

## Single Pack SC18/18CLX.2 220-240V 50Hz

Single pack code number: **195B3363**

| Position | Title                                      | Code     | Amount |
|----------|--|----------|--------|
| 1        | Compressor SC18/18CLX.2                    | 104L4035 | 1      |
| 2        | Bolt joint for one compressor   M6   ø16mm | 118-1917 | 1      |

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## Model

|             |                     |                  |             |                 |
|-------------|---------------------|------------------|-------------|-----------------|
| Designation | <b>SC18/18CLX.2</b> | 220-240V/50Hz 1~ | Sales code: | <b>104L4035</b> |
|-------------|---------------------|------------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R404A, R507</b>               |
| Oil viscosity              | 32cST                           | Displacement          | 35,36cm <sup>3</sup> / 2,16cu.in |
| Oil quantity               | 1233cm <sup>3</sup> / 41,7fl.oz | Compressors on pallet | 18                               |
| Refr. charge - tech. limit | 2200g / 77,6oz                  |                       |                                  |
| Free gas volume comp.      | 2920cm <sup>3</sup> / 98,7fl.oz |                       |                                  |
| Weight                     | 29,1kg / 64,2lbs                |                       |                                  |
| Motor protection           | 1# internal                     |                       |                                  |
| Winding resistance main    | 3,3Ω (at 25°C)                  |                       |                                  |
| Winding resistance aux     | 16,5Ω (at 25°C)                 |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 135°C / 275°F                   |                       |                                  |



## General - Configurations with SC18/18CLX.2

|                        | <b>Conf. 1</b> |
|------------------------|----------------|
| Motorconfiguration     | CSIR           |
| Power supply (nominal) | 220-240V/50Hz  |
| Number of phases       | 1              |
| Voltage range          | 198-254V       |
| Approvals              | CCC, VDE, EAC  |
| Starting torque        | HST            |
| Note                   | - / -          |

## Applications with SC18/18CLX.2

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

## Electrical data - Configurations with SC18/18CLX.2

|                              | <b>Conf. 1</b> |
|------------------------------|----------------|
| Starting device type         | relay          |
| Run capacitor                | - / -          |
| Start capacitor              | 80μF           |
| LRA (locked rotor amps / 4s) | 2x 23,5A       |
| RLA (rated load amps / 1s)   | 2x 4,5A        |
| Cut in current               | 2x 23,5A       |

## Model

Designation

**SC18/18CLX.2**

220-240V/50Hz 1~

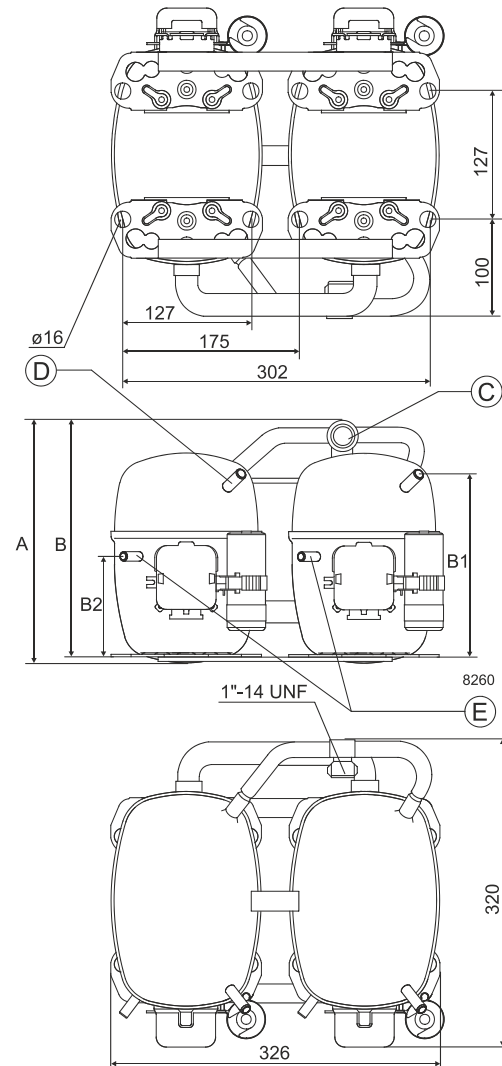
Sales code:

