SCROLL COMPRESSORS

Model : C-SBP140H38B

Panasonic Appliances Compressor (Dalian) Co., Ltd.

Rev. 2020-11

Scroll Compressor

Model	C-SBP140H38B	**Electrical**	380-415 Volts 3 Phase 50Hz
Refrigerant	R410A		440-460 Volts 3 Phase 60Hz

Nominal Performance at ARI

Power Source		50Hz-380V	60Hz-440V
Capacity	(W)	11600	14300
Power	(W)	3900	4750
Current	(A)	7.2	7.2
COP	(W/W)	2.97	3.01
Mass Flow	(kg/h)	265	329

Rating Conditions

Condensing Temperature(℃)	54.4
Evaporating Temperature(℃)	7.2
Return Gas temperature(℃)	18.3
Liquid Temperature(℃)	46.1
Ambient Temperature(℃)	35

Motor

	50Hz	60Hz
Voltage Range(V)	342-456	396-506
RLA (A)	8.8	
MCC (A)	12.34	
LRA (A)	63	-
RPM (min^{-1})	2900	3500

Compressor

Maximum Discharge Temp(℃)	130
Displacement (cm^3/rev)	46.35
Weight (with oil kg)	39

Oil

Oil Type	FV68S
Initial Charge (ml)	1700
Re-charge (ml)	1600

Electrical Components

Motor Protector Type	Internal
Run Capacitor Rating (MFD/Volts)	n/a

Nominal performance values +/-5% with 1 hr run-in.

Ratings with air over compressor.

Specifications subject to change without notice.

PERFORMANCE DATA

Compressor Model	**C-SBP140H38B**
Power Source	**3PH 50Hz 380~415V**
Suction Gas Superheat(K)	**11.1**
Sub Cooling(K)	**8.3**
Compressor Cooling	**Natural Cooling**
Refrigerant	**R410A**

CAPACITY(W)

Condensing	Evaporating Temperature(℃)							
Temperature(℃)	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	6,650	8,050	9,140	11,800	13,960	15,540	17,300	18,670
40.5	6,110	7,400	8,400	10,860	12,860	14,320	15,940	17,210
45.0	5,690	6,900	7,830	10,140	12,010	13,380	14,900	16,100
50.0	5,260	6,380	7,250	9,390	11,130	12,400	13,820	14,930
54.4		5,950	6,770	8,770	10,410	11,600	12,930	13,970
60.0			6,200	8,050	9,560	10,660	11,880	12,850
65.0				7,460	8,860	9,890	11,030	11,930

POWER(W)

Condensing	Evaporating Temperature(℃)							
Temperature(℃)	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	2,480	2,520	2,540	2,550	2,550	2,540	2,530	2,520
40.5	2,820	2,850	2,860	2,870	2,860	2,860	2,840	2,830
45.0	3,140	3,160	3,170	3,170	3,160	3,160	3,140	3,130
50.0	3,550	3,560	3,560	3,550	3,540	3,530	3,520	3,510
54.4		3,950	3,940	3,930	3,910	3,900	3,890	3,880
60.0			4,480	4,450	4,430	4,420	4,410	4,400
65.0				4,970	4,950	4,930	4,920	4,910

