Guararema, 14 de Novembro de 2025

Pregão Eletrônico N° 90044/2025

UASG 925866 - EAM - DE JUSTIÇA DO ESTADO DO AMAZONAS

PLANILHA DE PROPOSTA DE PREÇO

*Validade da proposta**: 90 dias***

DADOS DA EMPRESA:

*Nome: **51.952.853 JOSIAS DE MOURA GOMES***

*CNPJ: **51.952.853/0001-64***

*Inscrição Estadual: **331.068.124.111***

*Telefone**: (11) 4222-5299***

*E-mail **josiasdemoura190@gmail.com***

Optante pelo simples? Sim (X) Não ( )

DADOS BANCÁRIOS:

Banco do Brasil

*Número do banco: **001***

*Agência: **2098-2***

*Conta corrente: **25910-1***

*PIX: **51.952.853/0001-64 (CNPJ)***

IPI, FRETE, IMPOSTOS E DEMAIS DESPESAS ESTÃO INCLUSOS NO VALOR

Item	Descrição	Marca	Unidade	Qtd	Valor unit	Valor total
1	Compressor do tipo Scroll Inverter para gás refrigerante R410A, MODELO JQC068MAA, para modelos das unidades condensadoras tipo VRF ARUN160LTE5 e ARUN260LTE5 LG e tensão de 540VDC (trifásico)	LG	UN	4	R$ 19,498,99	R$ 77.995,96
TOTAL = R$ 77.995,96						

Validade da Proposta: 90 dias **| Garantia:** 1 ano **| Prazo de Entrega:** 60 dias

Observação: Estão inclusos nos preços supramencionados todos os custos diretos e indiretos, inclusive de embalagens, transportes ou fretes, e ainda os resultantes da incidência de quaisquer tributos, contribuições ou obrigações decorrentes da legislação trabalhista, fiscal e previdenciária a que estiver sujeito. Declaro que possuo capacidade operacional e técnica para atendimento a todos os requisitos deste Edital e seus anexos.

GUARAREMA, 14 DE NOVEMBRO DE 2025

51 952 853 JOSIAS DE MOURA GOMES:51952853000164

Assinado de forma digital por 51 952 853 JOSIAS DE MOURA GOMES:51952853000164
Dados: 2025.11.14 13:21:51 -03'00'

Assinatura responsável

SCROLL
COMPRESSOR

COMPRESSOR TECHNOLOGY
FOR HVAC &
LIGHT COMMERCIAL APPLICATIONS

GLOBAL NETWORK

Changwon, Korea

· **Address** 76 Seongsan-dong, Changwon City Gyeongnam, 641-713, South Korea
· **Phone** +82-55-269-3868
· **Fax** +82-55-268-4896
· **Website** www.lge.com/global/business

Tianjin, China

· **Address** No. 9 Jin Wei road, Bei Chen Dist, Tianjin, China
· **Phone** +86-22-2690-3251

Atlanta, USA

· **Address** 4300 North Point Pkwy Suite #100 Alparetta, GA 300 22
· **Phone** +1-678-328-6433

Dallas, USA

· **Address** 2422 Farmers Branch, Texas 75234,
· **Phone** 1-214-256-7835

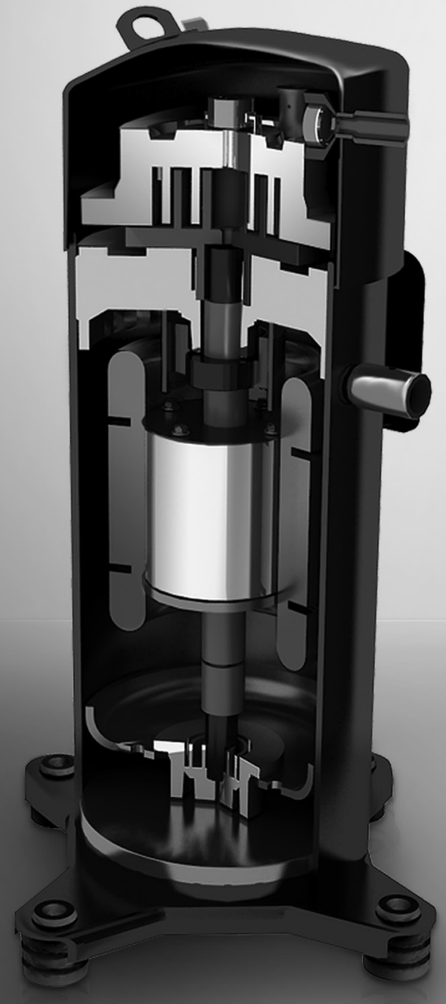
LG | Business Solutions

LG | Business Solutions

WHY
LG COMPRESSOR?

LG Component Solutions Business Unit offers meaningful and unique solutions to meet modern sustainability standards with environmentally sound and energy-efficient technologies.

To continue to deliver the highest level of satisfaction to all our partners,
we will continue with our technological advancements to supply only the best sustainable components and inverter total solutions optimized for residential and commercial environments.



TECHNOLOGY

LG compressors are a group of high-precision machinery and assembly technologies continuously designed to perform even under the most challenging environments. Built with today's leading core technology, inverter motor and drive for optimized products developed to work around the world's evolving needs.

MODEL VARIETY

LG offers an extensive product selection of scroll compressors for fixed speed, two stage modulting and variable speed with optimized inverter driver, to fully support your various business needs and applications

CUSTOMER SUPPORT

Enabling customers for optimal business performance, LG offers technical support to ensure our products are delivered with the differentiated level of quality verifiable through our highly qualified R&D process.

QUALITY

With worldwide recognition for high product quality and sustainability,
LG ensures all products are delivered at full value with production quality and safety checks to ensure full customer satisfaction.

MILESTONES & GLOBAL SITE

1962
Motor Production

1973
Refrigerator Compressor Production

1990
Rotary Compressor Production

1995
Scroll Compressor Production

1997
1st Variable Speed Rotary Compressor Production

1998
Direct Drive Motor for Washing Machine Launch

2000
World First Linear Compressor for Refrigerator Launch

2006
Unitary Scroll Compressor Launch to North America

2008
Achieved Accumulated Sales over 100 Million Units

2009
High Side Shell Inverter Scroll Lunch

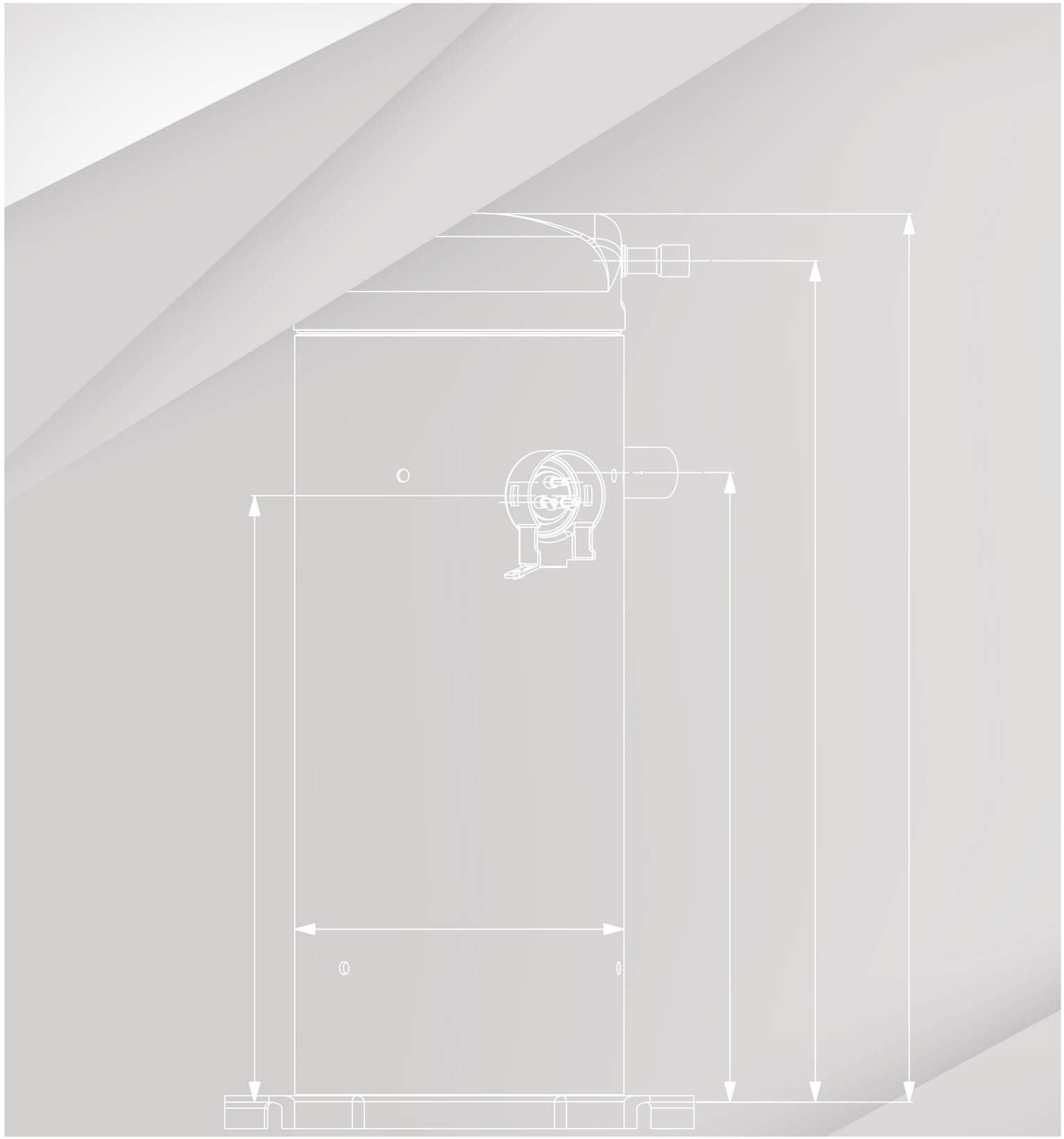
2016
Achieved Accumulated Production over 1 Billion Units

