

MAKING MODERN LIVING POSSIBLE



Quick reference

Tailored for people in motion

BD compressors for extreme conditions

With various DC Voltages



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EN12900 Household / CECOMAF Condensing temperature : 55°C / Ambient temperature : 32°C / Suction gas temperature : 32°C / Liquid temperature : no subcooling

| Compressors | Evaporating temperature [°C] | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|------|-----|------|------|-----|------|-----|------|-----|------|-----|----|
| | -30 | | -25 | | -23.3 | | -20 | | -15 | | -10 | | -5 | | 0 | | 5 | | 7.2 | | 10 | | 15 | | |
| | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo |
| BD35F | 26.2 | 36 | 35.9 | 42.8 | 40.4 | 45.4 | 50.5 | 50.8 | 69.8 | 59.5 | 93.6 | 68.9 | 122 | 78.5 | - | - | - | - | - | - | - | - | - | - | |
| BD50F | 36.7 | 47 | 52.2 | 59 | 58.3 | 63 | 71.4 | 70.7 | 94.9 | 82.6 | 123 | 95 | 157 | 108 | - | - | - | - | - | - | - | - | - | - | |
| BD80F | 54.8 | 69 | 78 | 87 | 86.7 | 93 | 105 | 105 | 138 | 123 | 176 | 144 | 221 | 168 | - | - | - | - | - | - | - | - | - | - | |
| BD250GH | - | - | 62.9 | 72.7 | 70.7 | 77.7 | 87 | 87.6 | 116 | 103 | 149 | 120 | 189 | 138 | 236 | 157 | 290 | 179 | 316 | 189 | 353 | 203 | 425 | 230 | |
| BD250GH (48V) | - | - | 62.9 | 70 | 70.7 | 74 | 87.1 | 82 | 116 | 94.4 | 149 | 108 | 189 | 122 | 236 | 138 | 290 | 155 | 316 | 163 | 353 | 174 | 425 | 196 | |
| BD250 Twin | - | - | 126 | 145 | 141 | 155 | 174 | 175 | 231 | 206 | 299 | 239 | 378 | 275 | 471 | 314 | 580 | 358 | 633 | 379 | 705 | 406 | 849 | 460 | |
| BD350GH (12V) | - | - | 126 | 140 | 139 | 149 | 169 | 168 | 220 | 197 | 282 | 228 | 355 | 259 | 440 | 292 | 540 | 325 | 588 | 340 | 654 | 358 | 786 | 391 | |
| BD350GH (24V) | - | - | 126 | 122 | 139 | 129 | 169 | 144 | 220 | 169 | 282 | 194 | 355 | 221 | 440 | 248 | 540 | 276 | 588 | 288 | 654 | 303 | 786 | 330 | |
| BD350GH (48V) | - | - | 121 | 131 | 135 | 139 | 164 | 155 | 216 | 181 | 277 | 208 | 350 | 236 | 436 | 265 | 535 | 294 | 584 | 307 | 650 | 323 | 781 | 352 | |
| BD350 Twin (12V) | - | - | 251 | 280 | 279 | 298 | 337 | 336 | 440 | 394 | 564 | 456 | 710 | 518 | 880 | 584 | 1080 | 650 | 1176 | 680 | 1308 | 716 | 1572 | 782 | |
| BD350 Twin (24V) | - | - | 252 | 244 | 278 | 258 | 338 | 288 | 440 | 338 | 564 | 388 | 710 | 442 | 880 | 496 | 1080 | 552 | 1176 | 576 | 1308 | 606 | 1572 | 660 | |
| BD1.4F-VSD | 12.1 | 26.6 | 22.8 | 33.8 | 27.1 | 36.2 | 36.2 | 40.8 | 52.2 | 47.8 | 70.8 | 54.7 | 92.1 | 61.4 | 116 | 68.1 | - | - | - | - | - | - | - | - | |

