

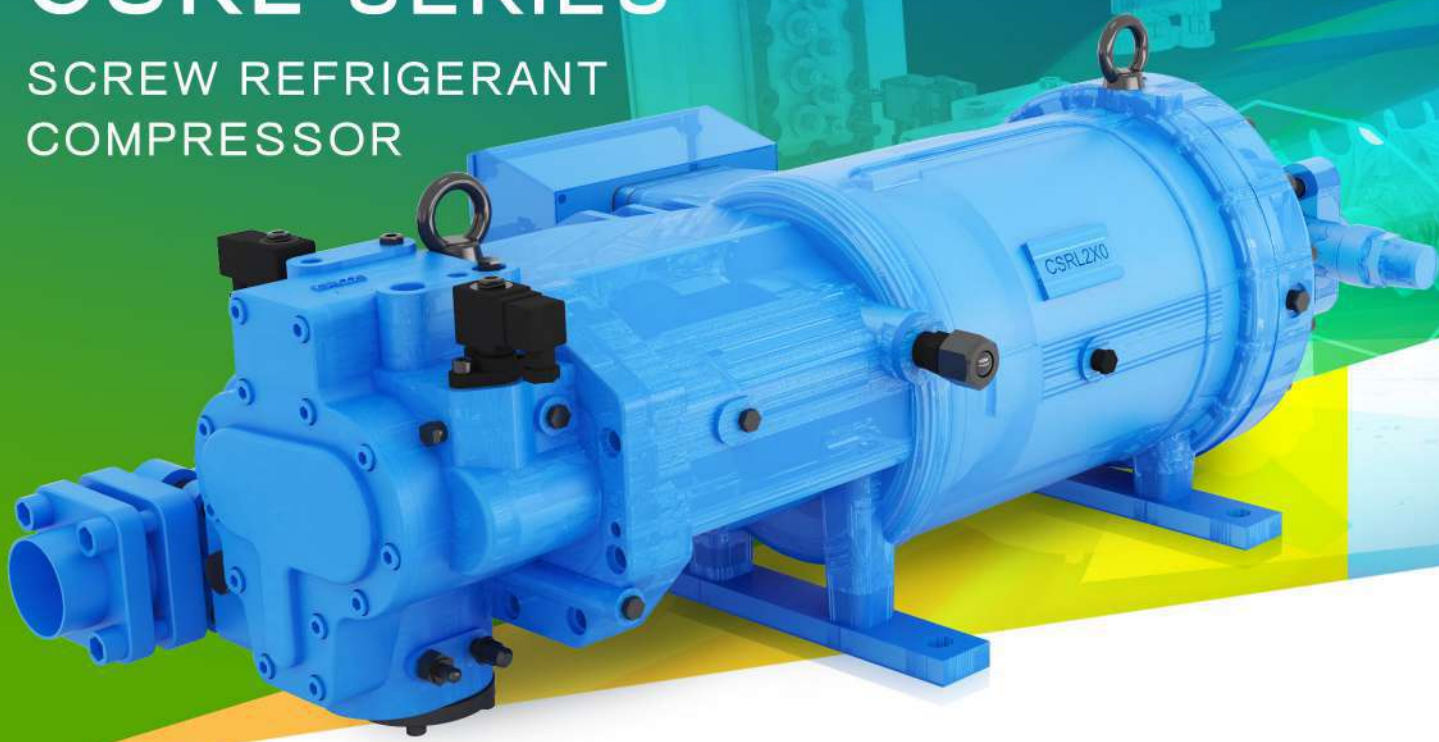


CSRL SERIES

SCREW REFRIGERANT  
COMPRESSOR

# CSRL SERIES

## SCREW REFRIGERANT COMPRESSOR



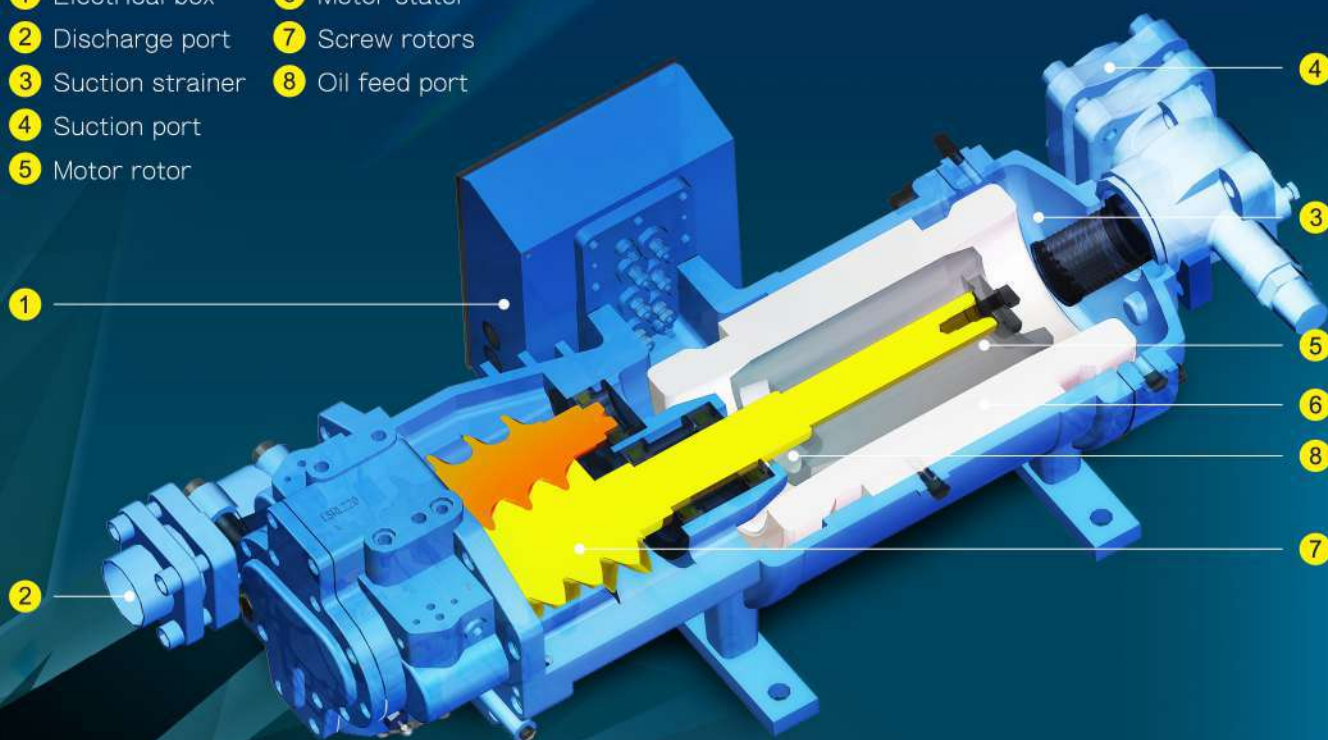
### High Efficiency Middle and Low Temperature Screw Compressor

CSRL-MP/DP series compressor has been designed for the application of middle and low temperature refrigeration industries by taking Fusheng newly-developed screw rotor profile as a platform.

Inheriting experiences of BSR superior quality, CSRL series is able to fulfill high efficiency, smooth appearance and reliable quality to meet the requirement of low temperature application.

### Mechanical structure

- 1 Electrical box
- 2 Discharge port
- 3 Suction strainer
- 4 Suction port
- 5 Motor rotor
- 6 Motor stator
- 7 Screw rotors
- 8 Oil feed port





## Features

- Complying with EU product regulation to guarantee operation safety.
- Special oil lubrication system to reduce operation noise.
- Feasible for multiple units in parallel operation to meet large capacity need.
- Optimized economizer connection port to increase system performance.
- Wide operation envelope to satisfy variable temperature demand (Te 7.5℃~-45℃).
- Workable with an inverter to precisely reflect the system loading change (under frequency 20Hz~60Hz, over frequency 20Hz~80Hz).

