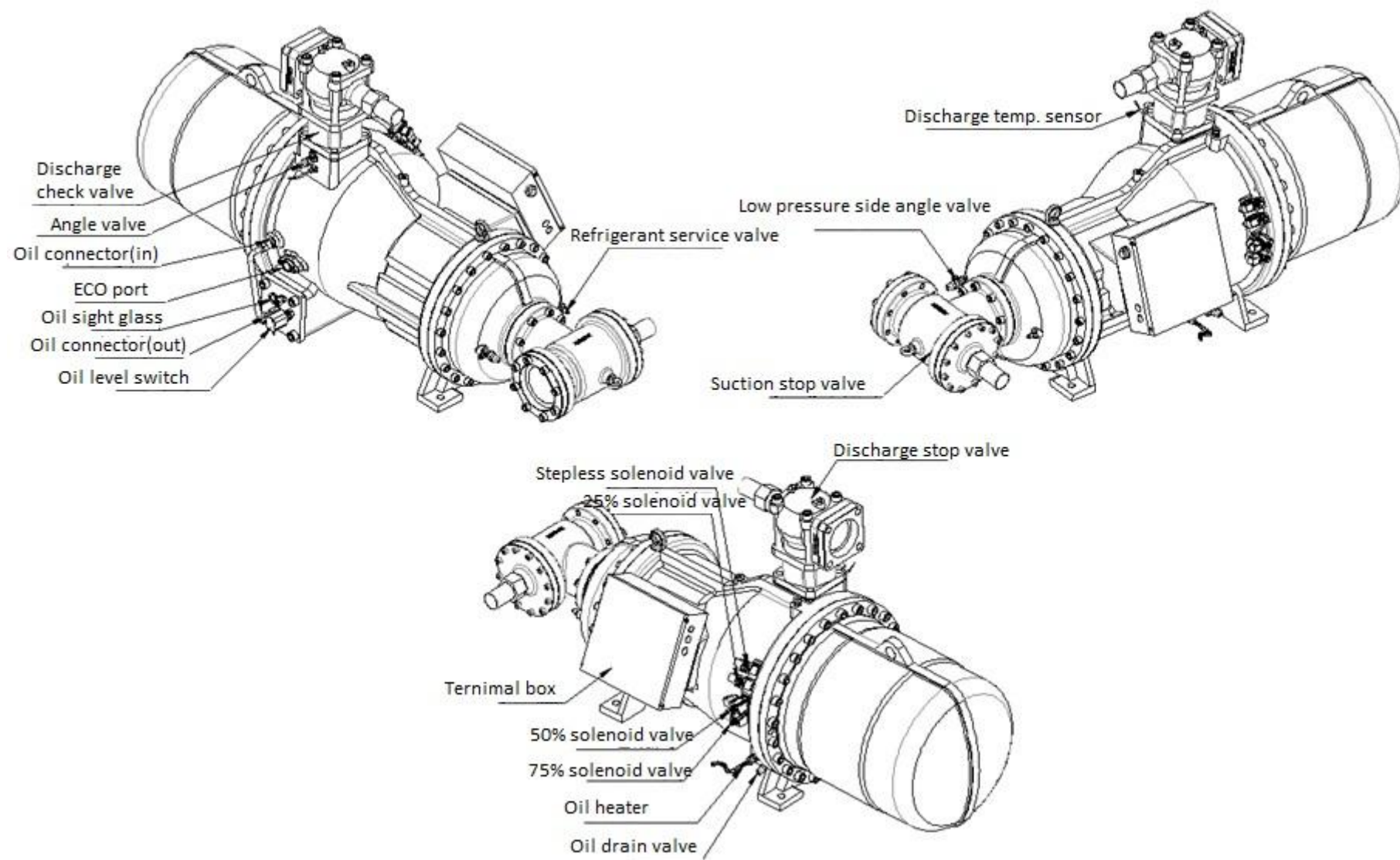
## RE-550A/B Drawing (With valve)



