

Datasheets

# DLE5.7CN Energy-optimized LBP/MBP R290 115-127V 60Hz

**General**

|   |          |
|---|----------|
| Code number                                       | 102H3682 |
| Code number (pre-assembled CSIR start equipment)  | 102H3683 |
| Approvals   | UL984    |
| Compressors on pallet                             | 100      |
| Compressors on pallet (with CSIR start equipment) | 80       |

**Application**

| Application                                    | LBP/MBP |    |           |  |
|--|---------|----|-----------|--|
| Frequency                                      | Hz      | 50 | 60        |  |
| Evaporating temperature                        | °F      | -  | -31 to 45 |  |
| Voltage range                                  | V       | -  | 95 - 135  |  |
| Max. condensing temperature continuous (short) | °F      | -  | 131 (149) |  |
| Max. winding temperature continuous (short)    | °F      | -  | 257 (275) |  |

**Cooling requirements**

| Frequency   | Hz | 50  |     |     | 60             |                |     |
|-------------|----|-----|-----|-----|----------------|----------------|-----|
| Application |    | LBP | MBP | HBP | LBP            | MBP            | HBP |
| 90°F        |    | -   | -   | -   | S*             | F <sub>2</sub> | -   |
| 100°F       |    | -   | -   | -   | S*             | F <sub>2</sub> | -   |
| 110°F       |    | -   | -   | -   | F <sub>2</sub> | F <sub>2</sub> | -   |

Remarks on application: For evaporation temperatures higher than 32 °F do not run compressor at condensing temperatures higher 122 °F in steady state operation.  
\* Run capacitor 15 µF compulsory with static cooling (S).

**Motor**

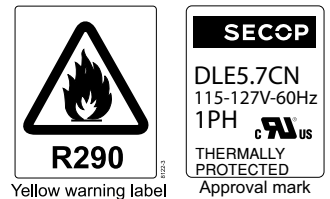
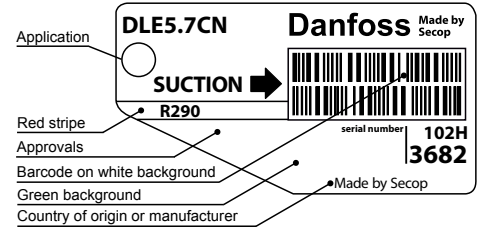
| Motor type                                | CSIR/RSIR/RSCR |             |
|---|----------------|-------------|
| LRA (rated after 4 sec. UL984), HST   LST | A              | 21.1   17.6 |
| Cut in Current, HST   LST                 | A              | 21.1   25.4 |
| Resistance, main   start winding (77°F)   | Ω              | 2.7   6.4   |

**Design**

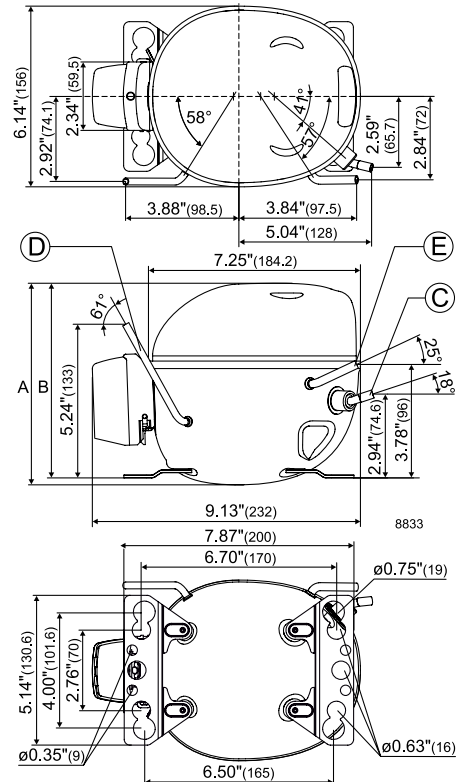
|                                     |        |                   |
|-------------------------------------|--------|-------------------|
| Displacement                        | cu.in  | 0.35              |
| Oil quantity (type)                 | fl.oz. | 7.8 (polyolester) |
| Maximum refrigerant charge          | oz.    | 5.3               |
| Free gas volume in compressor       | fl.oz. | 49.5              |
| Weight without electrical equipment | lbs.   | 18.1              |

