

## Single Pack GS21MLX 187-254V 60Hz CSCR

Single pack code number: **195B4636**

| Position | Title                                      | Code     | Amount |
|----------|--|----------|--------|
| 1        | Compressor GS21MLX                         | 107B0509 | 1      |
| 2        | GS starting device (600mm)                 | 117-7073 | 1      |
| 3        | Bolt joint for one compressor   M8   ø19mm | 107B9150 | 1      |

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## Model

|             |                |                  |             |                 |
|-------------|----------------|------------------|-------------|-----------------|
| Designation | <b>GS21MLX</b> | 187-254V/60Hz 1~ | Sales code: | <b>107B0509</b> |
|-------------|----------------|------------------|-------------|-----------------|

## Compressor design

|                            |                                  |                       |                                 |
|----------------------------|----------------------------------|-----------------------|---------------------------------|
| Oil type                   | Polyolester                      | Refrigerant(s)        | <b>R404A, R507, R452A</b>       |
| Oil viscosity              | 32,5cST                          | Displacement          | 21,2cm <sup>3</sup> / 1,29cu.in |
| Oil quantity               | 902cm <sup>3</sup> / 30,5fl.oz   | Compressors on pallet | 48                              |
| Refr. charge - tech. limit | 2000g / 70,5oz                   |                       |                                 |
| Free gas volume comp.      | 3540cm <sup>3</sup> / 119,7fl.oz |                       |                                 |
| Weight                     | 22,2kg / 48,9lbs                 |                       |                                 |
| Motor protection           | 1# internal                      |                       |                                 |
| Winding resistance main    | 1,5Ω (at 25°C)                   |                       |                                 |
| Winding resistance aux     | 5,8Ω (at 25°C)                   |                       |                                 |
| Max. winding temp.         |                                  |                       |                                 |
| Max. discharge temp.       | 130°C / 266°F                    |                       |                                 |



## General - Configurations with GS21MLX

|                        | <b>Conf. 1</b>                                     | <b>Conf. 2</b> |
|------------------------|--|----------------|
| Motorconfiguration     | CSCR   | CSCR           |
| Power supply (nominal) | 208-230V/60Hz                                      | 208-230V/60Hz  |
| Number of phases       | 1  | 1              |
| Voltage range          | 187-254V   | 187-254V       |
| Approvals              | UL   | UL             |
| Starting torque        | HST  | HST            |
| Note                   | Cover, clamp, gasket: pre-assembled to compressor. |                |

## Applications with GS21MLX

|                         | <b>Conf. 1</b> | <b>Conf. 2</b> |
|-------------------------|----------------|----------------|
| Refrigerant             | R404A          | R452A          |
| Application             | MBP            | MBP            |
| System cooling          | fan 3m/s       | fan 3m/s       |
| Hot gas defrost         | OK             | OK             |
| Long interval pull down | OK             | OK             |

## Electrical data - Configurations with GS21MLX

|                              | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------------|----------------|----------------|
| Starting device type         | relay          | relay          |
| Run capacitor                | 20μF           | 20μF           |
| Start capacitor              | 100μF          | 100μF          |
| LRA (locked rotor amps / 4s) | 46A            | 46A            |
| RLA (rated load amps / 1s)   | 11A            | 11A            |
| Cut in current               | 46A            | 46A            |

## Model

Designation

**GS21MLX**

187-254V/60Hz 1~

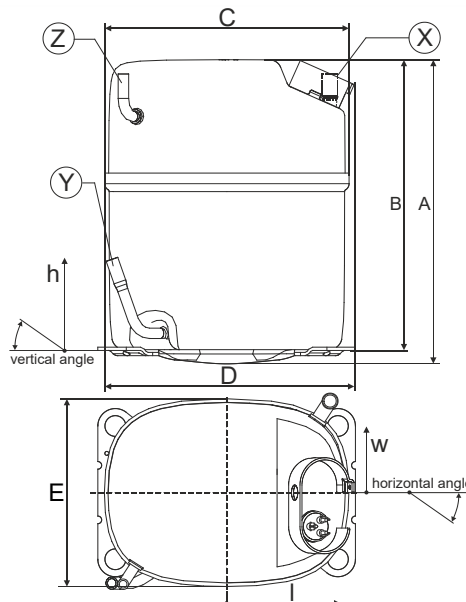
Sales code:

**107B0509**

## Compressor dimensions

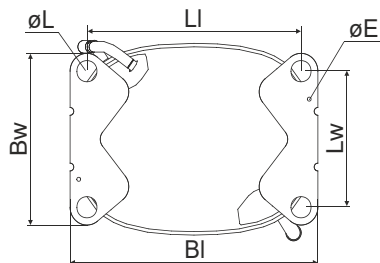
| Housing | A Height          | 279mm / 10,98in |
|---------|-------------------|-----------------|
|         | B Height          | 267mm / 10,51in |
|         | C Length shell    | 224mm / 8,82in  |
|         | D Length w. cover | 232mm / 9,13in  |
|         | E Width           | 173mm / 6,81in  |

| Connectors                 | Suction        | Discharge     | Process      |
|----------------------------|----------------|---------------|--------------|
|                            | X              | Y             | Z            |
| Diameter [mm]              | øi 12,75-13,05 | øi 9,63-9,73  | øi 6,4-6,6   |
| (i:inside, o:outside) [in] | øi 0,5-0,51    | øi 0,38-0,38  | øi 0,25-0,26 |
| Material                   | copper         | copper        | copper       |
| Horizontal angle ±2°       | 0°             | 0°            | 0°           |
| Vertical angle ±2°         | 90°            | 71°           | 90°          |
| Position l/h/w [mm]        | -95/234/-84    | -105/84/-84   | 95/234/84    |
| [in]                       | -3,7/9,2/-3,3  | -4,1/3,3/-3,3 | 3,7/9,2/3,3  |
| Straight tube l.           | [mm]           | 18            | 23           |
|                            | [in]           | 0,7           | 0,9          |



## Compressor fixation

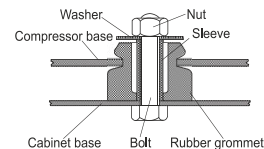
### Bolt joint



| Baseplate | [mm]  | [inch] |
|-----------|-------|--------|
| BI        | 235   | 9.25   |
| Bw        | 154   | 6.06   |
| øE        | ø 3.6 | ø 0.14 |

| Large holes | [mm] | [inch] |
|-------------|------|--------|
| LI          | 203  | 7.99   |
| Lw          | 122  | 4.80   |
| øL          | ø 19 | ø 0.75 |



## Mounting accessories

Bolt joint | M8 | ø19mm

one comp.

107B9150

## Model

Designation

**GS21MLX**

**208-230V/60Hz**

Conf. 1

Sales code:

**107B0509**

## Configuration

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | CSCR             |
| Power supply (nominal) | 208-230V/60Hz 1~ |
| Refrigerant            | R404A            |
| Application            | MBP              |
| Voltage range          | 187-254V         |
| Starting torque        | HST              |
| Approvals              | UL               |