## RE-620A/B Drawing (With valve)

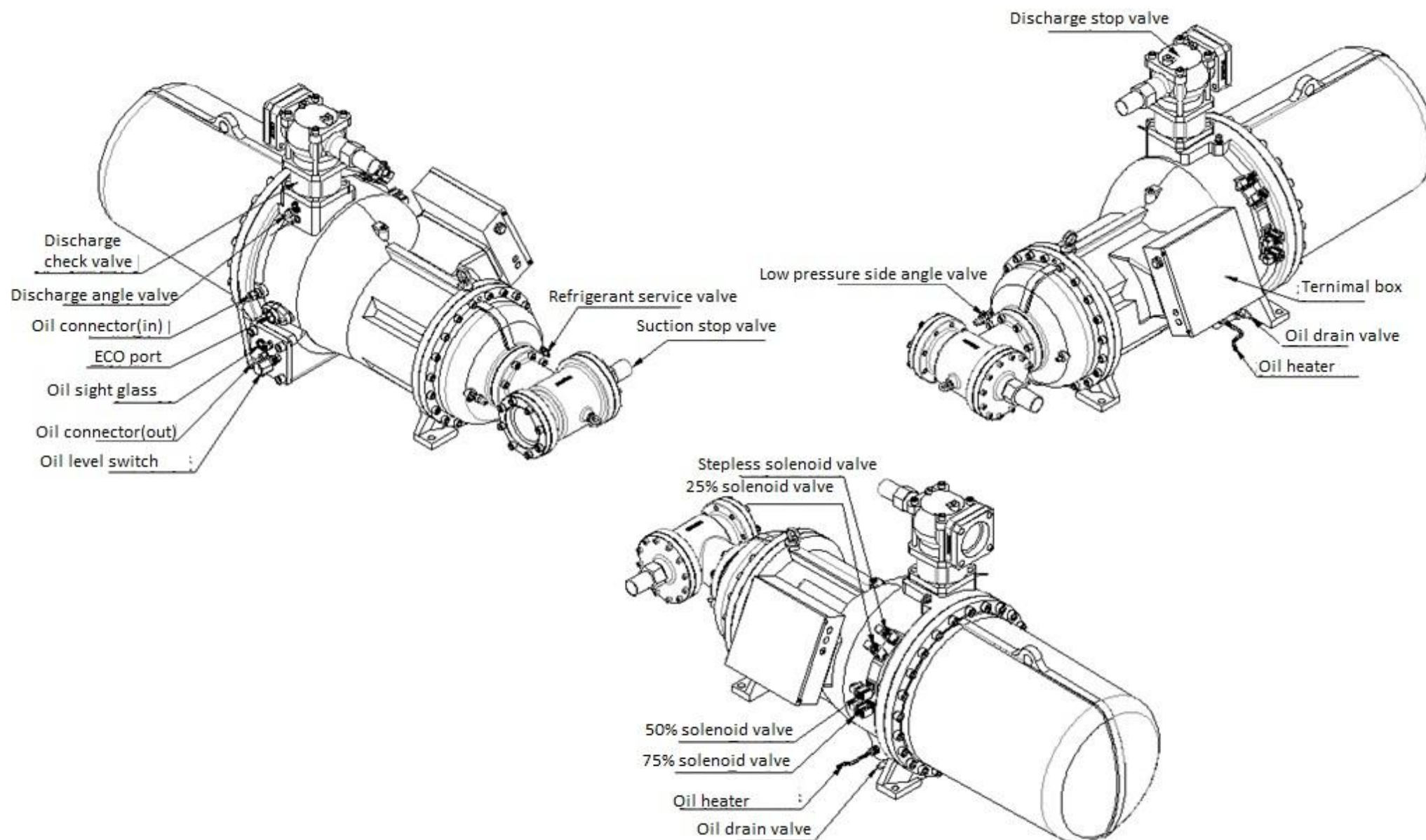


## RE-710A/B Drawing (With valve)

