

SPECIFICATIONS OF COMPRESSOR

Model No: C-SDP205H02B

Output : 6 HP

Panasonic Appliances Compressor (Dalian) Co., Ltd.

11-Jan-20

GENERAL SPECIFICATIONS

| | | |
|--------------------------------|----------------------|-----------------------|
| Model No: | | C-SDP205H02B |
| Application | | |
| Evaporating Temp Range | (°C) | -15.0 ~ 12.0 |
| Refrigerant | | R410A |
| Compressor Cooling | | Natural Cooling |
| Rated Performance | | |
| Capacity | (W) | 13600 |
| Input | (W) | 4180 |
| Current | (A) | 10.7 |
| Revolution | (min ⁻¹) | 3600 |
| Sound Level | (dB(A)) | 61max |
| Rating Conditions | | |
| Power Source | | 3-PH 50/60Hz 380/415V |
| Evaporating Temp | (°C) | 7.2 |
| Condensing Temp | (°C) | 54.4 |
| Suction Gas Temp | (°C) | 18.3 |
| Liquid Temp | (°C) | 46.1 |
| Ambient Temp | (°C) | 35.0 |
| Measuring Point of Sound Level | | |
| Distance from the Compressor | (m) | 1.0 |
| Compressor | | |
| Design | | Hermetic Scroll |
| Displacement | (cm ³) | 42.3 |
| Suction Line Connection | (Φ mm OD) | 22.22 |
| Discharge Line Connection | (Φ mm OD) | 12.7 |
| Oil | (ml) | 1700 (FV68S) |
| Mass(Incl.Oil) | (kg) | 36 |
| Motor | | |
| Type | | DC Brushless Motor |
| Pole | | 4 |
| Rated Power Source | | 3-PH 50/60Hz 380/415V |
| Voltage Range | (V) | 342~418 |
| Starting Current | (A) | - |

Panasonic Appliances Compressor (Dalian) Co., Ltd.

PERFORMANCE DATA

| | |
|--------------------------|------------------------|
| Compressor Model | C-SDP205H02B |
| Power Source | 3φ 60Hz 122V |
| Suction Gas Superheat(K) | 11.1 |
| Sub Cooling(K) | 8.3 |
| Compressor Cooling | Natural Cooling |
| Refrigerant | R410A |
| Rotation Speed : | 30 rps |

CAPACITY(W)

| Condensing Temperature(°C) | Evaporating Temperature(°C) | | | | | | | |
|----------------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| | -15 | -10 | -6.7 | 0 | 4.4 | 7.2 | 10 | 12 |
| 35.0 | 3,140 | 4,220 | 4,890 | 6,170 | 6,950 | 7,410 | 7,860 | 8,160 |
| 40.5 | 2,910 | 3,890 | 4,520 | 5,780 | 6,570 | 7,060 | 7,550 | 7,890 |
| 45.0 | 2,690 | 3,580 | 4,180 | 5,400 | 6,210 | 6,730 | 7,260 | 7,630 |
| 50.0 | 2,490 | 3,300 | 3,860 | 5,050 | 5,870 | 6,420 | 6,970 | 7,380 |
| 54.4 | | 3,070 | 3,590 | 4,760 | 5,590 | 6,150 | 6,730 | 7,160 |
| 60.0 | | | 3,280 | 4,410 | 5,250 | 5,830 | 6,440 | 6,890 |

POWER(W)

| Condensing Temperature(°C) | Evaporating Temperature(°C) | | | | | | | |
|----------------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| | -15 | -10 | -6.7 | 0 | 4.4 | 7.2 | 10 | 12 |
| 35.0 | 1,400 | 1,300 | 1,260 | 1,200 | 1,190 | 1,190 | 1,200 | 1,210 |
| 40.5 | 1,580 | 1,500 | 1,460 | 1,400 | 1,380 | 1,370 | 1,380 | 1,380 |
| 45.0 | 1,810 | 1,750 | 1,710 | 1,660 | 1,630 | 1,610 | 1,600 | 1,590 |
| 50.0 | 2,070 | 2,050 | 2,030 | 1,980 | 1,930 | 1,900 | 1,870 | 1,840 |
| 54.4 | | 2,350 | 2,350 | 2,310 | 2,250 | 2,200 | 2,140 | 2,090 |
| 60.0 | | | 2,830 | 2,800 | 2,720 | 2,640 | 2,540 | 2,460 |