**104L4035**

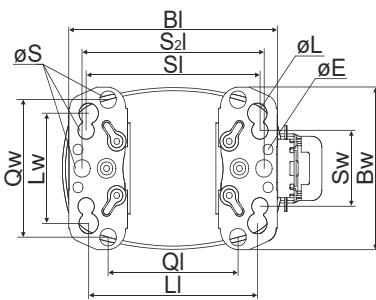
## Compressor dimensions

|                |          |                |
|----------------|----------|----------------|
| <b>Housing</b> | A Height | 259mm / 10,2in |
|                | B Height | 254mm / 10in   |
|                | B1       | 193mm / 7,6in  |
|                | B2       | 110mm / 4,33in |

| Connectors            |      | Suction        | Discharge    | Process      |
|-----------------------|------|----------------|--------------|--------------|
|                       |      | C              | E            | D            |
| Diameter              | [mm] | øi 15,21-15,37 | øi 6,11-6,29 | øi 6,11-6,29 |
| (i:inside, o:outside) | [in] | øi 0,6-0,61    | øi 0,24-0,25 | øi 0,24-0,25 |
| Material              |      | steel          | copper       | copper       |
| Horizontal angle      | ±2°  | 0°             | 37°          | 37°          |
| Vertical angle        | ±2°  | 0°             | 0°           | 0°           |
| Position l/h/w        | [mm] | 0/0/0          | 0/0/0        | 0/0/0        |
|                       | [in] | 0/0/0          | 0/0/0        | 0/0/0        |
| Straight tube l.      | [mm] | 10             | 12           | 12           |
|                       | [in] | 0,4            | 0,5          | 0,5          |



## Compressor fixation



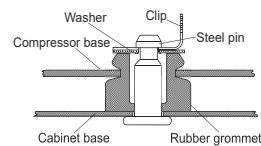
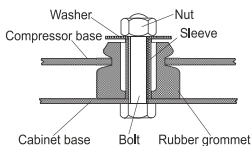
| Baseplate   | [mm]  | [inch] |
|-------------|-------|--------|
| BI          | 204   | 8.03   |
| Bw          | 150   | 5.9    |
| øE          | ø 9.7 | ø 0.38 |
| Large holes |       |        |
| LI          | 165   | 6.5    |
| Lw          | 101.6 | 4      |
| øL          | ø 19  | ø 0.75 |
| Small holes |       |        |
| SI          | 170   | 6.7    |
| Sw          | 70    | 2.76   |
| øS          | ø 16  | ø 0.63 |
| QI          | 127   | 5      |
| Qw          | 127   | 5      |

## Mounting accessories

|                            | one comp. | multi pack |
|----------------------------|-----------|------------|
| Bolt joint   M6   ø16mm    | 118-1917  | 118-1918   |
| Bolt joint   ø1/4"   ø16mm | 118-1946  |            |
| Bolt joint   ø1/4"   ø19mm | 118-1949  |            |
| Snap-on   ø7,3   ø16mm     | 118-1947  | 118-1919   |

### Bolt joint

### Snap-on



## Application notes

Provision for PE Grounding is located at the PE Stamp on the compressor

Twin should be used with a time-delay relay

## Model

|             |                     |                      |                |             |                 |
|-------------|---------------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>SC18/18CLX.2</b> | <b>220-240V/50Hz</b> | <b>Conf. 1</b> | Sales code: | <b>104L4035</b> |
|-------------|---------------------|----------------------|----------------|-------------|-----------------|

## Configuration

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | CSIR             |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant            | R404A            |
| Application            | LBP              |
| Voltage range          | 198-254V         |
| Starting torque        | HST              |
| Approvals              | CCC, VDE, EAC    |

## Ambient/ machine room temperatures minimum /maximum

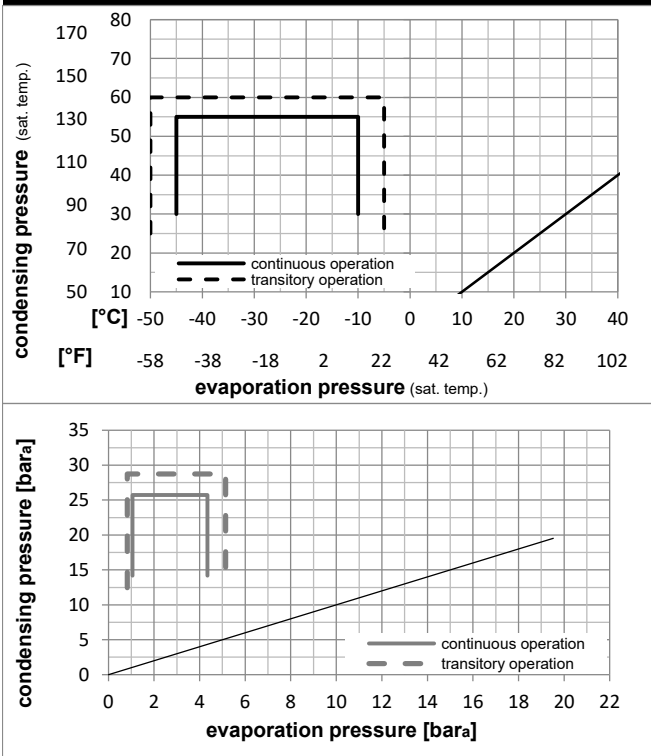
|                                 |                        |
|---------------------------------|------------------------|
| Ambient temperature range:      | 10 - 38°C / 50 - 101°F |
| Machine room temperature range: | 10 - 43°C / 50 - 110°F |
| Compressor cooling:             | fan 3m/s               |