2018
2 stage Modulating Scroll Unitary Rotary Launch

SALES OFFICE 12 SITE

FACTORY 7 SITE

Linear	Korea, China (Taizhou)
Reciprocating	Korea, China (Taizhou), India (Noida)
Rotary	Korea, China (Tianjin), Thainland (Rayong)
Scroll	Korea, China (Tianjin)
Casting	China (Qinhuangdao)



CONTENTS

Product Range

Fixed Speed

Capacity [RT, Tonnage] (1RT = 12kBtu/hr=3.5kw)		1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0
Low side shell	R410A	P (Φ139)				B (Φ160)					R (Φ179)	
	R22		Q (Φ147)				B (Φ160)				R (Φ179)	
	R404A		P (Φ139)				B (Φ160)				R (Φ179)	

2 Stage Modulating

Capacity [RT, Tonnage] (1RT = 12kBtu/hr=3.5kw)		1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0
Low side shell	R410A			P (Φ139)			B (Φ160)					

Variable Speed

Capacity [RT, Tonnage] (1RT = 12kBtu/hr=3.5kw)		0	2.0	3.0	4.0	5.0	7.0	8.0	10.0	13.3	16.7	20
Low side shell	R410A	P (Φ139) 20/25 SEER (5 ~ 46kBtu)										
		B (Φ160) 20/25 SEER (14 ~ 91kBtu)										
		P (Φ139) 27.5 SEER (4 ~ 71kBtu)										
		Q (Φ147) 27.5 SEER (11 ~ 140kBtu)										
High side shell	R410A	Q (Φ147) (12 ~ 128kBtu)										
		B (Φ147) (17 ~ 181kBtu)										
		R (Φ160) (24 ~ 256kBtu)										

Nomenclature

A P A 026 D A A

Refrigerant

Code	Refrigeran	Type
A	R410A	LSS
H	R407C	LSS
J	R410A	HSS
M	R404	LSS
S	R22	LSS

Compressor size (mm)

P : Φ139 R : Φ179
Q : Φ147 G : Φ224
B : Φ160

Generation code

(A-Z)

Capacity

(Btu/Hr x 1,000) @ 60Hz

Exterior specification

(A-Z)

Motor specification

(A-Z)

Motor code

Series	Power source (V)			Motor
	Phase(Φ)	V	HZ	
C	1	115	60	Fixed Speed
G	1	220	60	Fixed Speed
H	1	220	50	Fixed Speed
J	1	200 / 220	50	Fixed Speed
K	1	208-230	60	Fixed Speed
P	1	265	50	Fixed Speed
Q	1	265	60	Fixed Speed
Y	3	330 / 420	50	Fixed Speed
U	3	380	60	Fixed Speed
D	BLDC Inverter			BLDC / Distributed
M	BLDC Inverter			BLDC / Distributed

Specification

Fixed Speed R410A [1 of 5]

Refrigerant	Type	Frequency	Voltage	Series	Model	Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)	Dimension (mm)		
						Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	A	B	C
R410A	LSS	50Hz	1Φ, 220 / 240V	ABT	ABT034PT	28,000	8,201	2,888	9.7	2.84	130 / 45	444	421	315
			3Φ, 380 / 420V	ABT	ABT042YT	34,900	10,228	3,421	10.2	2.99	130 / 45	415	377	273
					ABT048YT	40,200	11,781	3,688	10.9	3.19	130 / 45	444	421	315
					ABT051YT	42,500	12,447	3,900	10.9	3.19	130 / 45	444	421	315
					ABT054YT	44,800	13,121	4,150	10.8	3.16	130 / 45	444	421	315
					ABT057YT	48,500	14,204	4,450	10.9	3.19	130 / 45	444	421	315
					ABT061YT	51,500	15,083	4,725	10.9	3.19	130 / 45	444	421	315
				ARA	ARA061YA	51,500	15,093	5,049	10.2	2.99	130 / 45	474	430	322
					ARA073YA	62,000	18,170	6,020	10.3	3.02	130 / 45	470	426	322
					ARA073YB	63,000	18,463	5,833	10.8	3.17	130 / 45	461	412	308
					ARA081YA	68,500	20,075	6,716	10.2	2.99	130 / 45	379	426	322

Note : COND 130°F(54.4℃), EVA 45°F(7.2℃)

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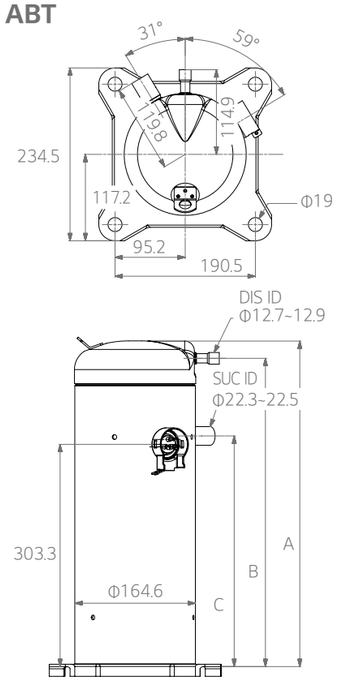

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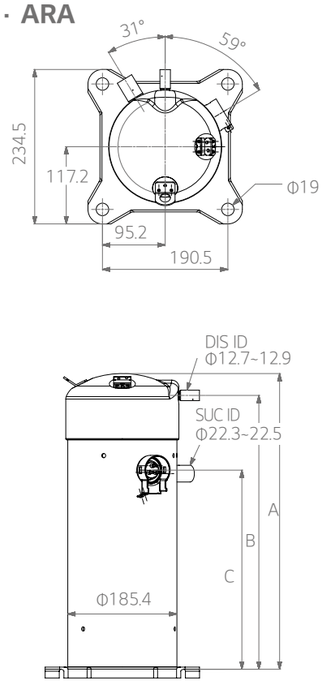

Specification

Fixed Speed R410A [2 of 5]

Refrigerant	Type	Frequency	Voltage	Series	Model	Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)
						Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F
R410A	LSS	60Hz	1Φ, 208-230V	APA	APA016KA	15,200	4,455	1,634	9.3	2.73	130 / 45
					APA020KA	19,500	5,715	2,010	9.7	2.84	130 / 45
					APA024KA	22,500	6,594	2,344	9.6	2.81	130 / 45
					APA026KA	24,500	7,180	2,450	10.0	2.93	130 / 45
					APA029KA	28,000	8,206	2,828	9.9	2.90	130 / 45
					APA030KA	29,000	8,499	2,929	9.9	2.90	130 / 45
					APA032KA	30,500	8,939	3,020	10.1	2.96	130 / 45
				ABA	ABA036KA	36,500	10,697	3,510	10.4	3.05	130 / 45
					ABA042KA	42,500	12,456	4,048	10.5	3.08	130 / 45
					ABA049KA	48,000	14,067	4,528	10.6	3.11	130 / 45
					ABA051KA	51,500	15,093	4,858	10.6	3.11	130 / 45
					ABA054KA	54,000	15,826	5,143	10.5	3.08	130 / 45
				ABT	ABT038KT	38,700	11,342	3,650	10.6	3.11	130 / 45
					ABT042KT	42,200	12,359	3,980	10.6	3.11	130 / 45
					ABT048KT	48,000	14,058	4,444	10.8	3.16	130 / 45
					ABT051KT	51,200	14,058	4,740	10.8	3.16	130 / 45
					ABT054KA	54,000	15,815	4,820	11.2	3.28	130 / 45

Note : COND 130°F(54.4℃), EVA 45°F(7.2℃) / COND 100°F(37.8℃), EVA 45°F(7.2℃)

Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)	Dimension (mm)		
Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	A	B	C
24,000	7,034	1,333	18.0	5.28	100 / 45	407	379	259
27,700	8,118	1,547	17.9	5.25	100 / 45	407	379	259
30,100	8,821	1,645	18.3	5.36	100 / 45	407	379	259
35,300	10,345	1,898	18.6	5.45	100 / 45	407	379	259
36,500	10,697	1,931	18.9	5.54	100 / 45	407	379	259
38,300	11,225	1,995	19.2	5.63	100 / 45	407	379	259
42,800	12,543	2,195	19.5	5.71	100 / 45	444	418	300
52,000	15,240	2,680	19.4	5.69	100 / 45	449	416	294
58,500	17,145	3,000	19.5	5.71	100 / 45	449	416	294
63,000	18,463	3,231	19.5	5.71	100 / 45	449	416	294
66,500	19,489	3,446	19.3	5.66	100 / 45	449	416	294
						449	416	294
						421	315	315
						421	315	315
						421	315	315
						421	315	259
						421	315	300

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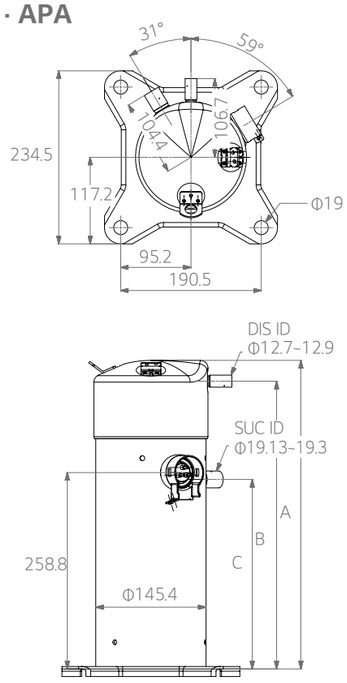