CURRENT(A)

| Condensing Temperature(°C) | Evaporating Temperature(°C) | | | | | | | |
|----------------------------|-----------------------------|------|------|------|------|------|------|------|
| | -15 | -10 | -6.7 | 0 | 4.4 | 7.2 | 10 | 12 |
| 35.0 | 6.5 | 6.0 | 5.8 | 5.6 | 5.5 | 5.5 | 5.6 | 5.6 |
| 40.5 | 7.4 | 7.0 | 6.8 | 6.5 | 6.4 | 6.4 | 6.4 | 6.5 |
| 45.0 | 8.6 | 8.3 | 8.1 | 7.8 | 7.6 | 7.5 | 7.5 | 7.5 |
| 50.0 | 10.1 | 9.8 | 9.7 | 9.4 | 9.1 | 8.9 | 8.8 | 8.6 |
| 54.4 | | 11.5 | 11.4 | 11.0 | 10.7 | 10.4 | 10.1 | 9.9 |
| 60.0 | | | 13.9 | 13.5 | 13.0 | 12.5 | 12.0 | 11.6 |

NOTE:

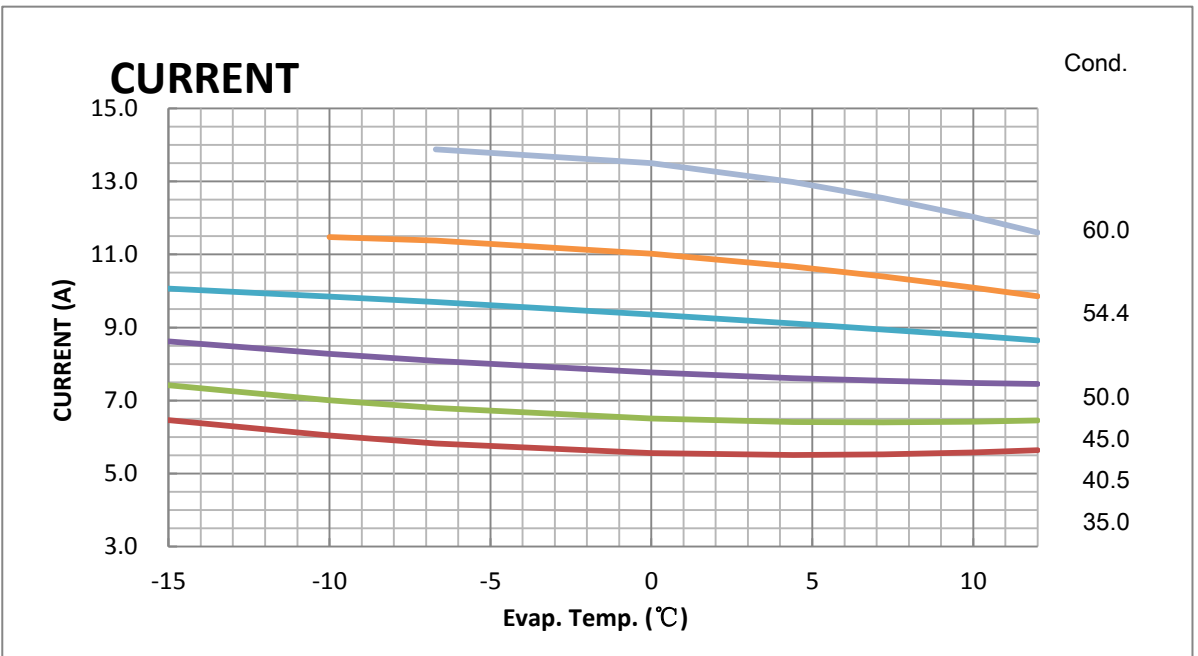
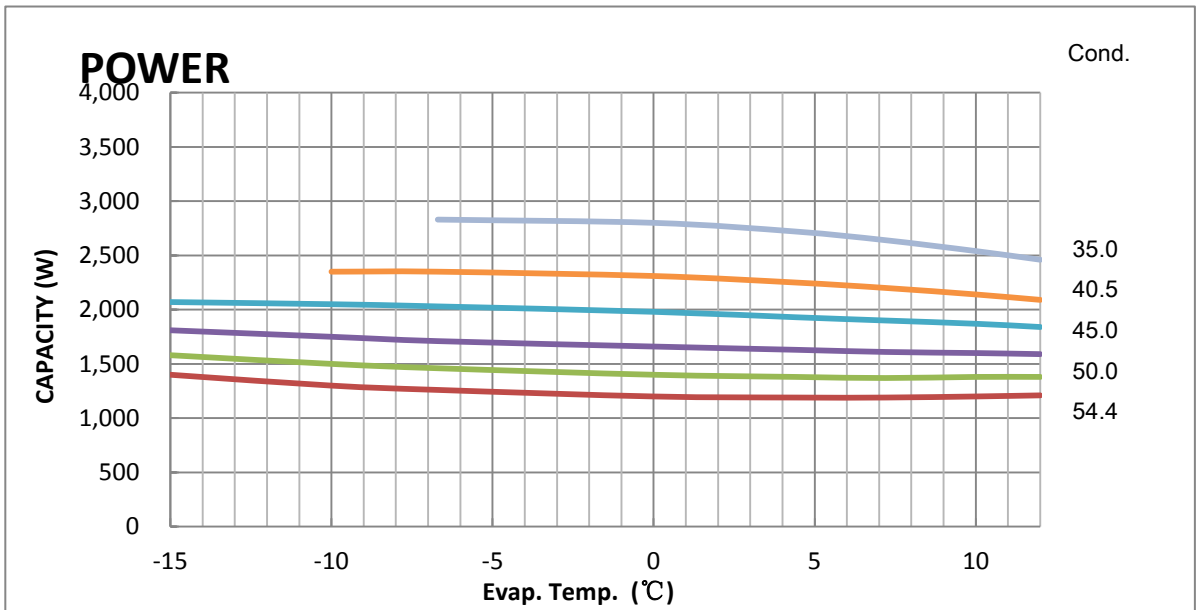
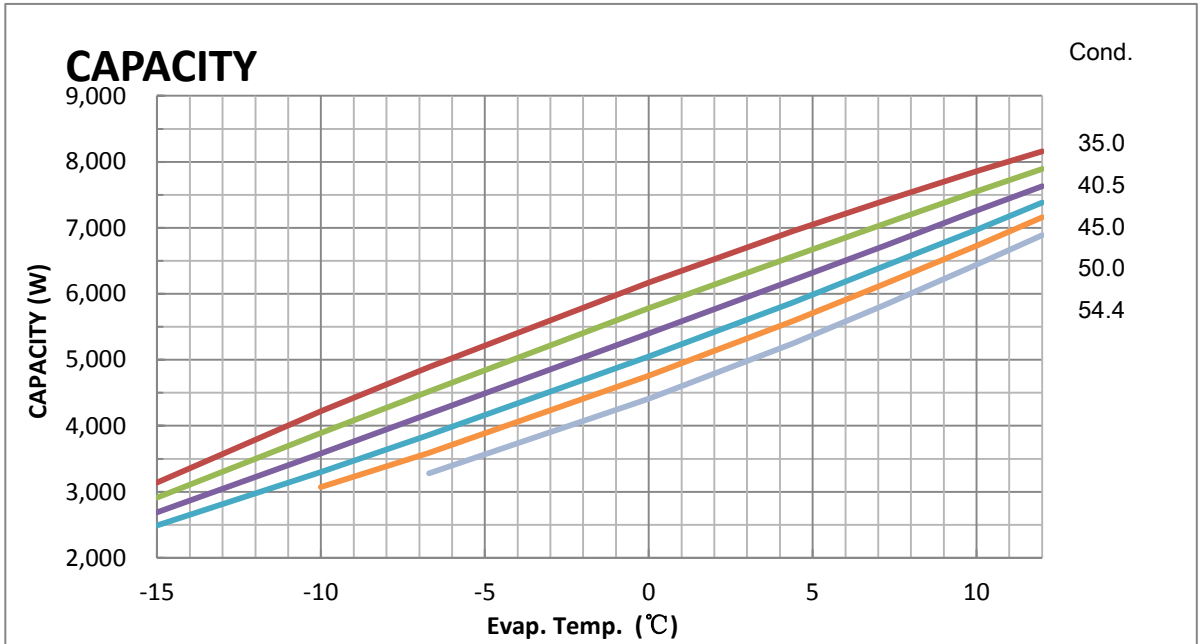
* The performance values subject to change without notice.

