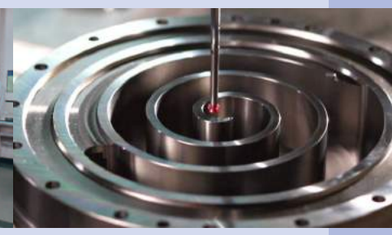
Hitachi Scroll Compressors

HITACHI

日立渦巻式壓縮機

高品質的日立渦卷式壓縮機

High Quality Hitachi Scroll Compressor



Φ132 Series
【3-6HP、R410A】

Φ132 Series
【1.5~3HP、R22 / R404A】

Φ160 Series
【3~8.5HP、R410A】

Φ160 Series
【3-6HP、R407C / R22 / R404A】

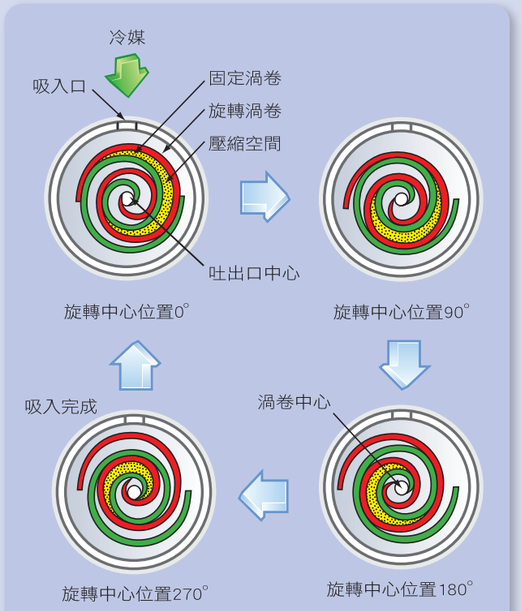
Φ235 Series
【7.5-13HP、R407C / R22 / R404A】

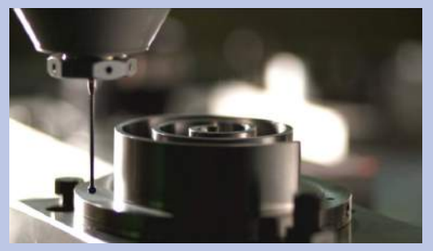
渦卷壓縮原理

Scroll Compression Principle

渦卷式的連續壓縮方式，沒有餘隙容積及冷媒再膨脹的現象，其通路抵抗損失小，所以有效率高、低噪音、低振動的特性。

The continuous compression of scroll compressor has no top clearance volume & refrigerant reswell phenomenon. So that can get higher efficiency and quiet operation and lower viberation.



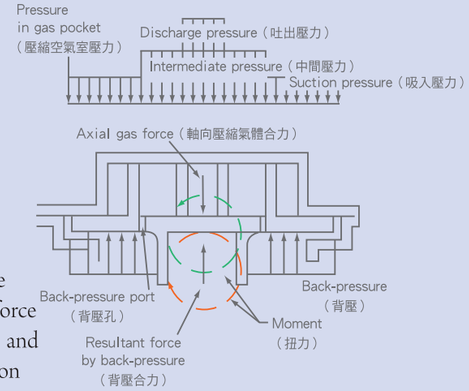


調節背壓推力控制裝置

Controlled thrust force Mechanism by Self Adjusting Back Pressure

在旋回渦卷板上，有2個小孔（背壓孔）是設於中間壓縮氣室的適當位置上。背壓室因適量的氣體經由小孔（背壓孔）的充填，使得壓力自動地介於吸入和吐出壓力之間，供給旋回渦卷背後的軸向空氣力，這空氣力維持著旋回渦卷的軸向力和扭力，使渦卷頂部於最小摩擦和最小磨耗下而保持軸向的封閉。

On the orbiting scroll plate, two small (back-pressure) ports are located in positions open to the intermediate compression gas pockets. The back-pressure chamber is pressurized automatically at a level between the suction and discharge pressures by means of a gas introduced through the small ports, and this back of the orbiting scroll. The pneumatic force supports the orbiting scroll against the axial force and moment, and maintains an axial seal of the tip of the scroll wrap with minmun friction and wear.



世界頂尖 / 渦卷式壓縮機

Top of The World / Scroll Compressor

日立渦卷式壓縮機的振動率比一般迴轉式壓縮機低，大幅降低運轉時的振動與噪音，讓空調製品達到靜音新境界。

The vibration of the Hitachi Scroll Compressor is less than of the Rotary compressor. So under the operation which can reduce pipe vibration and noise.

■ **高效率、省能源 / Energy Efficient**

渦卷式壓縮機運轉時，高壓區與低壓區的漏氣量幾近於零，加上吸入口與吐出口各自區隔，冷媒的洩漏微乎其微，所以能達到最高的能源效率。

The pressure difference between the two neighboring compression pockets is smaller than the Rotary compressor, which can maintain the minimum gas leaking, so that can get higher efficiency.

■ **低噪音&低振動 / Quiet & Low Vibration**

渦卷式壓縮的連續壓縮方式，其轉動扭矩變動小，故有低噪音&低振動之特性。

The continuous compression of scroll compressor has lower torque fluctuations, so that can get quiet and lower vibration.

■ **故障低、壽命長 / Flawless & Long Life-Span**

渦卷式壓縮機不需要閥片，僅以五個主要零件組成，運轉順暢、低磨損、低故障，使用壽命長。

The scroll compressor has no valves and the compression mechanism of a scroll compressor consists of only five main parts, so that the operation is smooth, lower wear, lower breakdown ratio and long life-span.

Specifications / 仕 樣 規 格

Inverter Controlled Compressors / 變 頻 式 壓 縮 機

Application 用 途	Refrigerant 冷 媒	Series 系 列		Model 型 號	Rated Output 定額出力 HP	Rated Output 定額出力 W	Displacement 氣缸容量 cm³/rev	Rated Speed 轉速 rps(Hz)	Cooling Capacity 冷凍能力 ＊1 W	Motor Input 入力 W	COP	Sound Level 噪音 dB(A)	Oil Charge 封入油量 cm³	Weight 重量 ＊2 kg	Control Source 控制方式 AC	Control Source 控制方式 DC	Rated speed Range 轉速範圍 rps(Hz)	Power Source 電源規格	Rated Condition 試驗條件
H.B.P	HFC32	Φ132	H-PHD	HC26PHD	3.0	2200	26	21	5110	555	9.20	(ARI) 66.5 (max)	900	26		●	10~105	*A	HV1
								27	4396	601	7.31								HV2
								55	10310	1920	5.37								HV3
								66	9300	2082	4.47								HV4
				HC33PHD	4.0	3000	33	20	5927	688	8.61		900	26		●	10~105	*A	HV5
								27	5501	802	6.86								HV6
								58	12560	2722	4.61								HV7
								65	11150	2854	3.91								HV8
	HFC410A	Φ132	E-HHD	E400HHD	4.0	3000	36	23	6760	904	7.48	(ARI) 68 (max)	900	23		●	15~110	*A,*D	HV9
								28	5590	939	5.95								HV10
								57	12716	2708	4.70								HV11
								60	10272	2750	3.74								HV12
				E401HHD	4.0	3000	36	23	6760	904	7.48		900	23		●	15~110	*A,*D	HV9
								28	5590	939	5.95								HV10
								57	12716	2708	4.70								HV11
								60	10272	2750	3.74								HV12
				E402HHD	4.0	3000	36	23	6699	875	7.66		900	24		●	15~110	*A,*D	HV9
								28	5590	926	6.04								HV10
								57	12816	2669	4.80								HV11
								60	10341	2721	3.80								HV12
				E500HHD	5.0	5100	36	23	6760	904	7.48		1200	23		●	15~110	*A,*D	HV9
								28	5590	939	5.95								HV10
								57	12716	2708	4.70								HV11
								60	10272	2750	3.74								HV12
			H-PHD	HA36PHD	4.0	3000	36	23	6746	854	7.90	(ARI) 66.5 (max)	900	26		●	10~110	*A	HV9
								28	5593	927	6.03								HV10
								57	12736	2652	4.80								HV11
								60	10229	2750	3.72								HV12
				HB36PHD	4.0	3000	36	23	6736	894	7.53		900	23		●	15~110	*A,*D	HV9
								28	5603	952	5.89								HV10
								57	12712	2701	4.71								HV11
								60	10174	2780	3.66								HV12
		Φ160	DA-PHD	DA50PHD-1Y	5.0	3750	50	28	11155	1575	7.087	73 (max)	1100	41		●	10~100	*A,*D	HV13
								75	22615	5585	4.05								HV14
				DA65PHD	6.5	4900	65	28	14500	2046	7.087		1900	44		●	10~100	*A,*D	HV13
				DA65PHD-1Y				75	29250	7222	4.05		1100	43					HV14
				DA65PHD-2Y	6.5	4900	65	28	14500	2028	7.150		1100	43		●	10~90	*A	HV13
								75	29250	7222	4.05								HV14
			E-DHD	E655DHD	6.5	4900	65	90	31750	9280	3.42	72 (max)	1900	44		●	20~100	*A,*D	HV15
				E655DHD-Y									500	43					
				E656DHD	6.5	4900	65	90	31750	9280	3.42		1900	44		●	10~100	*A,*D	HV15
				E656DHD-Y									1100	43					
				EK655DHD-Y	6.5	4900	65	90	31590	9420	3.35		1100	43		●	10~100	*A,*D	HV15
	HFC407C	Φ160	G-DHD	G404DHD	4.0	3000	64	75	19090	5766	3.31	66 (max)	2000	32		●	30~115	*A,*D	HV16
			G-DHV	G402DHV	4.0	3000	64	(75)	18030	6440	2.80	63 (max)	1800	37	●		(30~115)	*A,*D	HV16
				G402DHVM	4.0	3000	64	(75)	18030	6440	2.80		—	35	●		(30~115)	*A,*D	HV16
	HCFC22	Φ160	DHD	404DHD	4.0	3000	64	75	18300	5510	3.32	66 (max)	1200	32		●	30~115	*D2	HV17
			DHV	401DHV	4.0	3000	64	(75)	16850	5600	3.00	63 (max)	1800	35	●		(30~115)	*A,*D	HV18
				403DHV	4.0	3000	64	(75)	17100	6000	2.85		1200	35	●		(30~115)	*A	HV17
				401DHVM	4.0	3000	64	(75)	16850	5600	3.00		—	35	●		(30~115)	*A,*D	HV18
L.B.P	HFC410A	Φ132	DD	DD340TC1	3.0	2200	34	60	6200	2645	2.34	85 (max)	1150	22		●	20~70	*A	LV1
									1840	1985	0.93								LV2
	HFC404A	Φ160	FL-DHD	FL300DHD	3.0	2200	72	50	7230	3200	2.26	65 (max)	3000	37		●	20~85	*A2,*D1	LV3
				FL500DHD	5.0	3750	72	73	10500	5030	2.10		3000	37		●	20~85	*A2,*D1	LV3
			FM-DHD	FM600DHD	6.0	4500	90	65	14000	6200	2.26	66 (max)	1800	36		●	20~85	*A,D1	LV4
		Φ235	FL-ELV	FL800ELV	8.0	6000	144	(62)	20400	10000	2.04	68 (max)	3000	94	●		(25~75)	*A2,*D1	LV5
				FL1000ELV	10.0	7400	144	(75)	23600	13200	1.78		3000	94	●		(25~75)	*A2,*D1	LV5
	HCFC22	Φ160	M-DHV	M600DHV	6.0	4400	90	(63)	12210	5300	2.3	65 (max)	1800	38	●		(20~80)	*A1,*C	LV6