## Electrical accessories / wiring diagram

### Ambient/ machine room temperatures minimum /maximum

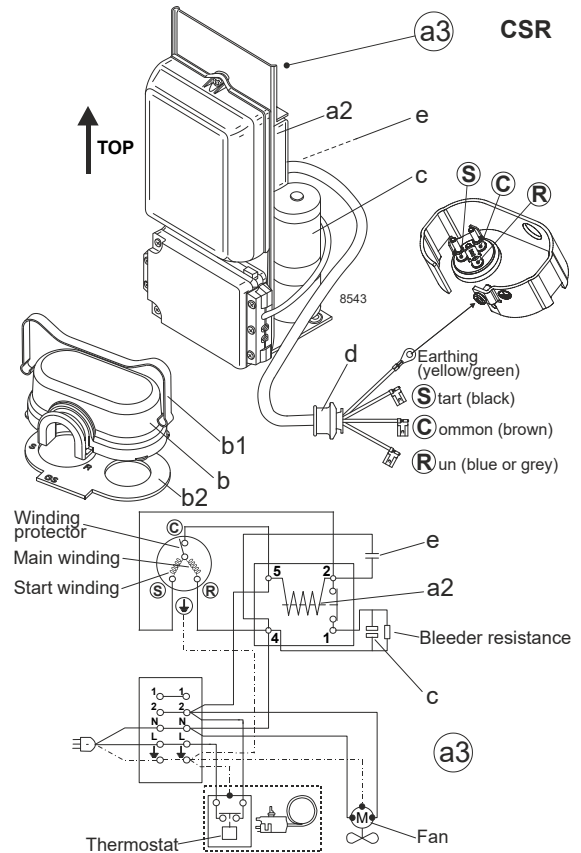
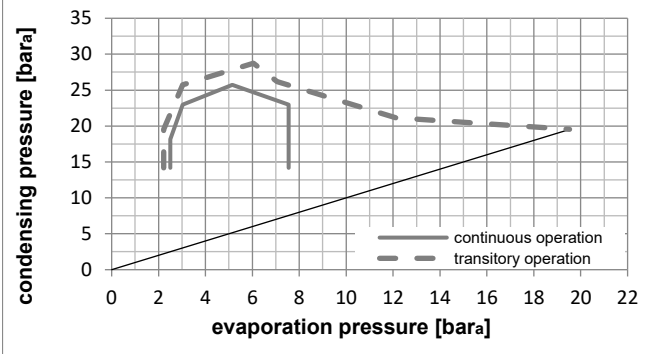
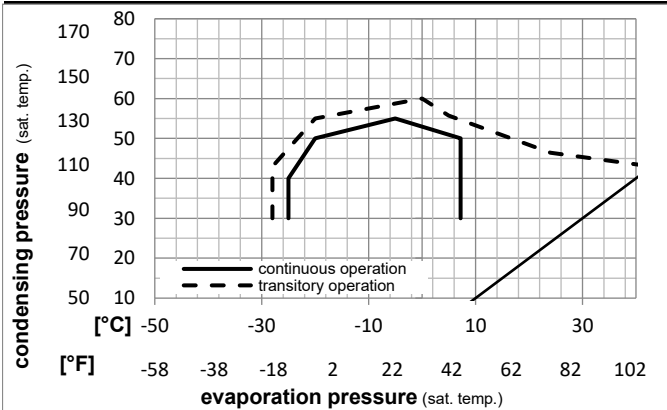
Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s

## Operation Limits

### Operation pressure range



### Components (cover, clamp, gasket: pre assembled)

|    |                        |          |
|----|------------------------|----------|
| a3 | GS starter kit (600mm) | 117-7073 |
| b  | cover                  | 107B9101 |
| b2 | gasket                 | 107B9100 |
| b1 | clamp                  | 107B9104 |