CURRENT(A) @380V

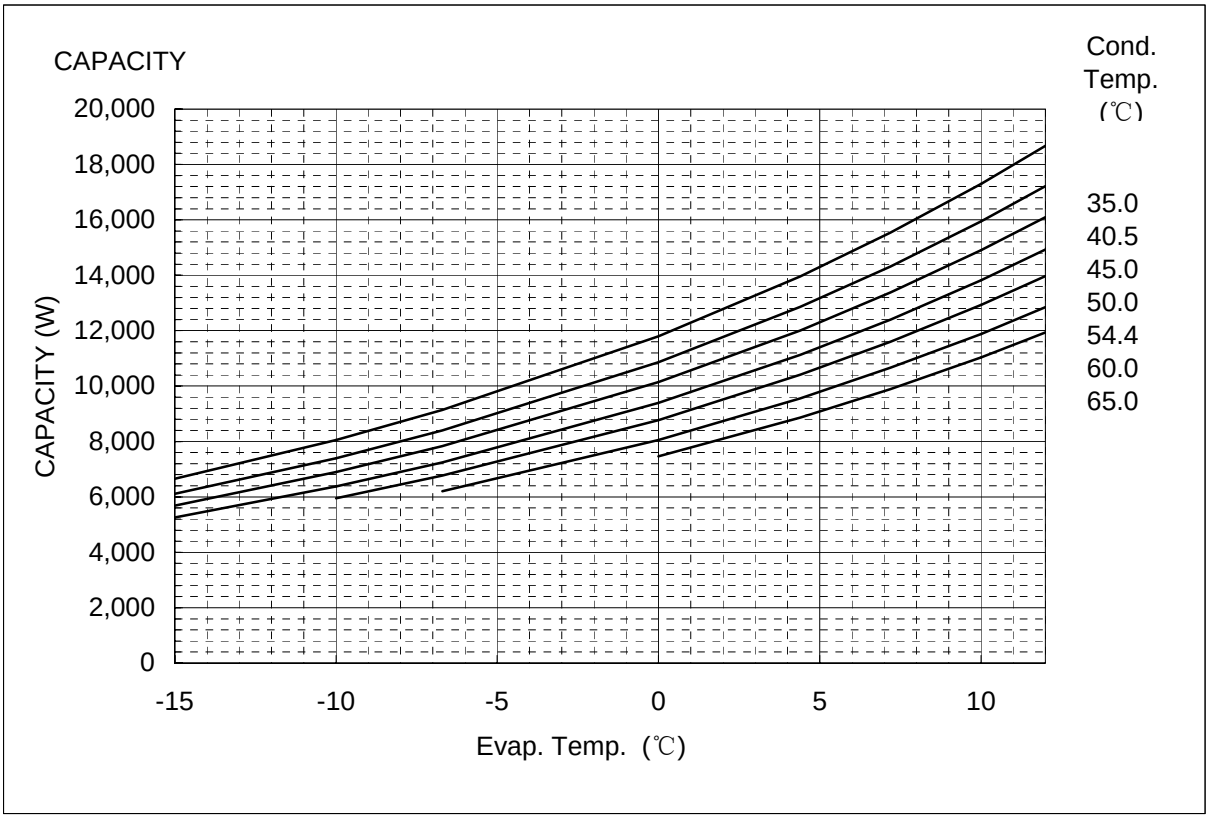
Condensing	Evaporating Temperature(℃)							
Temperature(℃)	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	5.0	5.1	5.1	5.2	5.2	5.2	5.1	5.1
40.5	5.6	5.6	5.7	5.7	5.7	5.7	5.6	5.6
45.0	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
50.0	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.6
54.4		7.3	7.3	7.2	7.2	7.2	7.2	7.2
60.0			8.0	8.0	7.9	7.9	7.9	7.9
65.0				8.7	8.7	8.6	8.6	8.6