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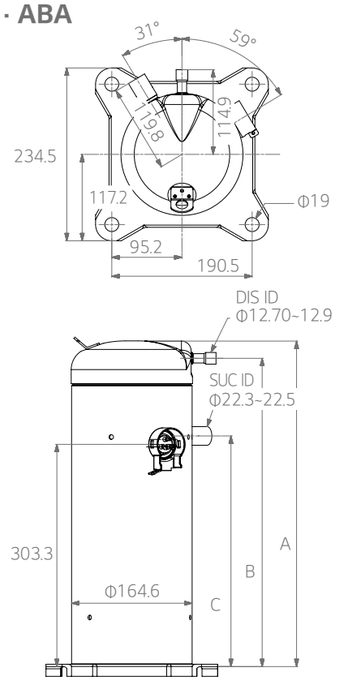

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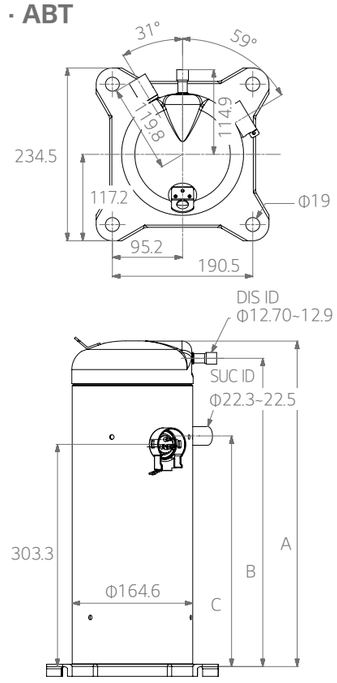

Specification

Fixed Speed R410A [3 of 5]

Refrigerant	Type	Frequency	Voltage	Series	Model	Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)	Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)	Dimension (mm)		
						Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	A	B	C
R410A	LSS	60Hz	3Φ, 208-230V	APA	APA032RA	30,000	8,792	3,030	9.9	2.90	130 / 45	38,100	11,166	2,016	18.9	5.54	100 / 45	379	259	300
				ABA	ABA044RA	44,500	13,042	4,220	10.6	3.09	130 / 45	60,000	17,584	2,770	21.7	6.35	100 / 50	416	294	302
					ABA051RA	51,500	15,093	4,813	10.7	3.14	130 / 45	63,000	18,463	3,198	19.7	5.77	100 / 45	416	294	322
					ABA054RA	54,500	15,972	5,093	10.7	3.14	130 / 45	67,000	19,636	3,401	19.7	5.77	100 / 45	416	302	315
				ARA	ARA061RA	61,500	18,024	6,029	10.2	2.99	130 / 45							430	322	315
				ABT	ABT044RM	44,000	12,895	4,151	10.6	3.11	130 / 45							421	315	315
					ABT054RM	54,000	15,826	4,910	11.0	3.22	130 / 45							421	315	315
			3Φ, 380V	ABT	ABT044UM	44,000	12,895	4,151	10.6	3.11	130 / 45							421	315	315
					ABT048UM	48,300	14,146	4,555	10.6	3.11	130 / 45							421	315	315
					ABT048UT	48,500	14,204	4,410	11.0	3.22	130 / 45							421	315	322
					ABT054UM	53,500	15,669	4,953	10.8	3.16	130 / 45							421	315	308
				ARA	ARA061UA	62,800	18,405	5,980	10.5	3.08	130 / 45							430	322	143
					ARA081UA	81,500	23,885	8,316	9.8	2.87	130 / 45							461	412	308
			3Φ, 575V	APA	APA032TA	29,800	8,734	3,010	9.9	2.90	130 / 45	37,600	11,019	1,979	19.0	5.57	100 / 45	407	379	259
				ABA	ABA044TA	44,500	13,042	4,220	10.6	3.09	130 / 45	60,000	17,584	2,770	21.7	6.35	100 / 50	444	418	300
					ABA051TA	51,000	14,947	4,811	10.7	3.11	130 / 45	63,000	18,463	3,198	19.7	5.77	100 / 45	407	379	259
			3Φ, 380/420V, 50Hz / 3Φ, 460V, 60Hz	APA	APA032WA	23,300 / 30,000	6,829 / 8,792	2,533 / 3,030	9.2 / 9.9	2.69 / 2.90	130 / 45	29,700 / 38,100	8,704 / 11,166	1,641 / 1,984	18.1 / 19.2	5.30 / 5.63	100 / 45	444	418	300
				ABA	ABA051WA	42,500 / 51,500	12,455 / 15,093	4,009/ 4,813	10.6 / 10.7	3.11 / 3.14	130 / 45	52,000 / 63,000	15,240 / 18,463	2,613 / 3,198	19.9 / 19.7	5.83 / 5.77	100 / 45	449	416	294
					ABA054WA	44,400 / 54,000	13,012 / 15,826	4,353 / 5,143	10.2 / 10.5	2.99 / 3.08	130 / 45	55,000 / 66,500	16,119 / 19,489	2,821 / 3,410	19.5 / 19.5	5.71 / 5.72	100 / 45	449	416	294

Note : COND 130°F(54.4℃), EVA 45°F(7.2℃) / COND 100°F(37.8℃), EVA 45°F(7.2℃), EVA 50°F(10℃)

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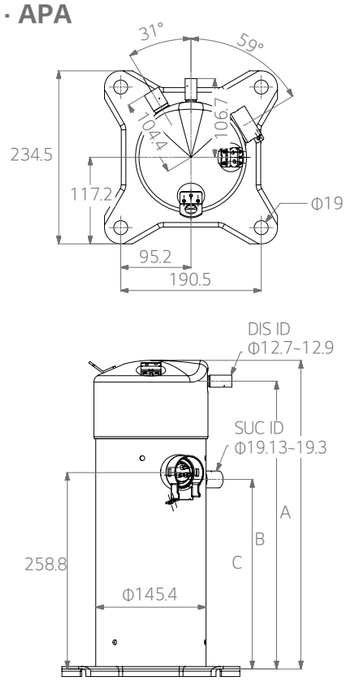

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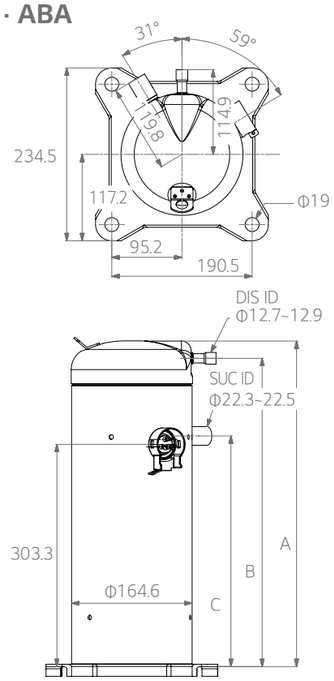

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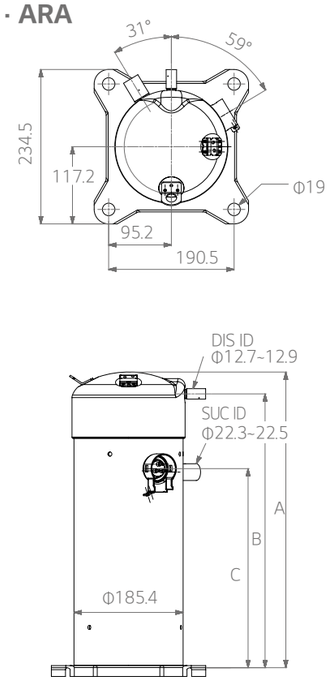

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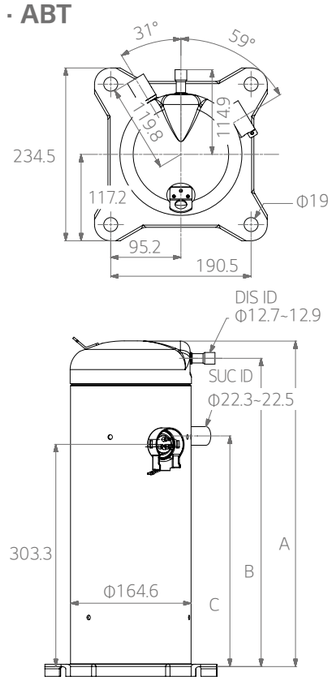


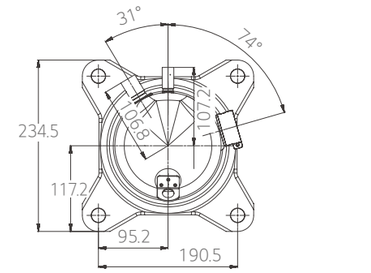
Specification

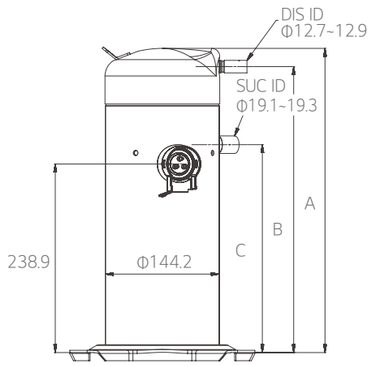
Fixed Speed R410A [4 of 5]