| Compressors | -40 | | -35 | | -30 | | -25 | | -23.3 | | -20 | | -15 | | -10 | | -5 | |
|-------------|------|------|------|------|------|------|-----|------|-------|------|------|------|------|------|------|-----|-----|------|
| | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc |
| BD220CL | 83 | 121 | 121 | 147 | 166 | 173 | 220 | 200 | 240 | 209 | 283 | 227 | 355 | 255 | 439 | 284 | 535 | 314 |
| BD35K | - | - | - | - | 24.9 | 35.1 | 36 | 42.7 | 40.2 | 45.2 | 49.3 | 49.7 | 65.1 | 56.4 | 83.8 | 63 | 106 | 69.7 |
| BD80CN | 31.3 | 46.9 | 45.3 | 54.8 | 62.1 | 63.2 | 82 | 72 | 90 | 75 | 105 | 80.8 | 133 | 89.3 | 164 | 97 | - | - |
| BD100CN | 44.6 | 57.4 | 62.4 | 69.1 | 83.4 | 80.8 | 108 | 92.5 | 117 | 96.4 | 137 | 104 | 170 | 115 | 209 | 125 | - | - |

ASHRAE Condensing temperature : 54.4°C / Ambient temperature : 32°C / Suction gas temperature : 32°C / Liquid temperature : 32°C

| Compressors | Evaporating temperature [°C] at ASHRAE | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|--|------|------|------|-------|------|------|------|------|------|-----|------|-----|------|------|------|------|-----|------|-----|------|-----|------|-----|----|
| | -30 | | -25 | | -23.3 | | -20 | | -15 | | -10 | | -5 | | 0 | | 5 | | 7.2 | | 10 | | 15 | | |
| | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo |
| BD35F | 32.2 | 36 | 44.2 | 42.8 | 49.7 | 45.4 | 62.2 | 50.8 | 86 | 59.5 | 115 | 68.9 | 150 | 78.5 | - | - | - | - | - | - | - | - | - | - | |
| BD50F | 45.2 | 47 | 64.4 | 59 | 71.9 | 63 | 88.2 | 70.7 | 117 | 82.6 | 152 | 95 | 194 | 108 | - | - | - | - | - | - | - | - | - | - | |
| BD80F | 67.6 | 69 | 96.1 | 87 | 107 | 93 | 130 | 105 | 170 | 123 | 218 | 144 | 274 | 168 | - | - | - | - | - | - | - | - | - | - | |
| BD250GH | - | - | 78 | 72.7 | 87.6 | 77.7 | 108 | 87.6 | 143 | 103 | 185 | 120 | 234 | 138 | 292 | 157 | 360 | 179 | 393 | 189 | 438 | 203 | 528 | 230 | |
| BD250GH (48V) | - | - | 78 | 70 | 87.6 | 74 | 108 | 82 | 143 | 94.4 | 185 | 108 | 234 | 122 | 292 | 138 | 360 | 155 | 393 | 163 | 438 | 174 | 529 | 196 | |
| BD250 Twin | - | - | 156 | 145 | 175 | 155 | 216 | 175 | 286 | 206 | 370 | 239 | 468 | 275 | 584 | 314 | 719 | 358 | 785 | 379 | 876 | 406 | 1057 | 460 | |
| BD350GH (12V) | - | - | 156 | 140 | 173 | 149 | 209 | 168 | 273 | 197 | 349 | 228 | 440 | 259 | 546 | 292 | 670 | 325 | 731 | 340 | 814 | 358 | 979 | 391 | |
| BD350GH (24V) | - | - | 156 | 122 | 173 | 129 | 209 | 144 | 273 | 169 | 349 | 194 | 440 | 221 | 546 | 248 | 670 | 276 | 731 | 288 | 814 | 303 | 979 | 330 | |
| BD350GH (48V) | - | - | 150 | 131 | 167 | 139 | 203 | 155 | 267 | 181 | 343 | 208 | 434 | 236 | 540 | 265 | 664 | 294 | 725 | 307 | 808 | 323 | 973 | 352 | |
| BD350 Twin (12V) | - | - | 312 | 280 | 346 | 298 | 418 | 336 | 546 | 394 | 698 | 456 | 880 | 518 | 1092 | 584 | 1340 | 650 | 1462 | 680 | 1628 | 716 | 1958 | 782 | |
| BD350 Twin (24V) | - | - | 312 | 244 | 346 | 258 | 418 | 288 | 546 | 338 | 698 | 388 | 880 | 442 | 1092 | 496 | 1340 | 552 | 1462 | 576 | 1628 | 606 | 1958 | 660 | |
| BD1.4F-VSD | 15.4 | 26.6 | 28.6 | 33.8 | 33.9 | 36.2 | 45.1 | 40.8 | 64.9 | 47.8 | 88 | 54.7 | 114 | 61.4 | 144 | 68.1 | - | - | - | - | - | - | - | - | |