Compressor Model

C-SDP205H02B

Power Source

3φ 60Hz 122V



Coefficients of Polynomial Formula

| | |
|---------------------------|------------------------|
| Compressor Model | C-SDP205H02B |
| Power Source | 3φ 60Hz 122V |
| Suction Gas Superheat (K) | 11.1 |
| Sub Cooling (K) | 8.3 |
| Compressor Cooling | Natural Cooling |
| Refrigerant | R410A |
| Rotation Speed | 30 rps |

$$X=C1+C2*(S)+C3*D+C4*(S^2)+C5*(S*D)+C6*(D^2)+C7*(S^3)+C8*(D*S^2)+C9*(S*D^2)+C10*(D^3)$$

X—CAPACITY(W) OR POWER(W) OR CURRENT(A) OR FLOW(kg/h)

S—EVAPORATING TEMP, K

D—CONDENSING TEMP, K

| | CAPACITY (W) | POWER (W) | CURRENT (A) |
|-----|---------------|---------------|---------------|
| C1 | 4.222384E+03 | 3.289561E+03 | 1.594907E+01 |
| C2 | 1.898516E+02 | -3.110317E+01 | -1.798311E-01 |
| C3 | 1.099205E+02 | -1.242554E+02 | -6.212755E-01 |
| C4 | 2.940775E-01 | -1.115395E-01 | -5.610653E-04 |
| C5 | -9.274933E-01 | 1.684128E+00 | 1.026173E-02 |
| C6 | -1.801000E+00 | 1.936404E+00 | 9.680579E-03 |
| C7 | 4.377672E-02 | -2.813846E-02 | -1.208179E-04 |
| C8 | -2.092759E-03 | 1.927591E-03 | 1.803629E-05 |
| C9 | 1.509972E-02 | -2.406560E-02 | -1.517295E-04 |
| C10 | 1.135562E-05 | -4.371949E-06 | -2.020435E-08 |

Note: The polynomial coefficients subject to change without notice.

