

HITACHI

# Scroll Compressors

For Refrigeration Use



# LINE-UP

Series	Refrigerant	Motor type	Cooling Capacity (W) at Condition EN12900 MT																											
			500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	6,000	7,000	8,000	9,000	10,000	11,000	12,000	13,000	14,000	15,000	16,000	17,000	18,000	19,000	20,000	22,000	24,000	25,000
R404A	R404A	Fixed Speed	█																											
		Inverter	█																											
R448A R449A	R448A R449A	Fixed Speed	█																											
		Inverter	█																											
Z	R1270	Fixed Speed	█																											
		Inverter	█																											
R290	R290	Fixed Speed	█																											
		Inverter	█																											
R410A	R410A	Inverter	█																											
DS	R404A R448A R449A	Fixed Speed	█																											
		Fixed Speed	█																											
		Fixed Speed	█																											
FL	R404A	Fixed Speed	█																											
		Inverter	█																											
LS MS NS	R404A	Fixed Speed	█																											
		Inverter	█																											



## Z Series



- Rated Output: 400W~1,500W
- Low Height due to Horizontal Type
- R290, R1270, R449A, R448A, R404A
- BLDC inverter technology
- Wide working range for Medium and Low temperature
- Suitable for self-contained type showcase
- Suitable for water-loop solution

## DS Series



- Rated Output: 1,500W~2,200W
- Low Height due to Horizontal Type
- R1270, R449A, R448A, R404A
- Wide working range for Medium and Low temperature
- Suitable for self-contained type showcase
- Suitable for water-loop solution

## FL Series



- Rated Output: 1,500~7,400W
- Low Height due to Horizontal Type
- Large cooling capacity
- Wide working range for Medium and Low temperature
- Suitable for overall design from self-contained to remote type showcase.

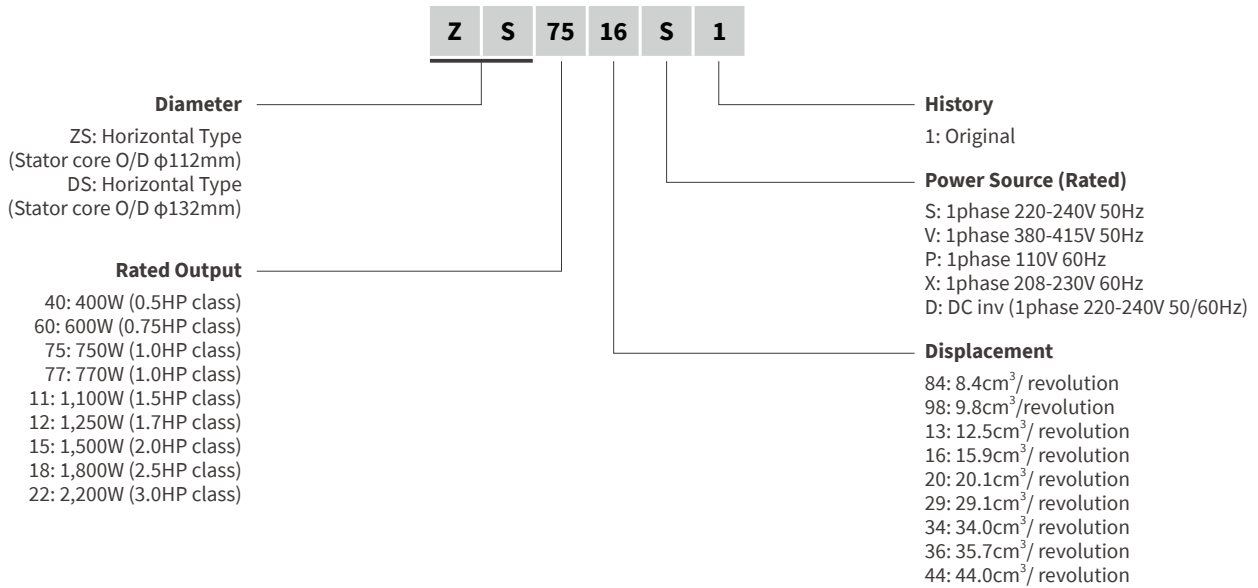
## LS, MS, NS Series



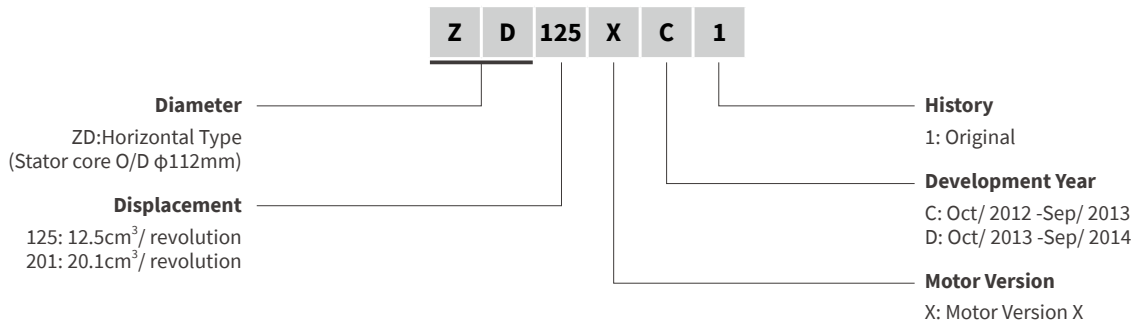
- Rated Output: 2,600W~4,500W
- Vertical Type
- Exclusive design for each temperature range
- Liquid injection available
- Oil sight glass available
- Tandem ready configurations
- Suitable for cold room and showcases

# NOMENCLATURE

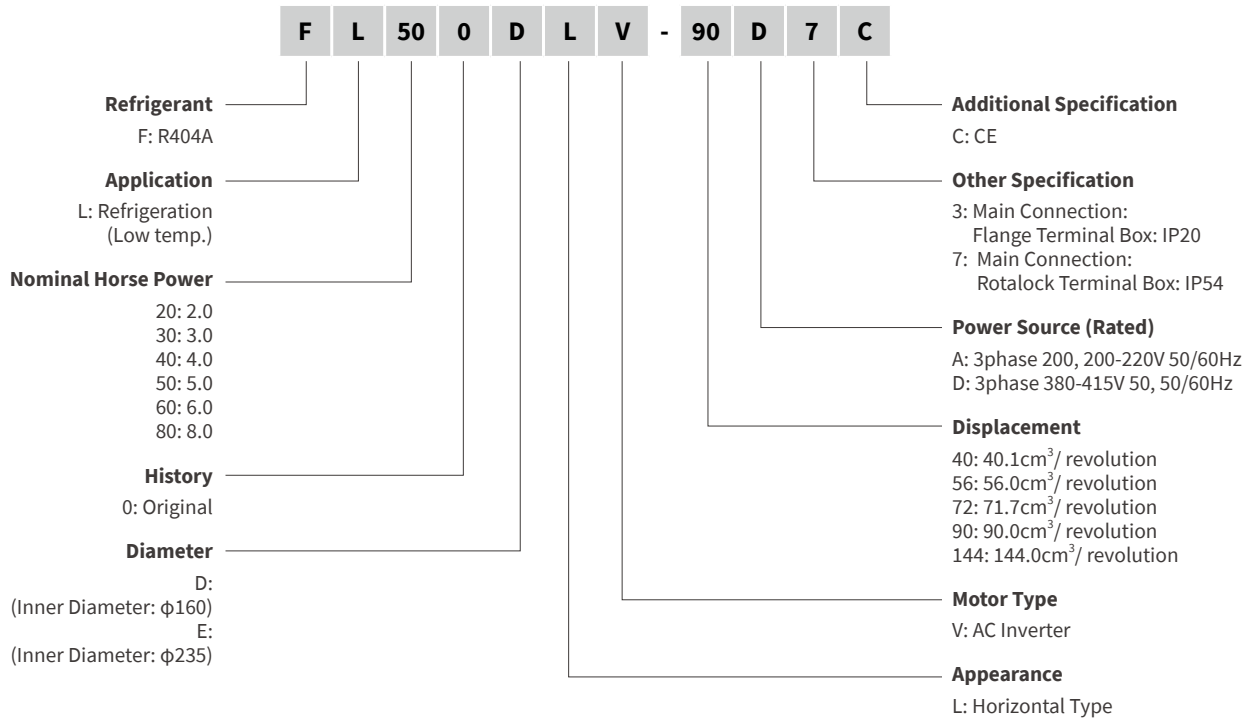
## Z Series & DS Series (Type A)