## Operation Limits

## Electrical accessories / wiring diagram

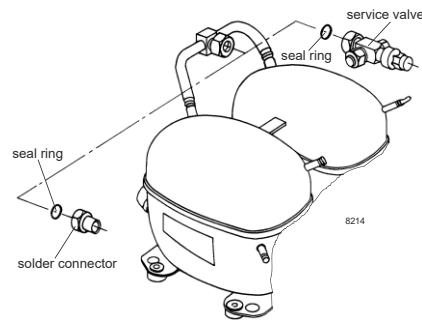


## Operation pressure range



## Components

|    |  |          |
|----|--|----------|
| a2 | relay  | 117U6013 |
| c  | start capacitor (125µF)                        | 117U5012 |
| d  | cord relief                                    | 103N1004 |
| b  | plastic cover                                  | 103N2009 |
| .  | Check valve (to be used with time-delay relay) | 020-1014 |
| .  | Service valve 16mm                             | 118-7351 |
| .  | Solder connector (alternative) 16 mm           | 118-7405 |
| .  | Seal ring for service valve and solder conn.   | 118-3638 |



## Model

Designation **SC18/18CLX.2 220-240V/50Hz** Conf. 1 Sales code: **104L4035**

## Optimization + standard conditions

R404A, 220V/50Hz, CSIR, fan 3m/s, CCC, VDE, EAC

|      | Evaporating pressure (saturation temperature) |     |     |      | Condensing pressure (saturation temperature) |         |          | Return gas temp. | Liquid temp. | Cooling capacity | COP    | EER  | Power consumption |                    |   | Ref. mass flow |
|------|---|-----|-----|------|--|---------|----------|------------------|--------------|------------------|--------|------|-------------------|--------------------|---|----------------|
|      | pe  | pc  | RGT | Tliq | [W]  | [Btu/h] | [kcal/h] |                  |              |                  |        |      | P1                | I                  | m |                |
| [°C] |   |     |     |      |  |         |          |                  |              |                  |        |      |                   |                    |   |                |
| [°F] |   |     |     |      |  |         |          |                  |              |                  |        |      |                   |                    |   |                |
|      | -23   | 54  | 32  | 32   | 1756,7                                       | 6000    | 1511,8   | 1,20             | 4,08         | 1,03             | 1469,4 | 8,91 | 40,93             | <b>ASHRAE LBP</b>  |   |                |
|      | -10   | 130 | 90  | 90   |  |         |          |                  |              |                  |        |      |                   |                    |   |                |
|      | -25   | 55  | 32  | 55   | 1182,3                                       | 4038    | 1017,5   | 0,84             | 2,86         | 0,72             | 1409,4 | 8,68 | 36,95             | <b>cecomaf LBP</b> |   |                |
|      | -13   | 131 | 90  | 131  |  |         |          |                  |              |                  |        |      |                   |                    |   |                |
|      | -35   | 40  | 20  | 40   | 953,9  | 3258    | 820,9    | 0,93             | 3,18         | 0,80             | 1023,5 | 7,37 | 25,92             | <b>EN12900 LBP</b> |   |                |
|      | -31   | 104 | 68  | 104  |  |         |          |                  |              |                  |        |      |                   |                    |   |                |
|      | -23   | 49  | 4,4 | 49   | 1327,5                                       | 4534    | 1142,4   | 0,93             | 3,16         | 0,80             | 1432,6 | 8,84 | 47,00             | <b>ARI540 LBP</b>  |   |                |
|      | -10   | 120 | 40  | 120  |  |         |          |                  |              |                  |        |      |                   |                    |   |                |
|      | -23   | 41  | 32  | 32   | 2031,7                                       | 6939    | 1748,5   | 1,47             | 5,02         | 1,27             | 1381,9 | 8,68 | 47,34             | <b>AHAM LBP</b>    |   |                |
|      | -10   | 105 | 90  | 90   |  |         |          |                  |              |                  |        |      |                   |                    |   |                |
|      | -35   | 45  | 32  | 45   | 871,0  | 2975    | 749,6    | 0,85             | 2,89         | 0,73             | 1029,0 | 7,37 | 23,29             | <b>opt</b>         |   |                |
|      | -31   | 113 | 90  | 113  |  |         |          |                  |              |                  |        |      |                   |                    |   |                |