PERFORMANCE DATA

| | |
|--------------------------|------------------------|
| Compressor Model | C-SDP205H02B |
| Power Source | 3φ 120Hz 231V |
| Suction Gas Superheat(K) | 11.1 |
| Sub Cooling(K) | 8.3 |
| Compressor Cooling | Natural Cooling |
| Refrigerant | R410A |
| Rotation Speed | 60 rps |

CAPACITY(W)

| Condensing Temperature(°C) | Evaporating Temperature(°C) | | | | | | | |
|----------------------------|-----------------------------|-------|--------|--------|--------|--------|--------|--------|
| | -15 | -10 | -6.7 | 0 | 4.4 | 7.2 | 10 | 12 |
| 35.0 | 7,990 | 9,520 | 10,690 | 13,530 | 15,780 | 17,410 | 19,210 | 20,600 |
| 40.5 | 7,410 | 8,840 | 9,940 | 12,590 | 14,710 | 16,240 | 17,930 | 19,250 |
| 45.0 | 6,960 | 8,320 | 9,360 | 11,870 | 13,890 | 15,340 | 16,950 | 18,190 |
| 50.0 | 6,500 | 7,770 | 8,750 | 11,120 | 13,020 | 14,390 | 15,910 | 17,090 |
| 54.4 | | 7,320 | 8,240 | 10,490 | 12,290 | 13,600 | 15,040 | 16,170 |
| 60.0 | | | 7,640 | 9,750 | 11,440 | 12,660 | 14,020 | 15,070 |

POWER(W)