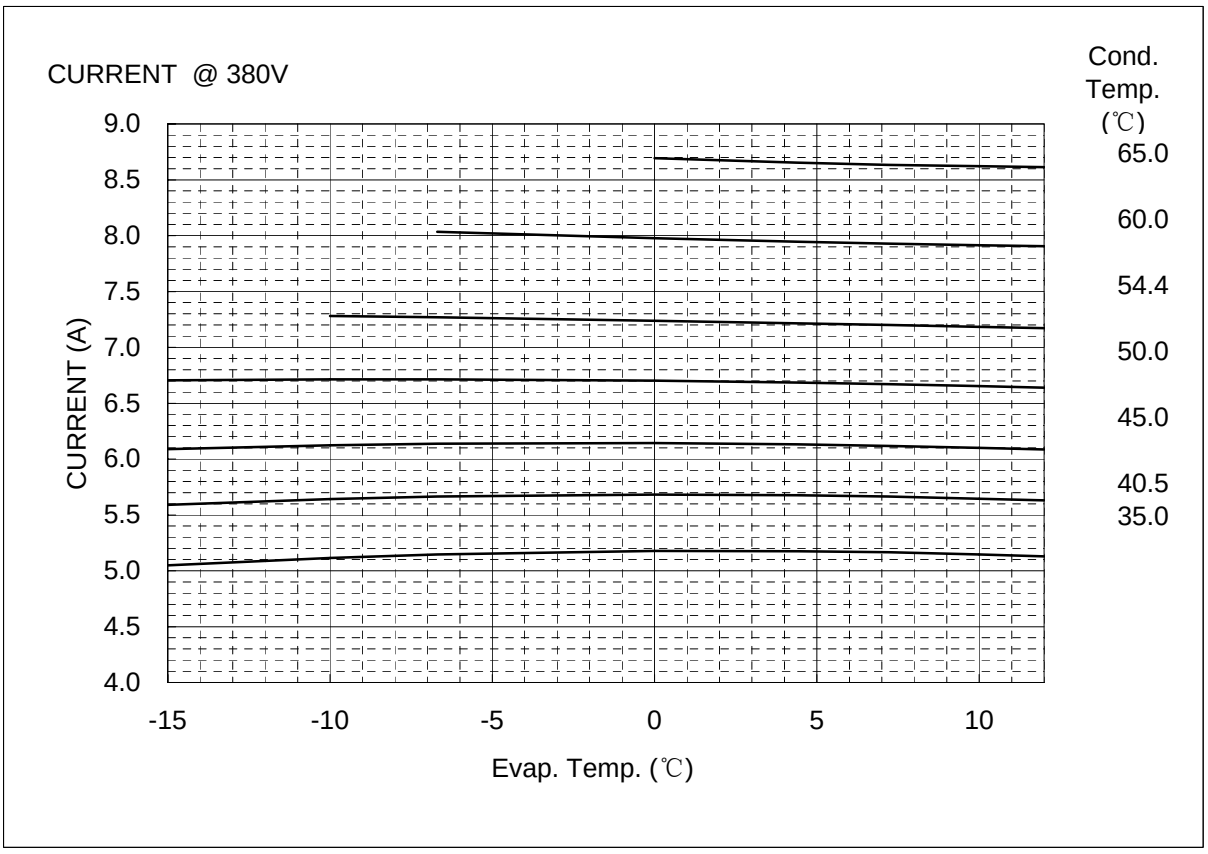
NOTE:

*** The performance values subject to change without notice.**

Compressor Model(Code) **C-SBP140H38B**

Power Source **3PH 50Hz 380~415V**





COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	**C-SBP140H38B**
Power Source	**3PH 50Hz 380~415V**
Suction Gas Superheat (K)	**11.1**
Sub Cooling (K)	**8.3**
Compressor Cooling	**Natural Cooling**
Refrigerant	**R410A**

X=C1+C2*(S)+C3*D+C4*(S2)+C5*(S*D)+C6*(D2)+C7*(S3)+C8*(D*S2)+C9*(S*D2) +C10*(D3)

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

S——EVAPORATING TEMP, °C

D——CONDENSING TEMP, °C

380V-50Hz	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	1.933573E+04	1.869760E+03	3.491741E+00
C2	7.413716E+02	3.255976E-01	2.432175E-03
C3	-2.535526E+02	-1.339678E+01	1.115475E-02
C4	1.244914E+01	-6.870370E-01	-1.326934E-03
C5	-9.765948E+00	1.081394E-01	1.522147E-04
C6	1.091039E+00	9.404862E-01	1.060416E-03
C7	9.461422E-02	1.241089E-03	1.586393E-06
C8	-1.054609E-01	1.124454E-02	2.335664E-05
C9	4.371801E-02	-3.122117E-03	-5.258345E-06
C10	-7.996294E-09	-1.269399E-08	-7.875258E-12

Note: The polynomial coefficients subject to change without notice.

PERFORMANCE DATA

Compressor Model	**C-SBP140H38B**
Power Source	**3PH 60Hz 440~460V**
Suction Gas Superheat(℃)	**11.1**
Sub Cooling(℃)	**8.3**
Compressor Cooling	**Natural Cooling**
Refrigerant	**R410A**

CAPACITY(W)

Condensing	Evaporating Temperature(℃)							
Temperature(℃)	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	8,690	10,400	11,710	14,910	17,470	19,320	21,370	22,970
40.5	7,890	9,470	10,690	13,650	16,040	17,760	19,680	21,170
45.0	7,290	8,770	9,910	12,690	14,940	16,570	18,370	19,790
50.0	6,670	8,040	9,100	11,700	13,790	15,320	17,020	18,340
54.4		7,450	8,440	10,880	12,860	14,300	15,900	17,160
60.0			7,680	9,930	11,760	13,100	14,590	15,760
65.0				9,160	10,880	12,130	13,530	14,630

POWER(W)