## Performance tables

R404A, 220V/50Hz, CSIR, fan 3m/s, CCC, VDE, EAC

|                  | pe   |      | Cooling capacity |         |          | COP  | EER  | P1   | I      | m     |       |
|------------------|------|------|------------------|---------|----------|------|------|------|--------|-------|-------|
|                  | [°C] | [°F] | [W]              | [Btu/h] | [kcal/h] |      |      |      |        |       |       |
| [°C / °F]        | -45  | -49  | 385,2            | 1315    | 331,5    | 0,55 | 1,87 | 0,47 | 704,4  | 6,25  | 10,23 |
| cond. pressure   | -35  | -31  | 871,0            | 2975    | 749,6    | 0,85 | 2,89 | 0,73 | 1029,0 | 7,37  | 23,29 |
| pc= 45/113       | -30  | -22  | 1183,1           | 4040    | 1018,1   | 0,99 | 3,40 | 0,86 | 1189,3 | 7,95  | 31,76 |
| return gas temp. | -25  | -13  | 1550,0           | 5294    | 1334,0   | 1,15 | 3,91 | 0,99 | 1352,5 | 8,56  | 41,81 |
| RGT= 32/90       | -20  | -4   | 1978,5           | 6757    | 1702,8   | 1,30 | 4,44 | 1,12 | 1521,5 | 9,19  | 53,68 |
| liquid temp      | -15  | 5    | 2475,3           | 8453    | 2130,2   | 1,46 | 4,97 | 1,25 | 1699,2 | 9,84  | 67,62 |
| Tliq= 45/113     | -10  | 14   | 3046,8           | 10405   | 2622,1   | 1,61 | 5,51 | 1,39 | 1888,9 | 10,51 | 83,90 |
| [°C / °F]        | -45  | -49  | 183,6            | 627     | 158,0    | 0,29 | 0,98 | 0,25 | 637,6  | 6,01  | 5,64  |
| cond. pressure   | -35  | -31  | 604,6            | 2065    | 520,3    | 0,59 | 2,00 | 0,51 | 1029,9 | 7,30  | 18,70 |
| pc= 55/131       | -30  | -22  | 870,5            | 2973    | 749,2    | 0,71 | 2,44 | 0,61 | 1219,8 | 7,98  | 27,05 |
| return gas temp  | -25  | -13  | 1182,3           | 4038    | 1017,5   | 0,84 | 2,86 | 0,72 | 1409,4 | 8,68  | 36,95 |
| RGT= 32/90       | -20  | -4   | 1546,5           | 5282    | 1330,9   | 0,97 | 3,30 | 0,83 | 1602,0 | 9,40  | 48,66 |
| liquid temp      | -15  | 5    | 1969,8           | 6727    | 1695,2   | 1,09 | 3,74 | 0,94 | 1800,4 | 10,14 | 62,47 |
| Tliq= 55/131     | -10  | 14   | 2458,8           | 8397    | 2116,1   | 1,22 | 4,18 | 1,05 | 2007,6 | 10,90 | 78,71 |