● H.B.P : High Back Pressure　　L.B.P : Low Back Pressure

Notes : ＊1 W×0.860 = kcal/h , W×3.41 = Btu/h　　＊2 Weight includes refrigerating oil / 重量是包含冷凍機油的數值

Power Source Specifications / 電 源 規 格

Φ160 & Φ235 Constant Series / 定速系列		Φ132 & Φ160 Inverter Series / 變頻系列	Φ132 Constant Series / 定速系列
A：3Φ 200/200~220V 50/60Hz	D1：3Φ 440V 60Hz	*A：3Φ 200V 50/60Hz	S：1Φ 220~240/230V 50Hz
A1：3Φ 220V 60Hz	D2：3Φ 380~415/415~440V 50/60Hz	*A1：3Φ 220V 50/60Hz	T：3Φ 200V 50/60Hz
B：3Φ 220V 50/60Hz	P：1Φ 208~230V 60Hz	*A2：3Φ 220V 60Hz	V：3Φ 380~415V 50Hz
C：3Φ 346~380/380~400V 50/60Hz	P1：1Φ 220V 60Hz	*C：3Φ 380V 50/60Hz	X：1Φ 208~230V 60Hz
C1：3Φ 380V 60Hz	Q：1Φ 220~240V 50Hz	*D：3Φ 380~415V 50/60Hz	Z1：1Φ 220V 60Hz
C2：3Φ 380V 50/60Hz	H：3Φ 208~230V 60Hz	*D1：3Φ 380V 50/60Hz	
D：3Φ 380~415/440V 50/60Hz	Z：3Φ 460~480V 60Hz	*D2：3Φ 380~415V 50Hz	

Rated Condition / 試 驗 條 件

Condition Number	條件編號	HV1	HV2	HV3	HV4	HV5	HV6
Evaporating Temperature	蒸發溫度	18.5℃(65℉)	3.0℃(37℉)	10.9℃(52℉)	0.3℃(33℉)	17.3℃(63℉)	2.6℃(37℉)
Condensing Temperature	凝縮溫度	40.3℃(105℉)	28.4℃(83℉)	44.4℃(112℉)	36.9℃(98℉)	40.7℃(105℉)	30.1℃(86℉)
Liquid Temperature	膨張閥前液溫	32.0℃(90℉)	20.1℃(68℉)	36.1℃(97℉)	28.6℃(83℉)	32.4℃(90℉)	21.8℃(71℉)
Entering gas Temperature	吸入溫度	29.6℃(85℉)	14.1℃(57℉)	22.0℃(72℉)	11.4℃(53℉)	28.4℃(83℉)	13.7℃(57℉)
Discharge gas Temperature	吐出溫度	—	—	—	—	—	—
Ambient Temperature	周圍溫度	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)
Compressor Cooling	冷卻方式	Natural Air Cooling 自然空氣冷卻					
Power Source	電源	Rated Voltage 定額電壓					

Condition Number	條件編號	HV7	HV8	HV9	HV10	HV11	HV12
Evaporating Temperature	蒸發溫度	8.1℃(47℉)	0.0℃(32℉)	14.6℃(58℉)	0.8℃(33℉)	7.3℃(45℉)	-0.9℃(30℉)
Condensing Temperature	凝縮溫度	45.9℃(115℉)	41.3℃(106℉)	40.4℃(105℉)	31.8℃(89℉)	43.9℃(111℉)	42.0℃(108℉)
Liquid Temperature	膨張閥前液溫	37.6℃(100℉)	33.0℃(91℉)	32.1℃(90℉)	23.4℃(74℉)	35.6℃(96℉)	33.8℃(93℉)
Entering gas Temperature	吸入溫度	19.2℃(67℉)	11.1℃(52℉)	25.6℃(78℉)	12.4℃(54℉)	18.3℃(65℉)	10.1℃(50℉)
Discharge gas Temperature	吐出溫度	—	—	—	—	—	—
Ambient Temperature	周圍溫度	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)
Compressor Cooling	冷卻方式	Natural Air Cooling 自然空氣冷卻					
Power Source	電源	Rated Voltage 定額電壓					

Condition Number	條件編號	HV13	HV14	HV15	HV16	HV17	HV18
Evaporating Temperature	蒸發溫度	14.9℃(59℉)	7.0℃(45℉)	5.6℃(42℉)	7.2℃(45℉)	7.2℃(45℉)	4.4℃(40℉)
Condensing Temperature	凝縮溫度	42.3℃(108℉)	47.5℃(118℉)	49.9℃(122℉)	54.4℃(130℉)	54.4℃(130℉)	48.7℃(120℉)
Liquid Temperature	膨張閥前液溫	25.9℃(79℉)	18.1℃(65℉)	41.6℃(107℉)	44.4℃(112℉)	46.1℃(115℉)	36.2℃(97℉)
Entering gas Temperature	吸入溫度	33.8℃(93℉)	39.1℃(103℉)	16.8℃(62℉)	21.7℃(71℉)	18.3℃(65℉)	14.4℃(58℉)
Discharge gas Temperature	吐出溫度	—	—	—	—	—	—
Ambient Temperature	周圍溫度	35℃(95℉)	35℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)
Compressor Cooling	冷卻方式	Natural Air Cooling 自然空氣冷卻					
Power Source	電源	Rated Voltage 定額電壓					

Condition Number	條件編號	LV1	LV2	LV3	LV4	LV5	LV6
Evaporating Temperature	蒸發溫度	-10.0℃(14℉)	-40.0℃(-40℉)	-15.0℃(5℉)	-10.0℃(14℉)	-10.0℃(14℉)	-10.0℃(14℉)
Condensing Temperature	凝縮溫度	45.0℃(113℉)	40.0℃(104℉)	41.0℃(106℉)	45.0℃(113℉)	45.0℃(113℉)	45.0℃(113℉)
Liquid Temperature	膨張閥前液溫	40.0℃(104℉)	35.0℃(95℉)	38.0℃(100℉)	40.0℃(104℉)	39.9℃(104℉)	38.0℃(100℉)
Entering gas Temperature	吸入溫度	18℃(64℉)	18℃(64℉)	18.0℃(64℉)	18.0℃(64℉)	18.0℃(64℉)	18.0℃(64℉)
Discharge gas Temperature	吐出溫度	85.0℃(185℉)	85.0℃(185℉)	85.0℃(185℉)	110.0℃(230℉)	85.0℃(185℉)	100.0℃(212℉)
Ambient Temperature	周圍溫度	32℃(90℉)	32℃(90℉)	35.0℃(95℉)	35.0℃(95℉)	32.0℃(90℉)	35.0℃(95℉)
Compressor Cooling	冷卻方式	Liquid Refrigerant Injection 液態冷媒注入冷卻					
Power Source	電源	Rated Voltage 定額電壓					