## (Type B)

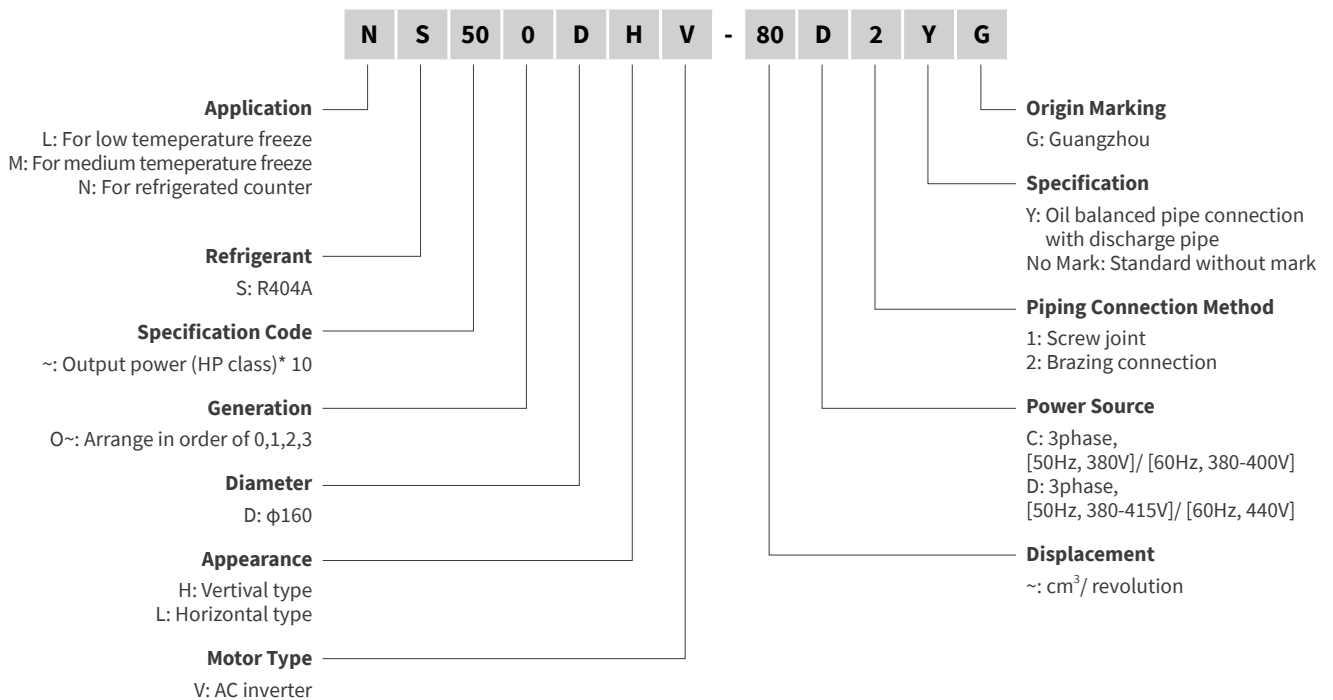


**FL Series**



SCROLL COMPRESSORS FOR REFRIGERATION USE

**LS, MS, NS Series**



NOMENCLATURE

# GENERAL DATA

## Z Series & DS Series

### Fixed speed

Series			Z								
Model			ZS4084S1	ZS6013S1	ZS7516S1	ZS1120S1	ZS1120S2	※ZS7516S3	※ZS1120S3		
Scroll Profile			Involute	Involute	Involute	Involute	Algebraic	Involute	Involute		
Rated Output	W		400	600	750	1,100	1,100	750	1,100		
Displacement	cm <sup>3</sup> /rev.		8.4	12.5	15.9	20.1	20.1	15.9	20.1		
Power supply	Phase	φ	1	1	1	1	1	1	1		
	Voltage	V	220-240	220-240	220-240	220-240	220-240	220-230	220-230		
Oil	Frequency	Hz	50	50	50	50	50	50	50		
			POE	POE	POE	POE	POE	POE	POE		
Oil Charge	cm <sup>3</sup>		550	550	550	650	650	550	650		
Weight	kg		12.4	12.6	12.9	13.6	13.6	12.9	13.6		
	lbs		27.3	27.8	28.4	30.0	30.0	28.4	30.0		
Overload Protection			Internal protector	Internal protector	Internal protector	Internal protector	Internal protector	Internal protector	Internal protector		
Motor Type			CSR	CSR	CSR	CSR	CSR	CSR	CSR		
Test Condition			EN12900 MT	EN12900 MT	EN12900 MT	EN12900 MT	EN12900 MT	EN12900 LT	EN12900 MT		
	N(Hz)		50	50	50	50	50	50	50		
Performance	R404A	Cooling Capacity	W	830	1,235	1,570	1,985	1,985	770	-	
			BTU/h	2,832	4,214	5,358	6,774	6,774	2,628	-	
	R449A	Cooling Capacity	W	800	1,195	1,520	1,920	-	-	-	
			BTU/h	2,730	4,078	5,187	6,552	-	-	-	
	R1270	Cooling Capacity	W	-	-	1,635	2,065	-	-	-	
			BTU/h	-	-	5,579	7,047	-	-	-	
	R290	Cooling Capacity	W	-	-	-	-	-	-	1,355	1,710
			BTU/h	-	-	-	-	-	-	-	4,624
Certificate			CE	CE	CE CCC	CE CCC	CE CCC	CE	CE		

