

# SC18/18G

## Universal Twin Compressor

### R134a

### 220-240V 50Hz

Data Sheet (Replaces CD.44.U2.02)

#### General

|             |                 |
|-------------|-----------------|
| Compressor  | <b>SC18/18G</b> |
| Code number | 104G8880        |

#### Application

|                                |      |  |
|--------------------------------|------|--|
| Application                    |      | LBP/HBP                                    |
| Evaporating temperature range  | °C   | -35 to 15                                  |
| Voltage range                  | V/Hz | 198 - 254 /50                              |
| Motor type                     |      | CSIR                                       |
| Max. ambient temperature       | °C   | 43   |
| Comp. cooling at ambient temp. | 32°C | LBP: F <sub>2</sub><br>HBP: F <sub>2</sub> |
|                                | 38°C | LBP: F <sub>2</sub><br>HBP: F <sub>2</sub> |
|                                | 43°C | LBP: F <sub>2</sub>                        |
|                                |      | HBP: F <sub>2</sub>                        |

#### Design

|                                     |                 |           |
|-------------------------------------|-----------------|-----------|
| Displacement                        | cm <sup>3</sup> | 2 x 17.69 |
| Oil quantity                        | cm <sup>3</sup> | 1120      |
| Maximum refrigerant charge          | g               | 2200      |
| Free gas vol. in compressor         | cm <sup>3</sup> | 2920      |
| Weight without electrical equipment | kg              | 28        |

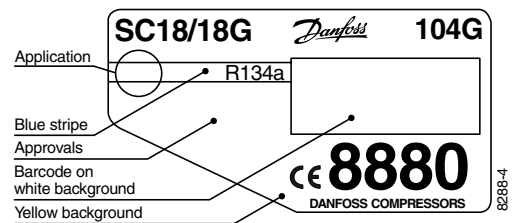
#### Motor

|   |      |                     |
|---|------|---------------------|
| Motor size                                | watt | 2 x 495             |
| LRA (rated after 4 sec. UL984) HST*       | A    | 18.6                |
| Cut-in current HST*                       | A    | 18.6                |
| Resistance, main and start winding (25°C) | Ω    | 3.7/14.1            |
| Approvals                                 |      | EN 60335-2-34, CCIB |

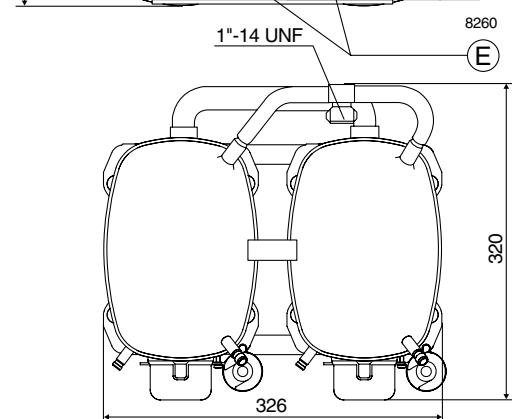
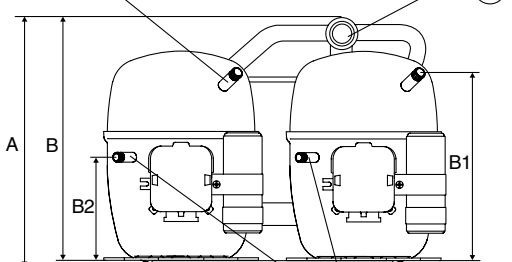
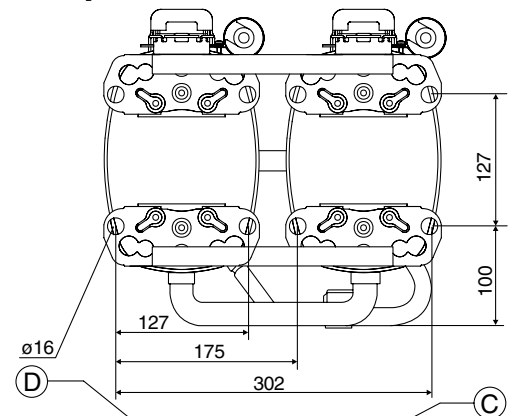
\* Operational current for the second compressor time-delayed.

