LG
Life's Good

SAFETY

Doc. No.	LGACC-190311-167
Rev. No.	Rev 1
Date	2019.03.11

Rotary Compressor

SPECIFICATION for APPROVAL

MODEL: DPT330MAB

CUSTOMER : SCORP

APPROVAL			
Name			
Date			

부품솔루션 사업부

	Designed	Checked	Approved
Name	장기환	구세진	정채석
Date	장기환		

Please return one copy on your approval.
Please read this specification thoroughly before installation or operating.

Revision History

Data	Rev. No	Rev. description	Write
2019. 04. 17		1. Added performance condition to check the power input value indicated on the label 2. Add Nut, Hexagon Flange, Washer, Plain Cover Accessory 3. Marked on Power Input 4583W label according to TIS standard condition 4. Edit label text location	장기환

Safety Precaution

IMPORTANT SAFTY INSTRUCTIONS
The following precautions is to prevent unexpected hazard.

⚠ WARNING You can be killed or seriously injured if you don't follow instructions.

Service should be performed by trained personnel only.

Install the refrigerant, lubricant oil and electrical component (OLP, Capacitor, Terminal Cover, etc) specified by compressor manufacturer.
It can cause fire or electrical shock.

Connect the electrical wiring correctly in accordance with manufacturer's instruction.
It can cause fire or electrical shock.

Compressor must be grounded whenever power is supplied.
Do not use earth screw, except for ground.
It can cause electrical shock.

Before servicing, always remove the power plug from outlet.
It can cause electrical shock.

Before welding, always remove refrigerant in the compressor.
Do not operate compressor in the air or vacuum status.
It can cause explosion

Do not touch the compressor with bare hands during operation or after stoppage instantly.
It can cause get burnt.

1. Specification

1.1 Compressor

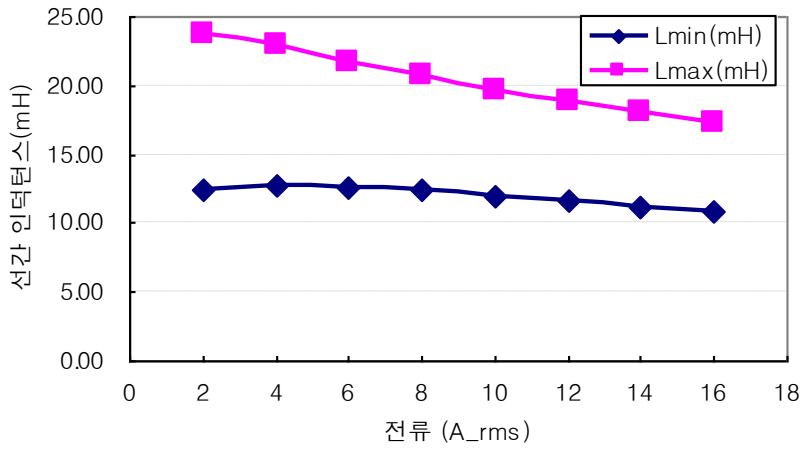
1	Application	Cooling and Heating with BLDC Inverter System
2	Compressor Type	Hermetic Motor Compressor
3	Pump Type	Twin Rotary (Two Cylinder Rolling Piston Type)
4	Displacement	33 ㎤ / rev
5	Refrigerant	R32
6	Oil / Oil Charging Amount	POE or PVE / 1,300 cc
7	Painting	Black Color Paint
8	Net Weight (Including Oil)	20.5 kg
9	Suction Tube I.D	Φ 16.0 $^{+0.15}_{0}$ mm
10	Discharge Tube I.D	Φ 12.75 $^{+0.15}_{0}$ mm

1.2 Motor

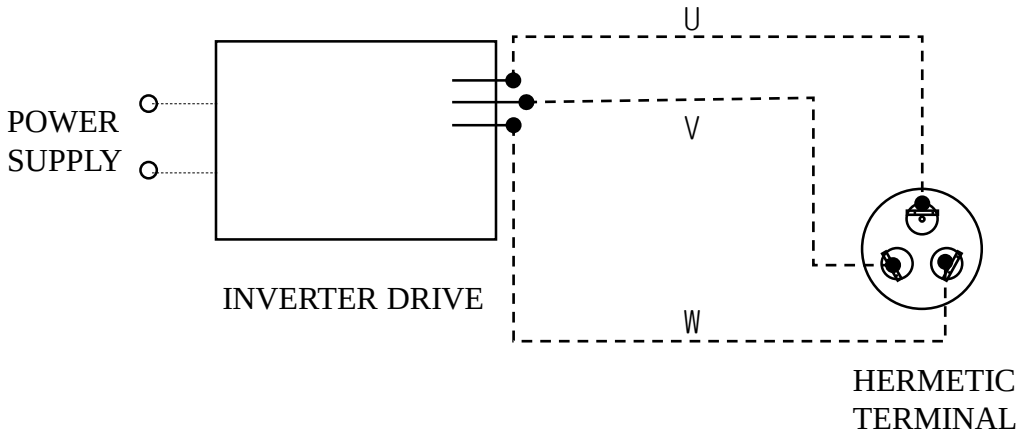
Motor Type / Starting Type	BLDC Motor / DC Inverter Starting	
Pole / Rated Output	6 Pole / 4000 Watts(@60Hz)	
Power Source	Sensorless Brushless Inverter	
Winding type	Concentrated Winding	
Insulation Class	E Class	
Windings Resistance (at 75 ℃)	U-V	0.845 ±7 % Ohms
	· V-W	0.845 ±7 % Ohms
	· W-U	0.845 ±7 % Ohms

	A (Arms)	Lmin(mH)	Lmax(mH)
Inductance (Line to Line) (mH)	2.0	12.41	23.72
	4.0	12.73	22.90
	6.0	12.63	21.70
	8.0	12.38	20.68
	9.0	12.20	20.18
	10.0	12.01	19.67
	12.0	11.57	18.83
	14.0	11.16	18.00
	16.0	10.79	17.23

Inductance characteristic curve



1.3 Wiring diagram



※ Make Sure to connect right way same with the wiring diagram.

※ Electric source
DC Link Voltage : 380 V , 180° Sine Wave Current Charge (Designed by LGE)

1.4 Performance

	SET 60Hz	ARI 80Hz
Cooling Capacity (-5%↑, Z Value : 4.0↑) [BTU/h]	48,200	50,100
[W]	14,118	14,674
Power Input (+5%↓, Z Value: 4.0↑) [watts]	2,758	4,583
EER (-5%↑, Z Value 4.0↑) [BTU/w・hr]	17.48	10.93
Running Current [A]	6.2	8.2

☞ SET 60rps Condition (Ps/Pd = 10.92 / 28.2 kg/cm^{2}G)

Cond. Temp. : 46.0℃ (114.8 ℉)
Evap. Temp. : 12.0℃ (53.6 ℉)
Return Gas Temp. : 20.0℃ (68 ℉)
Liquid Temp. : 38.0℃ (100.4 ℉)
Ambient Temp. : 35.0℃ (95 ℉)

☞ ARI 80rps Condition (Ps/Pd = 9.35 / 34.38 kg/cm^{2}G)

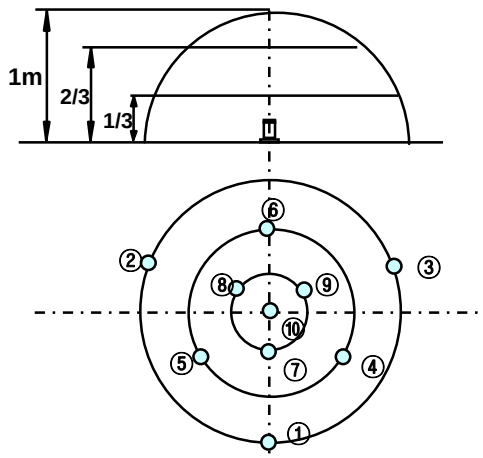
Cond. Temp. : 54.4℃ (129.9 ℉)
Evap. Temp. : 7.2℃ (44.9℉)
Return Gas Temp. : 18.3℃ (64.9℉)
Liquid Temp. : 35.0℃ (95 ℉)
Ambient Temp. : 35.0℃ (95 ℉)

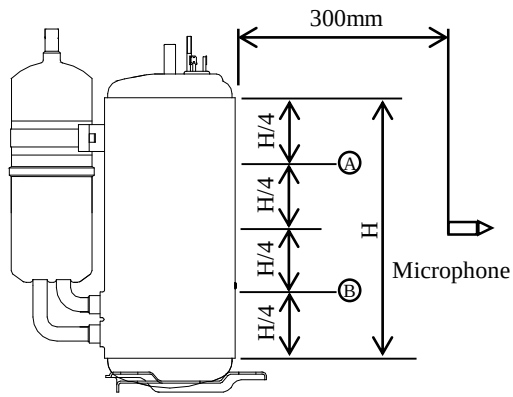
1.5 Noise , Vibration

※ Electric source
DC Link Voltage : 380 V , 180˚ Sine Wave Current Charge (Designed by LGE)