| Compressors | -40 | | -35 | | -30 | | -25 | | -23.3 | | -20 | | -15 | | -10 | | -5 | |
|-------------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|-----|-----|-----|------|
| | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc | Qo | Pc |
| BD220CL | 96 | 121 | 140 | 147 | 193 | 173 | 255 | 200 | 279 | 209 | 328 | 227 | 413 | 255 | 511 | 284 | 624 | 314 |
| BD35K | - | - | - | - | 30.3 | 35.1 | 43.8 | 42.7 | 49 | 45.2 | 59.9 | 49.7 | 79.2 | 56.4 | 102 | 63 | 129 | 69.7 |
| BD80CN | 34.9 | 46.9 | 50.5 | 54.8 | 69.2 | 63.2 | 91 | 72 | 100 | 75 | 118 | 80.8 | 148 | 89.3 | 184 | 97 | - | - |
| BD100CN | 49.7 | 57.4 | 69.6 | 69.1 | 93 | 80.8 | 121 | 92.5 | 131 | 96.4 | 153 | 104 | 190 | 115 | 233 | 125 | - | - |

Qo: Capacity (W) at max speed

Pc: Power consumption (W) at max speed

Please refer to the individual compressor data sheets for the complete application range



| Compressors | Applications | | | | | | | | | |
|-------------------|---------------------|--------------------|-------------------|----------------|-------------------------|-------------------------|----------------------------|-----------|----------------------------|----------------|
| | Truck refrigerators | Boat refrigerators | Bus refrigerators | Portable boxes | Car minibars (high end) | Car minibars (SUV, MPV) | Spot cooling (e.g. trucks) | Van boxes | Battery cooling - telecom. | Solar cabinets |
| BD1.4F Automotive | | | | | ✓ | | | | | |
| BD1.4F-VSD | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| BD35F | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ |
| BD35-HD | ✓ | | | | | | | | | |
| BD35K | | | | | | | | | | ✓ |
| BD50F | ✓ | ✓ | | ✓ | | | | | ✓ | ✓ |
| BD80F | | ✓ | | ✓ | | | | | ✓ | |
| BD80CN | | | | | | | | | | ✓ |
| BD100CN | | | | | | | | | | ✓ |
| BD150F | | | | | | | | | ✓ | |
| BD250GH | | | | | | | ✓ | ✓ | ✓ | |
| BD350GH | | | | | | | ✓ | ✓ | ✓ | |
| BD220CL | | | | | | | | | ✓ | |