Constant Speed Compressors / 定速壓縮機

Application 用途	Refrigerant 冷媒	Series 系列		Model 型號	Rated Output 定額出力		Displacement 氣缸容量	Frequency 頻率	Cooling Capacity 冷凍能力 ＊1		Motor Input 入力		COP		Sound Level 噪音	Oil Charge 封入油量	Weight 重量 ＊2		Power Source 電源規格	Rated Condition 試驗條件
									3Φ	1Φ	3Φ	1Φ	3Φ	1Φ			3Φ	1Φ		
					HP	W	cm³/rev	Hz	W		W		W / W		dB (A)	cm³	kg			
H.B.P	HFC410A	Φ132	LU	LU1821	2.5	1800	21	60	—	7400	—	1897	—	3.90	65 (max)	450	—	23	Z1	HC1
				LU2229	3.0	2200	29		—	10200	—	2615	—	3.90		500	—	23	Z1	HC1
		Φ160	E-DH	E436DH	4.3	3210	42	60	—	13900	—	4000	—	3.48	63 (max)	600	—	43	P1	HC2
				E455DH	4.5	3350	45		14700	—	4270	—	3.44	—		800	43	—	A1,C1	HC2
				E456DH	4.5	3350	45		—	14700	—	4270	—	3.44		800	—	43	P1	HC2
				E505DH	5.0	3750	49	50	12960	—	3790	—	3.42	—		800	43	—	A,C,D2	HC2
				E505DH-Y				60	15600	—	4560	—				500				
				E505DH					—	15600	—	4720	—	3.30		800	—	43	P1	HC2
				E555DH	5.5	4100	57	60	—	18300	—	5320		3.44		800	—	43	P1	HC2
				E605DH-Y	6.0	4400	59	50	15470	—	4520	—	3.42	—		500	43	—	A,C,D2	HC2
								60	18640	—	5450	—								
				E655DH	6.5	4900	65	50	17180	—	5050	—	3.40	—		1000	44	—	A,C,D2,H	HC2
				E655DH-Y				60	20710	—	6090	—				500	43			
				EK655DH-Y	6.5	4900	65	50	17180	—	5050	—	3.40	—		500	43	—	A,C,D2	HC2
								60	20710	—	6090	—								
				E855DH	8.5	6400	80	50	21000	—	6360	—	3.30	—		1500	49	—	A,C,D2	HC2
				E855DH-Y				60	25300	—	7660	—				1100				
			E-DH-W	E305DH-W	3.0	2200	29	60	10050	—	2300	—	4.37	—	63 (max)	500	41	—	A1	HC3
				E405DH-W	4.0	3000	39	60	13500	—	3000	—	4.50	—		600	43	—	A1	HC3
				E505DH-W	5.0	3750	49	60	16950	16950	3570	3570	4.75	4.75		600	43	43	A1,C1,P1	HC3
				E855DH-W	8.5	6400	80	60	26500	—	5660	—	4.68	—		800	48	—	A1, C1	HC3
	HFC407C	Φ160	G-0DH	G350DH	3.5	2600	56	50	10525	10410	3410	3510	3.10	3.00	60 (max)	1200	35	35	B,C,D,Q	HC4
								60	12560	—	4080	—								
				G400DH	4.0	3000	64	50	11920	11865	3770	3930	3.15	3.00		1500	35	35	A,B,C,D,P,Q	HC4
								60	14365	14305	4550	4730								
				G500DH	5.0	3750	80	50	14715	—	4700	—	3.15	—		1800	36	—	A,B,C,D	HC4
								60	17740	—	5630	—								
				G600DH	6.0	4400	90	50	16575	—	5270	—	3.15	—		1800	37	—	A,B,C,D	HC4
								60	19945	—	6350	—								
			G-3DH	G403DH	4.0	3000	64	50	12200	—	3810	—	3.20	—	63 (max)	1200	35	—	A,B,C,D	HC5
								60	14650	—	4580	—								
				G503DH	5.0	3750	80	50	15110	—	4700	—	3.20	—		1200	36	—	A,B,C,D	HC5
								60	18250	—	5700	—								
				G603DH	6.0	4400	90	50	17050	—	5330	—	3.20	—		1200	36	—	A,B,C,D	HC5
				G603DH-Y				60	20550	—	6420	—								
			G-DHM	G401DHM	4.0	3000	64	50	12200	—	4000	—	3.05	—	63 (max)	—	34	—	A,C	HC4
								60	14650	—	4800	—								
				G501DHM	5.0	3750	80	50	15100	—	4950	—	3.05	—		—	35	—	A,C	HC4
								60	18300	—	5850	—	3.13							
				G601DHM	6.0	4400	90	50	17050	—	5600	—	3.05	—		—	36	—	A,C,D	HC4
								60	20550	—	6550	—	3.13							
		Φ235	G-EL	G750EL	7.5	5500	128	50	23140	—	7650	—	3.02	—	67 (max)	3500	89	—	A,B,C,D	HC5
								60	28020	—	9270	—								
				G1000EL	10.0	7500	160	50	29470	—	9560	—	3.08	—		3500	91	—	A,B,C,D	HC5
								60	35670	—	11580	—								
				G1100EL	11.0	8200	170	50	31310	—	10160	—	3.08	—		3500	91	—	D	HC5
								60	37880	—	12295	—								

● H.B.P : High Back Pressure　　L.B.P : Low Back Pressure

Constant Speed Compressors / 定速壓縮機

Application 用途	Refrigerant 冷媒	Series 系列		Model 型號	Rated Output 定額出力		Displacement 氣缸容量	Frequency 頻率	Cooling Capacity 冷凍能力 ＊1		Motor Input 入力		COP		Sound Level 噪音	Oil Charge 封入油量	Weight 重量 ＊2		Power Source 電源規格	Rated Condition 試驗條件
									3Φ	1Φ	3Φ	1Φ	3Φ	1Φ			3Φ	1Φ		
					HP	W	cm³/rev	Hz	W		W		W / W		dB (A)	cm³	kg			
H.B.P	HFC407C	Φ235	G-EL	G1200EL	12.0	9000	180	50	33150	—	10760	—	3.08	—	67 (max)	3500	95	—	A,B,C,D	HC5
								60	40090	—	13010	—								
				G1300EL	13.0	9750	195	50	35900	—	11650	—	3.08	—		3500	95	—	D	HC5
								60	43120	—	14000	—								
			G-EH	G1000EH	10.0	7500	160	50	29470	—	9560	—	3.08	—	67 (max)	3500	91	—	A,C,D	HC5
								60	35670	—	11580	—								
				G1200EH	12.0	9000	180	50	33150	—	10760	—	3.08	—		3000	95	—	A,C,D	HC5
								60	40090	—	13010	—								
	HCFC22	Φ160	DH	300DH	3.0	2200	47	50	8790	—	2800	—	3.15	3.15	60 (max)	1000	35	36	A,B,C,D,P1	HC6
				M300DH				60	10640	10525	3390	3350				1500				
				350DH	3.5	2600	56	50	10525	10410	3300	3400	3.20	3.10		1200	35	35	A,B,C,D,P1,Q	HC6
								60	12560	12560	3950	4070								
				400DH	4.0	3000	64	50	11920	11865	3650	3800	3.25	3.15		1500	35	35	A,B,C,D,P,Q	HC6
				403DH				60	14365	14305	4400	4550								
				500DH M500DH 503DH	5.0	3750	80	50	14715	—	4550	—	3.25	3.15		1800	36	38	A,B,C,D,P1	HC6
								60	17735	17735	5450	5650								
				600DH	6.0	4400	90	50	16575	—	5100	—	3.25	—		1800	37	—	A,B,C,D	HC6
				603DH				60	19945	—	6150	—								
			DHM	400DHM	4.0	3000	64	50	11160	—	3600	—	3.15	—	63 (max)	—	34	—	A	HC7
								60	13370	—	4300	—								
				500DHM	5.0	3750	80	50	13950	—	4300	—	3.25	—		—	34	—	A,D	HC7
								60	16750	—	5200	—								
				600DHM	6.0	4400	90	50	15700	—	4800	—	3.25	—		—	35	—	A,C,D	HC7
								60	18950	—	5800	—								
		Φ235	EL	750EL M750EL	7.5	5500	128	50	23050	—	7500	—	3.08	—	67 (max)	3500	89	—	A,B,C,D	HC6
								60	27600	—	8950	—								
				1000EL M1000EL	10.0	7500	160	50	28850	—	9200	—	3.14	—		3500	91	—	A,B,C,D	HC6
								60	34450	—	11000	—								
				1100EL	11.0	8200	170	50	30650	—	9750	—	3.14	—		3500	91	—	D	HC6
								60	36600	—	11650	—								
				1200EL	12.0	9000	180	50	32450	—	10350	—	3.14	—		3500	95	—	A,B,C,D	HC6
								60	38750	—	12350	—								
				1300EL	13.0	9750	195	50	35150	—	11200	—	3.14	—		3500	95	—	A,C,D	HC6
								60	42000	—	13370	—								
			0EH	750EH	7.5	5500	128	50	23050	—	7500	—	3.08	—	67 (max)	3000	89	—	A,D	HC6
								60	27600	—	8950	—								
				1000EH	10.0	7500	160	50	28850	—	9200	—	3.14	—		3000	91	—	A,C,D	HC6
								60	34450	—	11000	—								
				1200EH	12.0	9000	180	50	32450	—	10350	—	3.14	—		3000	95	—	A,C,D	HC6
								60	38750	—	12350	—								
			1EH	751EH	7.5	5500	128	50	23050	—	7500	—	3.08	—	67 (max)	2000	89	—	A,D	HC6
								60	27600	—	8950	—								
				901EH	9.0	6800	144	50	25755	—	8200	—	3.14	—		2000	89	—	A	HC6
								60	30990	—	9870	—								
								50	26500	—	8000	—	3.30	—					B,C,D	
								60	31745	—	9600	—								
				1001EH	10.0	7500	160	50	28850	—	9200	—	3.14	—		2000	91	—	C	HC6
								60	34450	—	11000	—								
				1101EH	11.0	8200	170	50	30650	—	9750	—	3.14	—		2000	91	—	A,B,C	HC6
								60	36600	—	11650	—								
								50	31100	—	9400	—	3.30	—					D	
								60	37325	—	11300	—								