**Dimensions**

| Height               | inch                       | A  | 6.90                 |
|----------------------|----------------------------|----|----------------------|
|                      |                            | B  | 6.64                 |
|                      |                            | B1 | -                    |
|                      |                            | B2 | -                    |
| Suction connector    | location, I.D. in.   angle | C  | 0.320-0.327   18°    |
|                      | material   comment         |    | Copper   Rubber plug |
| Process connector    | location, I.D. in.   angle | D  | 0.252-0.259   60°    |
|                      | material   comment         |    | Copper   Rubber plug |
| Discharge connector  | location, I.D. in.   angle | E  | 0.252-0.259   25°    |
|                      | material   comment         |    | Copper   Rubber plug |
| Oil cooler connector | location, I.D. in.   angle | F  | -                    |
|                      | material   comment         |    | -                    |



- 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
- SG = Suction gas cooling normally sufficient
- = not applicable in this area



**ASHRAE LBP**

 115V, 60Hz, fan cooling F<sub>2</sub>

|                    |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|
| Evap. temp. in °F  | -49 | -40 | -30  | -20  | -13  | -10  | 0    | 10   | 14   | 20   | 30   | 32   | 40   | 41   | 45   | 50 | 59 |
| Capacity in BTU/h  |     |     | 681  | 914  | 1100 | 1187 | 1507 | 1882 | 2050 | 2321 | 2830 | 2941 | 3419 | 3483 | 3746 |    |    |
| Power cons. in W   |     |     | 179  | 206  | 225  | 233  | 260  | 286  | 296  | 311  | 334  | 338  | 355  | 357  | 364  |    |    |
| Current cons. in A |     |     | 2.60 | 2.74 | 2.85 | 2.90 | 3.08 | 3.27 | 3.34 | 3.45 | 3.63 | 3.67 | 3.80 | 3.82 | 3.88 |    |    |
| EER in BTU/Wh      |     |     | 3.81 | 4.44 | 4.90 | 5.10 | 5.80 | 6.59 | 6.93 | 7.47 | 8.48 | 8.70 | 9.64 | 9.77 | 10.3 |    |    |

**ASHRAE MBP/HBP**

 115V, 60Hz, fan cooling F<sub>2</sub>

|                    |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|
| Evap. temp. in °F  | -49 | -40 | -30  | -20  | -13  | -10  | 0    | 10   | 14   | 20   | 30   | 32   | 40   | 41   | 45   | 50 | 59 |
| Capacity in BTU/h  |     |     | 609  | 817  | 983  | 1060 | 1345 | 1680 | 1828 | 2069 | 2521 | 2619 | 3041 | 3097 | 3329 |    |    |
| Power cons. in W   |     |     | 177  | 204  | 222  | 230  | 257  | 283  | 293  | 307  | 330  | 334  | 350  | 352  | 359  |    |    |
| Current cons. in A |     |     | 2.60 | 2.74 | 2.85 | 2.90 | 3.08 | 3.27 | 3.34 | 3.45 | 3.63 | 3.67 | 3.80 | 3.82 | 3.88 |    |    |
| EER in BTU/Wh      |     |     | 3.44 | 4.01 | 4.42 | 4.60 | 5.24 | 5.94 | 6.25 | 6.73 | 7.64 | 7.84 | 8.68 | 8.79 | 9.26 |    |    |