## CSRL Specification

| Model                       |                          |                    | 85   | 100 | 120 | 140 | 170 | 190         | 220 | 250 | 320   | 360 | 400 | 480 |
|-----------------------------|--------------------------|--------------------|--|-----|-----|-----|-----|-------------|-----|-----|---|-----|-----|-----|
| Suction sat. temperature    | DP                       | ℃                  | -45℃~-15℃ (R404A/R507)   |     |     |     |     |             |     |     |   |     |     |     |
|                             | MP                       | ℃                  | -30℃~7.5℃ (R404A/R507)   |     |     |     |     |             |     |     |   |     |     |     |
| Power frequency             |                          | Hz                 | 50/60  |     |     |     |     |             |     |     |   |     |     |     |
| Compressor                  | Voltage                  | RPM                | 2950/3550  |     |     |     |     |             |     |     |   |     |     |     |
|                             | 50Hz displacement        | m <sup>3</sup> /hr | 85   | 100 | 120 | 140 | 170 | 190         | 220 | 250 | 320   | 360 | 400 | 480 |
|                             | 60Hz displacement        | m <sup>3</sup> /hr | 100  | 120 | 140 | 170 | 200 | 228         | 264 | 300 | 384   | 432 | 480 | 576 |
| Motor horse power (HP)      | Low temperature model    | DP(50Hz)           | 17   | 21  | 25  | 33  | 42  | 50          | 58  | 63  | 80  | 90  | 104 | 120 |
|                             |                          | DP(60Hz)           | 20   | 25  | 30  | 40  | 50  | 60          | 70  | 75  | 95  | 110 | 125 | 145 |
|                             | Middle temperature model | MP(50Hz)           | 25   | 29  | 33  | 42  | 50  | 58          | 67  | 75  | 92  | 104 | 117 | 133 |
|                             |                          | MP(60Hz)           | 30   | 35  | 40  | 50  | 60  | 70          | 80  | 90  | 110   | 125 | 140 | 160 |
| Refrigerant                 |                          | -                  | R404A · R507   |     |     |     |     |             |     |     |   |     |     |     |
| MOTOR                       | Voltage                  | V                  | 380~415/220 · 380 · 440 · 460  |     |     |     |     |             |     |     |   |     |     |     |
|                             | Start up                 | -                  | Y- Δ start up or Variable frequency start up · direct-on-line start up |     |     |     |     |             |     |     |   |     |     |     |
| Dimension of suction port   |                          | Inch(mm)           | 2-5/8" (67)  |     |     |     |     | 3-1/8" (79) |     |     | 4" (101.6)  |     |     |     |
| Dimension of discharge port |                          | Inch(mm)           | 1-5/8" (42)  |     |     |     |     | 2-5/8" (67) |     |     | 3-1/8" (79)                                       |     |     |     |
| Capacity modulation mode    |                          | %                  | Step control (50%-75%-100%)  |     |     |     |     |             |     |     | Step control (25%-50%-75%-100%) or linear control |     |     |     |
| Inverter frequency range    |                          | Hz                 | 20~60Hz or 20~80Hz   |     |     |     |     |             |     |     |   |     |     |     |
| Lubrication mode            |                          |                    | Pressure differential oil feeding                                      |     |     |     |     |             |     |     |   |     |     |     |

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Front view

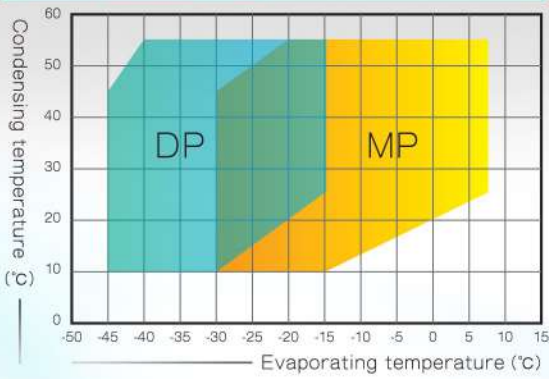


Rear view

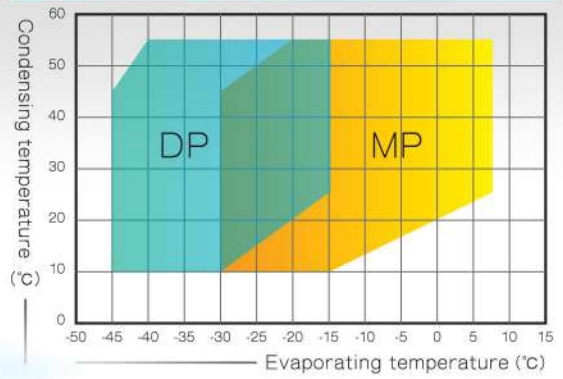
Operation envelope

DP : Low temperature model  
MP : Middle temperature model

R404A Application limits



R507 Application limits



Application

CSRL series compressor can meet various middle and low temperature industry chain needs and achieve stable and reliable capacity output.