Series			Z																
Model			ZS4084P1	ZS6013P1	ZS6013X1	ZS7516X1	ZS1120X1	※ZS6013X3	※ZS7516X3	※ZS1120X3									
Scroll Profile			Involute	Involute	Involute	Involute	Involute	Involute	Involute	Involute	Involute	Involute	Involute	Involute					
Rated Output	W		400	600	600	750	1,100	600	750	1,100									
Displacement	cm <sup>3</sup> /rev.		8.4	12.5	12.5	15.9	20.1	12.5	15.9	20.1									
Power supply	Phase	φ	1	1	1	1	1	1	1	1									
	Voltage	V	115	115	208-230	208-230	208-230	208-230	208-230	208-230									
Oil	Frequency	Hz	60	60	60	60	60	60	60	60									
			POE	POE	POE	POE	POE	POE	POE	POE									
Oil Charge	cm <sup>3</sup>		550	550	550	550	650	550	550	650									
Weight	kg		12.4	12.4	12.6	12.7	13.6	12.6	12.7	13.6									
	lbs		27.3	27.3	27.8	28.0	30.0	27.8	28.0	30.0									
Overload Protection			Internal protector	Internal protector	Internal protector	Internal protector	Internal protector	Internal protector	Internal protector	Internal protector									
Motor Type			CSR	CSR	CSR	CSR	CSR	CSR	CSR	CSR									
Test Condition			EN12900; ARI540	EN12900; ARI540	EN12900; ARI540	EN12900; ARI540	EN12900; ARI540	EN12900; ARI540	EN12900; ARI540	EN12900; ARI540	EN12900; ARI540	EN12900; ARI540	EN12900; ARI540	EN12900; ARI540					
	N(Hz)		60	60	60	60	60	60	60	60	60	60	60	60					
Performance	R404A	Cooling Capacity	W	990	1,040	1,475	1,550	1,475	1,550	1,875	1,970	2,370	2,490	-	-				
			BTU/h	3,378	3,549	5,033	5,289	5,033	5,289	6,398	6,723	8,088	8,497	-	-				
	R449A	Cooling Capacity	W	-	-	-	-	1,420	1,535	1,810	1,955	2,285	2,470	-	-				
			BTU/h	-	-	-	-	4,846	5,238	6,177	6,671	7,798	8,429	-	-				
	R448A	Cooling Capacity	W	-	-	-	-	1,420	1,535	1,810	1,955	2,285	2,470	-	-				
			BTU/h	-	-	-	-	4,846	5,238	6,177	6,671	7,798	8,429	-	-				
	R290	Cooling Capacity	W	-	-	-	-	-	-	-	-	-	-	1,270	1,331	1,615	1,661	2,045	2,223
			BTU/h	-	-	-	-	-	-	-	-	-	-	-	4,334	4,542	5,511	5,668	6,979
Certificate			UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	

### Test Condition

	Te(°C)	T(°C)	SC(deg)	Ts(°C)
EN12900 MT	-10.0	45.0	0	20.0
EN12900 LT	-35.0	40.0	0	20.0
ARI540 MT	-6.7	48.9	0	18.3
ARI540 LT	-31.7	40.6	0	18.3

※ Under development

Note:

Algebraic: Type of scroll wrap improved performance at low temperature condition.

Series		DS												
Model		DS1836S1			DS1529S1			DS1529X1			DS1834X1			
Scroll Profile		Involute			Algebraic			Algebraic			Algebraic			
Rated Output		W 1,800			1,500			1,500			1,800			
Displacement		cm <sup>3</sup> /rev. 35.7			29.1			29.1			34.0			
Power supply		Phase φ 1			1			1			1			
		Voltage V 220-240			220-240			208-230			208-230			
		Frequency Hz 50			50			60			60			
Oil		POE			POE			POE			POE			
Oil Charge		cm <sup>3</sup> 850			850			850			850			
Weight		kg 22.9			22.6			22.7			22.6			
		lbs 50.5			49.8			50.0			49.8			
Overload Protection		Internal protector			Internal protector			Internal protector			Internal protector			
Motor Type		CSR			CSR			CSR			CSR			
Test Condition				EN12900 MT	EN12900 MT	EN12900 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT
		N(Hz)		50	50	50	60	60	60	60	60	60	60	60
Performance	R404A	Cooling Capacity	W	3,525	2,875	1,110	3,430	3,605	1,310	1,490	4,210	4,425	1,530	1,740
			BTU/h	12,029	9,811	3,788	11,705	12,302	4,470	5,085	14,367	15,100	5,221	5,938
	R449A	Cooling Capacity	W	3,405	2,775	990	3,310	3,575	1,205	1,395	3,865	4,175	1,410	1,630
			BTU/h	11,620	9,470	3,378	11,295	12,200	4,112	4,760	13,189	14,247	4,812	5,562
	R448A	Cooling Capacity	W	3,405	2,775	990	3,310	3,575	1,205	1,395	3,865	4,175	1,410	1,630
			BTU/h	11,620	9,470	3,378	11,295	12,200	4,112	4,760	13,189	14,247	4,812	5,562
R1270	Cooling Capacity	W	3,670	2,995	1,250	-	-	-	-	-	-	-	-	
		BTU/h	12,524	10,220	4,266	-	-	-	-	-	-	-	-	
Certificate		CE CCC			CE CCC			UL			UL			

Series		DS											
Model		DS1529V1				DS1834V1				DS2244V1			
Scroll Profile		Algebraic				Algebraic				Algebraic			
Rated Output		W 1,500				1,800				2,200			
Displacement		cm <sup>3</sup> /rev. 29.1				34.0				44.0			
Power supply		Phase φ 3				3				3			
		Voltage V 380-415				380-415				380-415			
		Frequency Hz 50				50				50			
Oil		POE				POE				POE			
Oil Charge		cm <sup>3</sup> 850				850				850			
Weight		kg 21.8				21.7				23.7			
		lbs 48.1				47.8				52.2			
Overload Protection		Internal protector				Internal protector				Internal protector			
Motor Type		IR				IR				IR			
Test Condition				EN12900 MT	EN12900 LT	EN12900 MT	EN12900 LT	EN12900 MT	EN12900 LT	EN12900 MT	EN12900 LT	EN12900 MT	EN12900 LT
		N(Hz)		50	50	50	50	50	50	50	50	50	
Performance	R404A	Cooling Capacity	W	2,875	1,110	3,360	1,300	4,345	1,680				
			BTU/h	9,811	3,788	11,466	4,436	14,827	5,733				
	R410A	Cooling Capacity	W	-	-	-	-	-	-	-	-	-	
Certificate		CE				CE				CE			



# GENERAL DATA

## Z Series

### DC inverter

Series				Z															
Model				ZS7798D1								ZS1216D1							
Scroll Profile				Algebraic															
Rated Output				770															
Displacement				9.8															
Power supply				DC inverter															
Oil				POE															
Oil Charge				550															
Weight				23.8															
Overload Protection				OHR(Overheat relay)															
Motor Type				DC Inverter															
Test Condition				EN12900 MT				ARI540 MT				EN12900 LT				ARI540 LT			
				N(Hz)		25	100	25	100	25	100	25	100	25	100	25	100	25	100
Performance	R404A	Cooling Capacity	W	510	2,030	535	2,135	195	780	220	890	825	3,295	865	3,465	315	1,265	360	1,440
			BTU/h	1,740	6,927	1,826	7,286	665	2,662	751	3,037	2,815	11,244	2,952	11,824	1,075	4,317	1,229	4,914
	R449A	Cooling Capacity	W	490	1,960	530	2,115	180	710	210	820	795	3,180	860	3,435	290	1,150	335	1,330
			BTU/h	1,672	6,689	1,809	7,217	614	2,423	717	2,798	2,713	10,852	2,935	11,722	990	3,924	1,143	4,539
R448A	Cooling Capacity	W	490	1,960	530	2,115	180	710	210	820	795	3,180	860	3,435	290	1,150	335	1,330	
		BTU/h	1,672	6,689	1,809	7,217	614	2,423	717	2,798	2,713	10,852	2,935	11,722	990	3,924	1,143	4,539	
Certificate				CE															