**EN 12900 LBP**

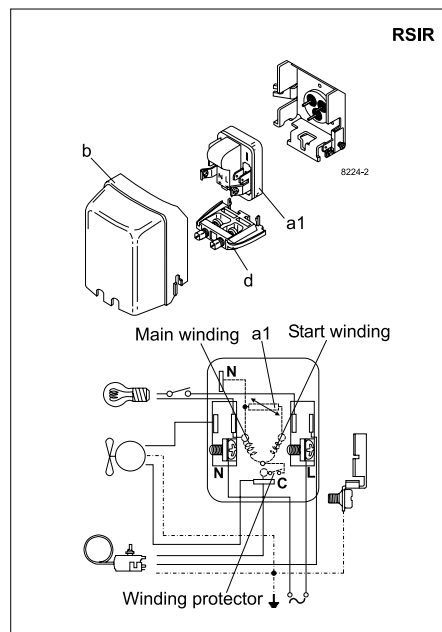
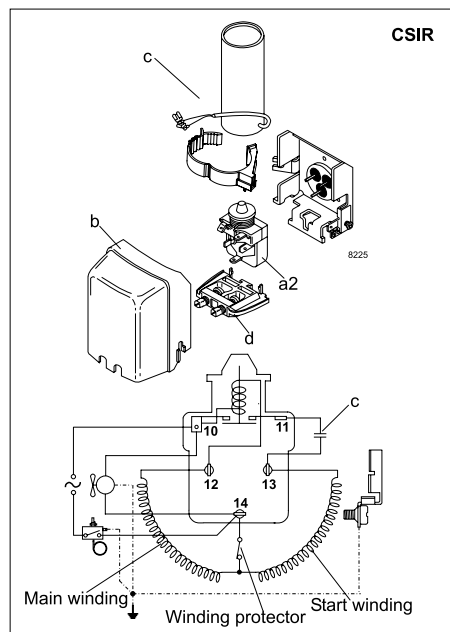
 115V, 60Hz, fan cooling F<sub>2</sub>

|                    |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|
| Evap. temp. in °F  | -49 | -40 | -30  | -20  | -13  | -10  | 0    | 10   | 14   | 20   | 30   | 32   | 40   | 41   | 45   | 50 | 59 |
| Capacity in W      |     |     | 207  | 269  | 321  | 345  | 435  | 541  | 588  | 665  | 809  | 841  | 976  | 994  | 1068 |    |    |
| Power cons. in W   |     |     | 181  | 202  | 218  | 224  | 246  | 267  | 275  | 287  | 306  | 309  | 322  | 324  | 330  |    |    |
| Current cons. in A |     |     | 2.58 | 2.68 | 2.75 | 2.79 | 2.92 | 3.05 | 3.11 | 3.18 | 3.31 | 3.33 | 3.42 | 3.43 | 3.47 |    |    |
| COP in W/W         |     |     | 1.14 | 1.33 | 1.47 | 1.54 | 1.77 | 2.03 | 2.14 | 2.32 | 2.65 | 2.72 | 3.03 | 3.07 | 3.24 |    |    |

**EN 12900 MBP**

 115V, 60Hz, fan cooling F<sub>2</sub>

|                    |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|
| Evap. temp. in °F  | -49 | -40 | -30  | -20  | -13  | -10  | 0    | 10   | 14   | 20   | 30   | 32   | 40   | 41   | 45   | 50 | 59 |
| Capacity in W      |     |     | 200  | 268  | 322  | 348  | 442  | 552  | 601  | 680  | 829  | 862  | 1002 | 1021 | 1098 |    |    |
| Power cons. in W   |     |     | 179  | 206  | 225  | 233  | 260  | 286  | 296  | 311  | 334  | 338  | 355  | 357  | 364  |    |    |
| Current cons. in A |     |     | 2.60 | 2.74 | 2.85 | 2.90 | 3.08 | 3.27 | 3.34 | 3.45 | 3.63 | 3.67 | 3.80 | 3.82 | 3.88 |    |    |
| COP in W/W         |     |     | 1.12 | 1.30 | 1.44 | 1.49 | 1.70 | 1.93 | 2.03 | 2.19 | 2.48 | 2.55 | 2.83 | 2.86 | 3.02 |    |    |



| Accessories for         | DLE5.7CN                 | Figure | Code number |
|-------------------------|--------------------------|--------|-------------|
| ePTC starting device    | 1/4 in. spade connectors | a1     | 103N0058 *) |
| Starting relay          | 1/4 in. spade connectors | a2     | 117U7011    |
| Start. capacitor 240 µF | 1/4 in. spade connectors | c      | 117U5023    |
| Cover                   |                          | b      | 103N0492    |
| Cord relief             |                          | d      | 103N1010    |