● H.B.P : High Back Pressure　　L.B.P : Low Back Pressure

Constant Speed Compressors / 定速壓縮機

Application 用途	Refrigerant 冷媒	Series 系列		Model 型號	Rated Output 定額壓力		Displacement 氣缸容量	Frequency 頻率	Cooling Capacity 冷凍能力 ＊1		Motor Input 入力		COP		Sound Level 噪音	Oil Charge 封入油量	Weight 重量 ＊2		Power Source 電源規格	Rated Condition 試驗條件
									3Φ	1Φ	3Φ	1Φ	3Φ	1Φ			3Φ	1Φ		
					HP	W	cm³/rev	Hz	W		W		W / W		dB (A)	cm³	kg			
L.B.P	HFC404A	Φ132	DS	DS1529	2.0	1500	29	50	1500	1500	1180	1190	1.27	1.26	68 (max)	850	23	23	T,S,X	LC1
								60	1760	1770	1375	1470	1.28	1.20						
								50	1500	—	1180	—	1.27	—					V	
				DS1834	2.5	1800	34	50	1740	1740	1355	1370	1.28	1.27		850	23	23	T,S,X	LC1
								60	2045	2080	1550	1730	1.32	1.20						
								50	1740	—	1360	—	1.28	—					V	
				DS1836	2.5	1800	36	50	2480	2440	2170	2260	1.14	1.08		850	23	23	T,S	LC2
								60	2895	—	2565	—	1.13	—						
				DS2244	3.0	2200	44	50	2210	2300	1670	1910	1.32	1.20		1150	24	24	T,S,X	LC1
								60	2590	2630	1905	2185	1.36	1.20						
								50	2230	—	1700	—	1.31	—					V	
			DT	DT1836	2.5	1800	36	50	—	3530	—	1930	—	1.83		850	—	23	S	LC3
			LS	LS1529	2.0	1500	29	50	1500	—	1180	—	1.27	—		740	22	—	T	LC1
								60	1760	—	1375	—	1.28							
				LS1834	2.5	1800	34	50	1740	—	1355	—	1.28	—		740	22	—	T	LC1
								60	2045	—	1550	—	1.32							
				LS1836	2.5	1800	36	50	—	2440	—	2260	—	1.08		850	—	24	S,Z1	LC2
								60	—	2970	—	2850		1.04						
		Φ160	FL-DH	FL300DH	3.0	2200	56	50	5325	—	3050	—	1.75	—	65 (max)	1400	35	—	A,C	LC4
								60	6100	—	3500	—								
				FL500DH	5.0	3750	90	50	7970	—	4560	—	1.75	—		2200	37	—	A,C	LC4
								60	9600	—	5500	—								
			FM-DH	FM300DH	3.0	2200	47	50	7010	—	2860	—	2.45	—	65 (max)	1500	35	—	A,C	LC11
								60	8420	—	3440	—								
				FM500DH	5.0	3750	80	50	11940	—	4700	—	2.54	—		1800	36	—	A,C	LC11
								60	14330	—	5640	—								
		Φ235	FL-EL	FL800EL	8.0	6000	144	50	13400	—	7700	—	1.74	—	67 (max)	3000	94	—	A,C,D	LC5
								60	16200	—	9300	—								
									16210	—	8700	—	1.86			3000	94	—	Z	LC6
				FL1000EL	10.0	7400	180	50	16900	—	9500	—	1.77	—		3000	96	—	A,C,D	LC5
								60	20300	—	11500	—								
									20300	—	10700	—	1.90			3000	96	—	Z	LC7
			FM-EL	FM750EL	7.5	5500	128	50	18650	—	7550	—	2.47	—	68 (max)	3000	89	—	C	LC11
								60	22300	—	9150	—	2.44							
				FM1000EL	10.0	7500	160	50	23800	—	9575	—	2.48	—		3000	91	—	C	LC11
								60	27650	—	11275	—	2.45							
				FM751EL	7.5	5500	128	50	19573	—	6844	—	2.86	—	67 (max)	3000	89	—	A1,C2,D1	LC12
								60	23488	—	8213	—								
				FM1001EL	10.0	7500	160	50	25188	—	8155	—	3.09	—		3000	91	—	A1,C2,D1	LC13
								60	30225	—	9786	—								
			FM-EL-4	FM750EL-4	7.5	5500	128	50	19200	—	7850	—	2.44	—	67 (max)	3000	89	—	A,C	LC8
								60	22900	—	9400	—								
				FM800EL-4	10.0	7500	144	50	21300	—	8750	—	2.44	—		3000	94	—	A,C	LC8
								60	25500	—	10400	—								
	HCFC22	Φ132	DL	DL1634	2.2	1600	34	50	—	1585	—	1270	—	1.24	68 (max)	850	—	23	S,X	LC1
								60	—	1870	—	1600		1.17						
		Φ160	L-DH	L300DH	3.0	2200	56	50	4780	—	2850	—	1.68	—	65 (max)	1200	35	—	A,C,D	LC9
								60	5720	—	3300	—	1.73							
				L500DH	5.0	3750	90	50	7575	—	4250	—	1.78	—		1700	36	—	A,C	LC9
								60	9200	—	4950	—	1.86							
		Φ235	L-EL	L800EL	8.0	6000	144	50	12250	—	6800	—	1.80	—	67 (max)	56	93	—	A,B,C,D	LC10
								60	14700	—	8100	—								
				L1000EL	10.0	7500	180	50	15250	—	8200	—	1.86	—		3000	96	—	A,B,C,D	LC10
								60	18400	—	9900	—								

● H.B.P : High Back Pressure　　L.B.P : Low Back Pressure

Rated Condition / 試驗條件

Condition Number	條件編號	HC1	HC2	HC3	HC4	HC5	HC6	HC7
Evaporating Temperature	蒸發溫度	7.4℃(45℉)	5.6℃(42℉)	3.9℃(39℉)	7.2℃(45℉)	7.2℃(45℉)	7.2℃(45℉)	4.4℃(40℉)
Condensing Temperature	凝縮溫度	43.2℃(110℉)	49.9℃(122℉)	38.0℃(100℉)	54.4℃(130℉)	54.4℃(130℉)	54.4℃(130℉)	48.7℃(120℉)
Liquid Temperature	膨張閥前液溫	38.2℃(101℉)	41.6℃(107℉)	10.9℃(52℉)	43.9℃(111℉)	44.4℃(112℉)	46.1℃(115℉)	36.2℃(97℉)
Entering gas Temperature	吸入溫度	13.4℃(56℉)	16.8℃(62℉)	32.9℃(91℉)	21.0℃(70℉)	21.7℃(71℉)	18.3℃(65℉)	14.4℃(58℉)
Discharge gas Temperature	吐出溫度	—	—	—	—	—	—	—
Ambient Temperature	周圍溫度	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)	35.0℃(95℉)
Compressor Cooling	冷卻方式	Natural Air Cooling 自然空氣冷卻						
Power Source	電源	Rated Voltage 定額電壓						

Condition Number	條件編號	LC1	LC2	LC3	LC4	LC5	LC6	LC7
Evaporating Temperature	蒸發溫度	-30.0℃(-22℉)	-23.3℃(-10℉)	-10.0℃(14℉)	-15.0℃(5℉)	-15.0℃(5℉)	-15.0℃(5℉)	-15.0℃(5℉)
Condensing Temperature	凝縮溫度	40.0℃(104℉)	54.4℃(130℉)	45.0℃(113℉)	45.0℃(113℉)	45.0℃(113℉)	43.0℃(109℉)	45.0℃(113℉)
Liquid Temperature	膨張閥前液溫	35.0℃(95℉)	32.2℃(90℉)	40.0℃(104℉)	40.0℃(104℉)	40.0℃(104℉)	38.0℃(100℉)	41.0℃(106℉)
Entering gas Temperature	吸入溫度	18.0℃(64℉)	18.3℃(65℉)	20.0℃(68℉)	18.0℃(64℉)	18.0℃(64℉)	18.0℃(64℉)	18.0℃(64℉)
Discharge gas Temperature	吐出溫度	85.0℃(185℉)	100.0℃(212℉)	85.0℃(185℉)	100.0℃(212℉)	80.0℃(176℉)	85.0℃(185℉)	85.0℃(185℉)
Ambient Temperature	周圍溫度	32.0℃(90℉)	32.0℃(90℉)	32.0℃(90℉)	32.0℃(90℉)	32.0℃(90℉)	32.0℃(90℉)	32.0℃(90℉)
Compressor Cooling	冷卻方式	Liquid Refrigerant Injection 液態冷媒注入冷卻						
Power Source	電源	Rated Voltage 定額電壓						

Condition Number	條件編號	LC8	LC9	LC10	LC11	LC12	LC13
Evaporating Temperature	蒸發溫度	0.0℃(32℉)	-15.0℃(5℉)	-15.0℃(5℉)	0.0℃(32℉)	-1.1℃(30℉)	-1.1℃(30℉)
Condensing Temperature	凝縮溫度	50.0℃(122℉)	45.0℃(113℉)	45.0℃(113℉)	50.0℃(122℉)	46.0℃(115℉)	43.7℃(111℉)
Liquid Temperature	膨張閥前液溫	45.0℃(113℉)	40.0℃(104℉)	40.0℃(104℉)	45.0℃(113℉)	41.0℃(106℉)	38.7℃(102℉)
Entering gas Temperature	吸入溫度	18.0℃(64℉)	15.0℃(59℉)	15.0℃(59℉)	18.0℃(64℉)	18.0℃(64℉)	18.0℃(64℉)
Discharge gas Temperature	吐出溫度	85.0℃(185℉)	100.0℃(212℉)	85.0℃(185℉)	—	—	—
Ambient Temperature	周圍溫度	35.0℃(95℉)	32.0℃(90℉)	32.0℃(90℉)	32.0℃(90℉)	32.0℃(90℉)	32.0℃(90℉)
Compressor Cooling	冷卻方式	Liquid Refrigerant Injection 液態冷媒注入冷卻			Natural Air Cooling 自然空氣冷卻		
Power Source	電源	Rated Voltage 定額電壓					