Series				Z															
Model				ZS1520D1								※ZS098XJ1							
Scroll Profile				Algebraic															
Rated Output				1,500															
Displacement				20.1															
Power supply				DC inverter															
Oil				POE															
Oil Charge				650															
Weight				10.9															
Overload Protection				OHR(Overheat relay)															
Motor Type				DC Inverter															
Test Condition				EN12900 MT				ARI540 MT				EN12900 LT				ARI540 LT			
				N(Hz)		25	91.7	25	91.7	25	91.7	25	91.7	25	100	25	100	25	100
Performance	R404A	Cooling Capacity	W	1,040	3,820	1,095	4,015	400	1,465	455	1,670	-	-	-	-	-	-	-	-
			BTU/h	3,549	13,036	3,737	13,701	1,365	4,999	1,553	5,699	-	-	-	-	-	-	-	-
	R449A	Cooling Capacity	W	1,005	3,685	1,085	3,980	365	1,335	420	1,545	-	-	-	-	-	-	-	-
			BTU/h	3,430	12,575	3,703	13,582	1,246	4,556	1,433	5,272	-	-	-	-	-	-	-	-
	R448A	Cooling Capacity	W	1,005	3,685	1,085	3,980	365	1,335	420	1,545	-	-	-	-	-	-	-	-
			BTU/h	3,430	12,575	3,703	13,582	1,246	4,556	1,433	5,272	-	-	-	-	-	-	-	-
	R1270	Cooling Capacity	W	-	-	-	-	-	-	-	-	530	2,115	570	2,260	220	885	250	1,000
			BTU/h	-	-	-	-	-	-	-	-	1,809	7,217	1,945	7,712	751	3,020	853	3,413
R290	Cooling Capacity	W	-	-	-	-	-	-	-	-	440	1,750	470	1,870	180	715	205	815	
		BTU/h	-	-	-	-	-	-	-	-	1,502	5,972	1,604	6,381	614	2,440	700	2,781	
Certificate				CE															

### Test Condition

	Te(°C)	T(°C)	SC(deg)	Ts(°C)
EN12900 MT	-10.0	45.0	0	20.0
EN12900 LT	-35.0	40.0	0	20.0
ARI540 MT	-6.7	48.9	0	18.3
ARI540 LT	-31.7	40.6	0	18.3

※ Under development

Note:  
Algebraic: Type of scroll wrap improved performance at low temperature condition.



Series			Z																	
Model			※ZS159XJ1								※ZS201XJ1									
Scroll Profile			Algebraic																	
Rated Output			1,250																	
Displacement			15.9																	
Power supply			DC inverter																	
Oil			POE																	
Oil Charge			650																	
Weight			11.1																	
Overload Protection			OH thermista(Temperature detection) + Inverter control																	
Motor Type			DC Inverter																	
Test Condition			EN12900 MT				ARI540 MT				EN12900 LT				ARI540 LT					
			N(Hz)		25	100	25	100	25	100	25	100	25	100	25	100	25	100	25	100
Performance	R1270	Cooling Capacity	W	860	3,430	920	3,670	360	1,435	405	1,625	1,085	3,980	1,160	4,255	450	1,660	515	1,885	
		BTU/h	2,935	11,705	3,140	12,524	1,229	4,897	1,382	5,545	3,703	13,582	3,959	14,520	1,536	5,665	1,757	6,433		
Performance	R290	Cooling Capacity	W	710	2,840	760	3,035	290	1,165	330	1,320	890	3,295	960	3,520	365	1,350	415	1,535	
		BTU/h	2,423	9,692	2,594	10,357	990	3,976	1,126	4,505	3,037	11,244	3,276	12,012	1,246	4,607	1,416	5,238		
Certificate			CE																	

Series			Z																	
Model			ZD125XC1								ZD201XC1									
Scroll Profile			Algebraic																	
Rated Output			750																	
Displacement			12.5																	
Power supply			DC inverter																	
Oil			POE																	
Oil Charge			510																	
Weight			11.0																	
Overload Protection			OH thermista(Temperature detection) + Inverter control																	
Motor Type			DC Inverter																	
Test Condition			EN12900 MT				ARI540 MT				EN12900 LT				ARI540 LT					
			N(Hz)		16.7	80	16.7	80	16.7	80	16.7	80	16.7	80	16.7	80	16.7	80	16.7	80
Performance	R410A	Cooling Capacity	W	515	2,865	545	3,085	220	1,050	250	1,200	980	4,770	1,040	5,130	380	1,830	435	2,100	
		BTU/h	1,757	9,777	1,860	10,528	751	3,583	853	4,095	3,344	16,278	3,549	17,506	1,297	6,245	1,484	7,166		
Certificate			CE																	



# GENERAL DATA

## FL, LS, MS, NS Series

### DC inverter

Series			FL						LS			
Model		FL200DL-40D7C	FL300DL-56D7C	FL400DL-72D7C	FL500DL-90D7C	FL300DL-56C3	FL500DL-90C3	LS350DH-64D2(Y)G	LS500DH-83D2(Y)G	NS600DH-95D2(Y)G		
Scroll Profile			Involute									
Rated Output	W	1,500	2,200	3,000	3,700	2,200	3,750	3,000	3,700	4,500		
Displacement	cm <sup>3</sup> /rev.	40.1	56.0	71.7	90.0	56.0	90.0	64	83	95		
Power supply	Phase	φ	3	3	3	3	3	3	3	3		
	Voltage	V	380-415	380-415	380-415	380-415	346-380 380-400	346-380 380-400	380-415/440	380-415/440	380-415/440	
	Frequency	Hz	50	50	50	50	50 60	50 60	50/60	50/60	50/60	
Oil		PVE	PVE	PVE	PVE	PVE	PVE	PVE	PVE	PVE		
Oil Charge	cm <sup>3</sup>	1,200	1,200	1,700	1,700	1,200	1,700	1,800	1,800	1,800		
Weight	kg	36	37	50	51	37	51	36	36	37		
	lbs	79.4	81.6	110.2	112.4	81.6	112.4	79.4	79.4	81.6		
Overload Protection			Internal protector + Thermostat			Thermostat	Thermostat	Internal protector + Thermostat				
Motor Type			RV	RV	RV	RV	RV	RV	RV	RV		
Test Condition	Te(°C)	-15	-15	-15	-15	-15	-15	-15	-15	-15		
	Tc(°C)	45	45	45	45	45	45	45	45	45		
	SC(deg)	5	5	5	5	5	5	5	5	5		
	Ts(°C)	18	18	18	18	18	18	18	18	18		
	N(Hz)	50	50	50	50	50	50	50	50	50		
Performance	R404A	Cooling Capacity	W	3,510	4,910	6,350	7,970	4,910 5,910	7,970 9,600	5,800	7,600	8,700
			BTU/h	11,980	16,750	21,670	27,190	16,750 20,160	27,190 32,750	19,795	25,939	29,693
Certificate			CE	CE	CE	CE	-	-	CCC	CCC	CQC	