\*) Remarks: RSIR and RSCR option available in 4th quarter 2015

| Test conditions         | EN 12900      |       | ASHRAE |       |
|-------------------------|---------------|-------|--------|-------|
|                         | LBP           | MBP   | LBP    | MBP   |
| Condensing temperature  | 104°F         | 113°F | 130°F  | 130°F |
| Ambient temperature     | 90°F          | 90°F  | 90°F   | 90°F  |
| Suction gas temperature | 68°F          | 68°F  | 90°F   | 95°F  |
| Liquid temperature      | no subcooling |       | 90°F   | 115°F |

| Mounting accessories                | Code number |
|-------------------------------------|-------------|
| Bolt joint for one comp. Ø: 3/4 in. | 118-1949    |
| Bolt joint for one comp. Ø: 5/8 in. | 118-1946    |
| Snap-on for one comp. Ø: 5/8 in.    | 118-1947    |

**ASHRAE LBP**

115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F<sub>2</sub>

|                    |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|
| Evap. temp. in °F  | -49 | -40 | -30  | -20  | -13  | -10  | 0    | 10   | 14   | 20   | 30   | 32   | 40   | 41   | 45   | 50 | 59 |
| Capacity in BTU/h  |     |     | 686  | 921  | 1111 | 1199 | 1524 | 1905 | 2074 | 2347 | 2858 | 2969 | 3445 | 3508 | 3769 |    |    |
| Power cons. in W   |     |     | 170  | 195  | 212  | 219  | 244  | 268  | 278  | 291  | 312  | 316  | 332  | 333  | 340  |    |    |
| Current cons. in A |     |     | 2.47 | 2.59 | 2.69 | 2.74 | 2.90 | 3.07 | 3.13 | 3.24 | 3.40 | 3.43 | 3.56 | 3.57 | 3.63 |    |    |
| EER in BTU/Wh      |     |     | 4.03 | 4.74 | 5.24 | 5.46 | 6.24 | 7.10 | 7.47 | 8.06 | 9.15 | 9.38 | 10.4 | 10.5 | 11.1 |    |    |

**ASHRAE MBP/HBP**

115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F<sub>2</sub>

|                    |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|
| Evap. temp. in °F  | -49 | -40 | -30  | -20  | -13  | -10  | 0    | 10   | 14   | 20   | 30   | 32   | 40   | 41   | 45   | 50 | 59 |
| Capacity in BTU/h  |     |     | 613  | 824  | 993  | 1071 | 1361 | 1699 | 1850 | 2092 | 2545 | 2643 | 3064 | 3119 | 3350 |    |    |
| Power cons. in W   |     |     | 168  | 193  | 210  | 217  | 242  | 265  | 275  | 288  | 309  | 313  | 327  | 329  | 336  |    |    |
| Current cons. in A |     |     | 2.47 | 2.59 | 2.69 | 2.74 | 2.9  | 3.07 | 3.13 | 3.24 | 3.40 | 3.43 | 3.56 | 3.57 | 3.63 |    |    |
| EER in BTU/Wh      |     |     | 3.64 | 4.28 | 4.73 | 4.93 | 5.63 | 6.40 | 6.74 | 7.27 | 8.24 | 8.45 | 9.36 | 9.48 | 9.97 |    |    |