Sound Power Level [dB(A)]	ARI 40Hz	SET 60Hz	ARI 80Hz
	74+2	77+2	80+2
Vibration Standard Condition [G]	1.0 ↓	0.8 ↓	1.5 ↓

Noise & Vibration Measuring Points





● Measuring points for specification approval
- Noise : Compressor sound is measured according to ANSI/ARI 530-89 standard
- Vibration : 2 points (A , B)

● Compressor vibration is measured by a vibration meter which is contacted compressor A ~ B

● Test Condition :
- ARI 40rps (Ps/Pd = 9.35 / 34.38 kg/cm²G)
(Return Gas: 18.3℃)

- SET 60rps (Ps/Pd = 10.92 / 28.2 kg/cm²G)
(Return Gas: 20℃)

- ARI 80rps (Ps/Pd = 9.35 / 34.38 kg/cm²G)
(Return Gas: 18.3℃)

1.6 Others

Leak Tight Pressure	High Pressure Side	43 ㎏f / ㎠ G
	Low Pressure Side	-
Hydrostatic Strength Pressure	High Pressure Side	175 ㎏f / ㎠ G
	Low Pressure Side	80 ㎏f / ㎠ G
Insulation Resistance (with 500V D.C Mega Tester)		50 ㏁ Min.
Withstand Voltage		At 2,200 V / 1 Sec. Leakage Current is less than 5 ㎃
Residual Moisture (Karl Fisher Method)		150 mg Max.
* Residual Impurities		70 mg Max
Oil circulation		0.8wt%↓(60rps)

*) Each part was measured separately

2. Delivered Parts List

Parts Name	Type (Model)	EA	Parts Dwg. NO.	Supply	
			LG		
Compressor	DPT330MAB	1		(Yes)	No
Cover ,Terminal	-	1	3550U-L005B	(Yes)	No
Gasket	-	1	MDS64933201	(Yes)	No
Nut, Hexagon Flange	-	1	1NFZU-L001A	(Yes)	No
1 Washer, Plain Cover	-	1	1WPZU-L001A	(Yes)	No
Grommet	-	3	4022U-L005B	(Yes)	No
Sleeve, Grommet	-	0	-	Yes	(No)
Bolt, Stud	-	0	-	Yes	(No)
Washer, Plain	-	0	-	Yes	(No)
Nut, Hexagon	-	0	-	Yes	(No)
Taptite Screw, Earth	-	0	-	Yes	(No)

※) Refer to Attachments (Accessory Parts Drawings.)

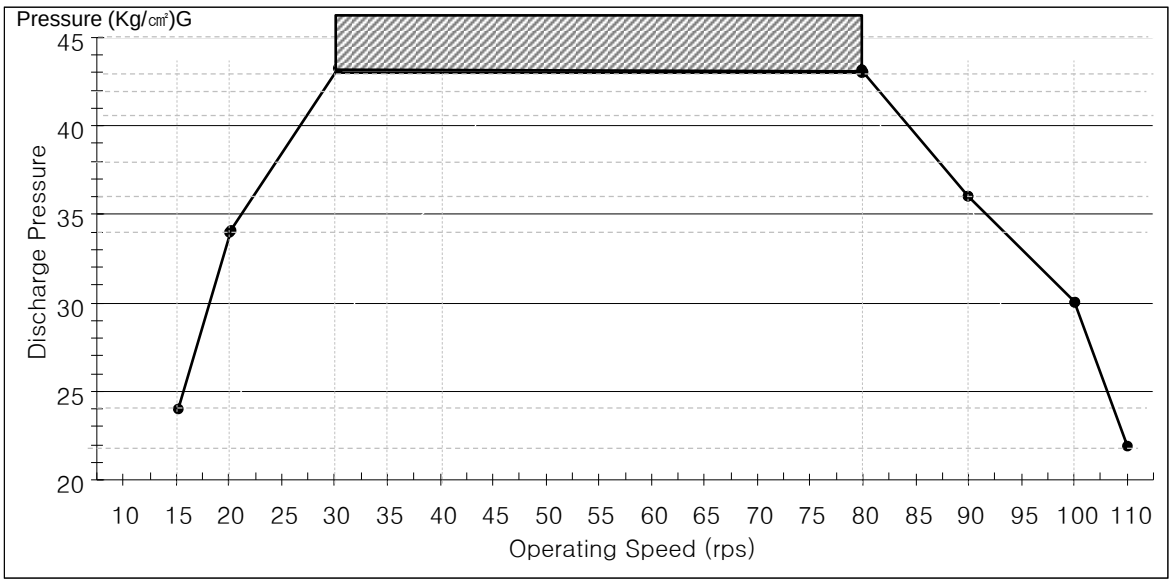
3. Operating Limit

Application Limit

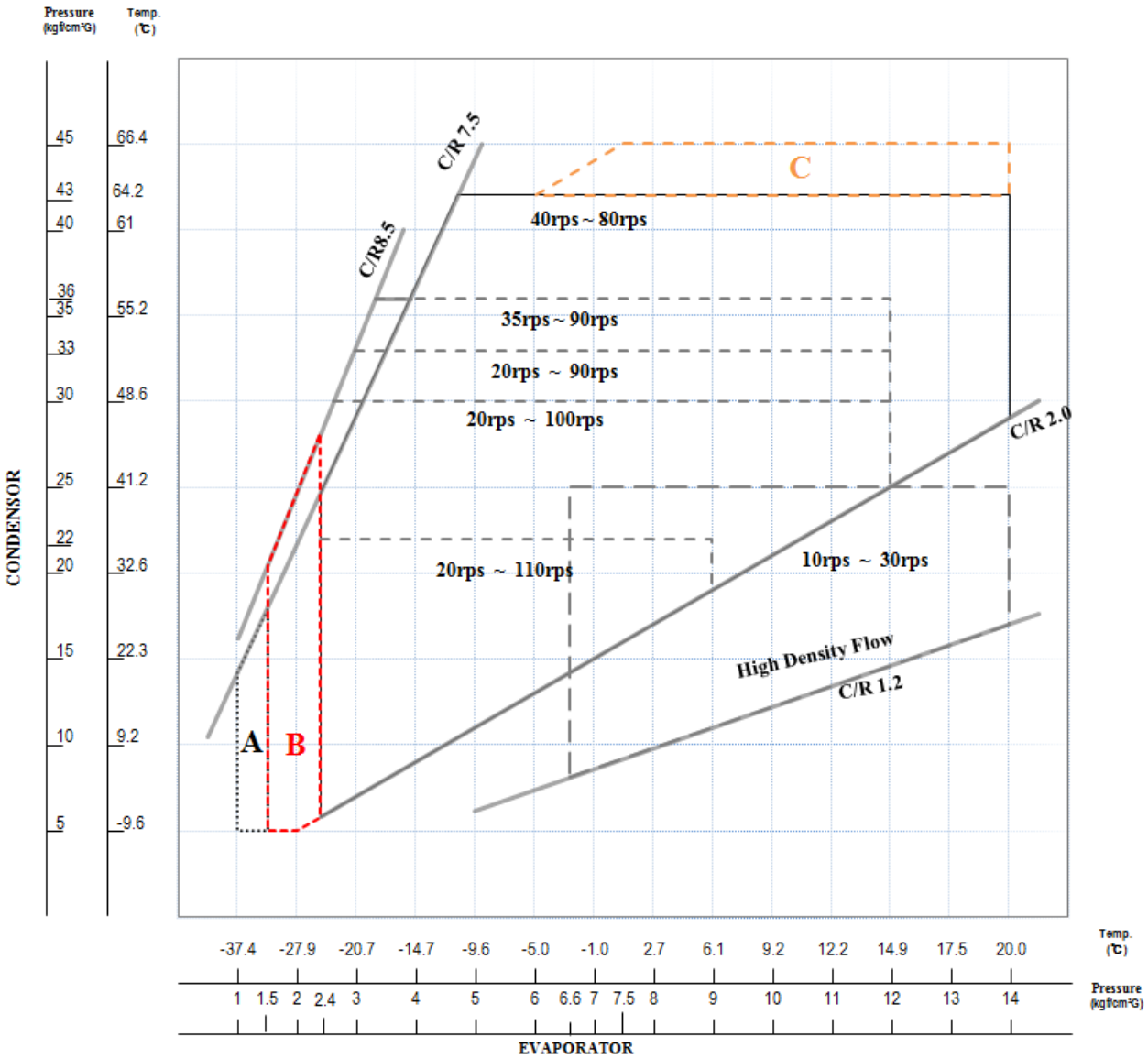
Discharge Pressure	[㎏f/㎠G]	43 Max.
Suction Pressure	[㎏f/㎠G]	2.4 ~ 14.0
Discharge Pipe Temp.	[℃]	115 Max.
Motor Coil Temp.	[℃]	130 Max.
Max load current	[A][rms]	12 Max.

Operating Speed (Discharge Pressure)

Pressure Limit



1. The RAC division's Middle East model limits the discharge pressure
- Allow continuous operation up to discharge pressure 43kgf / ㎠
- Pressure limit up to 45kgf / ㎠
- It must escape within the transient period of less than 43kgf / ㎠ in the operation area with a shaded area of more than 43 kgf / ㎠. The duration of transient driving shall not exceed 10 minutes.