Series			MS				NS				
Model		MS300DH-56D2(Y)G	MS350DH-64D2(Y)G	MS500DH-83D2(Y)G	MS600DH-95D2(Y)G	NS300DH-56D2(Y)G	NS350DH-64D2(Y)G	NS500DH-83D2(Y)G	NS600DH-95D2(Y)G		
Scroll Profile			Involute								
Rated Output	W	2,600	3,000	3,700	4,500	2,600	3,000	3,700	4,500		
Displacement	cm <sup>3</sup> /rev.	56.0	64.0	83.0	95.0	56.0	64.0	83.0	95.0		
Power supply	Phase	φ	3	3	3	3	3	3	3		
	Voltage	V	380-415/440	380-415/440	380-415/440	380-415/440	380-415/440	380-415/440	380-415/440		
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60		
Oil		PVE	PVE	PVE	PVE	PVE	PVE	PVE	PVE		
Oil Charge	cm <sup>3</sup>	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800		
Weight	kg	36	36	36	37	36	36	36	37		
	lbs	79.4	79.4	79.4	81.6	79.4	79.4	79.4	81.6		
Overload Protection			Internal protector + Thermostat			Internal protector + Thermostat					
Motor Type			RV	RV	RV	RV	RV	RV	RV		
Test Condition	Te(°C)	-15	-15	-15	-15	-6.7	-6.7	-6.7	-6.7		
	Tc(°C)	45	45	45	45	48.9	48.9	48.9	48.9		
	SC(deg)	5	5	5	5	0.0	0.0	0.0	0.0		
	Ts(°C)	18	18	18	18	4.4	4.4	4.4	4.4		
	N(Hz)	50	50	50	50	50	50	50	50		
Performance	R404A	Cooling Capacity	W	5,100	5,800	7,600	8,700	6,500	7,430	9,900	11,330
			BTU/h	17,406	19,795	25,939	29,693	22,184	25,358	33,788	38,669
Certificate			CCC	CCC	CCC	CQC	CCC	CCC	CCC	CQC	

\*Models with (Y) is with oil pipe for multiple use

AC inverter

Series		FL							
Model		FL300DLV-56A3	FL600DLV-90A3	FL800ELV-144A3	FL800ELV-144D3	LS400DHV-64D2(Y)G	LS500DHV-80D2(Y)G	LS600DHV-90D2(Y)G	
Scroll Profile		Involute							
Rated Output	W	2,200	4,500	6,000	6,000	3,700	3,700	4,500	
Displacement	cm <sup>3</sup> /rev.	56.0	90.0	144.0	144.0	64	80	90	
Power supply	Phase	φ	3	3	3	3	3	3	
	Voltage	V	200	200	200-220	380-415	380-415/440	380-415/440	
	Frequency	Hz	25-60	30-70	25-75	25-75	30-90	30-90	
Oil		PVE	PVE	PVE	PVE	PVE	PVE	PVE	
Oil Charge	cm <sup>3</sup>	1,200	1,700	3,000	3,000	1,800	1,800	1,800	
Weight	kg	37	51	94	94	36	37	38	
	lbs	81.6	112.4	207.2	207.2	79.4	81.6	83.8	
Overload Protection		Thermostat + Inverter control				Thermostat + Inverter control			
Motor Type		AC Inverter	AC Inverter	AC Inverter	AC Inverter	AC Inverter	AC Inverter	AC Inverter	
Test Condition	Te(°C)	-15	-15	-10	-10	-15	-15	-15	
	Tc(°C)	45	45	45	45	45	45	45	
	SC(deg)	5	5	5	5	5	5	5	
	Ts(°C)	18	18	18	18	18	18	18	
	N(Hz)	60	60	60	60	60	60	60	
Performance	R404A Cooling Capacity	W	5,900	9,600	20,400	20,400	7,110	9,330	10,500
		BTU/h	20,130	32,760	69,610	69,610	24,266	31,843	35,836
Certificate		-	-	-	-	-	-	-	

Series		MS			NS			
Model		MS300DHV-47D2(Y)G	MS400DHV-64D2(Y)G	MS500DHV-80D2(Y)G	NS300DHV-47D2(Y)G	NS400DHV-64D2(Y)G	NS500DHV-80D2(Y)G	
Scroll Profile		Involute						
Rated Output	W	2,200	3,700	3,700	2,200	3,700	3,700	
Displacement	cm <sup>3</sup> /rev.	47.0	64.0	80.0	47.0	65.0	80.0	
Power supply	Phase	φ	3	3	3	3	3	
	Voltage	V	380-415/440	380-415/440	380-415/440	380-415/440	380-415/440	
	Frequency	Hz	30-90	30-90	30-90	30-90	30-90	
Oil		PVE	PVE	PVE	PVE	PVE	PVE	
Oil Charge	cm <sup>3</sup>	1,800	1,800	1,800	1,800	1,800	1,800	
Weight	kg	36	36	37	36	36	37	
	lbs	79.4	79.4	81.6	79.4	79.4	81.6	
Overload Protection		Thermostat + Inverter control			Thermostat + Inverter control			
Motor Type		AC Inverter	AC Inverter	AC Inverter	AC Inverter	AC Inverter	AC Inverter	
Test Condition	Te(°C)	-15	-15	-15	-6.7	-6.7	-6.7	
	Tc(°C)	45	45	45	48.9	48.9	48.9	
	SC(deg)	5	5	5	0.0	0.0	0.0	
	Ts(°C)	18	18	18	4.4	4.4	4.4	
	N(Hz)	60	60	60	60	60	60	
Performance	R404A Cooling Capacity	W	5,200	7,110	9,330	6,550	8,920	11,450
		BTU/h	17,747	24,266	31,843	22,355	30,444	39,078
Certificate		-	-	-	-	-	-	

\*Models with (Y) is with oil pipe for multiple use

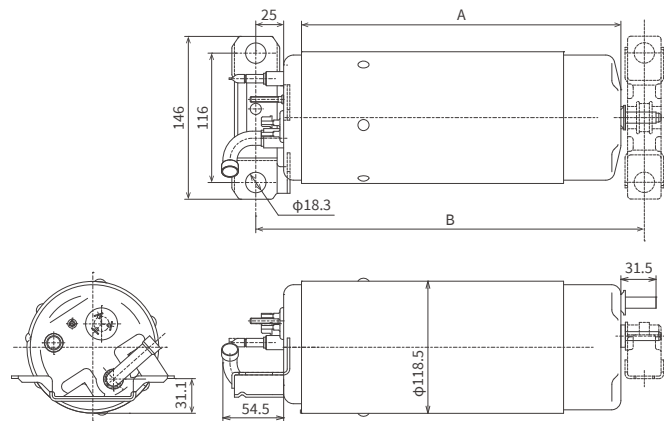
# SPECIFICATION

## Z Series



## DIMENSIONS

	mm	
	A	B
<b>ZS4084</b>	311	357
<b>ZS6013</b>	316	362
<b>ZS1120</b>	321	367
<b>ZS7798/ZS098</b>	302	348
<b>ZS1216/ZS159</b>	307	353
<b>ZS1520/ZS201</b>	302	348
<b>ZD125XC1</b>	307	353
<b>ZD201XC1</b>	307	353

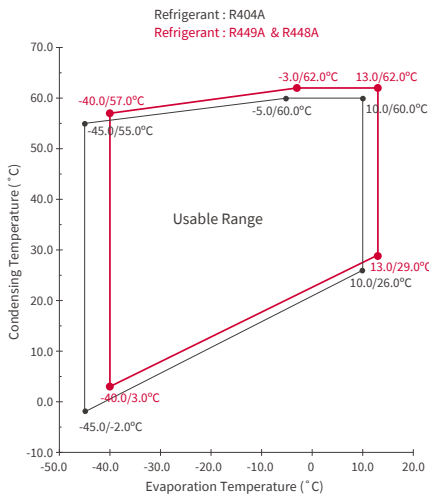


## WORKING RANGE

**R404A**  
ZS4084S1/ZS4084P1/ZS6013S1/ZS6013P1/ZS6013X1/ZS7516S1/ZS7516X1

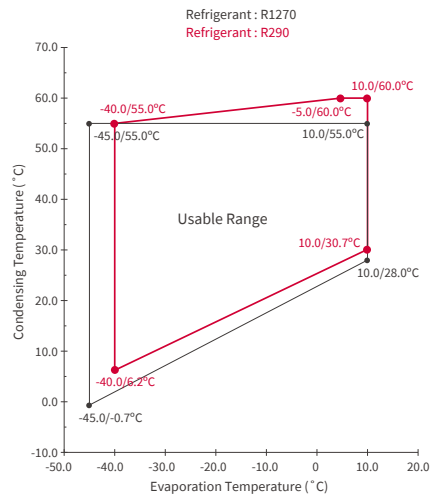
**R449A**  
ZS4084S1/ZS6013S1/ZS6013X1/ZS7516S1/ZS7516X1