### Model

Designation **GS21MLX 208-230V/60Hz** Conf. 1 Sales code: **107B0509**

### Optimization + standard conditions

R404A, 230V/60Hz, CSCR, fan 3m/s, UL

|      |        | Evaporating pressure (saturation temperature) |      |      |      | Cooling capacity |         |          | COP   |          |           | EER                 |      |        | Power consumption |       |             |  |
|------|--------|---|------|------|------|------------------|---------|----------|-------|----------|-----------|---------------------|------|--------|-------------------|-------|-------------|--|
|      |        | Condensing pressure (saturation temperature)  |      |      |      |                  |         |          |       |          |           | Current consumption |      |        | Ref. mass flow    |       |             |  |
|      |        | Return gas temp.                              |      |      |      |                  |         |          |       |          |           |                     |      |        |                   |       |             |  |
|      |        | Liquid temp.                                  |      |      |      |                  |         |          |       |          |           |                     |      |        |                   |       |             |  |
|      |        | Cooling capacity                              |      |      |      |                  |         |          |       |          |           |                     |      |        |                   |       |             |  |
|      |        | pe  | pc   | RGT  | Tliq | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1                  | I    | m      |                   |       |             |  |
| [°C] | [°F]   | [°C]  | [°F] | [°C] | [°F] |                  |         |          |       |          |           | [W]                 | [A]  | [kg/h] |                   |       |             |  |
| -7   | 20,012 | 54  | 130  | 35   | 95   | 46               | 115     | 2515,2   | 8590  | 2164,6   | 1,86      | 6,34                | 1,60 | 1354,2 | 6,22              | 69,21 | ASHRAE MBP  |  |
| -10  | 14     | 55  | 131  | 32   | 90   | 55               | 131     | 1872,8   | 6396  | 1611,7   | 1,47      | 5,01                | 1,26 | 1276,9 | 5,90              | 59,95 | cecomaf MBP |  |
| -10  | 14     | 45  | 113  | 20   | 68   | 45               | 113     | 2268,1   | 7746  | 1951,9   | 1,93      | 6,57                | 1,66 | 1178,2 | 5,48              | 68,32 | EN12900 MBP |  |
| -7   | 20,012 | 49  | 120  | 18   | 65   | 49               | 120     | 2334,9   | 7974  | 2009,5   | 1,81      | 6,19                | 1,56 | 1287,7 | 5,95              | 76,30 | ARI540 MBP  |  |
| -10  | 14     | 45  | 113  | 32   | 90   | 45               | 113     | 2407,1   | 8221  | 2071,6   | 2,04      | 6,98                | 1,76 | 1178,2 | 5,48              | 66,29 | opt         |  |
| -25  | -13    | 45  | 113  | 32   | 90   | 45               | 113     | 1180,9   | 4033  | 1016,3   | 1,36      | 4,64                | 1,17 | 868,7  | 4,15              | 31,85 | opt         |  |

### Performance tables

R404A, 230V/60Hz, CSCR, fan 3m/s, UL

|                  | pe   |      | Cooling capacity |         |          | COP   | EER      | P1        | I      | m    |        |
|------------------|------|------|------------------|---------|----------|-------|----------|-----------|--------|------|--------|
|                  | [°C] | [°F] | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]    | [A]  | [kg/h] |
| [°C / °F]        | -25  | -13  | 1180,9           | 4033    | 1016,3   | 1,36  | 4,64     | 1,17      | 868,7  | 4,15 | 31,85  |
| cond. pressure   | -23  | -10  | 1293,2           | 4417    | 1113,0   | 1,43  | 4,88     | 1,23      | 904,6  | 4,31 | 34,95  |
| pc= 45/113       | -15  | 5    | 1938,5           | 6620    | 1668,3   | 1,80  | 6,14     | 1,55      | 1077,8 | 5,05 | 52,95  |
| return gas temp. | -9   | 15   | 2463,5           | 8413    | 2120,1   | 2,07  | 7,07     | 1,78      | 1189,2 | 5,52 | 67,91  |
| RGT= 32/90       | -4   | 25   | 3081,8           | 10525   | 2652,2   | 2,37  | 8,10     | 2,04      | 1298,8 | 5,98 | 85,87  |
| liquid temp      | 0    | 32   | 3578,0           | 12219   | 3079,2   | 2,60  | 8,89     | 2,24      | 1375,0 | 6,29 | 100,59 |
| Tliq= 45/113     | 7,2  | 45   | 4657,4           | 15906   | 4008,2   | 3,07  | 10,48    | 2,64      | 1517,4 | 6,84 | 133,56 |
| [°C / °F]        | -25  | -13  | 899,6            | 3072    | 774,2    | 1,03  | 3,53     | 0,89      | 870,9  | 4,27 | 28,12  |
| cond. pressure   | -23  | -10  | 991,3            | 3385    | 853,1    | 1,08  | 3,69     | 0,93      | 918,6  | 4,46 | 31,05  |
| pc= 55/131       | -15  | 5    | 1505,4           | 5141    | 1295,6   | 1,31  | 4,48     | 1,13      | 1147,1 | 5,37 | 47,74  |
| return gas temp  | -9   | 15   | 1916,9           | 6547    | 1649,7   | 1,48  | 5,07     | 1,28      | 1291,0 | 5,96 | 61,44  |
| RGT= 32/90       | -4   | 25   | 2400,8           | 8199    | 2066,2   | 1,68  | 5,73     | 1,45      | 1429,8 | 6,52 | 77,92  |
| liquid temp      | 0    | 32   | 2790,6           | 9530    | 2401,6   | 1,83  | 6,25     | 1,58      | 1524,6 | 6,90 | 91,51  |
| Tliq= 55/131     | 7,2  | 45   | 3645,3           | 12449   | 3137,2   | 2,15  | 7,34     | 1,85      | 1696,9 | 7,59 | 122,35 |