Condensing	Evaporating Temperature(℃)							
Temperature(℃)	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	3,270	3,270	3,260	3,230	3,210	3,190	3,160	3,150
40.5	3,640	3,630	3,620	3,600	3,570	3,560	3,540	3,520
45.0	3,970	3,970	3,960	3,940	3,920	3,900	3,880	3,870
50.0	4,390	4,390	4,390	4,370	4,350	4,330	4,310	4,300
54.4		4,790	4,790	4,780	4,760	4,750	4,730	4,720
60.0			5,360	5,360	5,350	5,340	5,320	5,310
65.0				5,920	5,920	5,910	5,900	5,900

CURRENT(A)

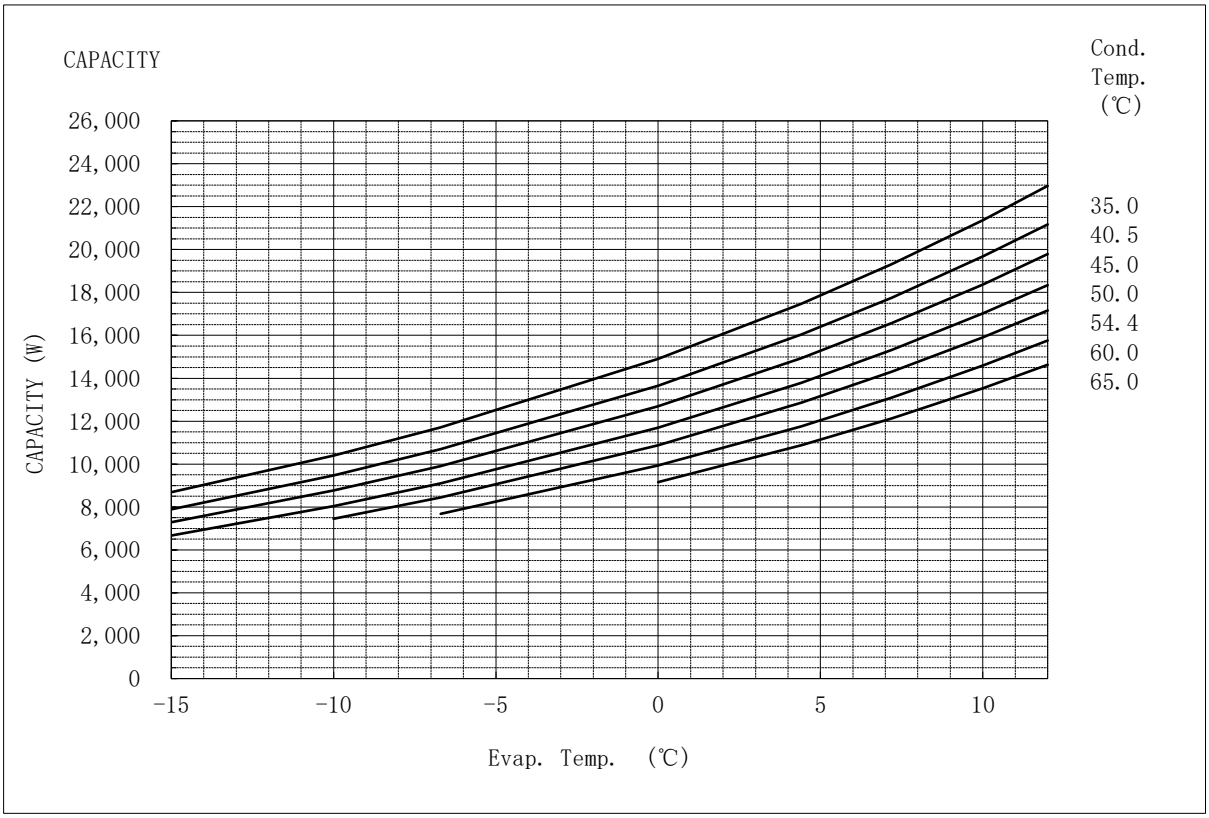
Condensing	Evaporating Temperature(℃)							
Temperature(℃)	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	5.4	5.3	5.3	5.3	5.3	5.2	5.2	5.2
40.5	5.8	5.8	5.8	5.8	5.7	5.7	5.7	5.7
45.0	6.3	6.2	6.2	6.2	6.2	6.2	6.1	6.1
50.0	6.8	6.8	6.8	6.7	6.7	6.7	6.7	6.7
54.4		7.2	7.2	7.2	7.2	7.2	7.2	7.2
60.0			7.9	7.9	7.9	7.9	7.9	7.9
65.0				8.6	8.6	8.5	8.5	8.5