**R448A**  
ZS6013X1/ZS7516X1



**R1270**  
ZS7516S3

**R290**  
ZS6013X3/ZS7516S3/ZS7516X3



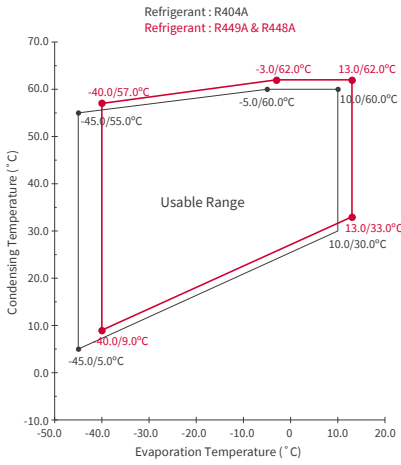
WORKING RANGE

R404A

ZS1120S1/ZS1120S2/ZS1120X1

R449A R448A

ZS1120S1/ZS1120X1 ZS1120X1

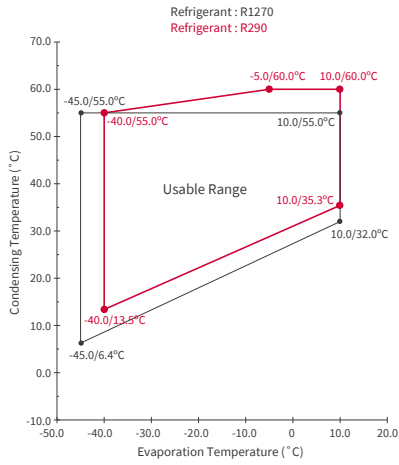


R1270

ZS1120S3

R290

ZS1120S3/ZS1120X3

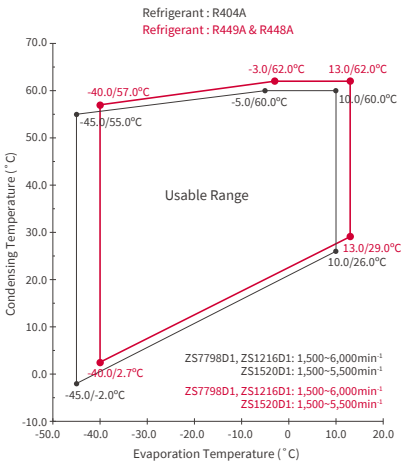


R404A

ZS7798D1/ZS1216D1/ZS1520D1

R449A, R448A

ZS7798D1/ZS1216D1/ZS1520D1

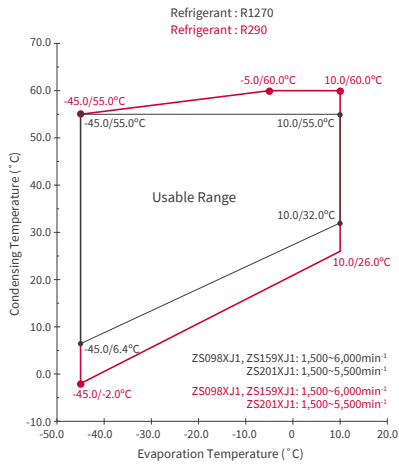


R1270

ZS098XJ1/ZS159XJ1/ZS201XJ1

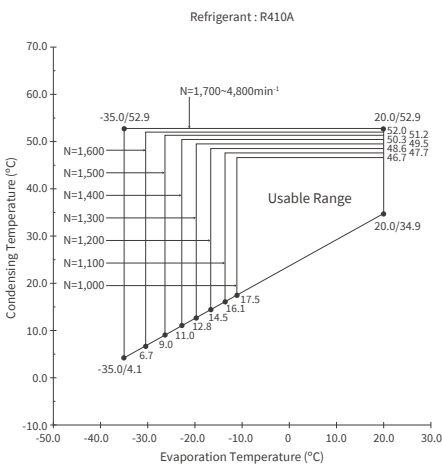
R290

ZS098XJ1/ZS159XJ1/ZS201XJ1



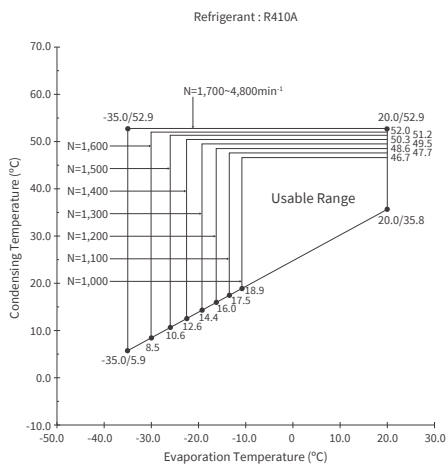
R410A

ZD125XC1



R410A

ZD201XC



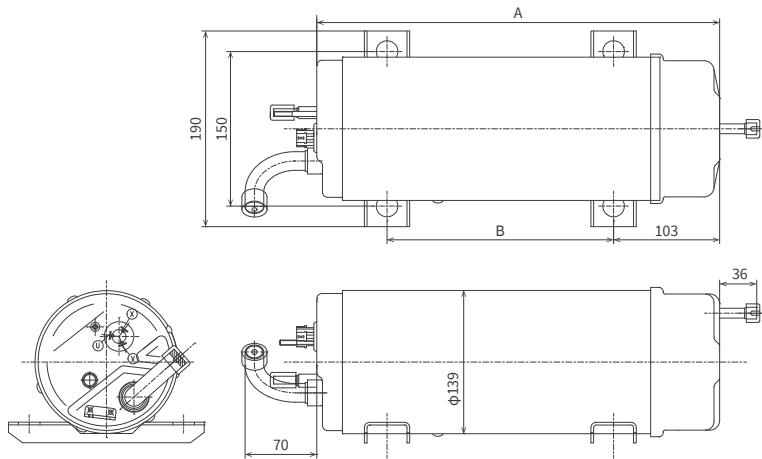
# SPECIFICATION

## DS Series



## DIMENSIONS

	mm	
	A	B
<b>DS1836S1</b>	391	
<b>DS1529</b>		220
<b>DS1834</b>	386	
<b>DS2244V1</b>	441	270