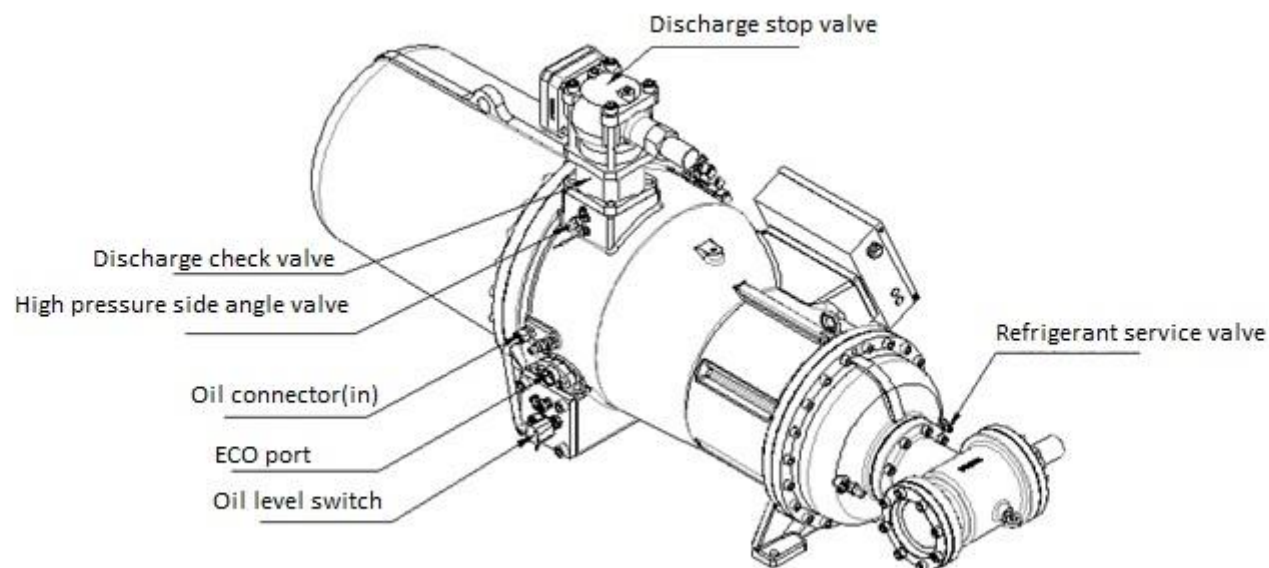
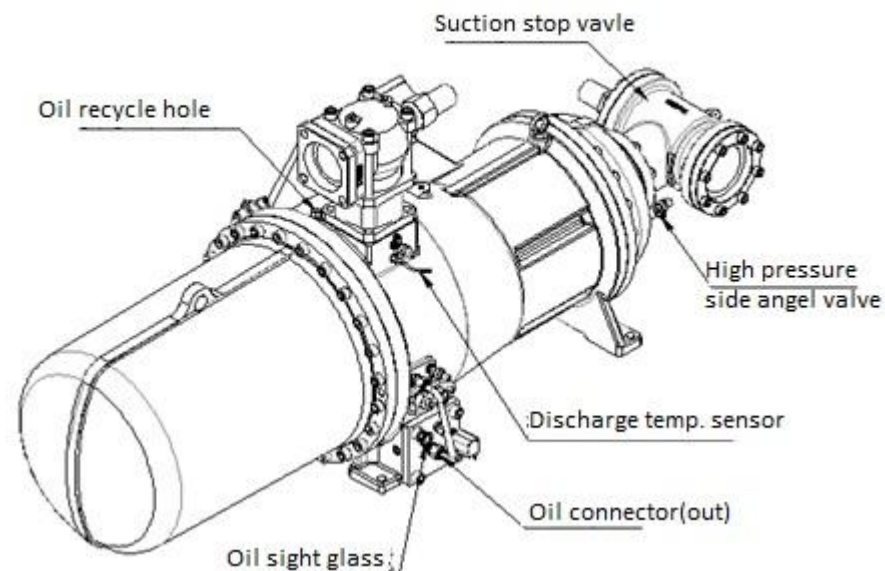
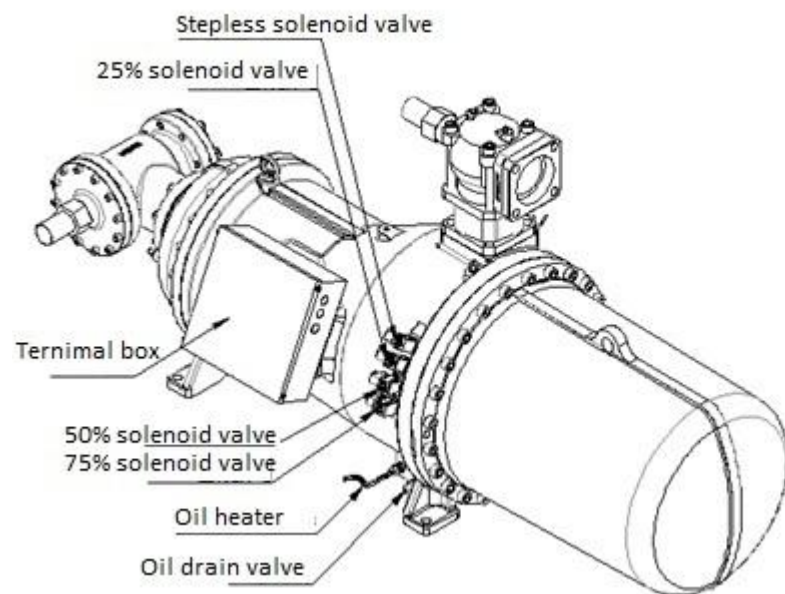