Refrigerant	Type	Frequency	Voltage	Series	Model	Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)	Dimension (mm)		
						Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	A	B	C
R410A	LSS	60Hz	1Φ, 208-230V	APG	APG014KA	14,600	4,276	1,505	9.7	2.84	130 / 45	385	362	263
					APG016KA	15,500	4,540	1,582	9.8	2.87	130 / 45	385	362	263
					APG016KB	15,500	4,540	1,550	10.0	2.93	130 / 45	385	362	263
					APG020KA	20,000	5,858	1,961	10.2	2.99	130 / 45	385	362	263
					APG020KB	20,000	5,858	1,961	10.2	2.99	130 / 45	385	362	263
					APG024KA	23,500	6,883	2,305	10.2	2.99	130 / 45	385	362	263
					APG024KB	23,500	6,883	2,282	10.3	3.02	130 / 45	385	362	263
					APG025KA	25,000	7,322	2,427	10.3	3.02	130 / 45	385	362	263
					APG029KA	28,800	8,435	2,743	10.5	3.08	130 / 45	385	362	263
					APG031KA	30,800	9,021	2,906	10.6	3.10	130 / 45	385	362	263
				ABG	ABG034KA	34,350	10,060	3,303	10.4	3.05	130 / 45	419	394	295
					ABG036KA	36,000	10,544	3,429	10.5	3.08	130 / 45	419	394	295
					ABG038KA	38,100	11,159	3,594	10.6	3.10	130 / 45	419	394	295
					ABG039KA	39,500	11,569	3,726	10.6	3.10	130 / 45	419	394	295
					ABG042KA	42,000	12,301	3,962	10.6	3.10	130 / 45	419	394	295
					ABG049KA	49,400	14,468	4,574	10.8	3.16	130 / 45	419	394	295
					ABG051KA	51,000	14,937	4,722	10.8	3.16	130 / 45	419	394	295
		60Hz	3Φ, 208-230V	APG	APG029RA	28,000	8,201	2,718	10.3	3.02	130 / 45	385	362	263
					APG031RA	30,300	8,874	2,942	10.3	3.02	130 / 45	385	362	263
				ABG	ABG038RA	38,000	11,129	3,620	10.5	3.08	130 / 45	419	394	295
					ABG042RA	41,500	12,154	3,952	10.5	3.08	130 / 45	419	394	295
					ABG049RA	49,500	14,497	4,583	10.8	3.16	130 / 45	419	394	295
					ABG051RA	51,000	14,937	4,722	10.8	3.16	130 / 45	419	394	295
						20,100	5,887	957	21.0	6.15	100 / 50	385	362	263
						21,300	6,238	1,039	20.5	6.00	100 / 50	385	362	263
						21,400	6,268	1,019	21.0	6.15	100 / 50	385	362	263
						27,300	7,995	1,294	21.1	6.18	100 / 50	385	362	263
						27,300	7,995	1,264	21.6	6.33	100 / 50	385	362	263
						32,700	9,577	1,521	21.5	6.30	100 / 50	385	362	263
						32,900	9,636	1,516	21.7	6.36	100 / 50	385	362	263
						35,000	10,251	1,606	21.8	6.38	100 / 50	385	362	263
						39,600	11,598	1,808	21.9	6.41	100 / 50	385	362	263
						42,800	12,535	1,937	22.1	6.47	100 / 50	385	362	263
						47,150	13,809	2,214	21.3	6.24	100 / 50	419	394	295
						49,400	14,468	2,298	21.5	6.30	100 / 50	419	394	295
						51,400	15,054	2,369	21.7	6.36	100 / 50	419	394	295
						53,000	15,522	2,477	21.4	6.27	100 / 50	419	394	295
						57,100	16,723	2,631	21.7	6.36	100 / 50	419	394	295
						67,300	19,710	3,087	21.8	6.38	100 / 50	419	394	295
						69,500	20,355	3,188	21.8	6.38	100 / 50	419	394	295
						39,000	11,422	1,822	21.4	6.27	100 / 50	385	362	263
						41,700	12,213	1,949	21.4	6.27	100 / 50	385	362	263
						51,600	15,112	2,367	21.8	6.38	100 / 50	419	394	295
						57,100	16,723	2,370	21.7	6.36	100 / 50	419	394	295
						67,400	19,740	3,092	21.8	6.38	100 / 50	419	394	295
						69,500	20,355	3,188	21.8	6.38	100 / 50	419	394	295

Note : COND 130°F(54.4℃), EVA 45°F(7.2℃) / COND 100°F(37.8℃), EVA 50°F(10℃)

· APG





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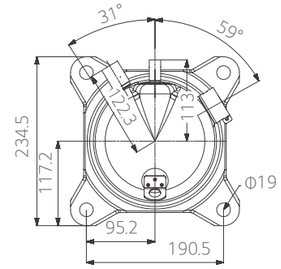
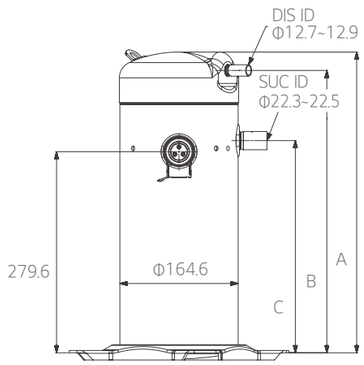




Specification

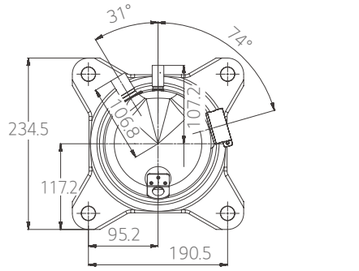
Fixed Speed R410A [5 of 5]

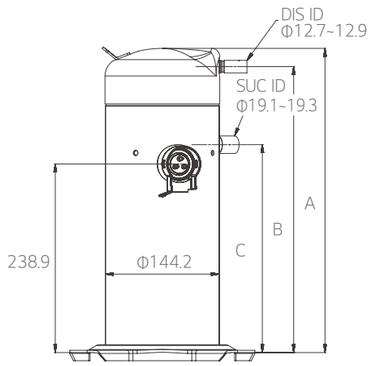
Refrigerant	Type	Frequency	Voltage	Series	Model	Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)
						Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F
R410A	LSS	60Hz	3Φ, 575V	APG	APG029TA	28,000	8,201	2,718	10.3	3.02	130 / 45
					APG031TA	30,000	8,786	2,913	10.3	3.02	130 / 45
				ABG	ABG038TA	37,800	11,071	3,600	10.5	3.08	130 / 45
					ABG042TA	41,500	12,154	3,952	10.5	3.08	130 / 45
					ABG049TA	49,500	14,497	4,626	10.7	3.13	130 / 45
					ABG051TA	51,000	14,937	4,766	10.7	3.13	130 / 45
		50/60Hz	3Φ, 380-420V, 50Hz 3Φ, 460V, 60Hz	APG	APG029WA 60Hz	28,200	8,259	2,738	10.3	3.02	130 / 45
					APG029WA 50Hz	22,500	6,590	2,320	9.7	2.84	130 / 45
					APG031WA 60Hz	30,000	8,786	2,913	10.3	3.02	130 / 45
					APG031WA 50Hz	24,100	7,058	2,485	9.7	2.84	130 / 45
				ABG	ABG038WA 60Hz	38,000	11,129	3,619	10.5	3.08	130 / 45
					ABG038WA 50Hz	31,500	9,226	3,029	10.4	3.05	130 / 45
					ABG042WA 60Hz	41,500	12,154	3,952	10.5	3.08	130 / 45
					ABG042WA 50Hz	34,400	10,075	3,308	10.4	3.05	130 / 45
					ABG049WA 60Hz	49,700	14,556	4,602	10.8	3.16	130 / 45
					ABG049WA 50Hz	40,400	11,832	3,885	10.4	3.05	130 / 45
					ABG051WA 60Hz	51,000	14,937	4,722	10.8	3.16	130 / 45
					ABG051WA 50Hz	41,700	12,213	4,010	10.4	3.05	130 / 45

Note : COND 130°F(54.4℃), EVA 45°F(7.2℃) / COND 100°F(37.8℃), EVA 50°F(10℃)

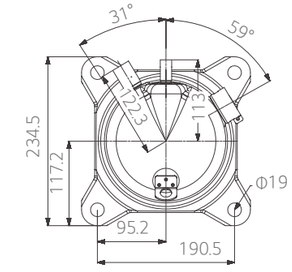
Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)	Dimension (mm)		
Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	A	B	C
39,000	11,422	1,806	21.6	6.33	100 / 50	385	362	263
41,700	12,213	1,931	21.6	6.33	100 / 50	385	362	263
51,600	15,112	2,367	21.8	6.38	100 / 50	419	394	295
57,100	16,723	2,619	21.8	6.38	100 / 50	419	394	295
67,400	19,740	3,092	21.8	6.38	100 / 50	419	394	295
69,500	20,355	3,188	21.8	6.38	100 / 50	419	394	295
39,100	11,451	1,802	21.7	6.36	100 / 50	385	362	263
32,000	9,372	1,488	21.5	6.30	100 / 50	385	362	263
41,600	12,184	1,917	21.7	6.36	100 / 50	385	362	263
34,400	10,075	1,585	21.7	6.36	100 / 50	385	362	263
51,600	15,112	2,367	21.8	6.38	100 / 50	419	394	295
42,400	12,418	1,945	21.8	6.38	100 / 50	419	394	295
57,100	16,723	2,619	21.8	6.38	100 / 50	419	394	295
47,600	13,941	2,183	21.8	6.38	100 / 50	419	394	295
67,500	19,769	3,096	21.8	6.38	100 / 50	419	394	295
55,800	16,342	2,560	21.8	6.38	100 / 50	419	394	295
69,500	20,355	3,188	21.8	6.38	100 / 50	419	394	295
57,700	16,899	2,647	21.8	6.38	100 / 50	419	394	295