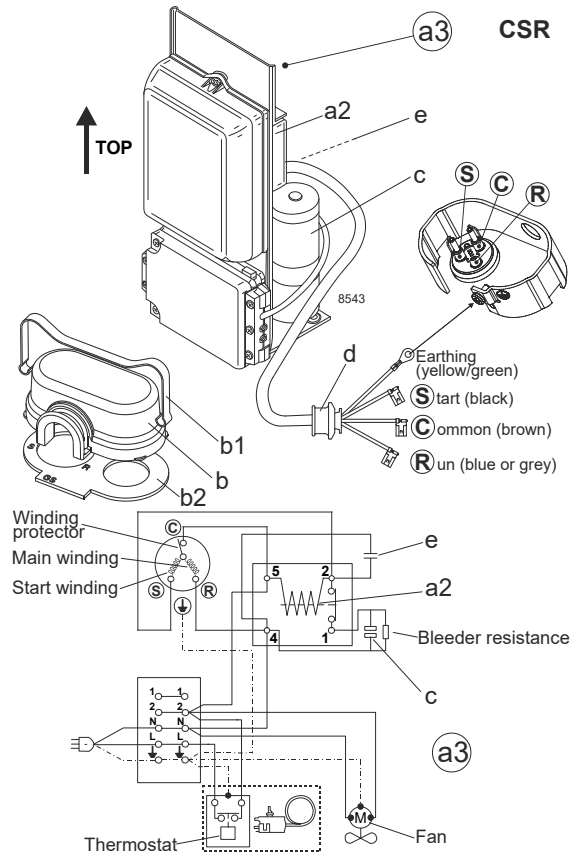
## Model

|             |                |                      |                |             |                 |
|-------------|----------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>GS21MLX</b> | <b>208-230V/60Hz</b> | <b>Conf. 2</b> | Sales code: | <b>107B0509</b> |
|-------------|----------------|----------------------|----------------|-------------|-----------------|

## Configuration

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | CSCR             |
| Power supply (nominal) | 208-230V/60Hz 1~ |
| Refrigerant            | R452A            |
| Application            | MBP              |
| Voltage range          | 187-254V         |
| Starting torque        | HST              |
| Approvals              | UL               |