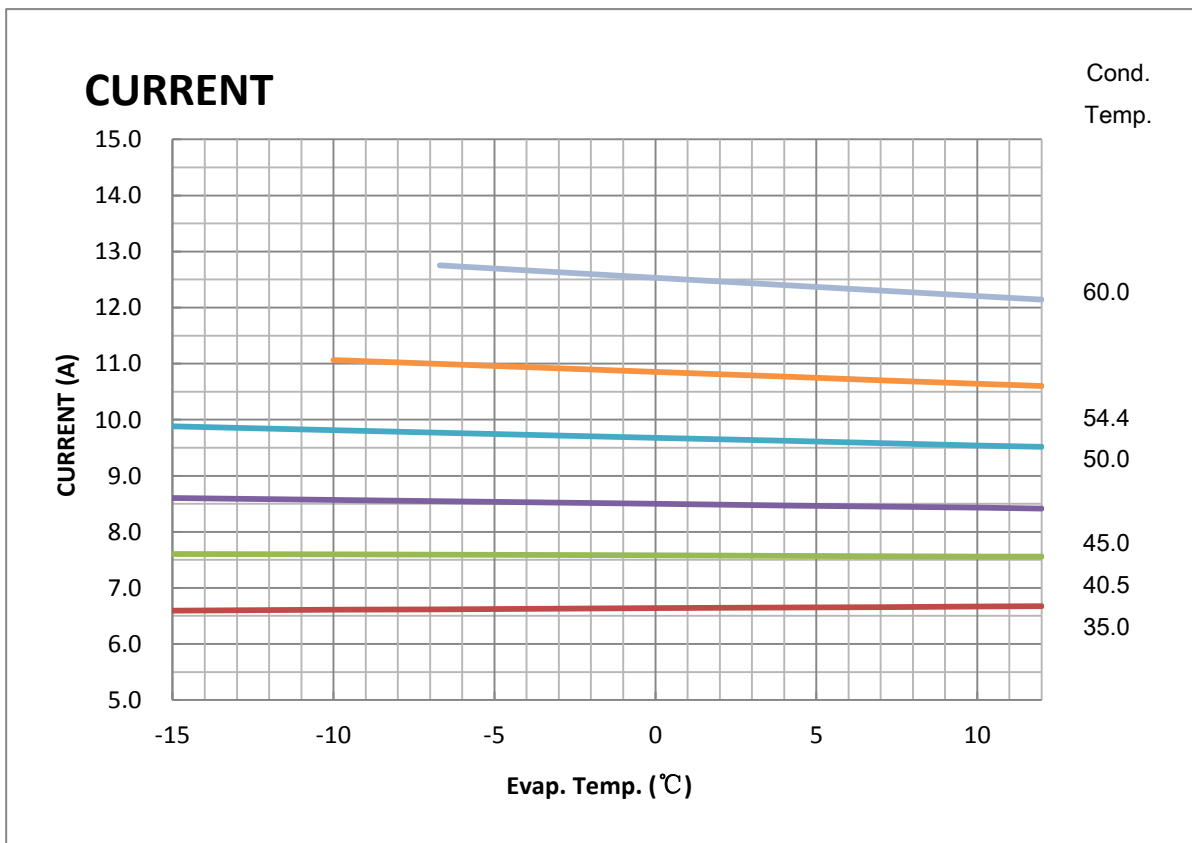
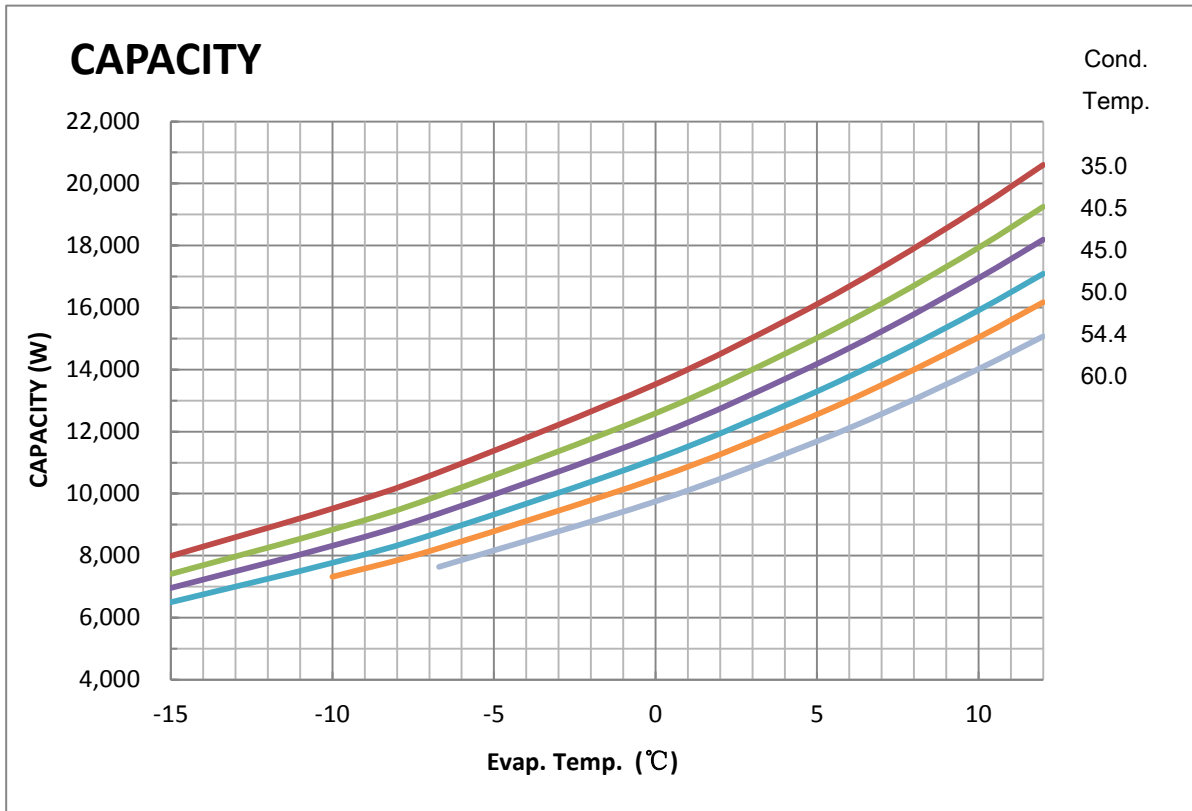
| Condensing Temperature(°C) | Evaporating Temperature(°C) | | | | | | | |
|----------------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| | -15 | -10 | -6.7 | 0 | 4.4 | 7.2 | 10 | 12 |
| 35.0 | 2,590 | 2,600 | 2,610 | 2,630 | 2,640 | 2,640 | 2,650 | 2,660 |
| 40.5 | 2,970 | 2,980 | 2,980 | 2,990 | 2,990 | 2,990 | 3,000 | 3,000 |
| 45.0 | 3,340 | 3,340 | 3,340 | 3,330 | 3,330 | 3,330 | 3,330 | 3,330 |
| 50.0 | 3,820 | 3,800 | 3,800 | 3,780 | 3,770 | 3,760 | 3,750 | 3,740 |
| 54.4 | | 4,270 | 4,250 | 4,220 | 4,190 | 4,180 | 4,170 | 4,160 |
| 60.0 | | | 4,900 | 4,840 | 4,800 | 4,780 | 4,750 | 4,740 |