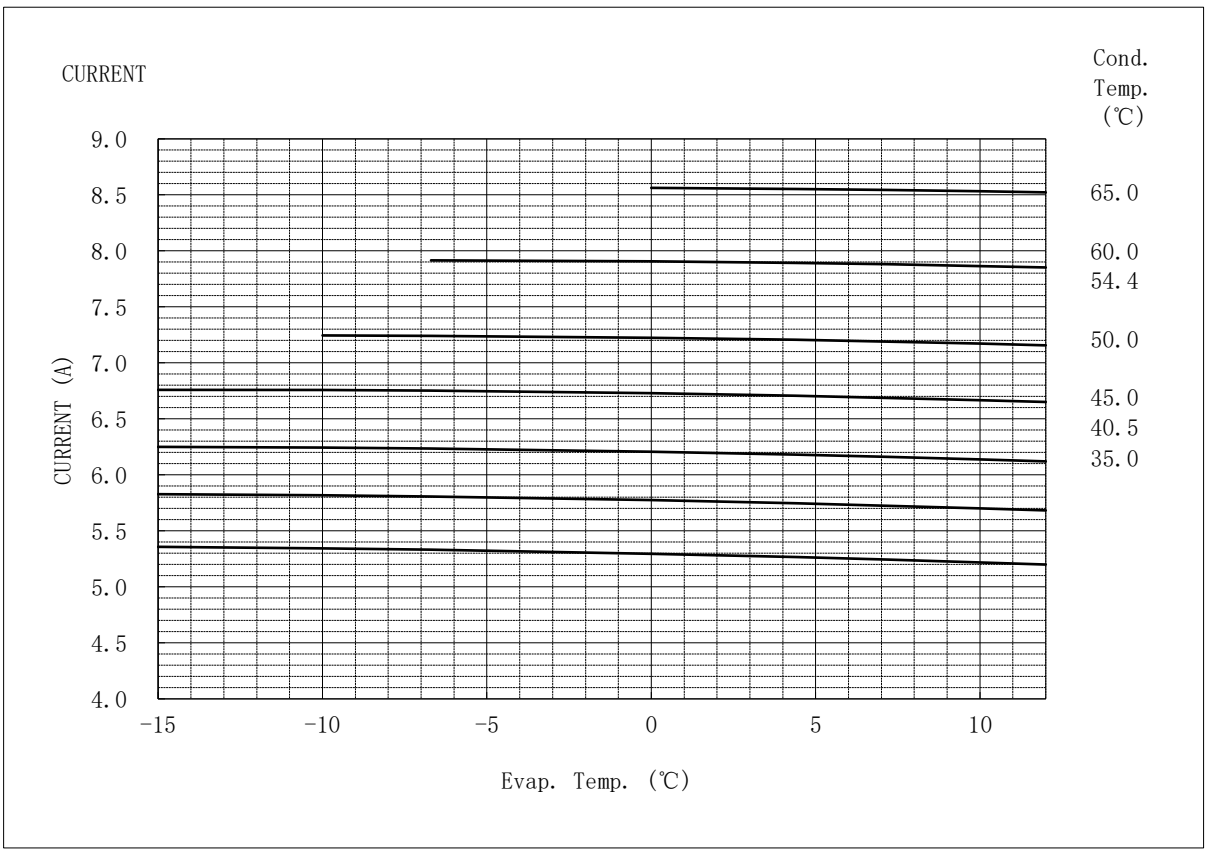
FLOW (kg/h)

Condensing	Evaporating Temperature(℃)							
Temperature(℃)	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	159	190	214	270	314	344	376	400
40.5	153	184	209	266	309	340	372	396
45.0	148	180	204	262	306	336	368	392
50.0	143	175	200	258	302	332	364	389
54.4		171	196	254	299	329	361	385
60.0			191	250	294	325	357	381
65.0				246	291	321	354	378

Compressor Model(Code) **C-SBP140H38B**

Power Source **3PH 60Hz 440~460V**





COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	**C-SBP140H38B**
Power Source	**3PH 60Hz 440~460V**
Suction Gas Superheat (K)	**11.1**
Sub Cooling (K)	**8.3**
Compressor Cooling	**Natural Cooling**
Refrigerant	**R410A**