Ice making



Offshore fishery freezing



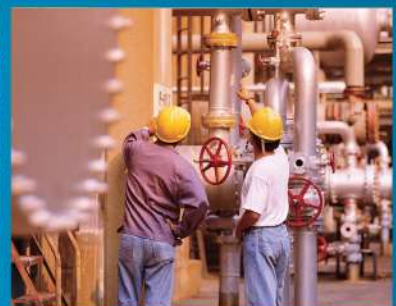
Food instant refrigeration processing



Sea food instant refrigeration processing



Butchery industry processing



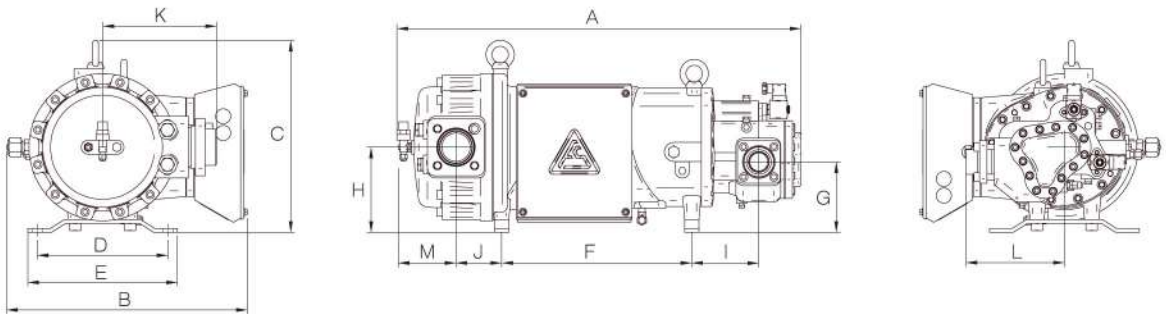
Chemical industry processing

# High efficiency middle and low temperature screw compressor

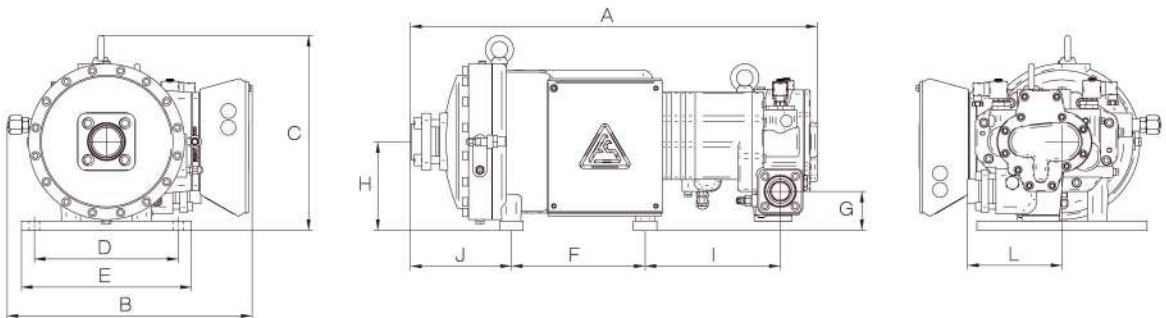


## Outline dimension

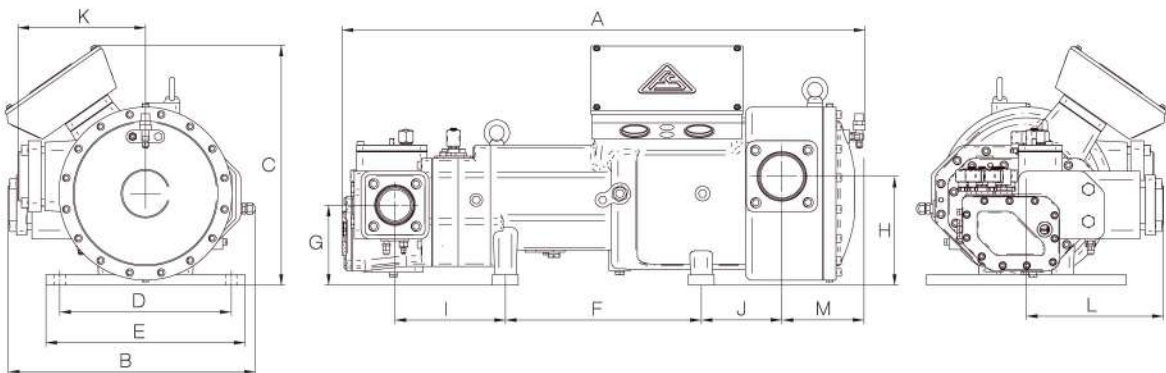
### CSRL85/100/120



### CSRL140/170/190/220/250



### CSRL320/360/400/480



Unit : mm

| Model               | A    | B   | C   | D   | E   | F   | G   | H   | I   | J   | K   | L   | M   |
|---------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CSRL85/100/120      | 850  | 505 | 404 | 275 | 315 | 400 | 148 | 179 | 141 | 96  | 240 | 207 | 124 |
| CSRL140/170         | 861  | 520 | 413 | 305 | 360 | 283 | 83  | 188 | 286 | 214 | -   | 200 | -   |
| CSRL190/220/250     | 965  | 545 | 413 | 305 | 360 | 360 | 102 | 190 | 318 | 204 | -   | 241 | -   |
| CSRL320/360/400/480 | 1220 | 575 | 560 | 400 | 465 | 457 | 187 | 254 | 258 | 188 | 298 | 320 | 194 |



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**FUSHENG INDUSTRIAL CO., LTD**

**HEAD OFFICE**

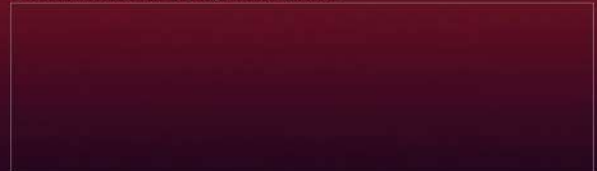
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Distributor/Sales Representative



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