A

In case of " A " Area.

- Within 5 min. after starting in soaking-out.

B

In case of " B " Area.

- Less than 3 min, at defrosting and restarting after defrosting
- Discharge gas tempurature should be maintained below 80˚C.
  (Motor wire temperature less than 100℃)
- The dryness of the suction gas must be 95% or more and do not occur liquid refrigerant back.
- Oil surface height should be at least lower than the sub bearing section.
  (Over 'Level C' in 'Oil level Guide')

※ Allow transient operation in B area only in cold oriented model : 40 ~ 100rps

C

In case of " C " Area.

- Middel East model permissible range of transient operation : 30 ~ 80rps

※ This guide contains many important safety messages.
Always read and obey all safety messages.

⚠ WARNING

Application Limit

Refrigerant Charge Limit (Oil Dilution rate)	3,700g Max. (When using refrigerant 3,700g, additional Suction Accumulator must be used) Cooling Only & Heat Pump(Oil Dilution rate = 0.25 ** note2) ※ It must be kept following to Oil Level Guide Line *** note3
Liquid Refrigerant Back	System should be designed not to allow the liquid to go back to compressor which cause knocking noise , current increase or undesirable vibration and make short compressor life time.
Δ T : Temp. Difference ℃	Δ T = Case Bottom Temp.− Condensing Temp. It must be kept Δ T ≥ 5℃
Pressure Difference in Operating	The Pressure difference in operating shall be 5.0㎏f/㎠ or more, but 3 minutes starting excluded.
ON/OFF Operation	-In case over 30Hz : Each cycle should be at least 5 minutes (ON : at least 2 minute , OFF : at least 3 minutes) - In case below 30Hz : Each cycle should be at least 8 minutes (ON : at least 5 minute , OFF : at least 3 minutes)
Pressure Difference at Starting	When starting, discharge pressure is balanced with suction pressure.
Tilt in Operation	The allowable tilt of the compressor in operation shall be 5° or less.
System Accumulator	The Accumulator volume should be enough to cover 60% of maximum system refrigerant volume. Ratio coefficient 'K' should be over 0.6. $K = \frac{\text{Effective Volume of Accum.} \times \text{Specific gravity of Refrigerant}}{\text{Charged Weight of Refrigerant}}$ ※ Specific Gravity of Refrigerant (R32) = 1.10 (at 20℃)
Protecting Reverse Operation	The Compressor must be operated by proper voltage in accordance with the frequency without reverse revolution condition. The reverse revolution condition can be avoided by just keeping right order of phase supplied power source.

⚠ WARNING

Application Limit

Power source voltage	The applied voltage phase of stator must be synchronized with the phase of rotor. ※ Do not apply general AC power on terminals.
Carrier Frequency	Carrier frequency must be selected so as not to resonate the Compressor & Pipe.
Acceleration rate & Deceleration	Acceleration rate & deceleration rate Refer to * note 1.
Pipe Stress	Don't allow any force on discharge & suction pipe . The piping stress must be less than 30MPa at starting and stopping. And less than 20MPa at running.
Oil Level	It must be checked oil level by the compressor with sight glass we supply. And oil level must be kept over guide line level ***note 3. at any condition.
Protection device	Air conditioner system must has the compressor protection device like over current , high temperature, sensing locked pump in the controller. When starting & running fail by abnormal overload, controller must be able to cut off power of compressor before motor burn out.
Protection for demagnetization	Compressor should not be applied over current 40A(peak) under temperature of 120℃
Pump down refrigerant	If pump down time is too long, compressor can be damaged due to excessive temperature increase or poor lubrication. Guideline of pump down process. - Time : less than 30 seconds - Suction Pressure : It should not run under below 1㎏f/㎠G. And before closing a service valve, compressor running for more than 5 minutes is recommended.
Earth Connection	Use Compressor with grounded system only.

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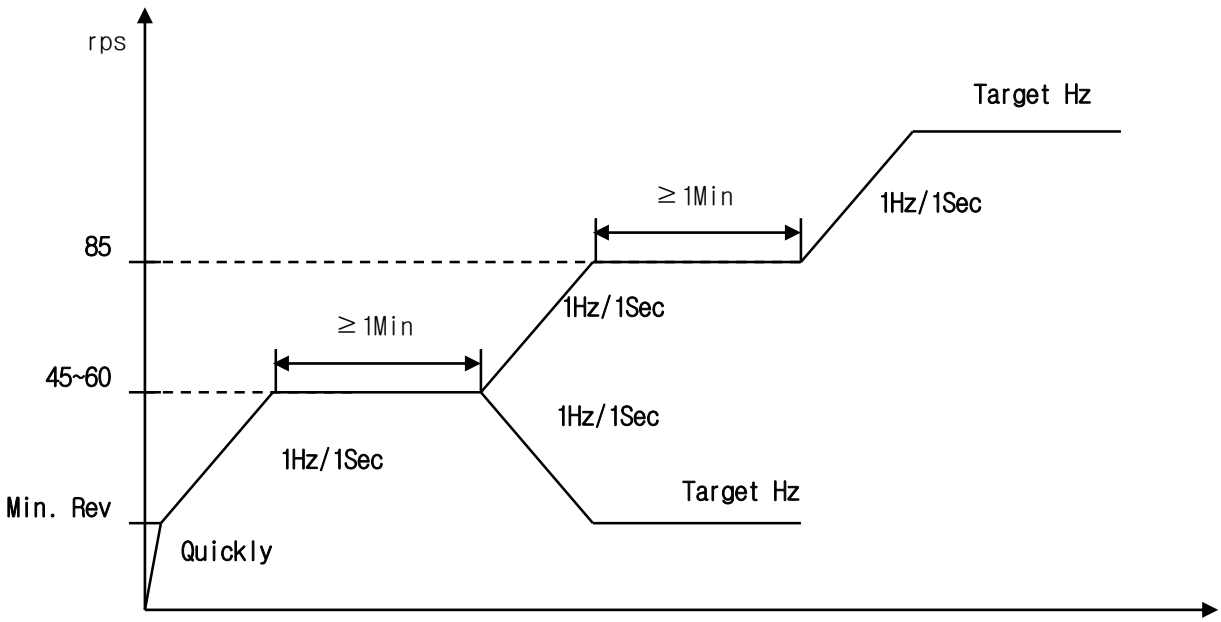
⚠ WARNING

Process Limit

Use defined Refrigerant and oil	Any process in where the HCFC's Refrigerant or the different kind of oil against the defined. Compressor oil are mixed should be avoided.
Avoid Damage running	The running operation that inspection and the protector inspection that affect a damage to the function and durability of the compressor should be avoided
Running dummy indoor	When the outdoor unit is operated with the indoor dummy unit, The discharged oil should be recovered enough
Prevent oxidation in pipe	Always purge the system and the compressor with the dry Nitrogen in order to prevent oxidation of the piping
Charging Refrigerant	When charging refrigerant into the cycle, Make sure that refrigerant always be filled from the higher pressure side (condenser exit) of the cycle. If liquid refrigerant is sucked in to the compressor liquid compression occurs, The discharge valve is damaged, lubrication effectiveness degenerates and reliability drops noticeably
Avoid Vacuum running	Do not operate the compressor in a vacuum state. Furthermore do not apply high voltage to a vacuum state compressor. There is a danger that insulation could degenerate, causing electric shock
Avoid Air compression	Do not compress the air including the case of leakage in the Air conditioner cycle. If Compressors run with air mixed, inside the compressor is heated and pressurized , which may cause an explosion
Promptly Assemble compressor in line	After removing rubber plugs from compressor tubes, Promptly use the compressor. And do not leave in the atmosphere for 10 minutes over. If Air gets into the compressor , accelerating degeneration of the inside of the cycle or compressor
Wiring	Wires connected to the compressor, follow the compressor specification manual and instructions
Storage temperature	-10℃ ~ 65℃

***Note 1. Operating Pattern**



Rapid change of compressor revolution may result in lower oil level or breakdown of compressor. Revolution change rate depends on A/C system's order logic.

Basically, guide line of change rate is about 1Hz/1sec. But from compressor starting to main running revolution (state of revolution speed increasing), if compressor breakdown won't happen, the revolution change speed rate can be 3Hz/s.

If target revolution is above 60Hz, compressor should be run and last more than 1 minutes at 45~60Hz and above 85Hz, it must stay at 85Hz or so.
Above chart explain how to change revolution rate.

Most important thing is keeping stable compressor oil level, so it must be observed at all running conditions built into A/C systems and main logic of speed change must be designed to maintain stable compressor oil level.