CURRENT(A)

| Condensing Temperature(°C) | Evaporating Temperature(°C) | | | | | | | |
|----------------------------|-----------------------------|------|------|------|------|------|------|------|
| | -15 | -10 | -6.7 | 0 | 4.4 | 7.2 | 10 | 12 |
| 35.0 | 6.6 | 6.6 | 6.6 | 6.6 | 6.7 | 6.7 | 6.7 | 6.7 |
| 40.5 | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 |
| 45.0 | 8.6 | 8.6 | 8.5 | 8.5 | 8.5 | 8.4 | 8.4 | 8.4 |
| 50.0 | 9.9 | 9.8 | 9.8 | 9.7 | 9.6 | 9.6 | 9.5 | 9.5 |
| 54.4 | | 11.1 | 11.0 | 10.9 | 10.8 | 10.7 | 10.6 | 10.6 |
| 60.0 | | | 12.8 | 12.5 | 12.4 | 12.3 | 12.2 | 12.1 |

NOTE:

* The performance values subject to change without notice.



Coefficients of Polynominal Formula

| | |
|---------------------------|------------------------|
| Compressor Model | C-SDP205H02B |
| Power Source | 3φ 120Hz 231V |
| Suction Gas Superheat (K) | 11.1 |
| Sub Cooling (K) | 8.3 |
| Compressor Cooling | Natural Cooling |
| Refrigerant | R410A |
| Rotation Speed | 60 rps |

$$X=C1+C2*(S)+C3*D+C4*(S^2)+C5*(S*D)+C6*(D^2)+C7*(S^3)+C8*(D*S^2)+C9*(S*D^2) +C10*(D^3)$$

X—CAPACITY(W) OR POWER(W) OR CURRENT(A) OR FLOW(kg/h)

S—EVAPORATING TEMP, K

D—CONDENSING TEMP, K

| | CAPACITY (W) | POWER (W) | CURRENT (A) |
|-----|---------------|---------------|---------------|
| C1 | 2.256088E+04 | 1.871044E+03 | 5.149019E+00 |
| C2 | 3.799096E+02 | 3.125653E+00 | 6.035409E-04 |
| C3 | -2.929980E+02 | -4.359049E+00 | 3.137759E-02 |
| C4 | 7.094134E+00 | 1.994989E-01 | 6.176508E-04 |
| C5 | 2.089022E+00 | -1.203582E-01 | -1.339740E-04 |
| C6 | 1.278026E+00 | 8.382528E-01 | 1.272329E-03 |
| C7 | 6.693756E-03 | -8.412409E-04 | -8.381270E-07 |
| C8 | -7.321551E-02 | -7.348820E-03 | -1.896520E-05 |
| C9 | -2.929114E-02 | 3.375357E-03 | 6.989912E-06 |
| C10 | -4.144984E-08 | 2.557848E-09 | 2.304434E-12 |

Note: The polynomial coefficients subject to change without notice.

PERFORMANCE DATA

| | |
|--------------------------|------------------------|
| Compressor Model | C-SDP205H02B |
| Power Source | 3φ 180Hz 340V |
| Suction Gas Superheat(K) | 11.1 |
| Sub Cooling(K) | 8.3 |
| Compressor Cooling | Natural Cooling |
| Refrigerant | R410A |
| frequency(Hz) | 90 rps |

CAPACITY(W)

| Condensing Temperature(°C) | Evaporating Temperature(°C) | | | | | | | |
|----------------------------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|
| | -15 | -10 | -6.7 | 0 | 4.4 | 7.2 | 10 | 12 |
| 35.0 | 12,240 | 14,620 | 16,430 | 20,830 | 24,340 | 26,870 | 29,670 | 31,850 |
| 40.5 | 11,450 | 13,660 | 15,360 | 19,470 | 22,750 | 25,120 | 27,740 | 29,780 |
| 45.0 | 10,830 | 12,930 | 14,530 | 18,420 | 21,520 | 23,770 | 26,240 | 28,170 |
| 50.0 | 10,180 | 12,150 | 13,660 | 17,310 | 20,230 | 22,340 | 24,660 | 26,470 |
| 54.4 | | 11,510 | 12,930 | 16,390 | 19,150 | 21,150 | 23,350 | 25,070 |
| 60.0 | | | 12,070 | 15,290 | 17,870 | 19,730 | 21,790 | 23,390 |

POWER(W)