**EN 12900 LBP**

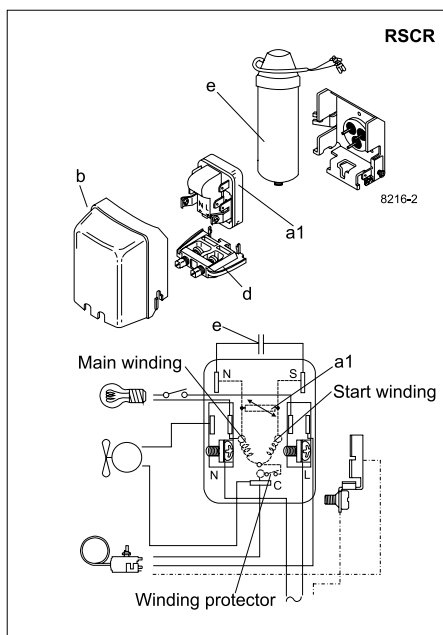
115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F<sub>2</sub>

|                    |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|
| Evap. temp. in °F  | -49 | -40 | -30  | -20  | -13  | -10  | 0    | 10   | 14   | 20   | 30   | 32   | 40   | 41   | 45   | 50 | 59 |
| Capacity in W      |     |     | 209  | 272  | 324  | 348  | 440  | 547  | 595  | 672  | 817  | 849  | 983  | 1001 | 1074 |    |    |
| Power cons. in W   |     |     | 172  | 191  | 205  | 211  | 231  | 251  | 258  | 269  | 286  | 289  | 301  | 303  | 308  |    |    |
| Current cons. in A |     |     | 2.45 | 2.53 | 2.60 | 2.63 | 2.74 | 2.86 | 2.91 | 2.98 | 3.10 | 3.12 | 3.20 | 3.21 | 3.24 |    |    |
| COP in W/W         |     |     | 1.21 | 1.42 | 1.58 | 1.65 | 1.90 | 2.18 | 2.30 | 2.50 | 2.86 | 2.93 | 3.26 | 3.31 | 3.49 |    |    |

**EN 12900 MBP**

115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F<sub>2</sub>

|                    |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|
| Evap. temp. in °F  | -49 | -40 | -30  | -20  | -13  | -10  | 0    | 10   | 14   | 20   | 30   | 32   | 40   | 41   | 45   | 50 | 59 |
| Capacity in W      |     |     | 201  | 270  | 326  | 351  | 447  | 558  | 608  | 688  | 838  | 870  | 1009 | 1028 | 1104 |    |    |
| Power cons. in W   |     |     | 170  | 195  | 212  | 219  | 244  | 268  | 278  | 291  | 312  | 316  | 332  | 333  | 340  |    |    |
| Current cons. in A |     |     | 2.47 | 2.59 | 2.69 | 2.74 | 2.90 | 3.07 | 3.13 | 3.24 | 3.40 | 3.43 | 3.56 | 3.57 | 3.63 |    |    |
| COP in W/W         |     |     | 1.18 | 1.39 | 1.54 | 1.60 | 1.83 | 2.08 | 2.19 | 2.36 | 2.68 | 2.75 | 3.05 | 3.08 | 3.25 |    |    |



| Accessories for                | DLE5.7CN                 | Figure | Code number |
|--------------------------------|--------------------------|--------|-------------|
| ePTC starting device           | 1/4 in. spade connectors | a1     | 103N0058 *) |
| Run capacitor 15 µF (optional) | 1/4 in. spade connectors | e      | 117-7118 *) |
| Cover                          |                          | b      | 103N0492    |
| Cord relief                    |                          | d      | 103N1010    |

\*) Remarks: RSIR and RSCR option available in 4th quarter 2015

| Test conditions         | EN 12900      |       | ASHRAE |       |
|-------------------------|---------------|-------|--------|-------|
|                         | LBP           | MBP   | LBP    | MBP   |
| Condensing temperature  | 104°F         | 113°F | 130°F  | 130°F |
| Ambient temperature     | 90°F          | 90°F  | 90°F   | 90°F  |
| Suction gas temperature | 68°F          | 68°F  | 90°F   | 95°F  |
| Liquid temperature      | no subcooling |       | 90°F   | 115°F |

| Mounting accessories     |            | Code number |
|--------------------------|------------|-------------|
| Bolt joint for one comp. | Ø: 3/4 in. | 118-1949    |
| Bolt joint for one comp. | Ø: 5/8 in. | 118-1946    |
| Snap-on for one comp.    | Ø: 5/8 in. | 118-1947    |