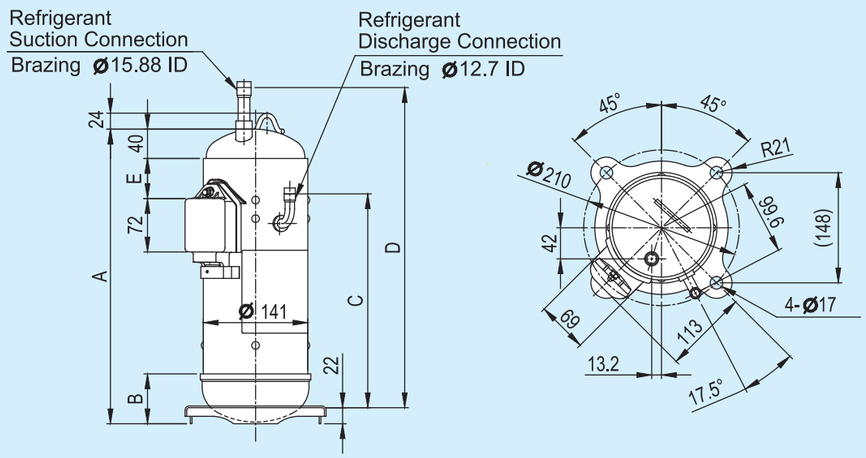
Dimensions / 外觀尺寸

Φ 132 Series / 系列

E-HHD & HA & HB & HC Series / 系列

(mm)

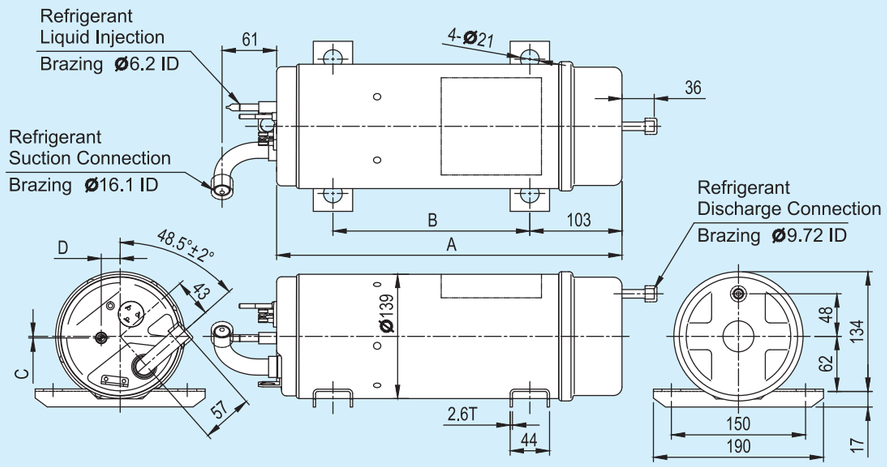
Model / 型號	A	B	C	D	E
E400HHD、E401HHD、E500HHD、HB36PHD	398	67	289	432	54
E402HHD	428	97	319	462	54
HA36PHD、HC33PHD、HC26PHD	453	97	344	487	87



DS & DL Series / 系列

(mm)

Model / 型號	A	B	C	D
DS1529、DS1834、DL1634	386	220	17	16
DS1836	391	220	2	21
DS2244	441	270	17	16

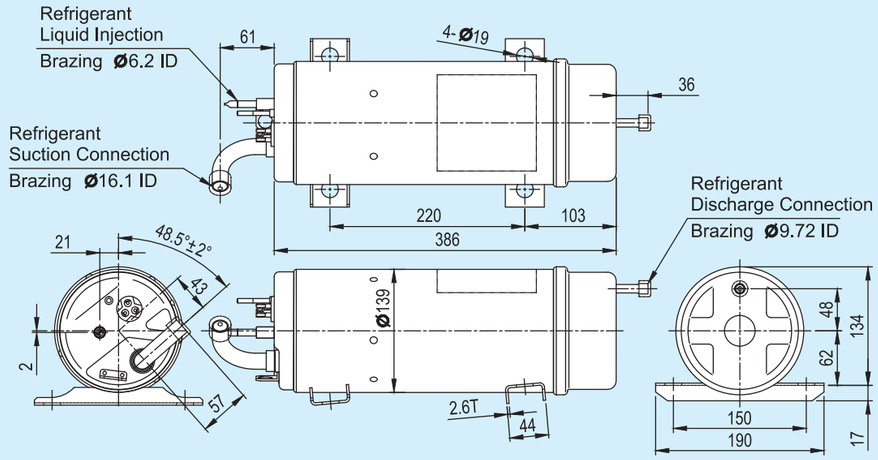


Φ 132 Series / 系列

DT Series / 系列

(mm)

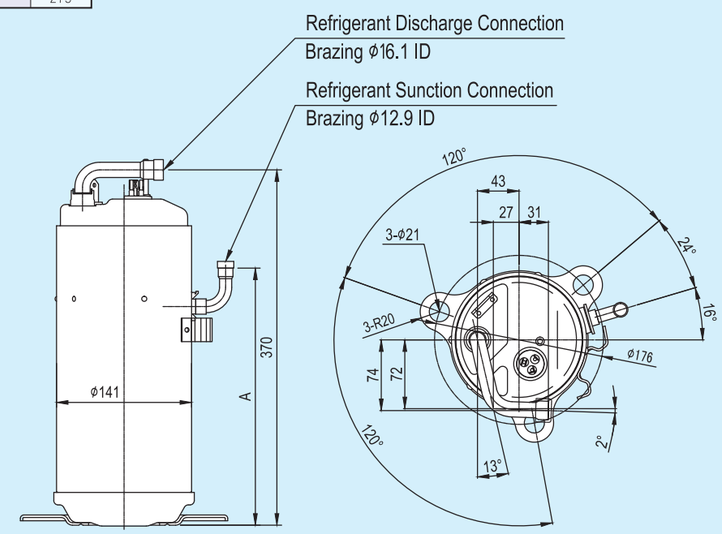
Model / 型號
DT1836



LU Series / 系列

(mm)

Model / 型號	A
LU1821	268
LU2229	273

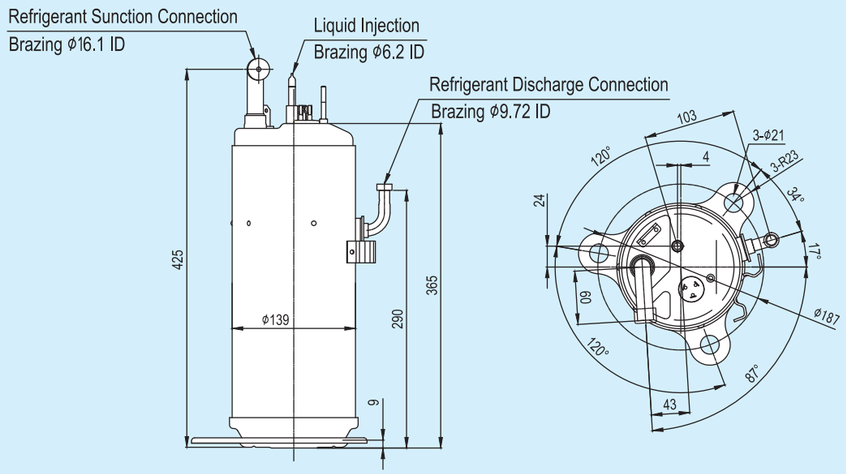


Φ 132 Series / 系列

LS Series / 系列

(mm)

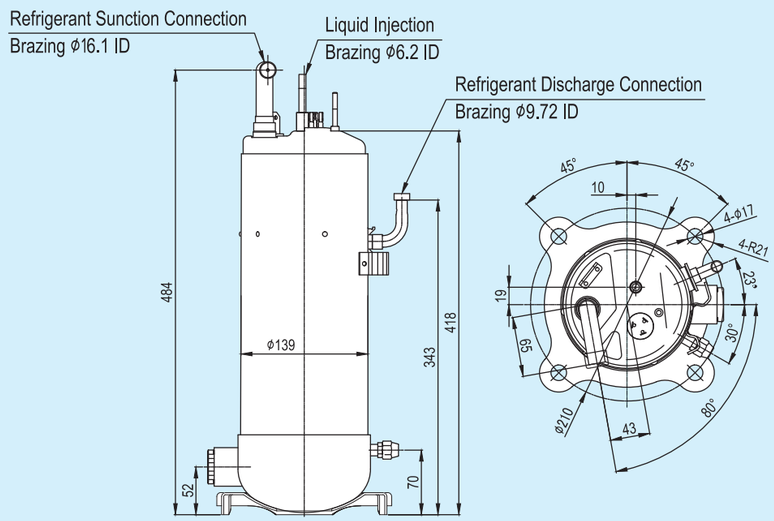
Model / 型號
LS1529、LS1834



LS1836 Series / 系列

(mm)

Model / 型號
LS1836

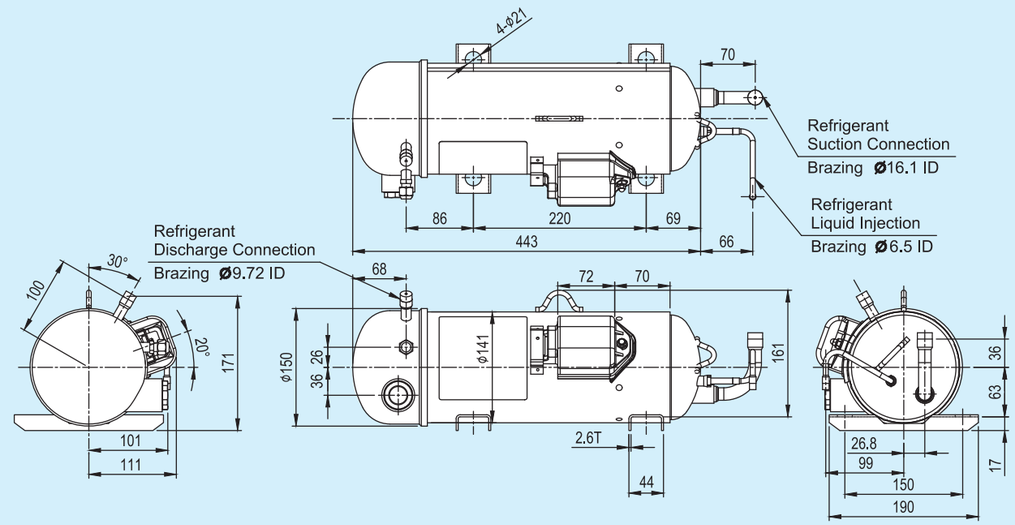


Φ 132 Series / 系列

DD Series / 系列

(mm)