# SC Twin Compressors



|            | A                               | B                       | C     | D       | E          | F   |   |
|------------|---------------------------------|-------------------------|-------|---------|------------|---|---|
| ENGLISH    | Safety pressure control         | Time delay relay        | Blue  | Black   | Brown      | Remove wire L-1 if time delay is used                                 | Remove wire 1-2 if thermostat 2 is used                 |
| 中文         | 安全压力控制                          | 延时继电器                   | 蓝     | 黑       | 棕          | 若延时继电器使用，线L-1不使用  | 若温控器2使用，线1-2不使用   |
| Русский    | Предохранительное реле давления | Реле задержки времени   | Синий | Чёрный  | Коричневый | Отсоедините провод L-1, если используется реле задержки времени       | Отсоедините провод 1-2, если используется термостат 2   |
| DEUTSCH    | Sicherheitsdruckschalter        | Zeitrelais (verzögernd) | Blau  | Schwarz | Braun      | Bei Benutzung der Anlaßverzögerung Brücke L-1 entfernen               | Bei Benutzung von Thermostat 2 Brücke 1-2 entfernen     |
| FRANÇAIS   | Pressostat                      | Relais de temporisation | Bleu  | Noir    | Marron     | Supprimer la connection L-1 si le relais de temporisation est utilisé | Supprimer la connection 1-2 si thermostat 2 est utilisé |
| ESPAÑOL    | Presostato de seguridad         | Relé de retardo         | Azul  | Negro   | Marrón     | Quitar cable L-1, si se utiliza un relé de retardo                    | Quitar cable 1-2, si se utiliza el termostato 2         |
| ITALIANO   | Pressostato                     | Relè di ritardo avviam. | Blu   | Nero    | Marrone    | Eliminare il cavo L-1 se è utilizzato il ritardatore                  | Eliminare il cavo 1-2 se è utilizzato il termostato 2   |
| NEDERLANDS | Pressostaat                     | Tijdvertragingrelais    | Blauw | Zwart   | Bruin      | Verwijder draad L-1 indien tijdvertraging wordt toegepast             | Verwijder draad 1-2 indien thermostaat wordt toegepast  |
| DANSK      | Sikkerhedspressostat            | Tidsforsinkelsesrelæ    | Blå   | Sort    | Brun       | Ved tidsforsinkelse fjernes ledning L-1                               | Ved termostat 2 fjernes ledning 1-2                     |
| SVENSKA    | Säkerhetspressostat             | Tidsfördröjningsrelä    | Blå   | Svart   | Brun       | Vid anslutning av tidsfördröjningsrelä avlägsnas bygling L-1          | Vid anslutning av termostat 2 avlägsnas bygling 1-2     |



# SC Twin Compressors



|            | A                               | B                          | C     | D       | E          | F   |   |
|------------|---------------------------------|----------------------------|-------|---------|------------|---|---|
| ENGLISH    | Safety pressure control         | Time delay relay           | Blue  | Black   | Brown      | Remove wire L-1 if time delay is used                                 | Remove wire 1-2 if thermostat 2 is used                 |
| 中文         | 安全压力控制                          | 延时继电器                      | 蓝     | 黑       | 棕          | 若延时继电器使用, 线L-1不使用   | 若温控器2使用, 线1-2不使用  |
| Русский    | Предохранительное реле давления | Реле задержки времени      | Синий | Чёрный  | Коричневый | Отсоедините провод L-1, если используется реле задержки времени       | Отсоедините провод 1-2, если используется термостат 2   |
| DEUTSCH    | Sicherheitsdruckschalter        | Zeitrelais (verzögernd)    | Blau  | Schwarz | Braun      | Bei Benutzung der Anlaufverzögerung Brücke L-1 entfernen              | Bei Benutzung von Thermostat 2 Brücke 1-2 entfernen     |
| FRANÇAIS   | Pressostat                      | Relais de temporisation    | Bleu  | Noir    | Marron     | Supprimer la connection L-1 si le relais de temporisation est utilisé | Supprimer la connection 1-2 si thermostat 2 est utilisé |
| ESPAÑOL    | Presostato de seguridad         | Relé de retardo            | Azul  | Negro   | Marrón     | Quitar cable L-1, si se utiliza un relé de retardo                    | Quitar cable 1-2, si se utiliza el termostato 2         |
| ITALIANO   | Pressostato                     | Relè di ritardo avviament. | Blu   | Nero    | Marrone    | Eliminare il cavo L-1 se è utilizzato il ritardatore                  | Eliminare il cavo 1-2 se è utilizzato il termostato 2   |
| NEDERLANDS | Pressostaat                     | Tijdvertraging-relais      | Blauw | Zwart   | Bruin      | Verwijder draad L-1 indien tijdvertraging wordt toegepast             | Verwijder draad 1-2 indien thermostaat wordt toegepast  |
| DANSK      | Sikkerhedspressostat            | Tidsforsinkel-sesrelæ      | Blå   | Sort    | Brun       | Ved tidsforsinkelse fjernes ledning L-1                               | Ved termostat 2 fjernes ledning 1-2                     |
| SVENSKA    | Säkerhetspressostat             | Tidsfördröjningsrelä       | Blå   | Svart   | Brun       | Vid anslutning av tidsfördröjningsrelä avlägsnas bygling L-1          | Vid anslutning av termostat 2 avlägsnas bygling 1-2     |

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