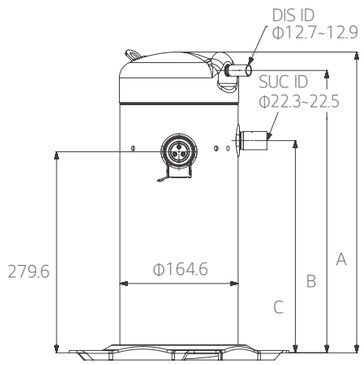
· APG





· ABG





Specification

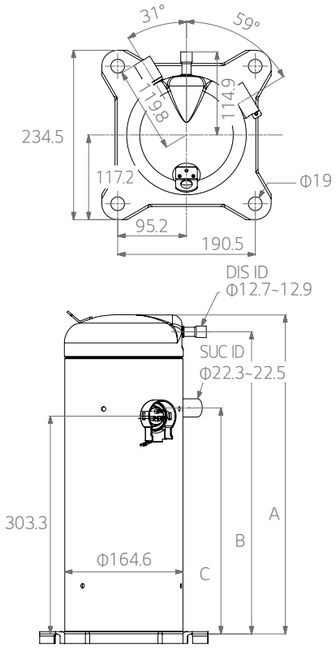
Fixed Speed R22

Refrigerant	Type	Frequency	Voltage	Series	Model
R22	LSS	50Hz	1Φ, 220 / 240V	SBA	SBA040PA
			3Φ, 380 / 420V	SBA	SBA040YA
					SBA052YA
					SBA054YA
					SBA061YC
					SBA061YM
				SBB	SBB054YM
				SR	SR073YA
		60Hz	1Φ, 208-230V	SBA	SBA040KA
		60Hz	3Φ, 208-230V	SBA	SBA052RB
					SBA061RB
				SR	SR071RA
			3Φ, 380V	SBA	SBA040UA
					SBA052UB
					SBA061UB
				SR	SR071UB
		50/60Hz	3Φ, 380 / 420V, 50Hz / 3Φ, 460V, 60Hz	SBA	SBA052WA
					SBA061WA

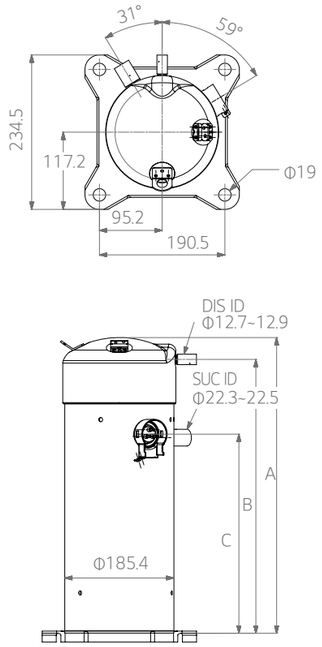
Cooling capacity		Input	EER	COP	Test condition	Dimension (mm)		
Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	A	B	C
33,000	9,671	3,000	11.0	3.22	130 / 45	412	372	267
32,800	9,613	3,009	10.9	3.19	130 / 45	412	372	267
43,700	12,807	3,703	11.8	3.46	130 / 45	444	421	315
45,000	13,188	3,810	11.8	3.46	130 / 45	444	421	315
50,800	14,888	4,230	12.0	3.52	130 / 45	428	399	295
50,500	14,800	4,320	11.7	3.43	130 / 45	444	421	315
45,000	13,188	3,810	11.8	3.46	130 / 45	444	421	315
58,500	17,145	5,320	11.0	3.22	130 / 45	465	416	302
40,400	11,840	3,740	10.8	3.17	130 / 45	412	372	267
52,000	15,240	4,727	11.0	3.22	130 / 45	437	397	292
59,000	17,291	5,364	11.00	3.22	130 / 45	437	397	292
71,000	20,808	6,455	11.0	3.22	130 / 45	465	416	302
39,000	11,430	3,578	10.9	3.19	130 / 45	412	372	267
52,000	15,240	4,727	11.0	3.22	130 / 45	437	397	292
59,000	17,291	5,364	11.0	3.22	130 / 45	437	397	292
71,000	20,808	6,455	11.0	3.22	130 / 45	465	416	302
42,500 / 51,500	12,456 / 15,093	3,820 / 4,640	11.1 / 11.1	3.26 / 3.25	130 / 45	467	438	330
49,200 / 58,500	14,419 / 17,145	4,392 / 5,270	11.2 / 11.1	3.28 / 3.25	130 / 45	467	438	330

Note : COND 130°F(54.4℃), EVA 45°F(7.2℃)

· SBA / SBB



· SR



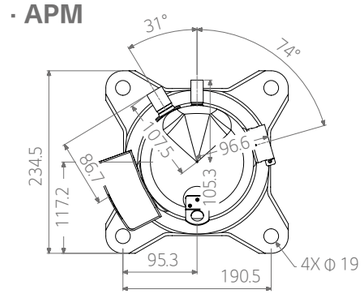
Specification

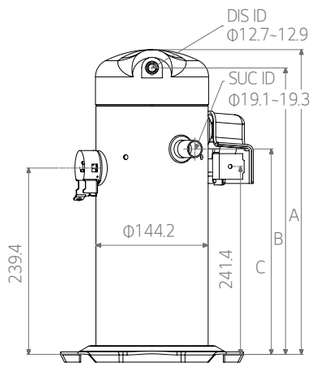
2 Stage Modulating R410A

Refrigerant	Type	Frequency	Voltage	Series	Model	Power mode (Full load)						Saving mode (Part load)						Modulation ratio	Dimension (mm)			Solenoid valve
						Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)	Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)					
						Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	Power / Saving	A	B	C	Voltage
R410A	LSS	60Hz	1Φ, 208-230V	APM	APM020KA	25,000	7,322	1,656	15.1	4.42	115 / 50	19,600	5,740	1,010	19.4	5.68	100 / 50	71.3%	391	368	263	24Vac, 50 / 60Hz
					APM030KA	37,900	11,100	2,399	15.8	4.63	115 / 50	28,100	8,230	1,419	19.8	5.80	100 / 50	67.7%	391	368	263	24Vac, 50 / 60Hz
				ABM	ABM040KA	50,900	14,907	3,222	15.8	4.63	115 / 50	38,600	11,305	1,901	20.3	5.95	100 / 50	68.7%	425	400	295	24Vac, 50 / 60Hz
					ABM051KA	64,100	18,773	4,006	16.0	4.69	115 / 50	48,100	14,087	2,369	20.3	5.95	100 / 50	68.5%	425	400	295	24Vac, 50 / 60Hz
			3Φ, 208-230V	APM	APM030RA	38,000	12,667	2,460	15.4	4.54	115 / 50	28,100	9,367	1,435	19.6	5.76	100 / 50	67.7%	391	368	263	24Vac, 50 / 60Hz
				ABM	ABM040RA	50,600	16,867	3,123	16.2	4.77	115 / 50	38,300	12,767	1,887	20.3	5.97	100 / 50	68.7%	425	400	295	24Vac, 50 / 60Hz
					ABM051RA	63,400	21,133	3,914	16.2	4.76	115 / 50	48,300	16,100	2,345	20.6	6.06	100 / 50	68.5%	425	400	295	24Vac, 50 / 60Hz
			3Φ, 575V	APM	APM030TA	38,000	12,667	2,460	15.4	4.54	115 / 50	28,100	9,367	1,415	19.9	5.84	100 / 50	67.7%	391	368	263	24Vac, 50 / 60Hz
				ABM	ABM040TA	50,700	16,900	3,169	16.0	4.71	115 / 50	38,600	12,867	1,892	20.4	6.00	100 / 50	68.7%	425	400	295	24Vac, 50 / 60Hz
					ABM051TA	63,000	21,000	3,938	16.0	4.71	115 / 50	48,100	16,033	2,324	20.7	6.09	100 / 50	68.5%	425	400	295	24Vac, 50 / 60Hz
			3Φ, 460V	APM	APM030WA	38,000	12,667	2,460	15.4	4.54	115 / 50	28,100	9,367	1,435	19.6	5.76	100 / 50	67.7%	391	368	263	24Vac, 50 / 60Hz
				ABM	ABM040WA	50,500	16,833	3,156	16.0	4.71	115 / 50	38,600	12,867	1,901	20.3	5.97	100 / 50	68.7%	425	400	295	24Vac, 50 / 60Hz
					ABM051WA	63,000	21,000	3,889	16.2	4.76	115 / 50	48,300	16,100	2,379	20.3	5.97	100 / 50	68.5%	425	400	295	24Vac, 50 / 60Hz
		50Hz	3Φ, 380-420V	APM	APM030WA	30,900	10,300	2,060	15.0	4.41	115 / 50	22,100	7,367	1,175	18.8	5.53	100 / 50	67.7%	391	368	263	24Vac, 50 / 60Hz
				ABM	ABM040WA	41,000	13,667	2,611	15.7	4.62	115 / 50	31,400	10,467	1,554	20.2	5.94	100 / 50	68.7%	425	400	295	24Vac, 50 / 60Hz
					ABM051WA	51,500	17,167	3,179	16.2	4.76	115 / 50	38,700	12,900	1,852	20.9	6.15	100 / 50	68.5%	425	400	295	24Vac, 50 / 60Hz

Note : CON 115°F(46.1℃), EVA 50°F(10℃) / COND 100°F(37.8℃), EVA 50°F(10℃)

· APM





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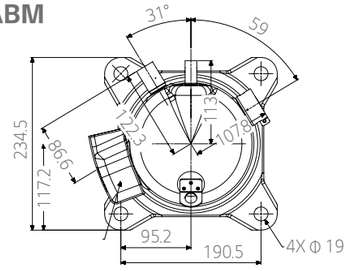
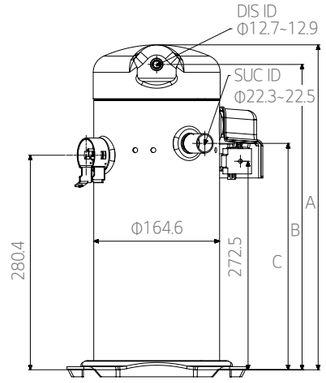