Model / 型號
DD340TC1



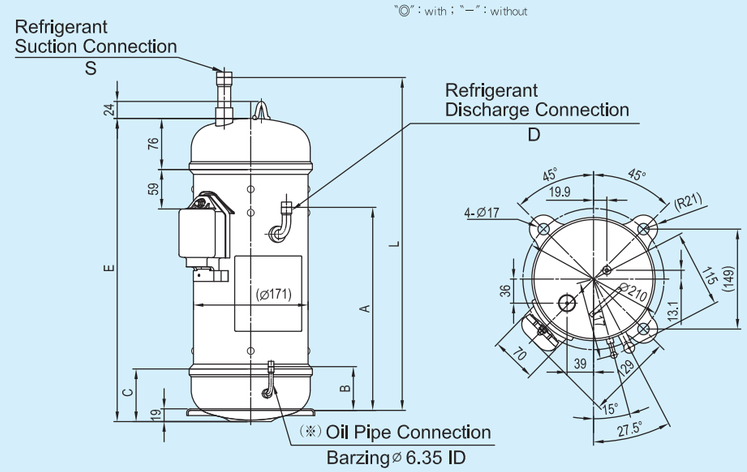
Φ 160 Series / 系列

DA-PHD、E-DHD、E-DH Series / 系列

(mm)

Model / 型號	S	D	L	A	B	C	E	※
E505DH、E605DH、E655DH E305DH-W、E405DH-W、E505DH-W	Brazing Φ 19.05 ID	Brazing Φ 12.70 ID	495	302	—	78	451	—
E505DH-Y、E605DH-Y、E655DH-Y			495	302	65	78	451	◎
E655DHD、E656DHD、DA50PHD、DA65PHD	Brazing Φ 22.2 ID	Brazing Φ 15.88 ID	527	334	—	108	481	—
E655DHD-Y			497	304	65	78	451	◎
E656DHD-Y、DA50PHD-Y、DA65PHD-Y			527	334	95	108	481	◎

"◎" : with ; "—" : without

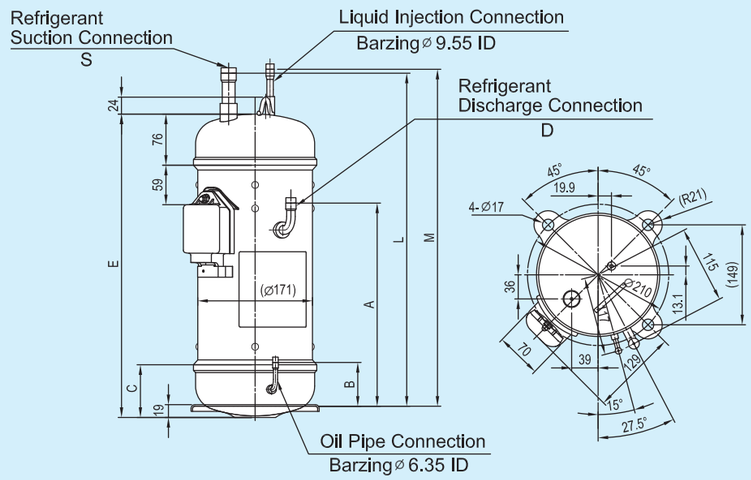


Φ 160 Series / 系列

EK-DHD、EK-DH Series / 系列

(mm)

Model / 型號	S	D	L	A	B	C	E	M
EK655DH-Y	Brazing Φ 19.05 ID	Brazing Φ 12.70 ID	495	302	65	78	451	501
EK655DHD-Y	Brazing Φ 22.2 ID	Brazing Φ 15.88 ID	527	334	95	108	481	531

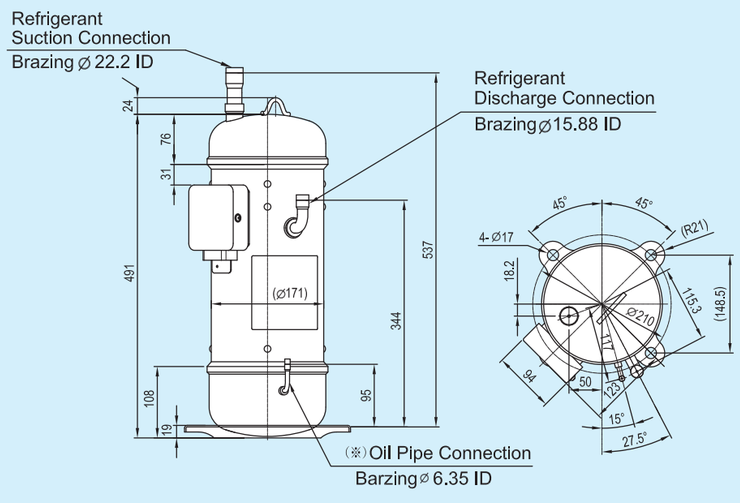


E855DH Series / 系列

(mm)

Model / 型號	※
E855DH、E855DH-W	—
E855DH-Y	◎

"◎" : with ; "—" : without



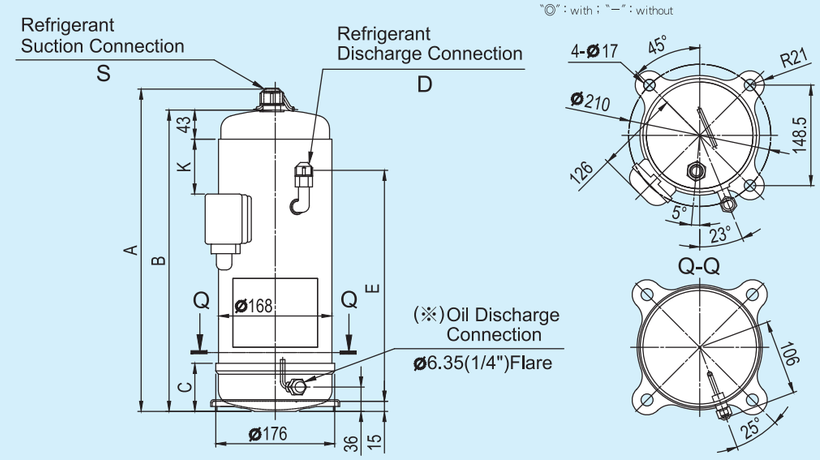
Φ 160 Series / 系列

DH & DHV & DHD & G-DH & G-DH-Y & G-DHV & G-DHD Series / 系列

(mm)

Model / 型號	※	Power Source 電源	S	D	A	B	C	E	K
300DH	—	3Φ	Φ 15.88 (5/8")Flare	Φ 12.7 (1/2")Flare	461	430	56	326	73
		1Φ							81
350DH、400DH、500DH 403DH、503DH、401DHV、403DHV、404DHD、G350DH、G400DH、G500DH G403DH、G503DH、G404DHD、G402DHV	—	3Φ	Φ 19.05 (3/4")Flare	Φ 12.7 (1/2")Flare	461	430	56	326	73
		1Φ							81
600DH、603DH、G600DH、G603DH	—	3Φ	Φ 19.05 (3/4")Flare	Φ 15.88 (5/8")Flare	476	445	71	341	81
G603DH-Y	◎								

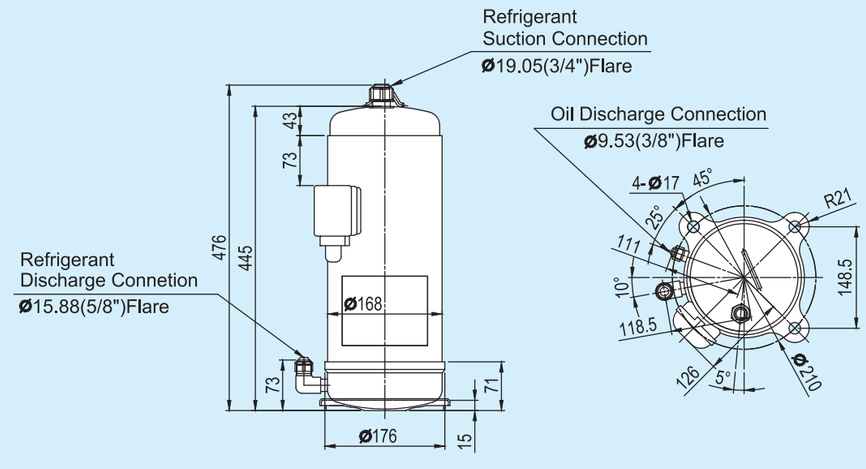
"◎" : with ; "—" : without



DHM & DHVM & G-DHM & G-DHVM Series / 系列

(mm)

Model / 型號
400DHM、500DHM、600DHM、401DHVM
G401DHM、G501DHM、G601DHM、G402DHVM

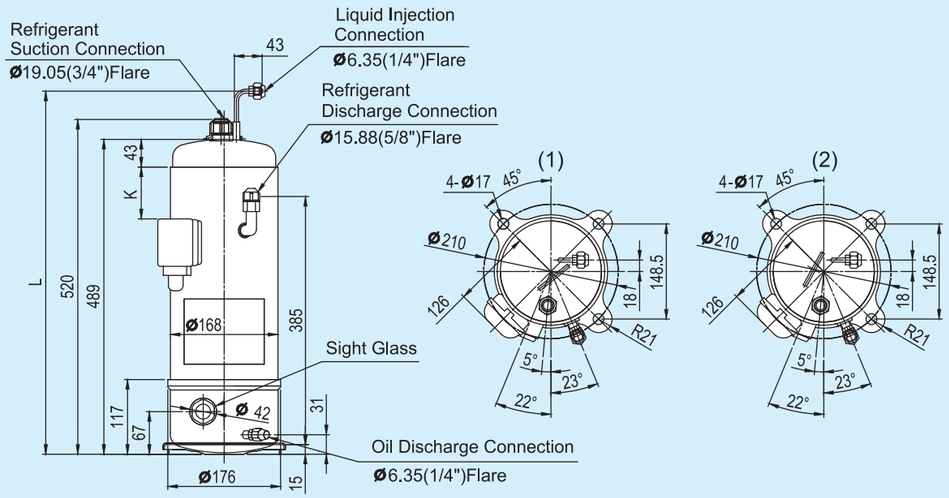


Φ 160 Series / 系列

M-DHV & FM-DHD & FL-DHD Series / 系列

(mm)