X=C1+C2*(S)+C3*D+C4*(S2)+C5*(S*D)+C6*(D2)+C7*(S3)+C8*(D*S2)+C9*(S*D2) +C10*(D3)

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

S——EVAPORATING TEMP, °C

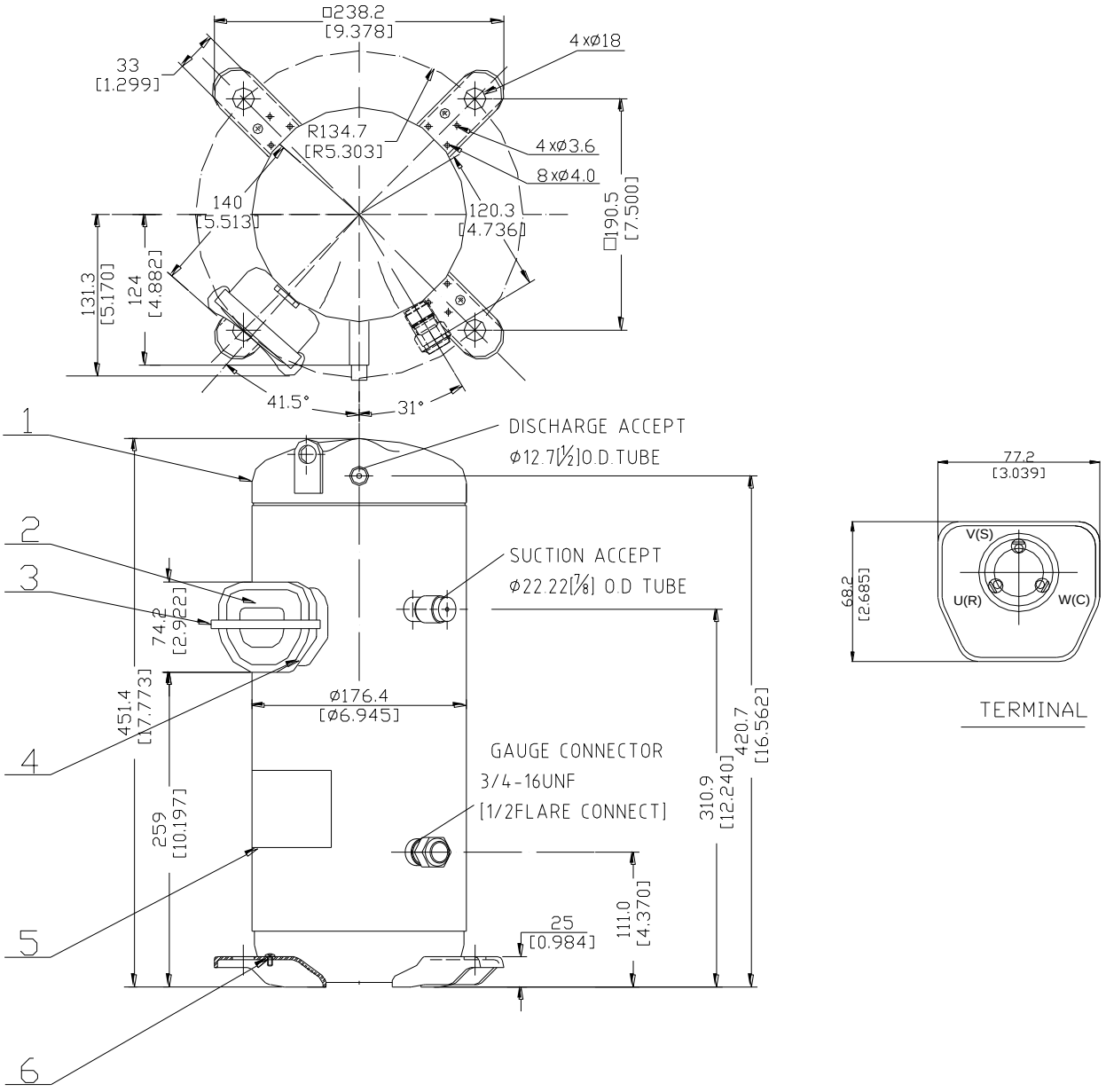
D——CONDENSING TEMP, °C

4400V-60Hz	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
C1	2.507381E+04	2.218841E+03	3.512042E+00	3.022698E+02
C2	8.422292E+02	1.158835E+00	-4.608014E-03	8.752949E+00
C3	-3.438900E+02	-3.778421E+00	1.977788E-02	-9.613654E-01
C4	1.311419E+01	-1.269988E-01	-1.018071E-04	1.328293E-01
C5	-1.007696E+01	-3.533490E-01	-1.666159E-04	1.826545E-02
C6	1.524859E+00	9.347337E-01	8.911950E-04	1.489229E-03