#### Dimensions

|                         |                  |    |           |
|-------------------------|------------------|----|-----------|
| Height                  | mm               | A  | 259       |
|                         |                  | B  | 254       |
|                         |                  | B1 | 193       |
|                         |                  | B2 | 110       |
| Suction connector       | location/I.D. mm | C  | 16        |
|                         |                  | D  | 16        |
| Process connector       | location/I.D. mm | D  | 6.2 ±0.09 |
| Discharge connector     | location/I.D. mm | E  | 6.2 ±0.09 |
| Compressors on a pallet | pcs.             |    | 18        |



- S = Static cooling normally sufficient
- O = Oil cooling
- F<sub>1</sub> = Fan cooling 1.5 m/s  
(compressor compartment temperature equal to ambient temperature)
- F<sub>2</sub> = Fan cooling 3.0 m/s necessary



**Capacity (EN 12900/CECOMAF)**
**watt**

|            |     |       |     |      |      |      |      |      |      |      |      |
|------------|-----|-------|-----|------|------|------|------|------|------|------|------|
| Comp. \ °C | -25 | -23.3 | -20 | -15  | -10  | -5   | 0    | 5    | 7.2  | 10   | 15   |
| SC18/18G   | 566 | 636   | 788 | 1052 | 1368 | 1740 | 2174 | 2674 | 2918 | 3248 | 3900 |

**Capacity (ASHRAE)**
**watt**

|            |     |       |     |      |      |      |      |      |      |      |      |
|------------|-----|-------|-----|------|------|------|------|------|------|------|------|
| Comp. \ °C | -25 | -23.3 | -20 | -15  | -10  | -5   | 0    | 5    | 7.2  | 10   | 15   |
| SC18/18G   | 696 | 784   | 970 | 1298 | 1688 | 2148 | 2686 | 3310 | 3614 | 4028 | 4846 |

**Power consumption**
**watt**

|            |     |       |     |     |      |      |      |      |      |      |      |
|------------|-----|-------|-----|-----|------|------|------|------|------|------|------|
| Comp. \ °C | -25 | -23.3 | -20 | -15 | -10  | -5   | 0    | 5    | 7.2  | 10   | 15   |
| SC18/18G   | 662 | 702   | 778 | 896 | 1014 | 1136 | 1260 | 1390 | 1450 | 1526 | 1670 |

**Current consumption**
**A**

|            |      |       |      |      |      |      |      |      |      |      |      |
|------------|------|-------|------|------|------|------|------|------|------|------|------|
| Comp. \ °C | -25  | -23.3 | -20  | -15  | -10  | -5   | 0    | 5    | 7.2  | 10   | 15   |
| SC18/18G   | 5.12 | 5.24  | 5.44 | 5.76 | 6.10 | 6.48 | 6.92 | 7.42 | 7.68 | 8.00 | 8.68 |

**COP (EN 12900/CECOMAF)**
**W/W**

|            |      |       |      |      |      |      |      |      |      |      |      |
|------------|------|-------|------|------|------|------|------|------|------|------|------|
| Comp. \ °C | -25  | -23.3 | -20  | -15  | -10  | -5   | 0    | 5    | 7.2  | 10   | 15   |
| SC18/18G   | 0.86 | 0.91  | 1.01 | 1.18 | 1.35 | 1.53 | 1.72 | 1.92 | 2.01 | 2.13 | 2.34 |

**COP (ASHRAE)**
**W/W**

|            |      |       |      |      |      |      |      |      |      |      |      |
|------------|------|-------|------|------|------|------|------|------|------|------|------|
| Comp. \ °C | -25  | -23.3 | -20  | -15  | -10  | -5   | 0    | 5    | 7.2  | 10   | 15   |
| SC18/18G   | 1.05 | 1.12  | 1.25 | 1.45 | 1.67 | 1.89 | 2.13 | 2.38 | 2.49 | 2.64 | 2.90 |

|                               |                  |        |
|-------------------------------|------------------|--------|
| Test conditions               | EN 12900/CECOMAF | ASHRAE |
| Condensing temperature        | 55°C             | 55°C   |
| Ambient and suction gas temp. | 32°C             | 32°C   |
| Liquid temperature            | 55°C             | 32°C   |
| Fan cooling, 220V 50Hz        |                  |        |

**Accessories**

| Devices   | pcs. | SC18/18G             |
|---|------|----------------------|
| Starting relay  | 2    | 117U6019             |
| Starting capacitor 80 µF  | 2    | 117U5017             |
| Cover   | 2    | 103N2009             |
| Cord relief   | 2    | 103N1004             |
| Time-delay relay  | 1    | 117N0001             |
| Check valve<br>(to be used with time-delay relay)                                 | 2    | 020-1014             |
| Service valve   | 1    | 118-7351<br>(16 mm)  |
| Solder connector (alternative)  | 1    | 118-7405 (16 mm)     |
| Seal ring for service valve<br>and solder connector                               | 1    | 118-3638             |
| Mounting accessories<br>Bolt joint for one compressor<br>Bolt joint in quantities | 2    | 118-1917<br>118-1918 |