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** Note 2 OIL Dilution rate

$$\frac{\text{Oil Weight}}{\text{Refrigerant Weight + Oil Weight}} \geq 0.22$$

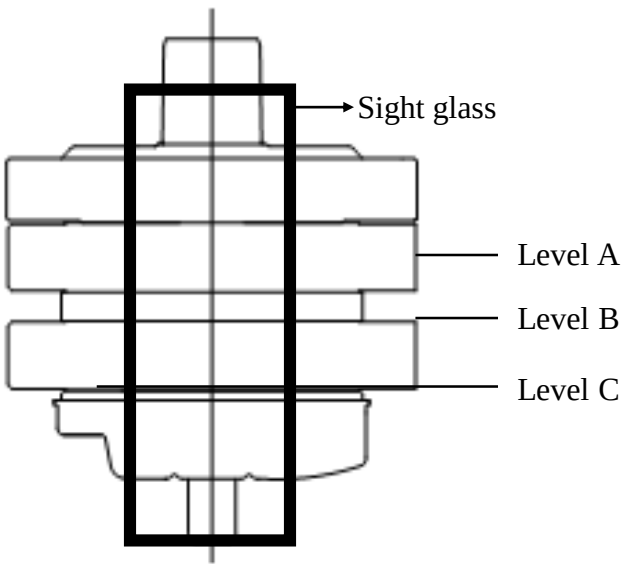
※ Specific Gravity of POE or PVE = 0.9 (at 20℃)

[Unit]

☞ Oil Weight : [g]

☞ Refrigerant Weight : [g]

*** Note 3 Oil Level Guide Line



Level A : Operated below 30Hz

Level B : Steady state at any condition.
30～110Hz

Level C : Limit level of transition period within 3minutes.

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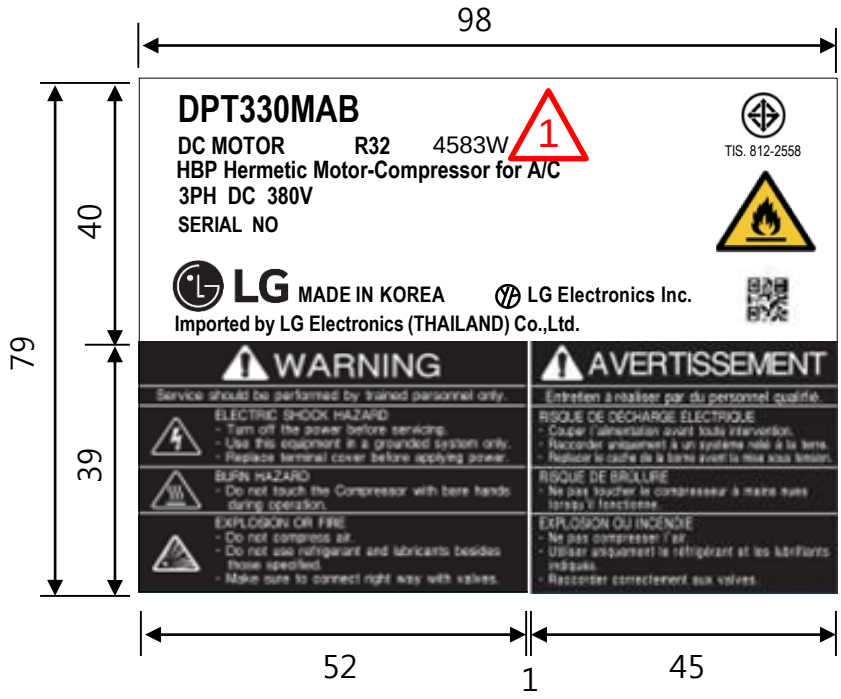

All safety messages will identify the hazard, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed. You are strongly advised to follow these safety instructions.

This is the Safety alert symbol. It indicates a hazardous situation which, if not avoided, could result in death or serious injury.

이 기호는 안전 주의 기호 입니다. 위험한 상황에서 피하지 않으면 사망이나 중상을 초래할 수 있습니다.

This is the Electric shock hazard symbol. It indicates a hazardous situation which, if not avoided, could result in the electric shock.

이 기호는 감전 위험 기호 입니다. 위험한 상황에서 피하지 않으면 감전을 초래할 수 있습니다.

This is the Getting burnt symbol. It indicates a hazardous situation which, if not avoided, could cause fire.

이 기호는 화재 발생 주의 기호 입니다. 특정 조건 하에서 화재가 발생할 가능성이 있으므로 주의하라는 기호입니다..

This is the Explosion or Fire symbol. . It indicates a hazardous situation which, if not avoided, could cause explosion or fire.

이 기호는 폭발 및 화재 위험 기호 입니다. 특정 조건 하에서 폭발 및 화재의 가능성이 있으므로 주의하라는 기호입니다..

*1. Effective Period of This Document *

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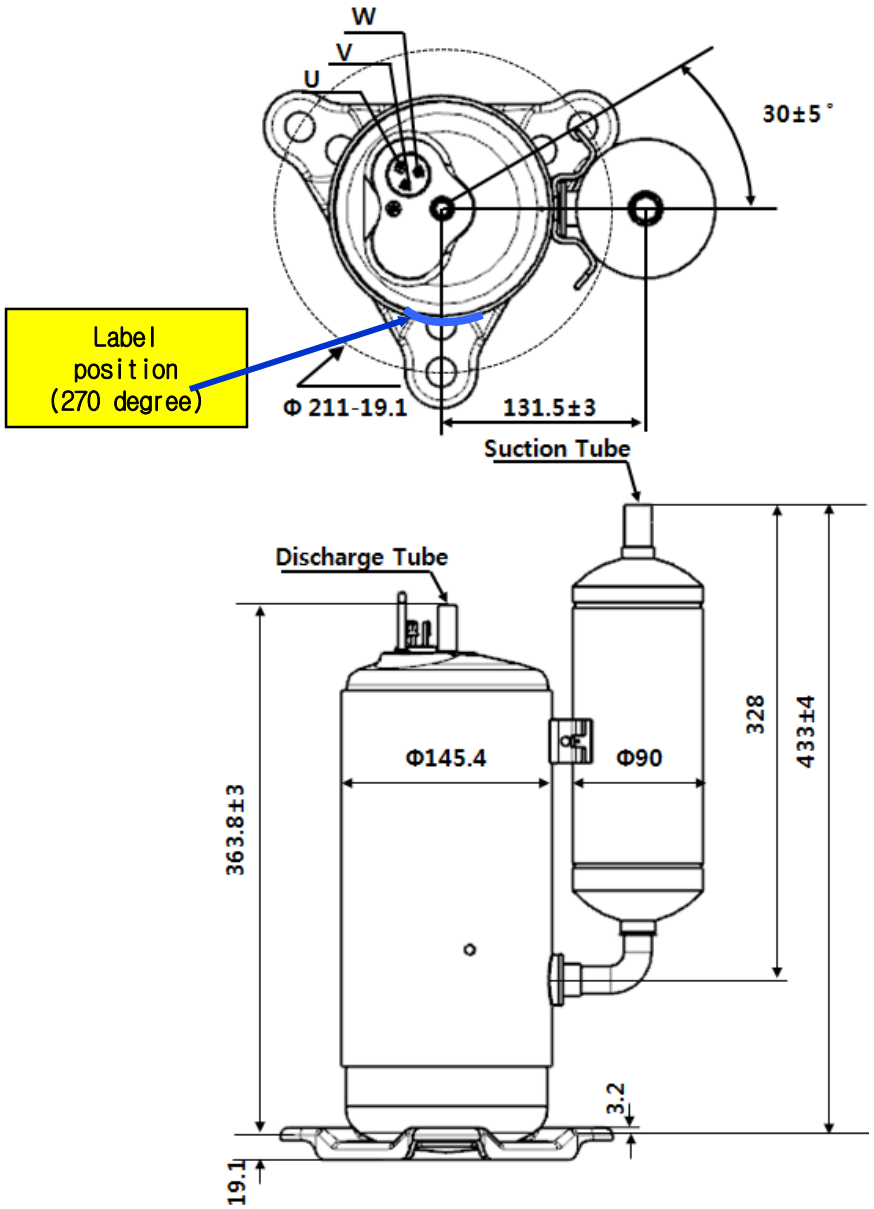
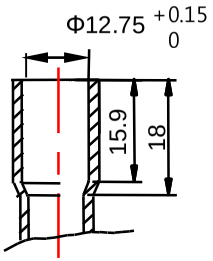
*2. Compressor operating range *

The Compressor can operate within the limits of the outlined area.
Outside these operating fields, the system cause early defects in the compressor.
The compressor defects caused by applications operating outside the outlined area will not be considered under the warranty. If the appliance be operated out of the operating range, it must be agreed with the supplier.