## Electrical accessories / wiring diagram

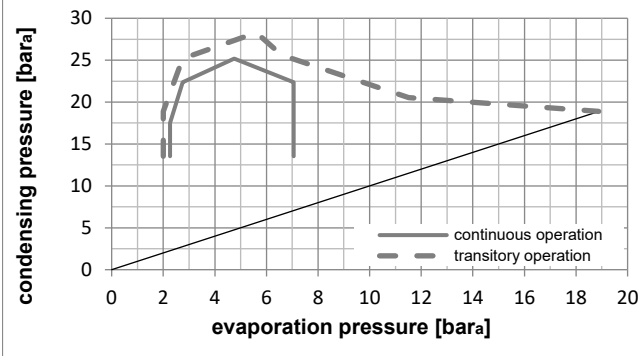
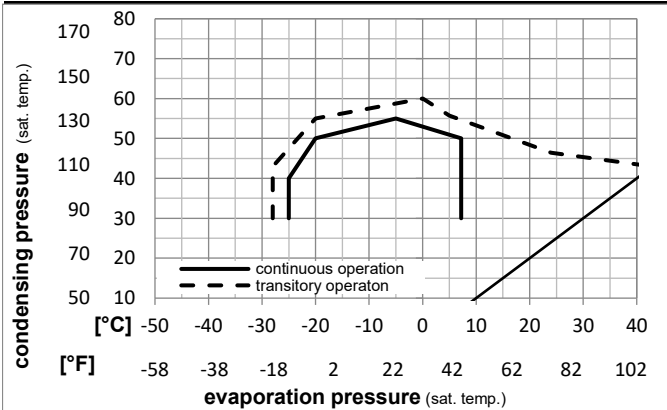


## Ambient/ machine room temperatures minimum /maximum

|                                 |                        |
|---------------------------------|------------------------|
| Ambient temperature range:      | 10 - 43°C / 50 - 110°F |
| Machine room temperature range: | 10 - 48°C / 50 - 119°F |
| Compressor cooling:             | fan 3m/s               |

## Operation Limits

## Operation pressure range



## Components (cover, clamp, gasket: pre assembled)

|    |                        |          |
|----|------------------------|----------|
| a3 | GS starter kit (600mm) | 117-7073 |
| b  | cover                  | 107B9101 |
| b2 | gasket                 | 107B9100 |
| b1 | clamp                  | 107B9104 |