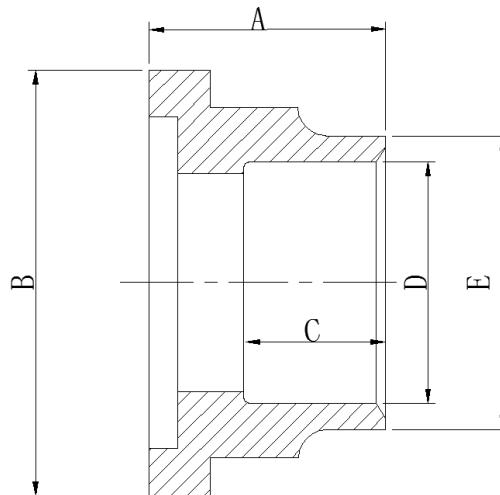
## RE-820A/B Drawing (With valve)



## RE-920A/B Drawing (With valve)



## Suction/Discharge connection bushing



**Remark:** The above Hanbell compressors are equipped with the following standard flange & bushing. If the customer does not specify the size of the flange & bushing when placing the order, the standard type will be provided. Requirement for non-standard size, please contact the sales representative of Hanbell when placing the order.

| RE-230~1150 suction/discharge flange, bushing |                   |                   |        |              |     |    |       |       |
|---|-------------------|-------------------|--------|--------------|-----|----|-------|-------|
| Model   | Discharge/Suction | Material and size |        | Bushing size |     |    |       |       |
|   |                   |                   |        | A            | B   | C  | D     | E     |
| RE-230<br>RE-260<br>RE-300                    | Discharge         | Cooper            | 2 1/8" | 50           | 90  | 30 | 54.3  | 65    |
|   |                   | Steel             | 2"     |              |     |    | 61.3  | 74    |
|   | Suction           | Cooper            | 3 1/8" | 66           | 120 | 45 | 79.8  | 90    |
|   |                   | Steel             | 3"     |              |     |    | 90.2  | 103   |
| RE-420<br>RE-480                              | Discharge         | Cooper            | 2 5/8" | 60           | 110 | 35 | 67    | 77    |
|   |                   | Steel             | 2 1/2" |              |     |    | 77.2  | 90    |
|   | Suction           | Cooper            | 4 1/8" | 76           | 145 | 50 | 105.1 | 116   |
|   |                   | Steel             | 4"     |              |     |    | 115.6 | 128   |
| RE-550  | Discharge         | Cooper            | 3 1/8" | 66           | 120 | 45 | 79.8  | 90    |
|   |                   | Steel             | 3"     |              |     |    | 90.2  | 103   |
|   | Suction           | Cooper            | 4 1/8" | 76           | 145 | 50 | 105.1 | 116   |
|   |                   | Steel             | 4"     |              |     |    | 115.6 | 128   |
| RE-620  | Discharge         | Cooper            | 3 1/8" | 66           | 120 | 45 | 79.8  | 90    |
|   |                   | Steel             | 3"     |              |     |    | 90.2  | 103   |
|   | Suction           | Cooper            | 5 1/8" | 75           | 174 | 35 | 130.5 | 146.5 |
|   |                   | Steel             | 5"     |              |     |    | 141.3 | 154   |
| RE-710<br>RE-820<br>RE-930                    | Discharge         | Cooper            | 4 1/8" | 76           | 145 | 50 | 105.1 | 116   |
|   |                   | Steel             | 4"     |              |     |    | 115.6 | 128   |
|   | Suction           | Cooper            | 5 1/8" | 75           | 174 | 35 | 130.5 | 146.5 |
|   |                   | Steel             | 5"     |              |     |    | 141.3 | 154   |
| RE-1150                                       | Discharge         | Cooper            | 4 1/8" | 76           | 145 | 50 | 105.1 | 116   |
|   |                   | Steel             | 4"     |              |     |    | 115.6 | 128   |
|   | Suction           | Steel             | 6"     | 75           | 215 | 40 | 159   | 196   |