Specification

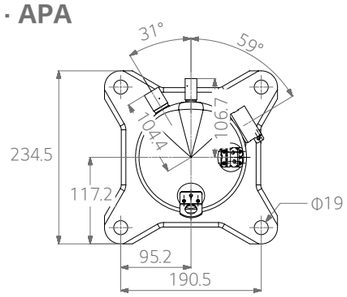
Variable Speed R410A / R32

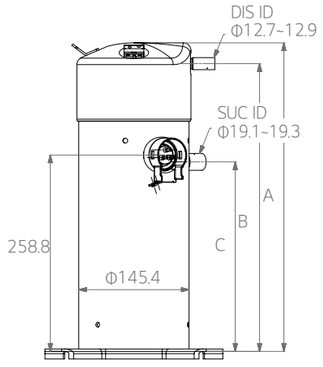
Refrigerant	Type	Series	Model	Power	Cooling capacity		Input	EER	COP	Test condition
					Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F
R410A	LSS	APA	APA020DA	DC380V	20,300	5,945	2,010	10.1	2.96	130 / 45
			APA020MA	DC380V	20,300	5,945	2,030	10.0	2.93	130 / 45
			APA026DA	DC380V	25,000	7,322	2,475	10.1	2.96	130 / 45
			APA026MA	DC380V	25,000	7,322	2,475	10.1	2.96	130 / 45
			APA029MB	DC380V	27,300	7,995	2,625	10.4	3.05	130 / 45
		ABA	ABA042DB	DC380V	44,200	12,945	4,055	10.9	3.19	130 / 45
			ABA042MA	DC380V	44,200	12,945	4,131	10.7	3.13	130 / 45
			ABA051DA	DC380V	53,500	15,669	4,864	11.0	3.22	130 / 45
			ABA051MA	DC380V	53,500	15,669	4,908	10.9	3.19	130 / 45
	HSS	JQC	JQC048MA	DC540V	51,000	14,947	3,300	11.2	4.53	130 / 45
			JQC048MB	DC310V	50,000	14,654	4,620	10.8	3.17	130 / 45
			JQC068MA	DC540V	71,000	20,808	6,200	11.5	3.36	130 / 45
			JQC068MB	DC310V	71,000	20,808	6,300	11.3	3.30	130 / 45
		JBA	JBA096MA	DC540V	102,700	30,100	8,800	11.7	3.42	130 / 45
	R-Scroll	RJ	RJA036MA	DC520V	37,100	10,873	3,198	11.6	3.40	130 / 45
			RJB036MB	DC380V	37,100	10,873	3,198	11.6	3.40	130 / 45
R32	R-Scroll	RJ	RJB036MAA	DC520V	37,700	11,049	3,397	11.1	3.25	130 / 45
			RJB036MAB	DC520V	37,650	11,034	3,356	11.2	3.29	130 / 45

Cooling capacity		Input	EER	COP	Test condition	Range	Dimension (mm)		
Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	rps	A	B	C
24,700	7,234	1,280	19.3	5.65	100 / 45	20~70	407	379	250
24,700	7,234	1,293	19.1	5.59	100 / 45	20~70	407	379	250
31,000	9,079	1,566	19.8	5.80	100 / 45	20~70	407	379	250
31,000	9,079	1,598	19.4	5.68	100 / 45	20~70	407	379	250
33,500	9,811	1,642	20.4	5.98	100 / 45	15~100	377	349	220
53,500	15,669	2,716	19.7	5.77	100 / 45	20~70	449	416	297
53,500	15,669	2,758	19.4	5.68	100 / 45	20~70	449	416	297
64,500	18,890	3,241	19.9	5.83	100 / 45	20~70	449	416	297
64,500	18,890	3,274	19.7	5.77	100 / 45	20~70	449	416	297
61,000	17,877	2,905	21.0	6.15	100 / 45	12~165	426	337	489
61,500	18,024	2,943	20.9	6.12	100 / 45	12~165	426	337	489
85,000	24,911	4,060	20.9	6.14	100 / 45	12~165	426	337	489
85,000	24,911	4,130	20.6	6.03	100 / 45	12~165	426	337	489
121,500	35,608	5,690	21.4	6.26	100 / 45	12~160	458	379	527
37,000	10,843	1,697	21.8	6.39	100 / 45	10~150	366	356	332
37,000	10,843	1,697	21.8	6.39	100 / 45	10~150	366	356	332
36,600	10,726	1,803	20.3	5.95	100 / 45	10~150	366	356	332
36,350	10,653	1,766	20.4	6.03	100 / 45	10~150	366	356	332

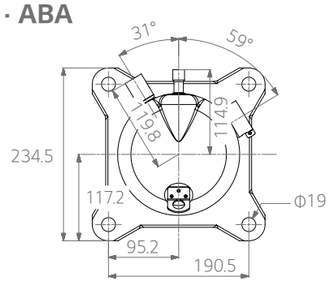
Note : COND 130°F(54.4℃), EVA 45°F(7.2℃), COND 100°F(37.8℃), EVA 45°F(7.2℃)

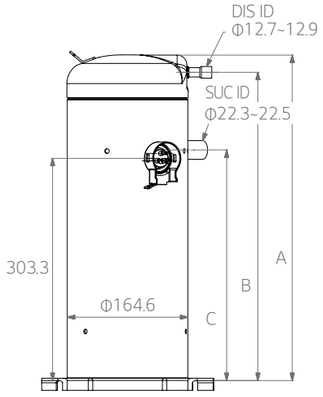
· APA



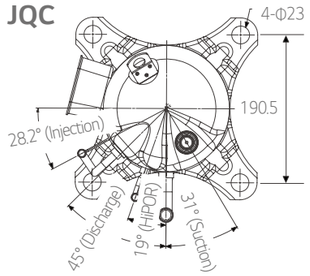


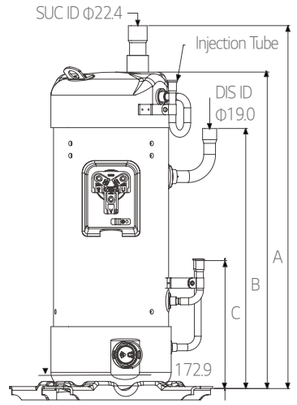
· ABA



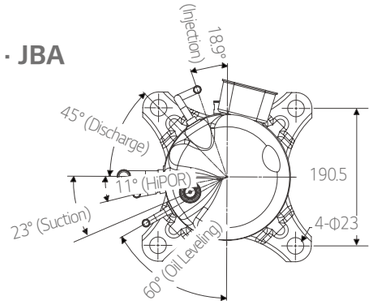


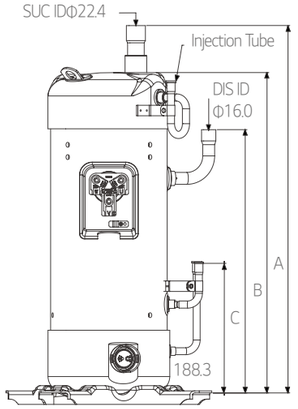
· JQC



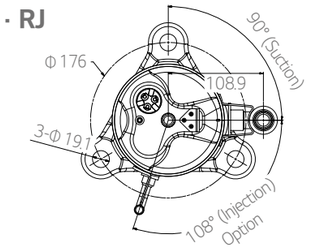


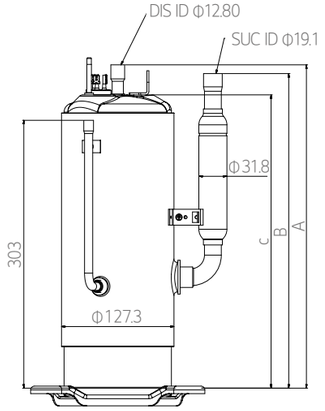
· JBA





· RJ





Specification

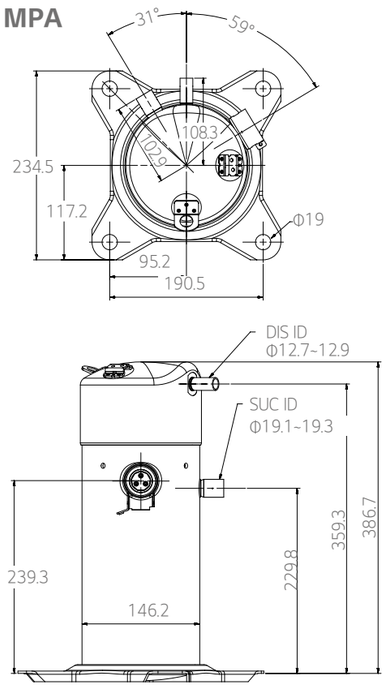
Special Application for **Refrigeration**

Refrigerant	Type	Frequency	Voltage	Series	Model	Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)
						Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F
R404A	LSS	60Hz	1Φ, 208-230V	MPA	MPA010KA	15,300	4,481	1,779	8.6	2.52	130 / 45
					MPA013KA	19,800	5,799	2,176	9.1	2.66	130 / 45
					MPA015KA	23,400	6,853	2,543	9.2	2.69	130 / 45
					MPA019KA	26,100	7,644	2,868	9.1	2.67	130 / 45
				MBA	MBA021KA	34,400	10,075	3,909	8.8	2.58	130 / 45
					MBA026KA	38,500	11,276	4,278	9.0	2.64	130 / 45
					MBA029KA	43,000	12,594	4,725	9.1	2.67	130 / 45
					MBA033KA	48,100	14,087	5,286	9.1	2.67	130 / 45
				MRA	MRA038KA	54,000	15,815	6,585	8.2	2.40	130 / 45
			3Φ, 208-230V	MPA	MPA010RA	15,400	4,510	1,770	8.7	2.55	130 / 45
					MPA013RA	19,600	5,740	2,227	8.8	2.58	130 / 45
					MPA015RA	23,000	6,736	2,566	9.0	2.63	130 / 45
					MPA019RA	25,800	7,556	2,867	9.0	2.64	130 / 45
				MBA	MBA021RA	34,500	10,104	3,833	9.0	2.64	130 / 45
					MBA026RA	38,100	11,159	4,187	9.1	2.67	130 / 45
					MBA029RA	43,000	12,594	4,674	9.2	2.69	130 / 45
					MBA033RA	48,100	14,087	5,344	9.0	2.64	130 / 45
				MRA	MRA038RA	54,500	15,962	6,337	8.6	2.52	130 / 45
					MRA045RA	65,000	19,037	7,558	8.6	2.52	130 / 45