### Model

Designation **GS21MLX 208-230V/60Hz** Conf. 2 Sales code: **107B0509**

### Optimization + standard conditions

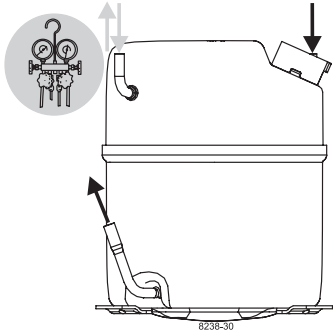
R452A, 230V/60Hz, CSCR, fan 3m/s, UL

| Evaporating pressure (saturation temperature) |      |      |      |        | Condensing pressure (saturation temperature) |         |          |              |          |           | Power consumption   |       |                |  |
|---|------|------|------|--------|--|---------|----------|--------------|----------|-----------|---------------------|-------|----------------|--|
|   |      |      |      |        | Return gas temp.                             |         |          | Liquid temp. |          |           | Current consumption |       | Ref. mass flow |  |
| pe  | pc   | RGT  | Tliq |        | W  | [Btu/h] | [kcal/h] | COP          | EER      | [kcal/Wh] | P1                  | I     | m              |  |
| [°C]  | [°F] | [°C] | [°F] | [°C]   | [W]  | [Btu/h] | [kcal/h] | [W/W]        | [Btu/Wh] | [kcal/Wh] | [W]                 | [A]   | [kg/h]         |  |
| -7  | 54   | 35   | 46   | 2381,7 | 8134   | 2049,7  | 1,86     | 6,36         | 1,60     | 1279,7    | 5,91                | 67,00 | ASHRAE MBP     |  |
| 20,012  | 130  | 95   | 115  |        |  |         |          |              |          |           |                     |       |                |  |
| -10   | 55   | 32   | 55   | 1776,3 | 6066   | 1528,7  | 1,48     | 5,05         | 1,27     | 1201,3    | 5,59                | 57,73 | cecomaf MBP    |  |
| 14  | 131  | 90   | 131  |        |  |         |          |              |          |           |                     |       |                |  |
| -10   | 45   | 20   | 45   | 2142,9 | 7318   | 1844,2  | 1,93     | 6,59         | 1,66     | 1110,8    | 5,22                | 65,84 | EN12900 MBP    |  |
| 14  | 113  | 68   | 113  |        |  |         |          |              |          |           |                     |       |                |  |
| -7  | 49   | 18   | 49   | 2221,5 | 7587   | 1911,9  | 1,82     | 6,23         | 1,57     | 1218,2    | 5,66                | 73,70 | ARI540 MBP     |  |
| 20,012  | 120  | 65   | 120  |        |  |         |          |              |          |           |                     |       |                |  |
| -10   | 45   | 32   | 45   | 2270,8 | 7755   | 1954,2  | 2,04     | 6,98         | 1,76     | 1110,8    | 5,22                | 63,98 | opt            |  |
| 14  | 113  | 90   | 113  |        |  |         |          |              |          |           |                     |       |                |  |
| -25   | 45   | 32   | 45   | 1087,8 | 3715   | 936,1   | 1,35     | 4,62         | 1,16     | 803,8     | 3,96                | 30,09 | opt            |  |
| -13   | 113  | 90   | 113  |        |  |         |          |              |          |           |                     |       |                |  |