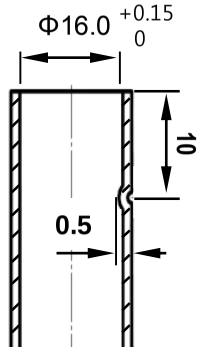
Attachment

Ref. No.	LGACC-190311-167
Issued Date	2019.03.11
Rev. No.	Rev. 0
Rev. Date	





Detail of Discharge Tube

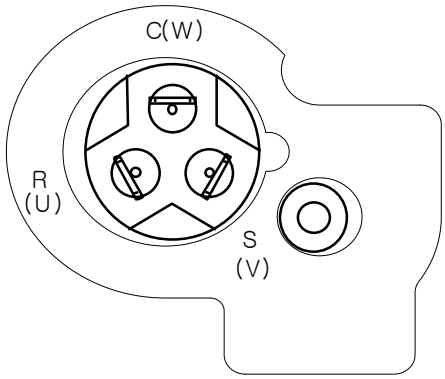


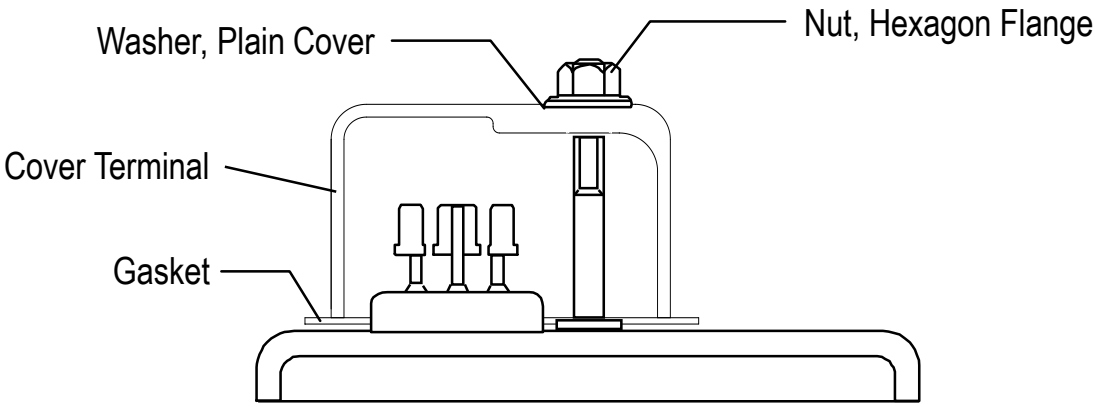
Detail of Suction Tube

NOTES
1. PAINTING : BLACK PAINT (ELECTRO DEPOSITION)
2. OIL : POE or PVE 1300 cc CHARGED
3. NITROGEN CHARGED AFTER DEHYDRATION
4. DIMENSIONS ARE mm UNITS.

UNIT	mm	SCALE	N / S	COMP. OUT LINE
DES. ENGR.		CHF. ENGR.		
MAR. 11. 2019 G.H.JANG		Mar. 11. 2019 T.Y.NOH		DPT330MAB
LG Electronics Inc. Component Solution		CUSTOMER SCORP		

Accessory Fitting





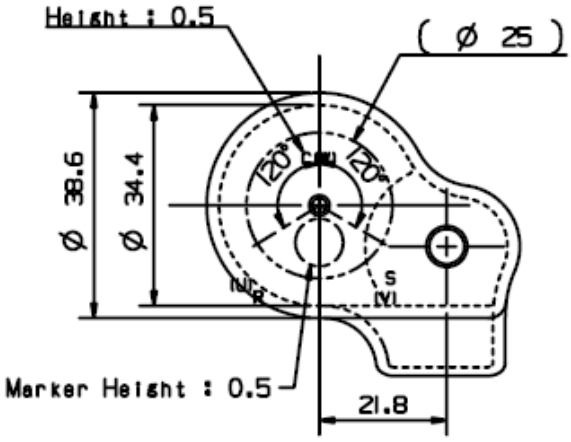
C(W),R(U),S(V) Mark Embossed on Cover Terminal

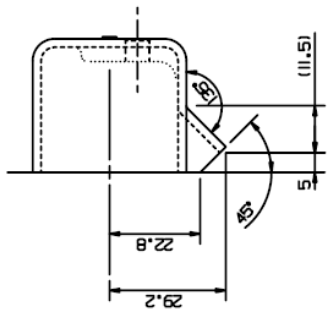
Nut assembly Should be below 20kgfcm.

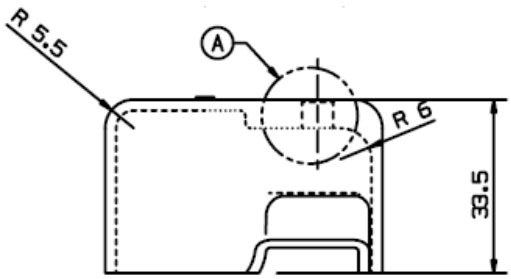
Cover, Terminal

Drawing No. 3550U-L005B

(UNIT : mm)







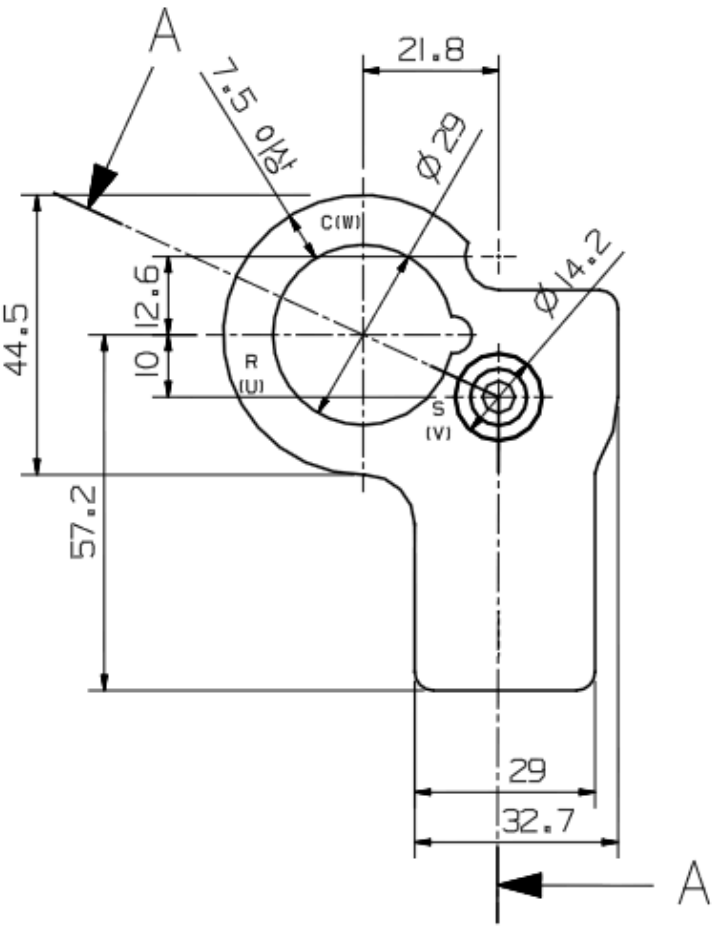
MATERIAL	COLOR	REMARK
LG CHEM LUPOX TE-5006F	BLACK	MARKS(C(W),R(U),S(V))

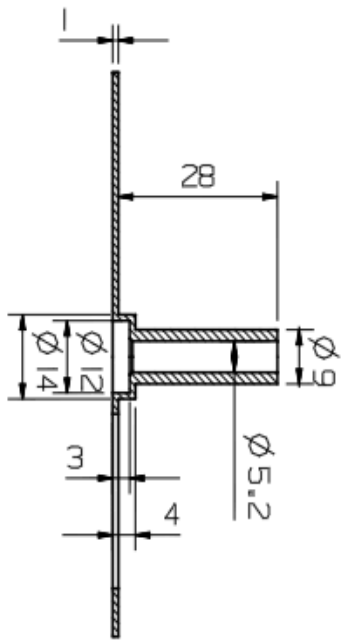
LG Electronics Inc.

Gasket

Drawing No. MDS64933201

(UNIT : mm)





SECTION A-A

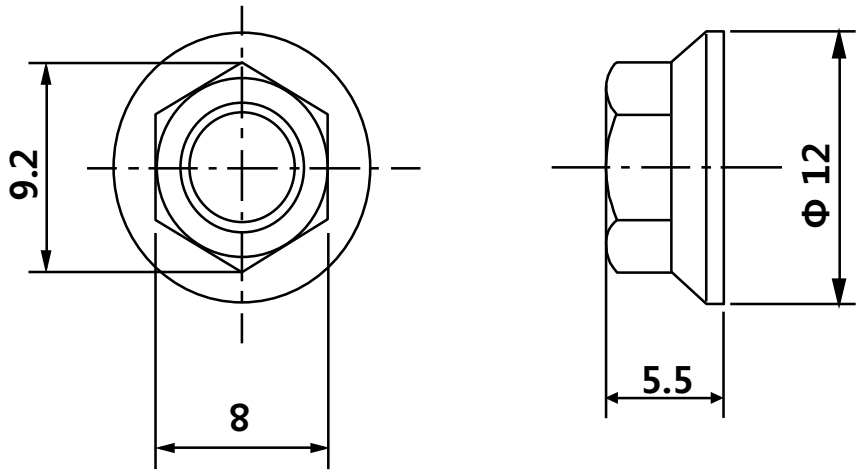
MATERIAL	REMARK
SILICON	MARKS(C(W),R(U),S(V))

LG Electronics Inc.