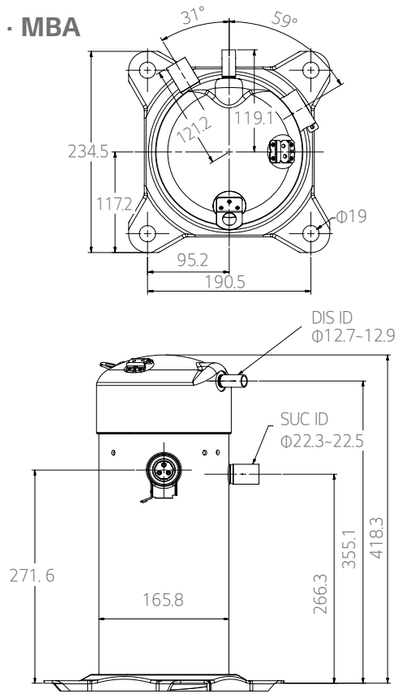
Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)	Dimension (mm)		
Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	A	B	C
9,700	2,841	1,540	6.3	1.85	120 / 20	387	359	230
12,500	3,661	1,894	6.6	1.93	120 / 20	387	359	230
15,200	4,452	2,171	7.0	2.05	120 / 20	387	359	230
16,900	4,950	2,449	6.9	2.02	120 / 20	387	359	230
22,400	6,560	3,294	6.8	1.99	120 / 20	418	385	266
25,000	7,322	3,623	6.9	2.02	120 / 20	418	385	266
27,700	8,113	4,014	6.9	2.02	120 / 20	418	385	266
31,100	9,108	4,574	6.8	1.99	120 / 20	418	385	266
37,000	10,836	5,522	6.7	1.96	120 / 20	455	422	304
9,600	2,812	1,548	6.2	1.82	120 / 20	387	359	230
12,700	3,720	1,954	6.50	1.90	120 / 20	387	359	230
14,900	4,364	2,191	6.8	1.99	120 / 20	387	359	230
16,800	4,920	2,507	6.7	1.96	120 / 20	387	359	230
22,400	6,560	3,294	6.8	1.99	120 / 20	418	385	266
24,800	7,263	3,594	6.9	2.02	120 / 20	418	385	266
27,800	8,142	3,971	7.0	2.05	120 / 20	418	385	266
31,300	9,167	4,536	6.9	2.02	120 / 20	418	385	266
37,200	10,895	5,314	7.0	2.05	120 / 20	455	422	304
45,100	13,209	6,264	7.2	2.11	120 / 20	455	422	304

Note : COND 130°F (54.4℃), EVA 45°F (7.2℃) / COND 120°F (48.9℃), EVA 20°F (-6.7℃)

· MPA



· MBA



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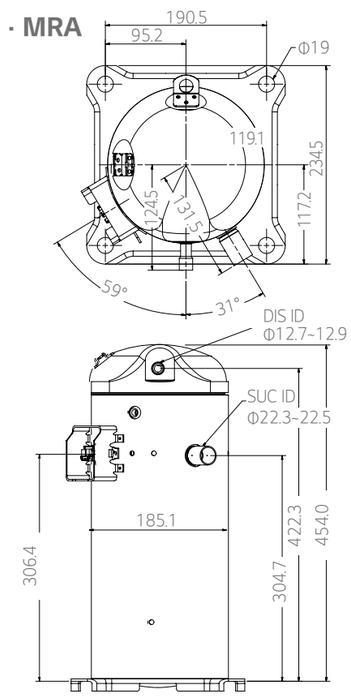


Specification

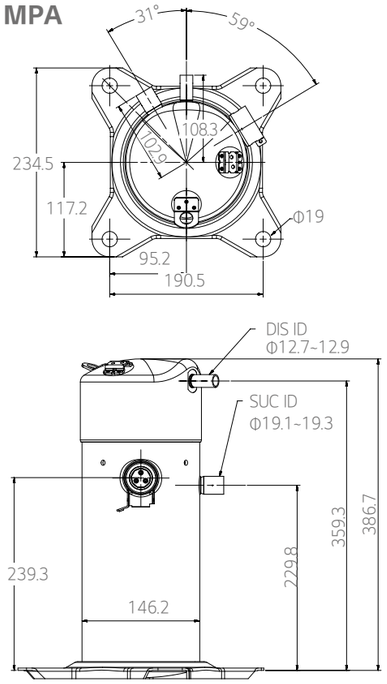
Special Application for **Refrigeration**

Refrigerant	Type	Frequency	Voltage	Series	Model	Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)
						Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F
R404A	LSS	60Hz	3Φ, 380V	MPA	MPA015UA	22,600	6,619	2,511	9.0	2.64	130 / 45
				MBA	MBA021UA	34,500	10,104	3,833	9.0	2.64	130 / 45
					MBA029UA	43,000	12,594	4,674	9.2	2.69	130 / 45
					MBA033UA	48,400	14,175	5,261	9.2	2.69	130 / 45
			3Φ, 460V	MPA	MPA010SA	15,500	4,540	1,761	8.8	2.58	130 / 45
					MPA013SA	19,600	5,740	2,202	8.9	2.61	130 / 45
					MPA015SA	22,800	6,678	2,533	9.0	2.64	130 / 45
					MPA019SA	25,600	7,498	2,844	9.0	2.64	130 / 45
				MBA	MBA021SA	34,600	10,133	3,844	9.0	2.64	130 / 45
					MBA026SA	38,000	11,129	4,176	9.1	2.67	130 / 45
					MBA029SA	42,800	12,535	4,652	9.2	2.69	130 / 45
					MBA033SA	48,100	14,087	5,286	9.1	2.67	130 / 45
				MRA	MRA038SA	54,700	16,020	6,360	8.6	2.52	130 / 45
					MRA045SA	65,000	19,037	7,558	8.6	2.52	130 / 45

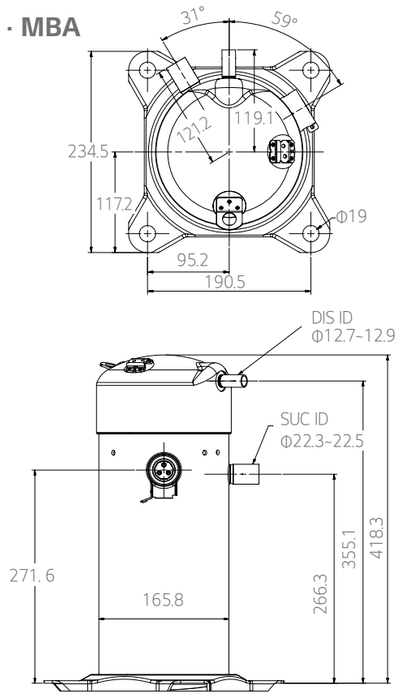
Cooling capacity		Input	EER	COP	Test condition (Cond / Eva Temp)	Dimension (mm)		
Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	A	B	C
14,750	4,320	2,169	6.8	1.99	120 / 20	387	359	230
22,300	6,531	3,279	6.8	1.99	120 / 20	418	385	266
27,800	8,142	3,971	7.0	2.05	120 / 20	418	385	266
31,500	9,226	4,437	7.1	2.08	120 / 20	418	385	266
9,650	2,826	1,556	6.2	1.82	120 / 20	387	359	230
12,700	3,720	1,924	6.6	1.93	120 / 20	387	359	230
14,900	4,364	2,191	6.8	1.99	120 / 20	387	359	230
16,800	4,920	2,471	6.8	1.99	120 / 20	387	359	230
22,400	6,560	3,294	6.8	1.99	120 / 20	418	385	266
24,800	7,263	3,594	6.9	2.02	120 / 20	418	385	266
27,700	8,113	4,014	6.9	2.02	120 / 20	418	385	266
31,300	9,167	4,536	6.9	2.02	120 / 20	418	385	266
37,800	11,071	5,324	7.1	2.08	120 / 20	455	422	304
45,200	13,238	6,278	7.2	2.11	120 / 20	455	422	304

Note : COND 130°F (54.4℃), EVA 45°F (7.2℃) / COND 120°F (48.9℃), EVA 20°F (-6.7℃)

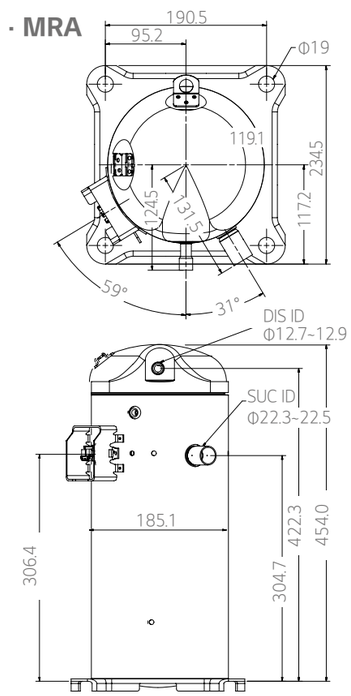
· MPA



· MBA



· MRA



Specification

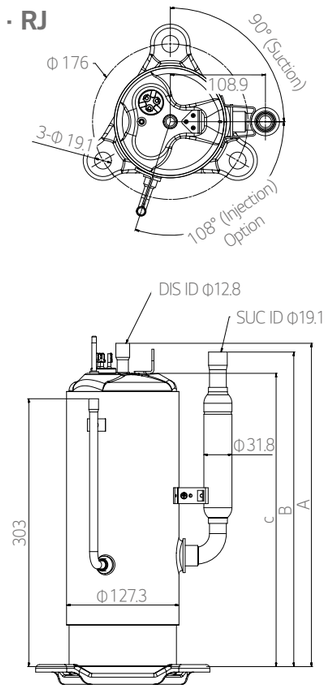
Special Application for **Air to Water Heat Pump**