Code numbers

| Compressors | Code numbers | Electronic units | Voltage | Code numbers |
|-----------------------|--------------|------------------|-------------------------|--|
| BD35F | 101Z0200 | Standard | 12-24V DC | 101N0210 |
| | | EMI | 12-24V DC | 101N0220 |
| | | AEO EMI | 12-24V DC | 101N0320 |
| BD35F (inch con.) | 101Z0204 | Solar | 10-45V DC | 101N0400 |
| | | AC/DC conv. | 12-24V DC & 100-240V AC | 101N0500 |
| BD35F-HD | 101Z0206 | Standard | 12-24V DC | 101N0210 |
| | | Automotive | 12-24V DC | 101N0600 & 101N0630 |
| BD50F | 101Z1220 | Standard | 12-24V DC | 101N0210 |
| | | EMI | 12-24V DC | 101N0220 |
| | | High Start | 12-24V DC | 101N0230 |
| BD50F (inch con.) | 101Z0203 | AEO EMI | 12-24V DC | 101N0320 |
| | | AC/DC conv. | 12-24V DC & 100-240V AC | 101N0500 |
| BD80F | 101Z0280 | High Speed | 12-24V DC | 101N0290 |
| BD250GH | 101Z0400 | High Speed | 12-24V DC | 101N0290 |
| BD250GH (48V) | 101Z0402 | Telecom | 48V DC | 101N0730 |
| BD250 Twin | 101Z0500 | High Speed | 12-24V DC | 2 x 101N0290 |
| BD350GH (12V) | 102Z3015 | 101N8xxx | 12V DC | 101N0800 + 101N0820 (alt.: 101N0830) |
| BD350GH (24V) | 102Z3016 | 101N07xx | 24V DC | 101N0715 |
| BD350GH (48V) | 102Z3031 | Telecom | 48V DC | 101N0720 |
| BD350 Twin (12V) | 102Z3018 | 101N8xxx | 12V DC | 2 x 101N0800 + 101N0820 (alt.: 101N0830) |
| BD350 Twin (24V) | 102Z3017 | 101N07xx | 24V DC | 2 x 101N0715 |
| BD220CL | 102Z3020 | 101N8xxx | 12V DC | 101N0800 + 101N0820 (alt.: 101N0830) |
| BD35K | 101Z0211 | Standard | 12-24V DC | 101N0210 |
| | | EMI | 12-24V DC | 101N0220 |
| | | Solar | 10-45V DC | 101N0400 |
| BD80CN | 101Z0403 | High Start | 12-24V DC | 101N0230 |
| BD100CN | 101Z0401 | High Speed | 12-24V DC | 101N0290 |
| BD1.4F Automotive | 109Z0102 | Automotive | 12V DC | 101N1010 |
| BD1.4F-VSD | 109Z0200 | Variable Speed | 12-24V DC | 101N2100 |
| TOOL4COOL® applicable | | 101N8xxx | 12V DC | 101N0800 + 101N0820 (alt.: 101N0830) |
| | | 101N07xx | 24V DC | 101N0715 |
| | | Telecom | 48V DC | 101N0720 |
| | | Telecom | 48V DC | 101N0730 |
| | | Variable Speed | 12-24V DC | 101N2100 |

Legend Electronic units :

Standard: 12-24V DC voltage

Solar: Design for power supply coming from a solar panel 10-45V DC

AC/DC conv.: Design when power supply can be both AC network/DC batteries -12-24V DC & 100-240V AC

High Start: High starting torque. Mainly for tropical use.

High Speed: Speed range from 2500 to 4400RPM

EMI: Electro Magnetic Interference. It prevents the unit from radiating EMI noise which can disturb antenna, VHF radio and other navigation device equipment. This is mainly used in boats and cars.

AEO: Adaptive Energy Optimization. It is mainly used by customers building and selling condenser units (CU). Use on various application, when you do not know at which speed it is optimal to run the compressor

Telecom: The compressors are used to cool batteries in telecom shelters. The dc voltage in such batteries are 48 Vdc.

Automotive: Design for automotive industry



Danfoss Commercial Compressors is a worldwide manufacturer of compressors and condensing units for refrigeration and HVAC applications. With a wide range of high quality and innovative products we help your company to find the best possible energy efficient solution that respects the environment and reduces total life cycle costs.

We have 40 years of experience within the development of hermetic compressors which has brought us amongst the global leaders in our business, and positioned us as distinct variable speed technology specialists. Today we operate from engineering and manufacturing facilities spread across three continents.



Performer Variable Speed scroll compressors



Performer Air Conditioning scroll compressors



Performer Heat Pump scroll compressors



Maneurop Variable Speed reciprocating compressors



Performer Refrigeration scroll compressors



Maneurop Reciprocating Compressors



Optyma & Optyma Plus Condensing Units



Refrigeration compressors (manufactured by Secop)

Our products can be found in a variety of applications such as rooftops, chillers, residential air conditioners, heatpumps, coldrooms, supermarkets, milk tank cooling and industrial cooling processes.



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