Model / 型號	L	K	FIGURE No. / 圖號
M600DHV、FM600DHD	565	81	(1)
FL300DHD、FL500DHD	557	73	(2)

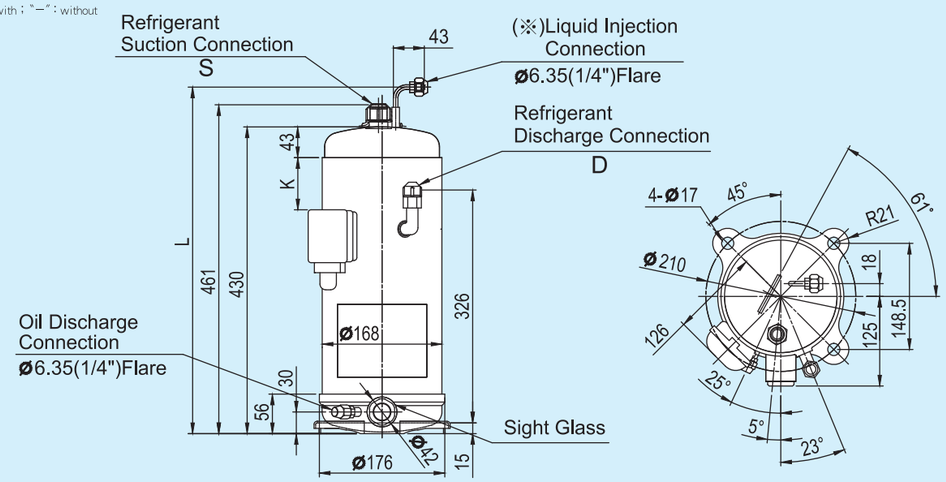


M-DH & FM-DH & L-DH & FL-DH Series / 系列

(mm)

Model / 型號	※	Power Source 電源	S	D	K	L
M300DH	—	3Φ	Φ 15.88(5/8")Flare	Φ 12.7(1/2")Flare	73	—
		1Φ			81	
M500DH	—	3Φ	Φ 19.05(3/4")Flare	Φ 12.7(1/2")Flare	73	—
		1Φ			81	
FM300DH	—	3Φ	Φ 15.88(5/8")Flare	Φ 12.7(1/2")Flare	73	—
FM500DH	—	3Φ	Φ 19.05(3/4")Flare	Φ 12.7(1/2")Flare	73	—
L300DH、FL300DH	◎	3Φ	Φ 19.05(3/4")Flare	Φ 12.7(1/2")Flare	73	470
L500DH、FL500DH	◎	3Φ	Φ 19.05(3/4")Flare	Φ 15.88(5/8")Flare	73	485

"◎" : with ; "—" : without

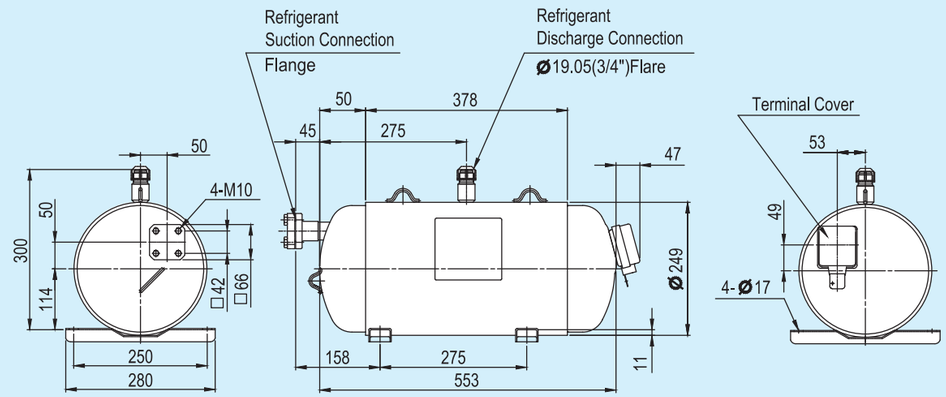


Φ 235 Series / 系列

EL & G-EL Series / 系列

(mm)

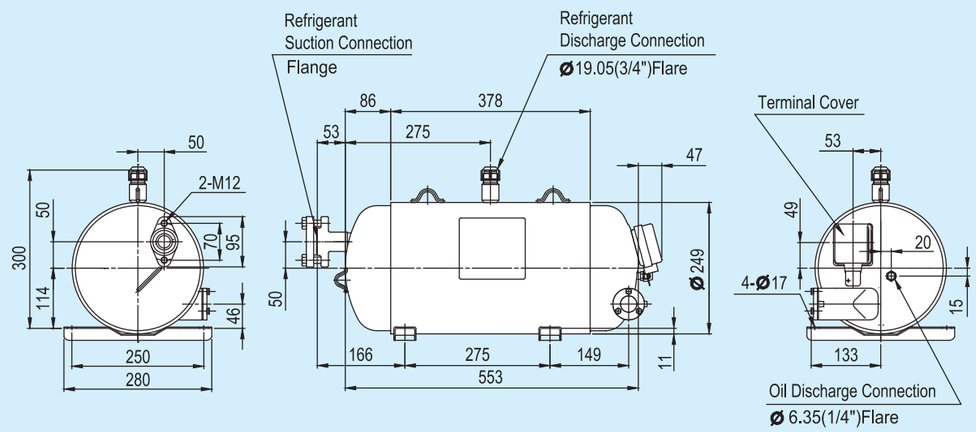
Model / 型號
750EL、1000EL、1100EL、1200EL、1300EL
G750EL、G1000EL、G1100EL、G1200EL、G1300EL



M-EL & FM-EL Series / 系列

(mm)

Model / 型號
M750EL、M1000EL
FM750EL、FM1000EL
FM751EL、FM1001EL

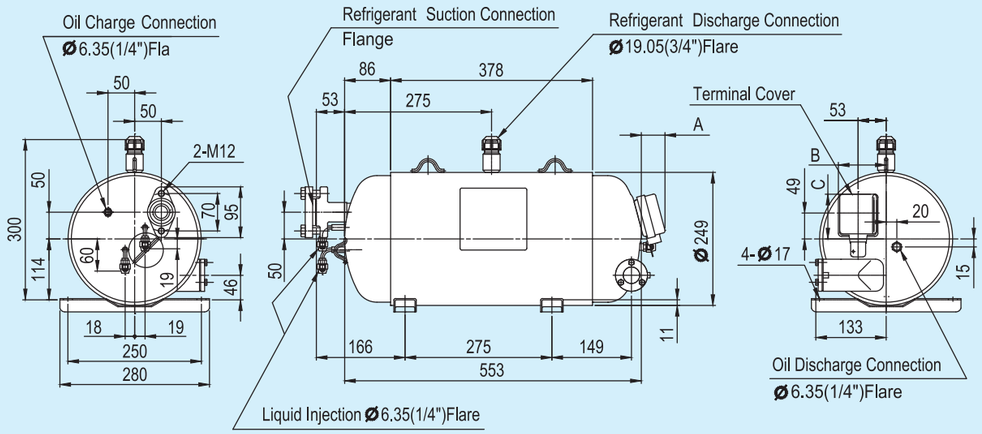


Φ235 Series / 系列

L-EL & FL-EL & FL-ELV & FM-EL-4 Series / 系列

(mm)

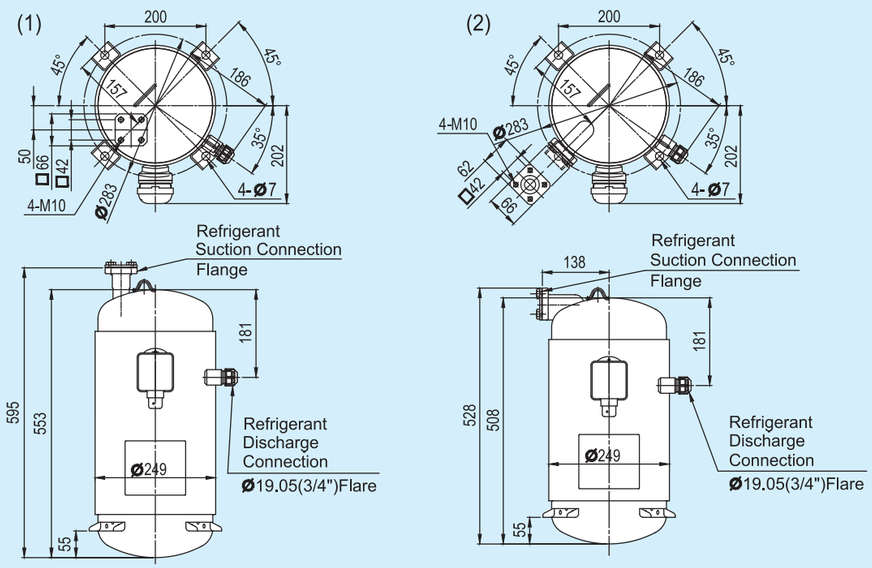
Model / 型號	A	B	C
L800EL、L1000EL、FL800EL、FL1000EL、FL800ELV、FL1000ELV	49	100	87
FM750EL-4、FM800EL-4	47	90	84