Refrigerant	Type	Frequency	Voltage	Series	Model	Heating capacity		Input	EER	COP	Test condition (Cond / Eva Temp)
						Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F
R410A	R-Scroll	10~150Hz	DC520V	RJ	RJB036MAC	35,000	10,258	3,125	11.2	3.28	130 / 45
R22	LSS	50Hz	1Φ, 220-240V	HSBA	HSBA052PA	56,910	16,668	4,094	13.90	4.07	130 / 45
R410A	LSS	50Hz	1Φ, 220-240V	HABT	HABT057PA	63,100	18,480	4,725	13.35	3.91	130 / 45

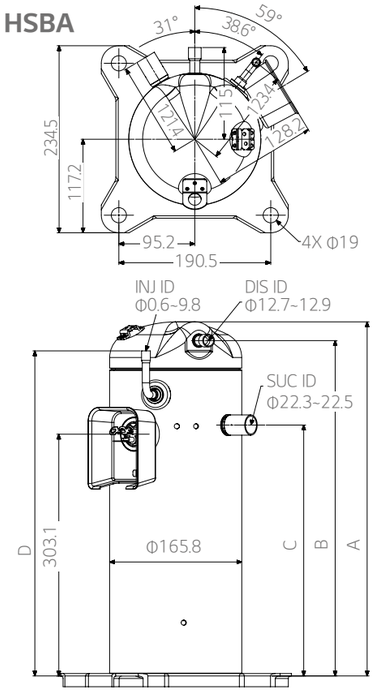
Note : COND 130°F (54.4℃), EVA 45°F (7.2℃) / COND 120°F (48.9℃), EVA 20°F (-6.7℃)

Heating capacity		Input	EER	COP	Test condition	Dimension (mm)		
Btu/hr	Watts	Watts	Btu/W·hr	W/W	°F	A	B	C
21,200	6,213	2,718	7.8	2.29	120 / 28	366	356	332
53,090	15,549	4,115	12.90	3.78	131 / 41	444	421	315
58,650	17,177	4,770	12.30	3.60	131 / 41	444	421	315

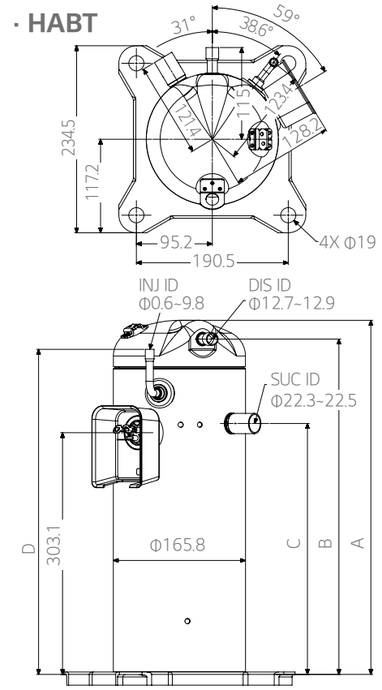
· RJ



· HSBA



· HABT

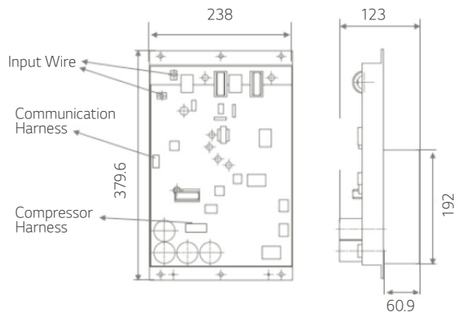


Specification

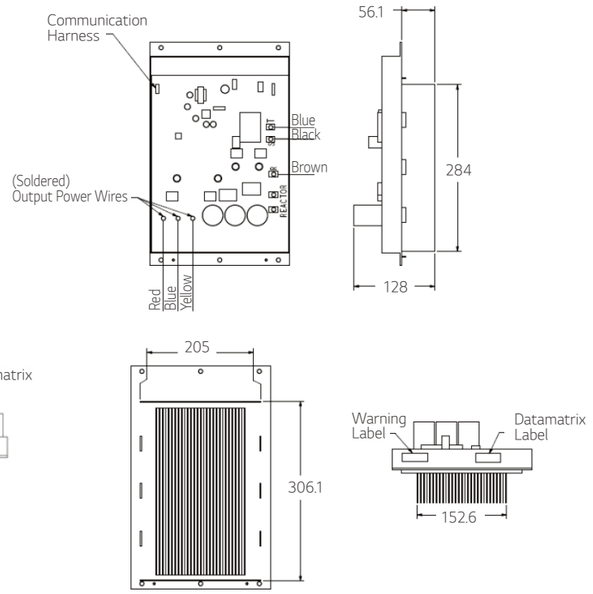
Drive

Contents		Spec	4kW (1 Phase)	7kW (3 Phase, 230V)	7kW (3 Phase, 460V)
Drive	1	Model name (P/No.)	PDR040K310	PDR070S010	PDR070R010
	2	Rated input voltage	1Φ, 208-230Vac, 50/60Hz	3Φ, 230Vac, 50/60Hz	3Φ, 460Vac, 50/60Hz
	3	Maximum input current	18Arms	11Arms	7Arms
	4	Maximum input power	4,000 W	7,000 W	7,000 W
	5	Operating compressor Hz	20 ~ 70Hz	20 ~ 70Hz	20 ~ 70Hz
	6	Converter type / boost up voltage	I-PFC / 340~400Vdc	B/diode 325Vdc	B/diode 650Vdc
	7	PFC ON / OFF control	Based on Input power 750 / 650 W *1	-	-
	8	Compressor connection color	Red (U) / Blue (V) / Yellow (W)	Red (U) / Blue (V) / Yellow (W)	Red (U) / Blue (V) / Yellow (W)
	9	Ambient operating temperature	-20°C ~ 48°C	-20°C ~ 48°C	-20°C ~ 48°C
	10	Storage temperature	-40°C ~ 60°C	-40°C ~ 60°C	-40°C ~ 60°C
	11	Max. storage relative humidity	85%	85%	85%
Reactor	1	Model name (P/No.)	PDR040K350	PDR070S020	PDR070R020
	2	Rated input voltage	1Φ, 208-230Vac, 50/60Hz	3Φ, 230Vac, 50/60Hz	3Φ, 460Vac, 50/60Hz
	3	Maximum input current	18Arms	25Arms	14Arms
	4	Inductance at 20KHz, 1VAC (20°C)	220μH ± 15%	2mH	13mH
Transformer	1	Model name (P/No.)	-	PDR070S030	PDR070R030
	2	Transformer ratio	-	1 : 1	2 : 1
Noise filter	1	Model name (P/No.)	-	PDR070S040	PDR070S040
	2	Rated input voltage	-	3Φ, 230Vac, 50/60Hz	3Φ, 460Vac, 50/60Hz
	3	Maximum input current	-	25Arms	25Arms

· 4kW

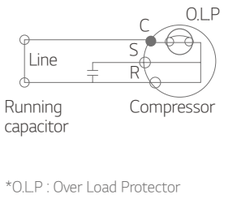


· 3ph 7kW



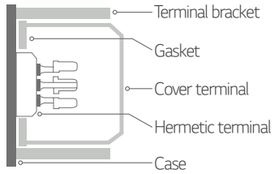
Wiring Diagram

1HP

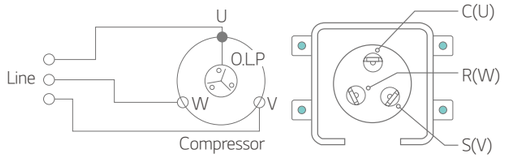


*O.L.P : Over Load Protector

Cover Terminal Fitting

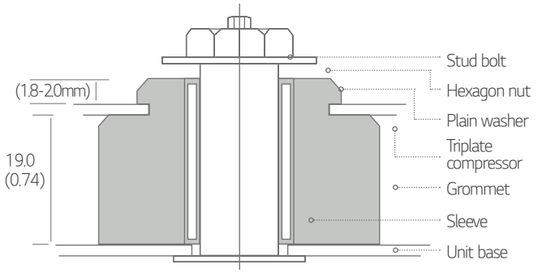


3HP



*C.S.R mark is embossed on a Cover terminal.

Mounting



Accessory Parts

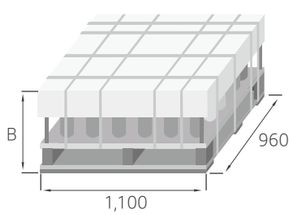
Note : 4kW Drive has on board noise filter

Packing & Container Stuffing Quantity

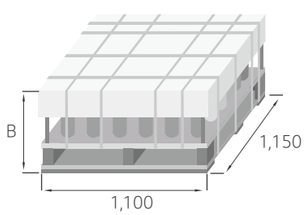
Items	1 Step pallet		2 Steps pallet		1 Container (20ft)				
Series	Packing quantity	Size B	Packing quantity	Size B	Packing quantity	Pallet quantity			
						Step 1	Step 2	Accessory	Total
APA / APB / APG	12	560	24	980 ↓	576	0	24	0	24
	16	560	32	980 ↓	640	0	20	0	20
AQA / AQ	12	560	24	980 ↑	552	0	24	0	24
	16	560	32	980 ↓	544	0	18	0	18
ABA / ABG	12	560	24	980 ↓	432	0	18	0	18
	16	560	32	980 ↓	448	0	14	0	18
SB	12	560	24	980 ↓	432	0	18	0	18
SQ / HQ	12	560	24	980 ↓	552	0	24	1	25
AR / SR	12	-	24	985 ↓	408	14	10	1	25
JB / JQ	9	-	18	985 ↓	315	35	-	1	36
AR / SR	12	-	24	985 ↑	408	14	10	1	25
JB / JQ	9	-	18	985 ↑	315	35	-	1	36

Note1 : Only available 1 Step pallet for HSS. **Note 2** : Packing conditions are subjects to change without notice.

Packing quantity 12, 9



Packing quantity 16



Unit : mm