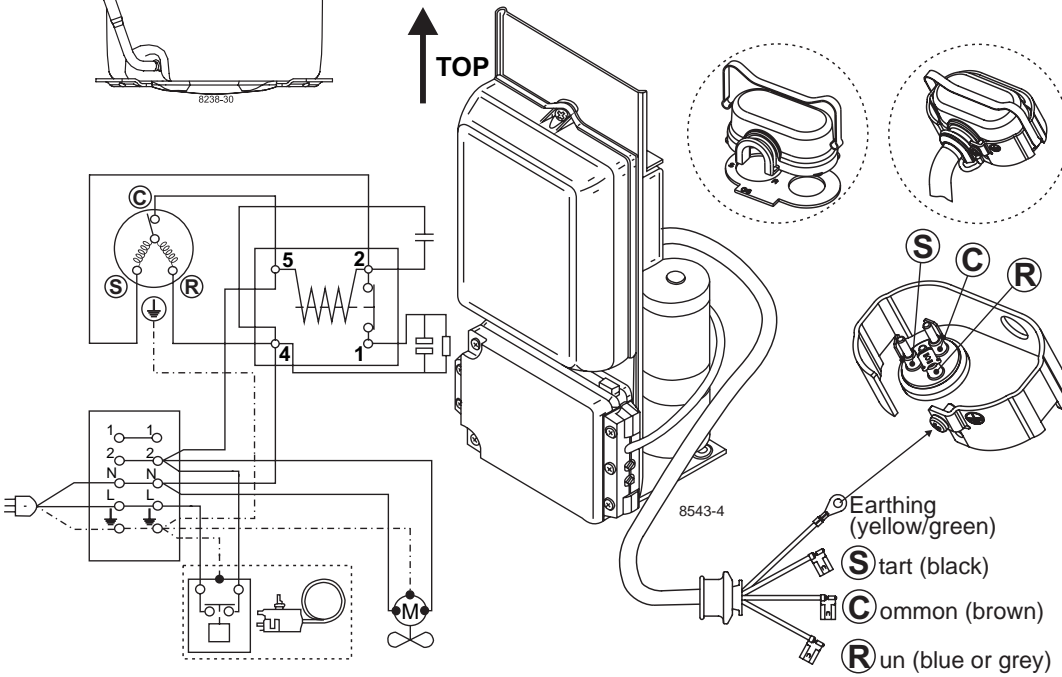
### Performance tables

R452A, 230V/60Hz, CSCR, fan 3m/s, UL

|                  | pe   |      | Cooling capacity |         |          | COP   | EER      | P1        | I      | m    |        |
|------------------|------|------|------------------|---------|----------|-------|----------|-----------|--------|------|--------|
|                  | [°C] | [°F] | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]    | [A]  | [kg/h] |
| [°C / °F]        | -25  | -13  | 1087,8           | 3715    | 936,1    | 1,35  | 4,62     | 1,16      | 803,8  | 3,96 | 30,09  |
| cond. pressure   | -23  | -10  | 1195,1           | 4082    | 1028,6   | 1,42  | 4,86     | 1,23      | 839,0  | 4,11 | 33,11  |
| pc= 45/113       | -15  | 5    | 1816,2           | 6203    | 1563,1   | 1,80  | 6,14     | 1,55      | 1010,3 | 4,81 | 50,81  |
| return gas temp. | -9   | 15   | 2325,7           | 7943    | 2001,5   | 2,07  | 7,08     | 1,78      | 1121,9 | 5,27 | 65,58  |
| RGT= 32/90       | -4   | 25   | 2928,8           | 10002   | 2520,6   | 2,38  | 8,11     | 2,04      | 1233,1 | 5,72 | 83,40  |
| liquid temp      | 0    | 32   | 3414,8           | 11662   | 2938,8   | 2,60  | 8,89     | 2,24      | 1311,5 | 6,04 | 98,01  |
| Tliq= 45/113     | 7,2  | 45   | 4476,3           | 15287   | 3852,3   | 3,07  | 10,47    | 2,64      | 1460,4 | 6,65 | 130,78 |
| [°C / °F]        | -25  | -13  | 828,9            | 2831    | 713,3    | 1,03  | 3,53     | 0,89      | 802,1  | 3,96 | 26,38  |
| cond. pressure   | -23  | -10  | 917,2            | 3132    | 789,4    | 1,08  | 3,69     | 0,93      | 848,5  | 4,15 | 29,24  |
| pc= 55/131       | -15  | 5    | 1416,3           | 4837    | 1218,9   | 1,32  | 4,51     | 1,14      | 1072,2 | 5,06 | 45,65  |
| return gas temp  | -9   | 15   | 1819,7           | 6215    | 1566,0   | 1,50  | 5,11     | 1,29      | 1215,5 | 5,65 | 59,20  |
| RGT= 32/90       | -4   | 25   | 2297,0           | 7845    | 1976,8   | 1,69  | 5,79     | 1,46      | 1355,8 | 6,23 | 75,57  |
| liquid temp      | 0    | 32   | 2683,2           | 9164    | 2309,2   | 1,85  | 6,31     | 1,59      | 1453,1 | 6,62 | 89,09  |
| Tliq= 55/131     | 7,2  | 45   | 3533,4           | 12067   | 3040,9   | 2,16  | 7,39     | 1,86      | 1633,8 | 7,37 | 119,76 |



# GS Compressors



|            | S       | C          | R                  |
|------------|---------|------------|--------------------|
| ENGLISH    | Black   | Brown      | Blue or grey       |
| DEUTSCH    | Schwarz | Braun      | Blau od. grau      |
| FRANÇAIS   | Noir    | Marron     | Bleu ou gris       |
| ESPAÑOL    | Negro   | Marrón     | Azul o gris        |
| ITALIANO   | Nero    | Marrone    | Blu o grigio       |
| NEDERLANDS | Zwart   | Bruin      | Blauw of grijs     |
| DANSK      | Sort    | Brun       | Blå eller grå      |
| SVENSKA    | Svart   | Brun       | Blå eller grå      |
| SUOMEKSI   | Musta   | Ruskea     | Sininen tai harmaa |
| РУССКИЙ    | Чёрный  | Коричневый | Синий или серый    |
| 中文         | 黑色      | 棕色         | 蓝色或灰色              |

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