Nut, Commom

Drawing No. . 1NFZU-L001A

(UNIT : ㎜)

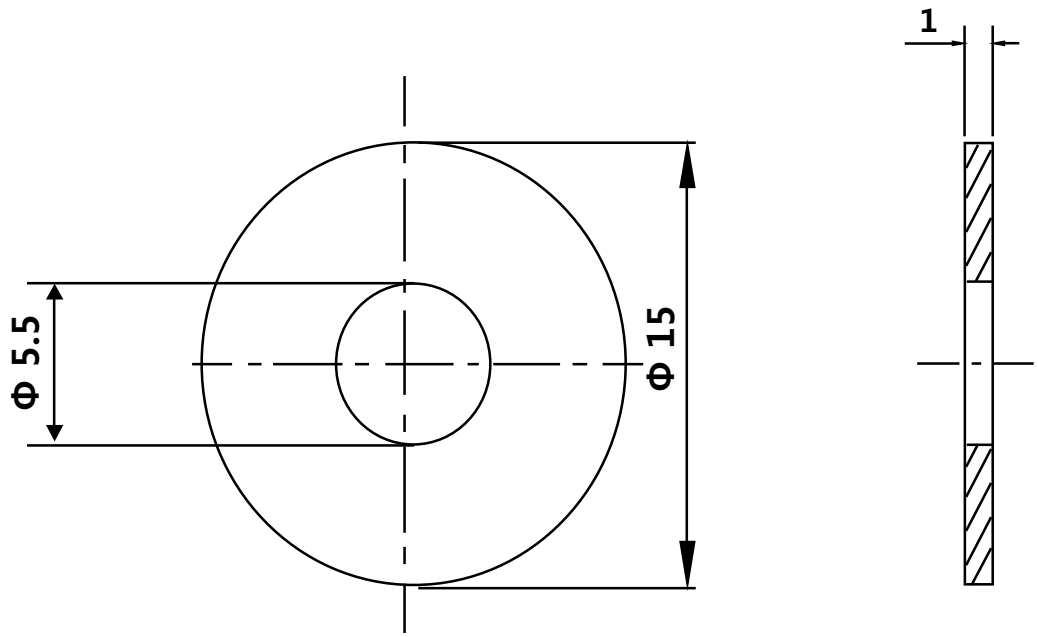


* MATERIAL : STEEL (ELECTRIC PLATING OF ZINC)

Washer, Customized

Drawing No. 1WPZU-L001A

(UNIT : ㎜)

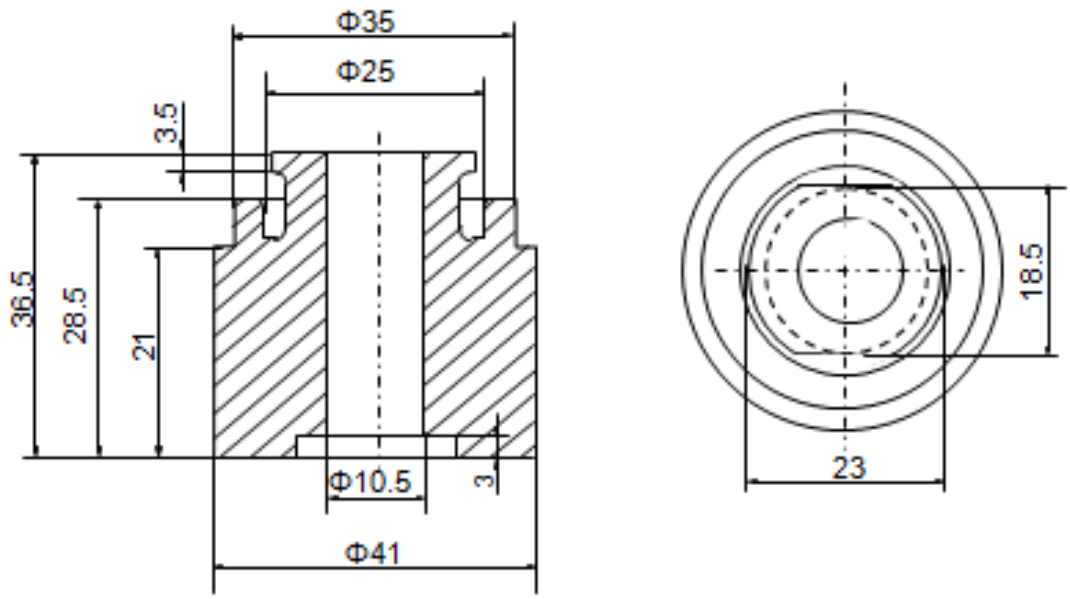


* MATERIAL : POLYAMIDE (NYLON)

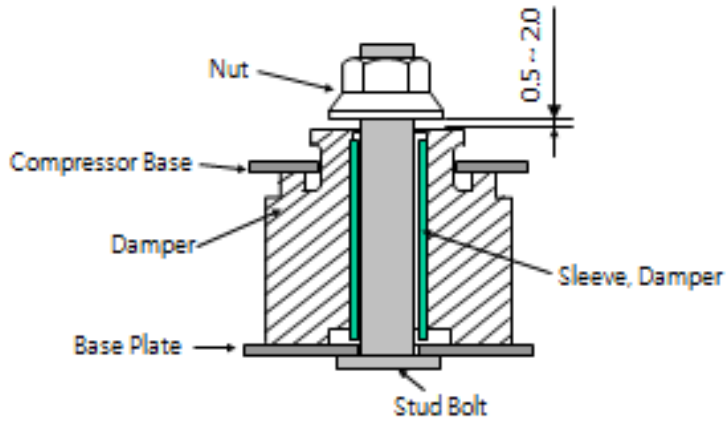
Damper, Rubber(Grommet)

Drawing NO. 4022U-L005B

(UNIT : mm)



*** MATERIAL : NATURAL RUBBER**



Damper Assembly

LG Electronics Inc.

제어 관련 Reference data.

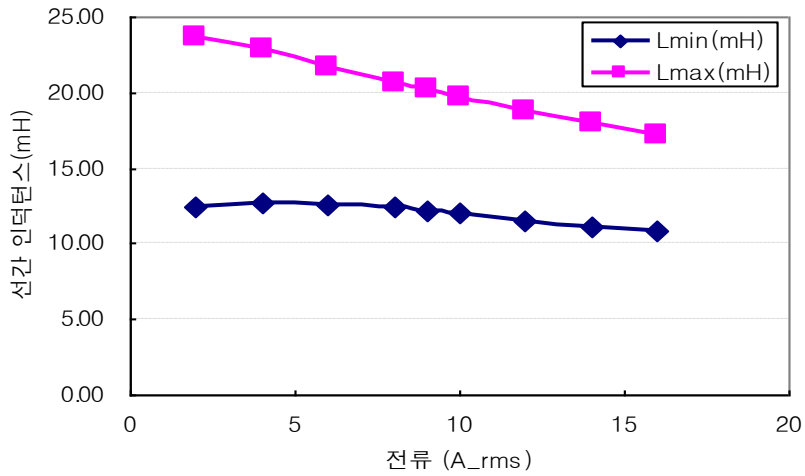
Motor Spec (DPT330MA)

Shape			Pole slot winding type
STATOR	Outer diameter (mm)		**Φ139.2**
	Lamination (mm)		**65**
	Winding resistance (Ω) at 75 ℃	R-S (U-V)	**0.845**
		R-T (U-W)	**0.859**
		S-T (V-W)	**0.864**
	Inner diameter (mm)		**Φ75**
	Winding(1 equivalent)		**142**
	Slot insulation paper		PET
ROTOR	Form	IPM or SPM	IPM
	Lamination (mm)		65
	Magnet		NdFeB
Air gap (mm)			0.70
Rated load torque (kg-cm)			110
Number of revolutions at the rated point (rpm)			3600
Induced voltage (V) (at1000rpm Mg센터줄 : 0mm)			73.3
capacitance (nF)			-
Minimum guaranteed reduced magnetic current (A)(-4%reduced magnetic current at120 ℃)			40 Apeak
Inductance Lmin. (mH)			↓
Inductance Lmax. (mH)			↓

Inductance (Line to Line)

Arms	Apeak	Lmin(mH)	Lmax(mH)
2	2.8	12.41	23.72
4	5.7	12.73	22.90
6	8.5	12.63	21.70
8	11.3	12.38	20.68
9	12.7	12.20	20.18
10	14.1	12.01	19.67
12	17.0	11.57	18.83
14	19.8	11.16	18.00
16	22.6	10.79	17.23