EH Series / 系列

(mm)

Model / 型號	FIGURE No./圖號
750EH、1000EH、1200EH、G1000EH、G1200EH	(1)
751EH、901EH、1001EH、1101EH	(2)



Compressors Nomenclature / 壓縮機型號編列規則

Φ160、Φ235 & Φ132-R410A Series / 系列

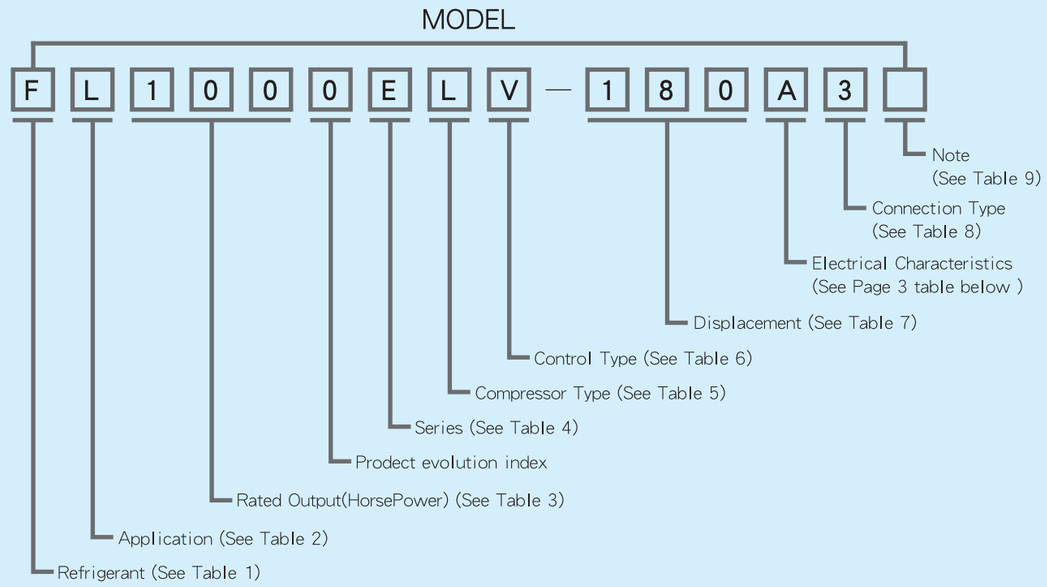


Table 1

Code	Refrigerant
	R22
E	R410A
F	R404A
G	R407C

Table 2

Code	RApplication
	High Temp.
L	Low Temp.
M	Medium Temp.
K	Cold Area

Table 3

Code	HorsePower
30	3.0HP
75	7.5HP
100	10HP
⋮	⋮

Table 4

Code	Series
H	Φ132
D	Φ160
E	Φ235

Table 5

Code	Version
L	Horizontal
H	Vertical

Table 6

Code	Variable
	Constant Speed
D	DC Inverter
V	AC Inverter
M	External to the oil

Table 7

Code	Displacement
64	64 cc/rev
180	180 cc/rev
⋮	⋮

Table 8

Code	Variable
1	Flare
2	Brazed
3	Flange
4	Liquid Injection
5	Inter Protector

Table 9

Code	Application
W	Water Cooling
Y	Oil Pipe Connection

Φ160、Φ235 & Φ132-R410A Series / 系列

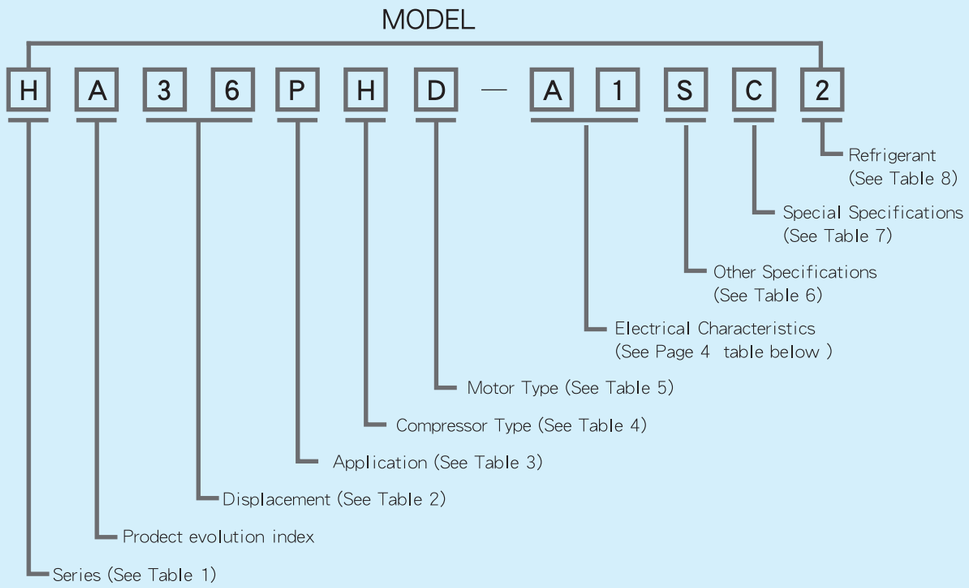


Table 1

Code	Series
C	Φ160(Single bearing)
E	Φ235
D	Φ160
H	Φ132

Table 2

Code	Displacement
36	36 cc/rev
64	64 cc/rev
⋮	⋮

Table 3

Code	Application
P	High Temp.
L	Low Temp.
M	Medium Temp.
W	Chiller

Table 4

Code	Version
H	Vertical
L	Horizontal

Table 5

Code	Variable
A	Constant Speed (Protector)
C	Constant Speed (No Protector)
V	AC Inverter
D	DC Inverter
J	MS Motor

Table 6

Code	Variable
S	Standard
B	Gas Injection
Y	Oil Pipe Connection

Table 7

Code	Variable
U	UL Mark
E	CE Mark
G	CCC Mark
M	Two or more Mark
C	To China
	Nothing

Table 8

Code	Refrigerant
1	R407C
2	R410A
4	R404A
6	R32

Φ132 Series / 系列

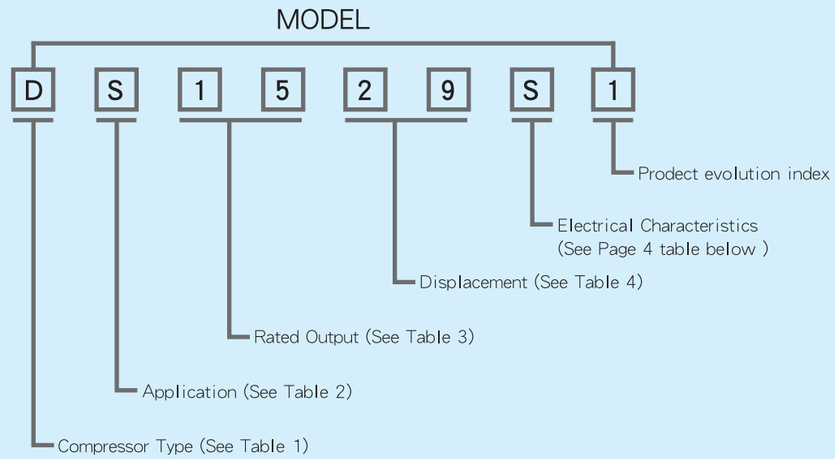


Table 1

Code	Version
L	Vertical
D	Horizontal

Table 2

Code	Refrigerant			Application		Liquid Injection		Note
	R22	R404A	R410A	High Temp.	Low Temp.	Yes	No	
H	○			○			○	
S		○			○	○		
L	○				○	○		
T		○			○	○		For refrigerated trucks
U			○	○			○	

Table 3

Code	Rated Output
15	1500 W
18	1800 W
22	2200 W
⋮	⋮

Table 4

Code	Displacement
29	29 cc/rev
34	34 cc/rev
44	44 cc/rev
⋮	⋮

Φ132-R410A DD Series / 系列

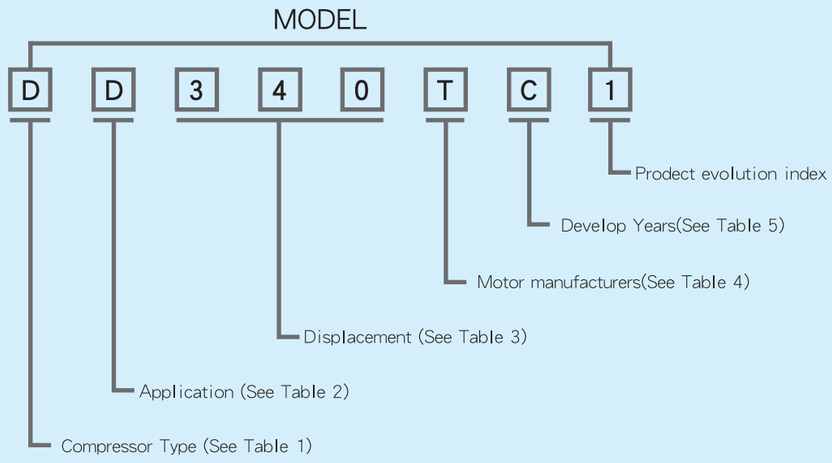


Table 1

Code	Version
D	Horizontal

Table 2

Code	Refrigerant	Application		Liquid Injection		Note
	R410A	Medium Temp.	Low Temp.	Yes	No	
D	○	○	○	○		

Table 3

Code	Displacement
340	34.0 cc/rev

Table 4

Code	Motor manufacturers
T	Taiwan

Table 5

Code	Develop Years
C	2013

Memo

2018 Printed in Taiwan

Johnson Controls-Hitachi Air Conditioning Taiwan Co., Ltd.

Catalog No. TC-PM-07