## WORKING RANGE

### R404A

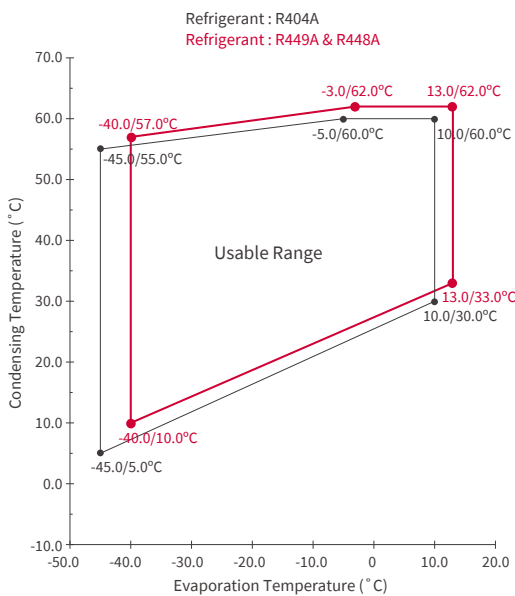
DS1836S1/DS1529S1/DS1529X1/DS1529V1/DS1834X1/DS1834V1/DS2244V1

### R449A

DS1836S1/DS1529S1/DS1529X1/DS1834X1

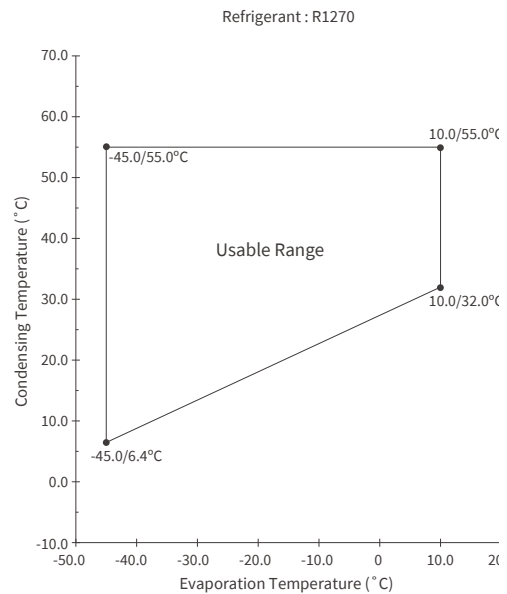
### R448A

DS1529X1/DS1834X1



### R1270

DS1836S1/DS1529S1





SCROLL COMPRESSORS FOR REFRIGERATION USE

SPECIFICATION

# SPECIFICATION

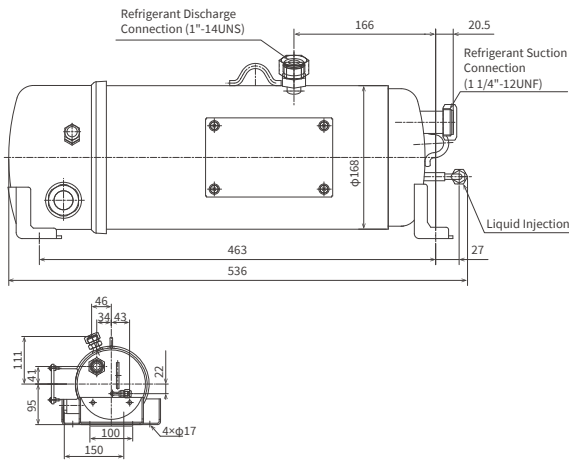
## FL Series



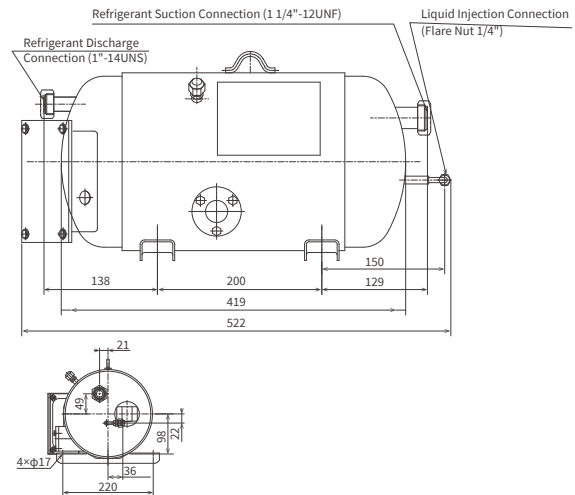
## DIMENSIONS

Unit:mm

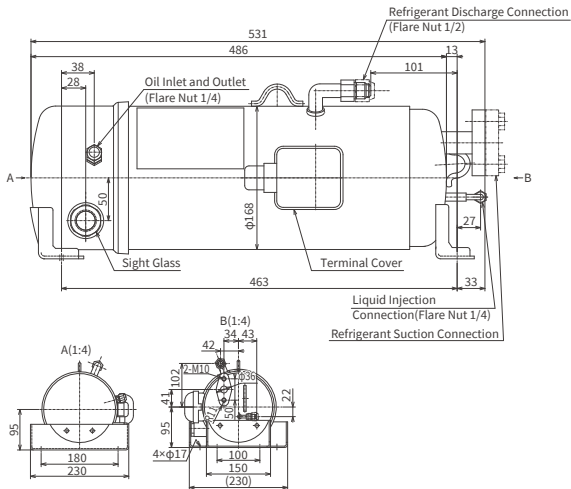
**MODEL:**  
**FL200DL-40D7C,**  
**FL300DL-56D7C**



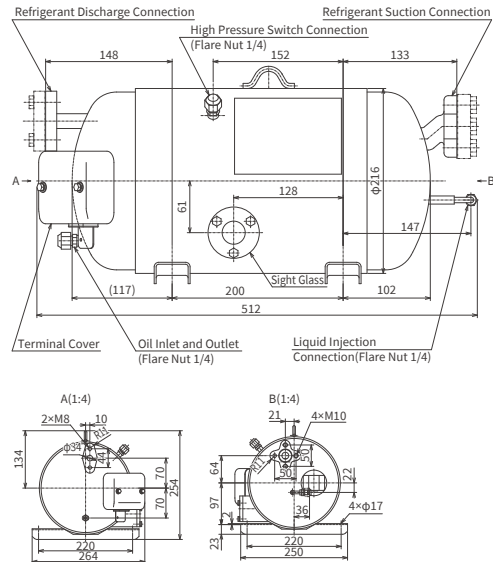
**MODEL:**  
**FL400DL-72D7C,**  
**FL500DL-90D7C**