Inductance characteristic curve



PERFORMANCE TABLE

MODEL : DPT330MAB (3PH, 380V),40Hz

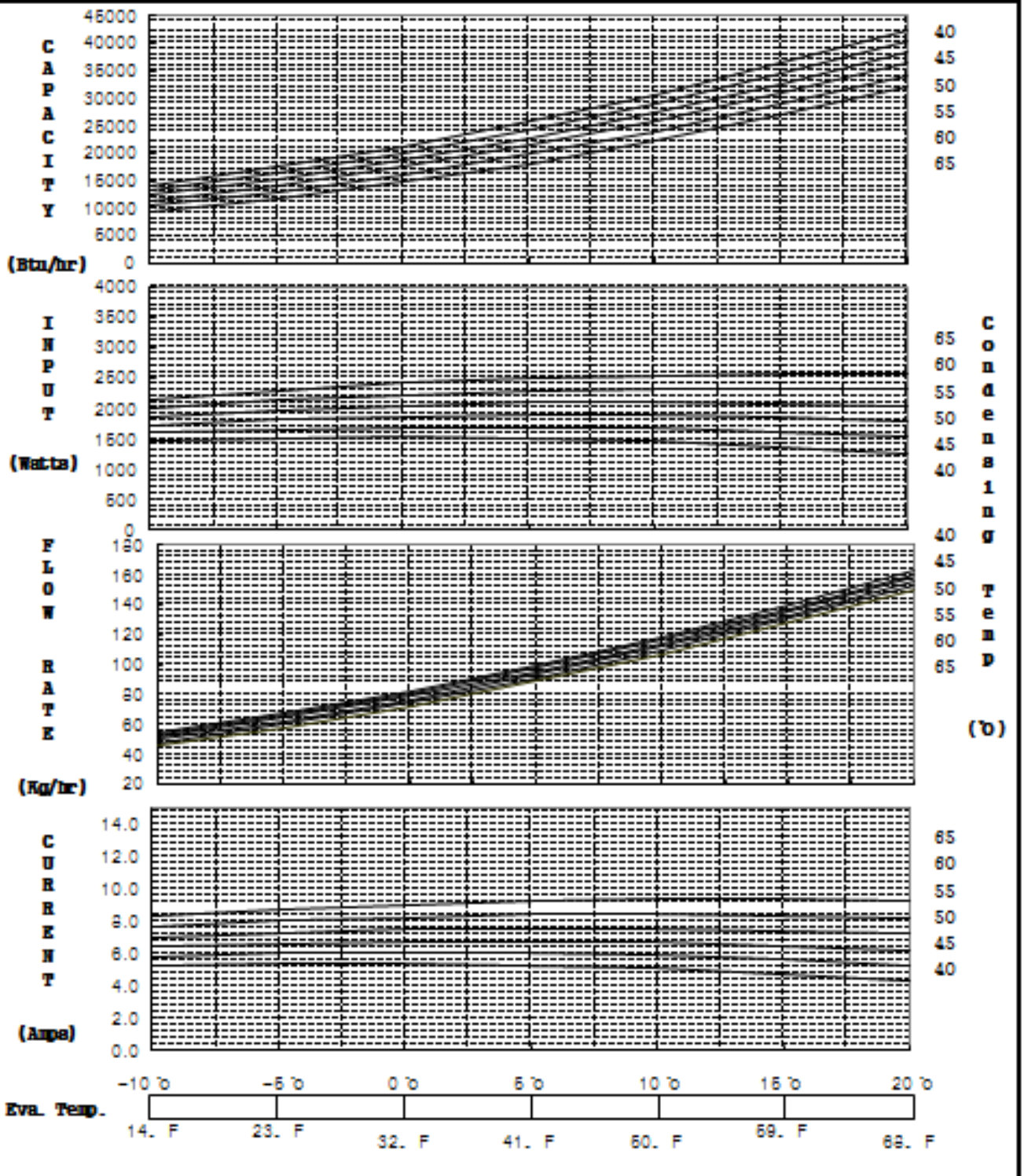
Saturated Evaporating Temperature	Items		Saturated Condensing Temperature 40℃ (104°F)	45℃ (113°F)	50℃ (122°F)	55℃ (131°F)	60℃ (140°F)	65℃ (149°F)
	Capacity	(Btu/h)	14080	13209	12296	11341	10346	9308
-10℃	Input	(Watts)	1469	1600	1733	1869	2008	2149
(14°F)	Flow Rate	(kg/h)	55.21	53.69	51.99	50.10	48.03	45.77
	EER	(Btu/W.h)	9.59	8.26	7.10	6.07	5.15	4.33
	Current	(Amps)	5.25	5.79	6.37	6.97	7.60	8.26
	Capacity	(Btu/h)	17390	16332	15233	14093	12911	11688
-5℃	Input	(Watts)	1511	1662	1816	1973	2132	2294
(23°F)	Flow Rate	(kg/h)	67.90	66.28	64.48	62.50	60.33	57.99
	EER	(Btu/W.h)	11.51	9.83	8.39	7.14	6.05	5.09
	Current	(Amps)	5.35	5.96	6.60	7.27	7.96	8.69
	Capacity	(Btu/h)	21267	20024	18739	17413	16045	14636
0℃	Input	(Watts)	1523	1695	1869	2047	2227	2409
(32°F)	Flow Rate	(kg/h)	82.68	80.97	79.07	77.00	74.74	72.29
	EER	(Btu/W.h)	13.97	11.82	10.02	8.51	7.21	6.07
	Current	(Amps)	5.35	6.02	6.73	7.46	8.22	9.00
	Capacity	(Btu/h)	25712	24283	22812	21300	19746	18151
5℃	Input	(Watts)	1504	1697	1892	2090	2291	2494
(41°F)	Flow Rate	(kg/h)	99.56	97.75	95.76	93.59	91.24	88.70
	EER	(Btu/W.h)	17.09	14.31	12.06	10.19	8.62	7.28
	Current	(Amps)	5.24	5.98	6.75	7.54	8.37	9.22
	Capacity	(Btu/h)	30726	29110	27453	25755	24015	22234
10℃	Input	(Watts)	1456	1669	1885	2103	2325	2549
(50°F)	Flow Rate	(kg/h)	118.54	116.64	114.55	112.29	109.84	107.20
	EER	(Btu/W.h)	21.11	17.44	14.57	12.24	10.33	8.72
	Current	(Amps)	5.03	5.84	6.67	7.53	8.42	9.33
	Capacity	(Btu/h)	36307	34505	32662	30778	28852	26885
15℃	Input	(Watts)	1377	1611	1847	2086	2328	2573
(59°F)	Flow Rate	(kg/h)	139.61	137.62	135.44	133.08	130.53	127.81
	EER	(Btu/W.h)	26.37	21.42	17.68	14.75	12.39	10.45
	Current	(Amps)	4.72	5.59	6.48	7.41	8.36	9.34
	Capacity	(Btu/h)	42455	40468	38439	36369	34257	32104
20℃	Input	(Watts)	1268	1522	1779	2039	2302	2567
(68°F)	Flow Rate	(kg/h)	162.78	160.70	158.42	155.97	153.33	150.51
	EER	(Btu/W.h)	33.48	26.58	21.60	17.83	14.88	12.51
	Current	(Amps)	4.31	5.24	6.20	7.19	8.20	9.25

PERFORMANCE CURVE

MODEL : DPT330MAB (3PH, 380V), 40Hz

● Rated Condition

Suction Gas Temp.	18.3 ℃	64.94. F	Motor Type : BLDC INVERTER
Subcooled Temp.	8.3 ℃	15.0. F	
Ambient Temp.	35.0 ℃	95.0. F	Based on 380V at 30Hz