C7	1.042679E-01	-2.277613E-04	1.094411E-08	2.446627E-05
C8	-9.394685E-02	-6.843325E-04	-1.259007E-06	-2.838677E-04
C9	3.994717E-02	5.107400E-03	3.375653E-06	-8.228254E-05
C10	8.320101E-09	1.355916E-10	5.616648E-13	-2.148678E-11

Note: The polynomial coefficients subject to change without notice.

DIMENSIONAL SKETCH

C-SB Series

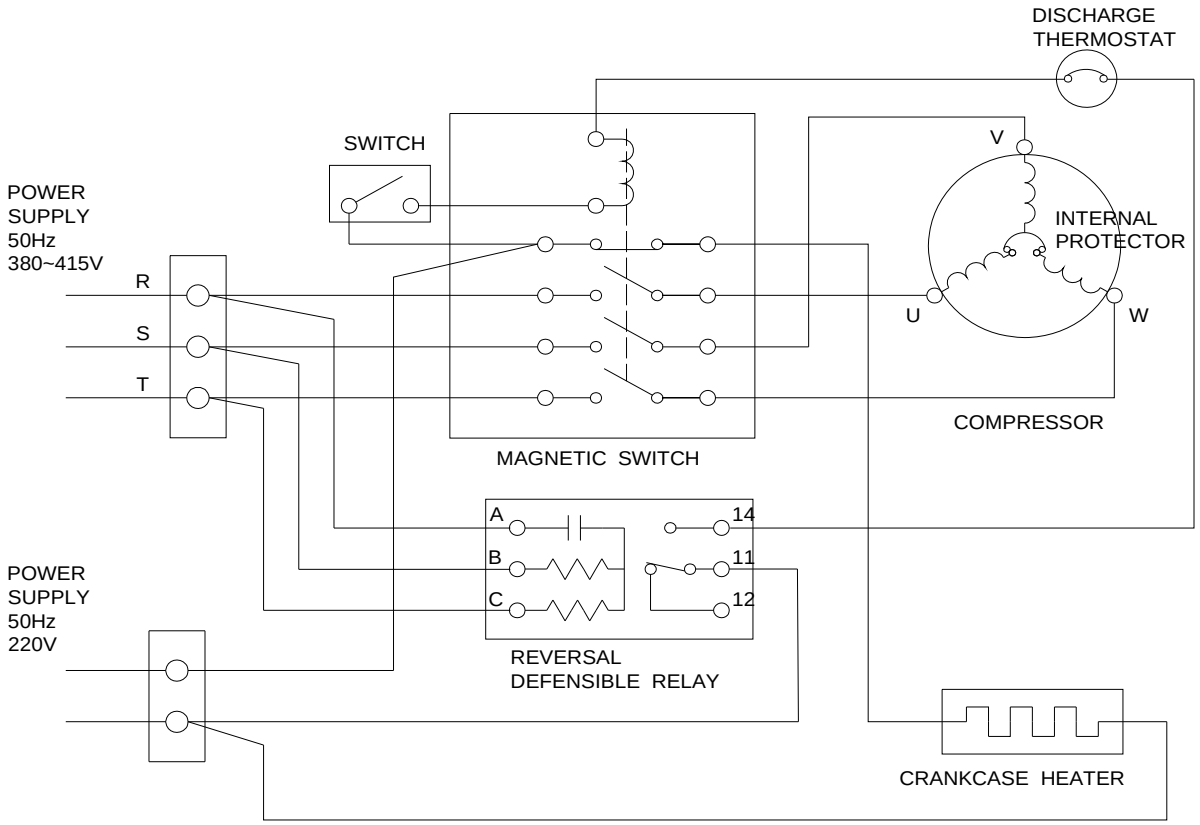


No.	Qty	Name
1	1	Compressor
2	1	Terminal Box Cover
3	1	Terminal Box Clip
4	1	Insulating Grommet
5	1	Nameplate
6	1	Screw Special

WIRING & MOUNTING SKETCH

WIRING DIAGRAM

C-SB Series 3phase B8



MOUNTING SKETCH