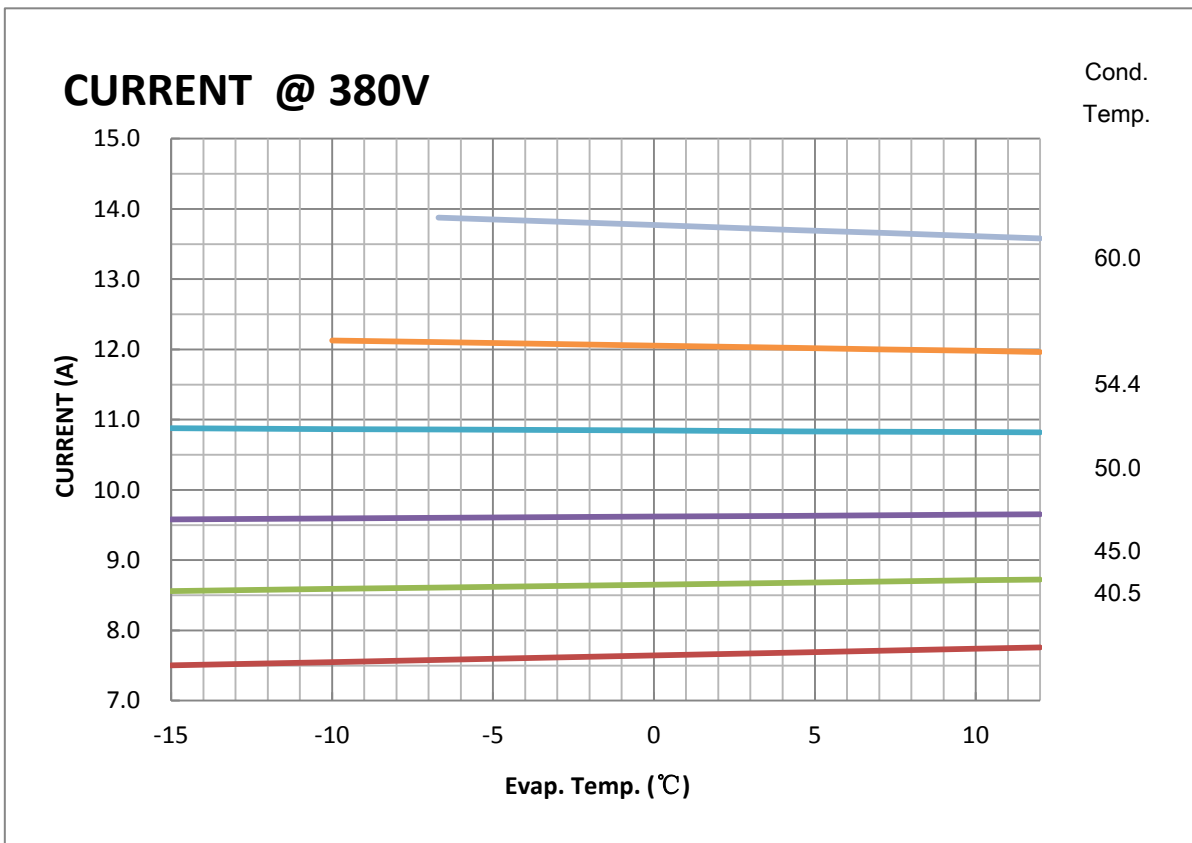
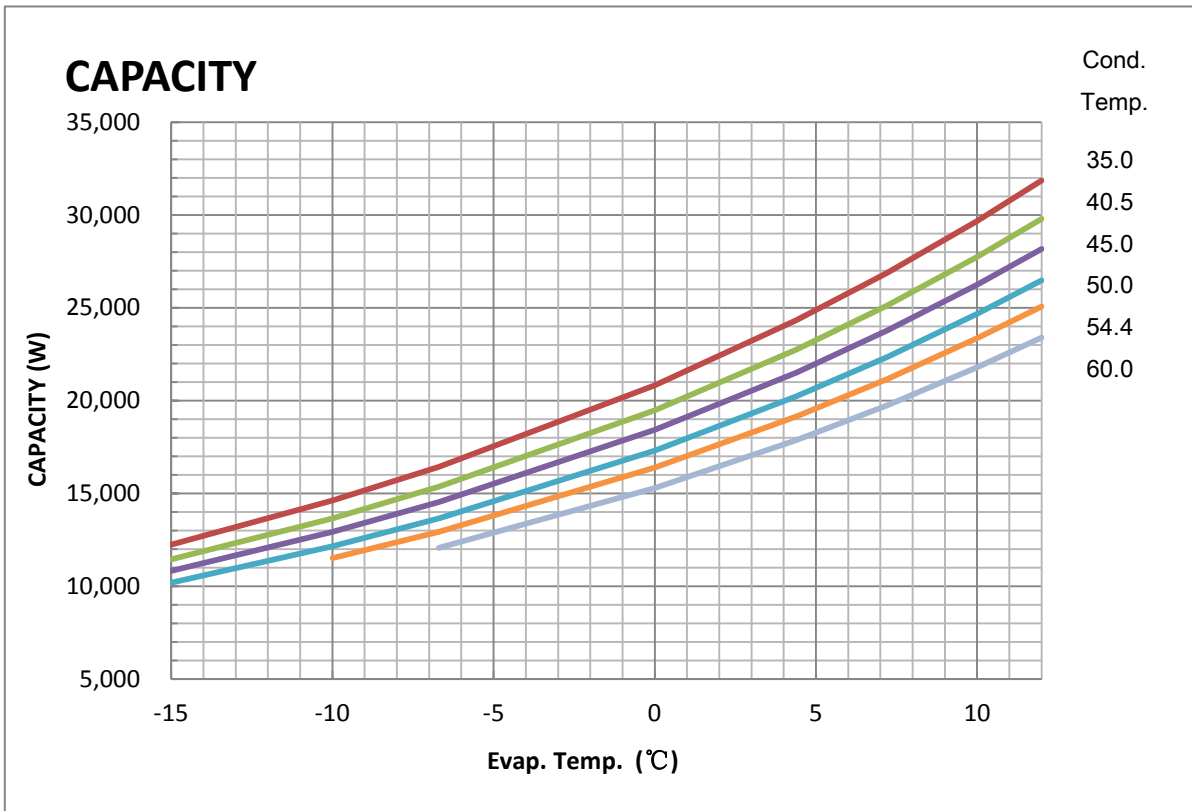
| Condensing Temperature(°C) | Evaporating Temperature(°C) | | | | | | | |
|----------------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| | -15 | -10 | -6.7 | 0 | 4.4 | 7.2 | 10 | 12 |
| 35.0 | 4,260 | 4,300 | 4,320 | 4,360 | 4,390 | 4,410 | 4,430 | 4,450 |
| 40.5 | 4,810 | 4,840 | 4,850 | 4,890 | 4,910 | 4,930 | 4,940 | 4,950 |
| 45.0 | 5,330 | 5,340 | 5,360 | 5,380 | 5,400 | 5,410 | 5,420 | 5,430 |
| 50.0 | 5,980 | 5,980 | 5,990 | 6,000 | 6,010 | 6,010 | 6,020 | 6,020 |
| 54.4 | | 6,610 | 6,610 | 6,600 | 6,600 | 6,600 | 6,600 | 6,600 |
| 60.0 | | | 7,480 | 7,450 | 7,430 | 7,420 | 7,410 | 7,400 |