PERFORMANCE TABLE

MODEL : DPT330MAB (3PH, 380V),60Hz

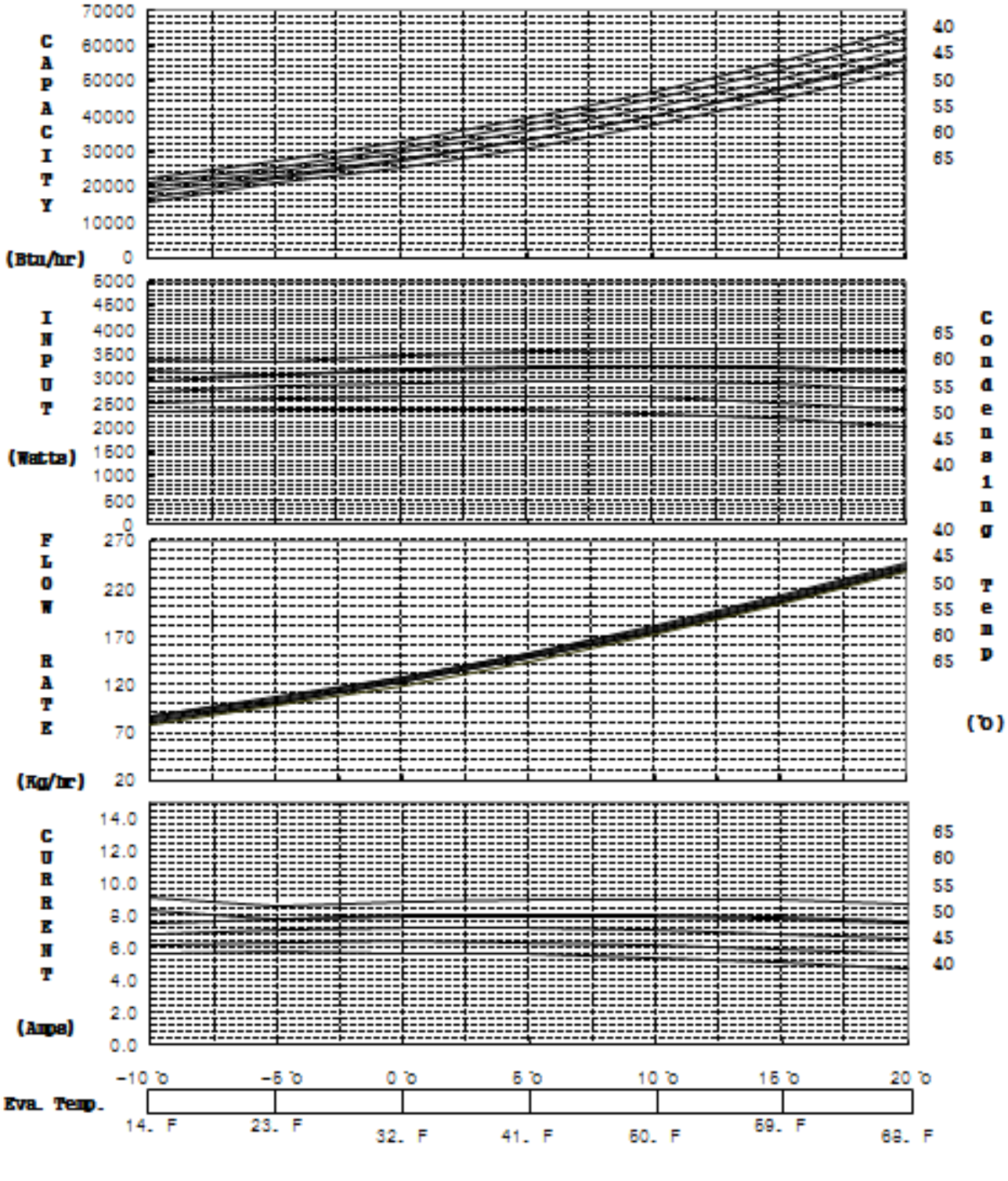
Saturated Evaporating Temperature	Items		Saturated Condensing Temperature 40℃ (104°F)	45℃ (113°F)	50℃ (122°F)	55℃ (131°F)	60℃ (140°F)	65℃ (149°F)
-10℃ (14°F)	Capacity	(Btu/h)	22344	21140	19865	18519	17102	15614
	Input	(Watts)	2303	2506	2716	2933	3157	3389
	Flow Rate	(kg/h)	87.82	86.16	84.23	82.03	79.57	76.84
	EER	(Btu/W.h)	9.70	8.44	7.31	6.31	5.42	4.61
	Current	(Amps)	5.60	6.20	6.84	7.54	8.28	9.08
-5℃ (23°F)	Capacity	(Btu/h)	27230	25767	24234	22626	22630	20954
	Input	(Watts)	2369	2601	2841	3057	3087	3341
	Flow Rate	(kg/h)	106.50	104.76	102.76	100.77	100.49	97.95
	EER	(Btu/W.h)	11.50	9.91	8.53	7.47	7.33	6.27
	Current	(Amps)	5.69	6.35	7.05	7.72	7.81	8.62
0℃ (32°F)	Capacity	(Btu/h)	32985	31264	29472	27837	27609	25675
	Input	(Watts)	2388	2650	2919	3162	3196	3479
	Flow Rate	(kg/h)	128.39	126.58	124.50	122.46	122.16	119.55
	EER	(Btu/W.h)	13.81	11.80	10.10	8.80	8.64	7.38
	Current	(Amps)	5.68	6.40	7.16	7.88	7.98	8.85
5℃ (41°F)	Capacity	(Btu/h)	39609	37630	35579	33716	33458	31266
	Input	(Watts)	2362	2653	2952	3221	3258	3571
	Flow Rate	(kg/h)	153.50	151.62	149.47	147.36	147.06	144.37
	EER	(Btu/W.h)	16.77	14.18	12.05	10.47	10.27	8.76
	Current	(Amps)	5.57	6.34	7.17	7.94	8.05	8.98
10℃ (50°F)	Capacity	(Btu/h)	47102	44864	42555	40465	40176	37725
	Input	(Watts)	2290	2611	2939	3233	3274	3616
	Flow Rate	(kg/h)	181.84	179.88	177.66	175.48	175.17	172.42
	EER	(Btu/W.h)	20.57	17.19	14.48	12.52	12.27	10.43
	Current	(Amps)	5.35	6.19	7.08	7.90	8.02	9.00
15℃ (59°F)	Capacity	(Btu/h)	55464	52968	50401	48083	47762	45053
	Input	(Watts)	2171	2522	2879	3200	3244	3616
	Flow Rate	(kg/h)	213.39	211.36	209.07	206.83	206.50	203.68
	EER	(Btu/W.h)	25.55	21.01	17.50	15.03	14.72	12.46
	Current	(Amps)	5.03	5.93	6.88	7.76	7.88	8.93
20℃ (68°F)	Capacity	(Btu/h)	64695	61940	59115	56569	56218	53250
	Input	(Watts)	2007	2387	2774	3120	3168	3569
	Flow Rate	(kg/h)	248.16	246.06	243.69	241.39	241.06	238.16
	EER	(Btu/W.h)	32.24	25.95	21.31	18.13	17.75	14.92
	Current	(Amps)	4.62	5.58	6.59	7.52	7.65	8.75

PERFORMANCE CURVE

MODEL : DPT330MAB (3PH, 380V),60Hz

● Rated Condition

Suction Gas Temp.	18.3 ℃	64.94. F	Motor Type : BLDC INVERTER
Subcooled Temp.	8.3 ℃	15.0. F	
Ambient Temp.	35.0 ℃	95.0. F	Based on 380V at 60Hz



PERFORMANCE TABLE

MODEL : DPT330MAB (3PH, 380V),80Hz

Saturated Evaporating Temperature	Items		Saturated Condensing Temperature 40℃ (104°F)	45℃ (113°F)	50℃ (122°F)	55℃ (131°F)	60℃ (140°F)	65℃ (149°F)
-10℃ (14°F)	Capacity	(Btu/h)	30385	28817	27118	25515	25289	23329
	Input	(Watts)	3164	3436	3730	4007	4048	4384
	Flow Rate	(kg/h)	119.37	117.48	115.22	112.92	112.58	109.57
	EER	(Btu/W.h)	9.60	8.39	7.27	6.37	6.25	5.32
	Current	(Amps)	5.90	6.52	7.20	7.85	7.95	8.76
-5℃ (23°F)	Capacity	(Btu/h)	36913	35026	33008	31125	30860	28581
	Input	(Watts)	3266	3571	3898	4205	4248	4620
	Flow Rate	(kg/h)	144.26	142.30	139.96	137.60	137.25	134.16
	EER	(Btu/W.h)	11.30	9.81	8.47	7.40	7.26	6.19
	Current	(Amps)	6.03	6.70	7.43	8.13	8.23	9.10
0℃ (32°F)	Capacity	(Btu/h)	44530	42323	39986	37822	37519	34921
	Input	(Watts)	3309	3648	4009	4345	4392	4797
	Flow Rate	(kg/h)	173.23	171.20	168.78	166.35	166.00	162.83
	EER	(Btu/W.h)	13.46	11.60	9.97	8.70	8.54	7.28
	Current	(Amps)	6.05	6.78	7.56	8.31	8.42	9.34
5℃ (41°F)	Capacity	(Btu/h)	53234	50709	48053	45608	45266	42349
	Input	(Watts)	3296	3668	4062	4428	4479	4917
	Flow Rate	(kg/h)	206.28	204.17	201.68	199.18	198.82	195.58
	EER	(Btu/W.h)	16.15	13.83	11.83	10.30	10.11	8.61
	Current	(Amps)	5.97	6.75	7.59	8.39	8.50	9.47
10℃ (50°F)	Capacity	(Btu/h)	63027	60182	57207	54481	54102	50866
	Input	(Watts)	3224	3630	4058	4453	4508	4980
	Flow Rate	(kg/h)	243.40	241.21	238.65	236.09	235.71	232.40
	EER	(Btu/W.h)	19.55	16.58	14.10	12.24	12.00	10.21
	Current	(Amps)	5.79	6.62	7.51	8.36	8.48	9.50
15℃ (59°F)	Capacity	(Btu/h)	73908	70744	67450	64443	64025	60470
	Input	(Watts)	3095	3534	3996	4420	4479	4985
	Flow Rate	(kg/h)	284.60	282.34	279.70	277.07	276.69	273.30
	EER	(Btu/W.h)	23.88	20.02	16.88	14.58	14.29	12.13
	Current	(Amps)	5.50	6.39	7.34	8.22	8.35	9.43
20℃ (68°F)	Capacity	(Btu/h)	85876	82394	78781	75493	75037	71163
	Input	(Watts)	2908	3381	3876	4330	4393	4932
	Flow Rate	(kg/h)	329.87	327.54	324.82	322.13	321.74	318.27
	EER	(Btu/W.h)	29.53	24.37	20.33	17.44	17.08	14.43
	Current	(Amps)	5.12	6.05	7.05	7.99	8.12	9.25

PERFORMANCE CURVE

MODEL : DPT330MAB (3PH, 380V),80Hz

● Rated Condition

Suction Gas	Temp.	18.3 ℃	64.94. F	Motor Type	: BLDC INVERTER
Subcooled	Temp.	8.3 ℃	15.0. F		
Ambient	Temp.	35.0 ℃	95.0. F	Based on 380V at 80Hz