CURRENT(A)

| Condensing Temperature(°C) | Evaporating Temperature(°C) | | | | | | | |
|----------------------------|-----------------------------|------|------|------|------|------|------|------|
| | -15 | -10 | -6.7 | 0 | 4.4 | 7.2 | 10 | 12 |
| 35.0 | 7.5 | 7.5 | 7.6 | 7.6 | 7.7 | 7.7 | 7.7 | 7.8 |
| 40.5 | 8.6 | 8.6 | 8.6 | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 |
| 45.0 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.7 |
| 50.0 | 10.9 | 10.9 | 10.9 | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 |
| 54.4 | | 12.1 | 12.1 | 12.1 | 12.0 | 12.0 | 12.0 | 12.0 |
| 60.0 | | | 13.9 | 13.8 | 13.7 | 13.7 | 13.6 | 13.6 |

NOTE:

* The performance values subject to change without notice.



Coefficients of Polynominal Formula

| | |
|---------------------------|------------------------|
| Compressor Model | C-SDP205H02B |
| Power Source | 3φ 180Hz 340V |
| Suction Gas Superheat (K) | 11.1 |
| Sub Cooling (K) | 8.3 |
| Compressor Cooling | Natural Cooling |
| Refrigerant | R410A |
| Rotation Speed | 90 rps |

$$X=C1+C2*(S)+C3*D+C4*(S^2)+C5*(S*D)+C6*(D^2)+C7*(S^3)+C8*(D*S^2)+C9*(S*D^2)+C10*(D^3)$$

X—CAPACITY(W) OR POWER(W) OR CURRENT(A) OR FLOW(kg/h)

S—EVAPORATING TEMP, K

D—CONDENSING TEMP, K

| | CAPACITY (W) | POWER (W) | CURRENT (A) |
|-----|---------------|---------------|---------------|
| C1 | 3.395475E+04 | 3.636205E+03 | 7.920639E+00 |
| C2 | 6.697490E+02 | -4.602014E+01 | 6.343498E-03 |
| C3 | -4.197492E+02 | -5.249484E+01 | 7.253721E-03 |
| C4 | 1.049009E+01 | -2.970750E+00 | 2.730746E-03 |
| C5 | 7.859970E-01 | 4.767843E+00 | 3.451630E-03 |
| C6 | 1.756353E+00 | 2.045075E+00 | 3.029576E-03 |
| C7 | 5.477598E-03 | 1.026442E-02 | -2.570652E-06 |
| C8 | -8.071529E-02 | 8.092770E-02 | -5.530474E-05 |
| C9 | -2.904666E-02 | -8.209779E-02 | -6.862717E-05 |
| C10 | -3.810521E-08 | -4.701457E-08 | 3.892250E-12 |

Note: The polynomial coefficients subject to change without notice.