**MODEL:**  
**FL300DLV**



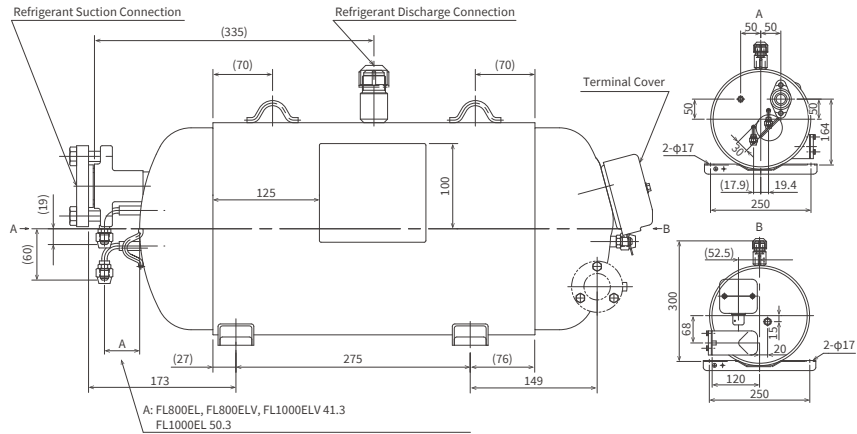
**MODEL:**  
**FL600DLV-90A3**





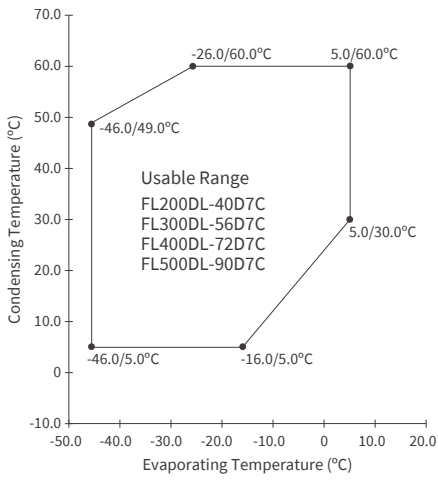
**DIMENSIONS**

**MODEL:**  
FL800EL,  
FL800ELV

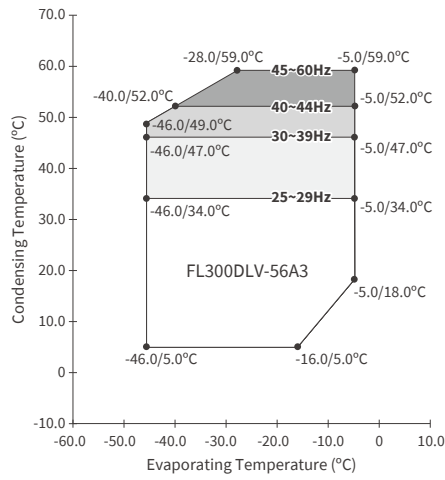


**WORKING RANGE**

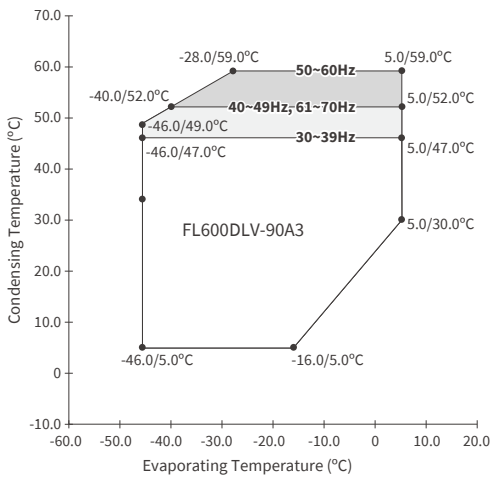
**Fixed Speed**



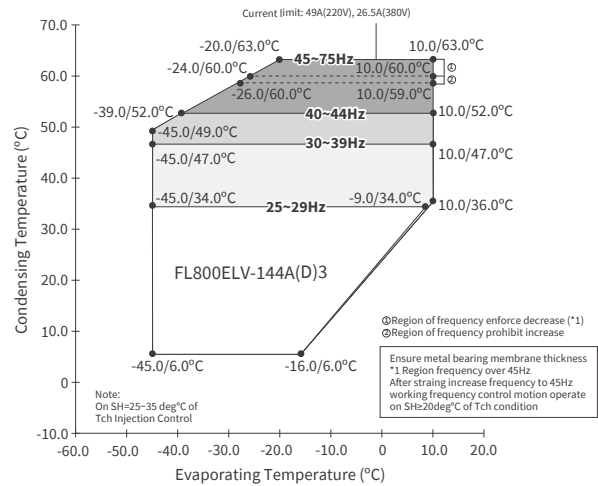
**AC inverter**



**AC inverter**



**AC inverter**



# SPECIFICATION

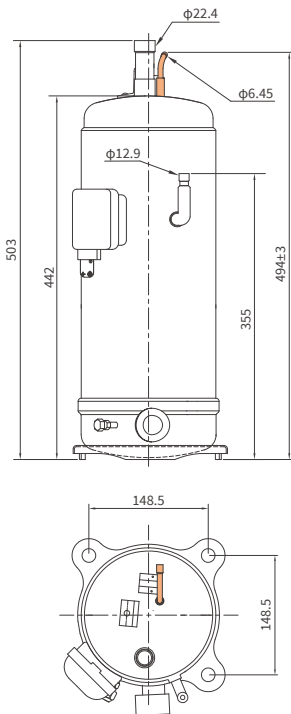
## LS, MS, NS Series



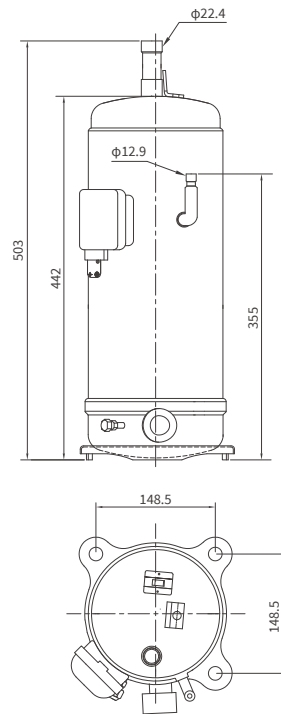
## DIMENSIONS

Unit:mm

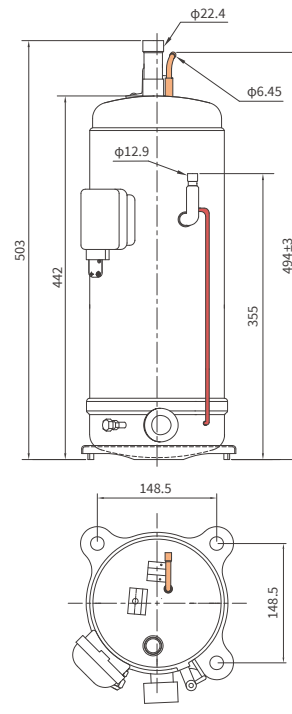
### LS, MS Standard Series



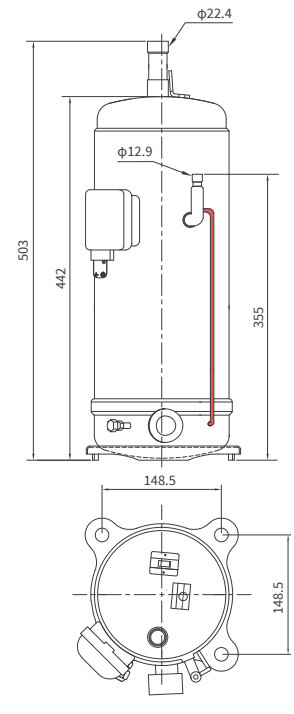
### NS Standard Series



### LS, MS Multiple Series

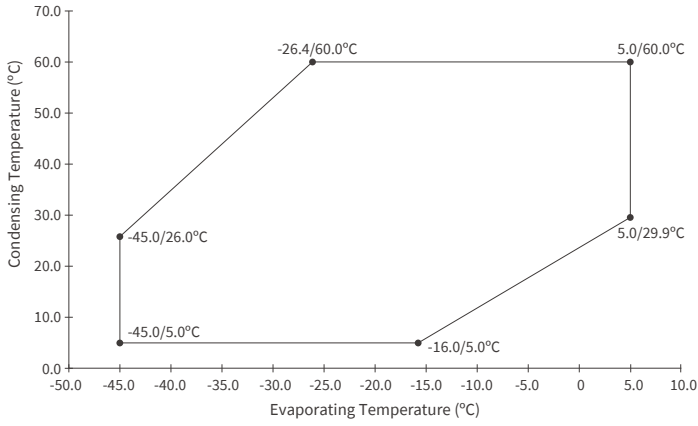


### NS Multiple Series

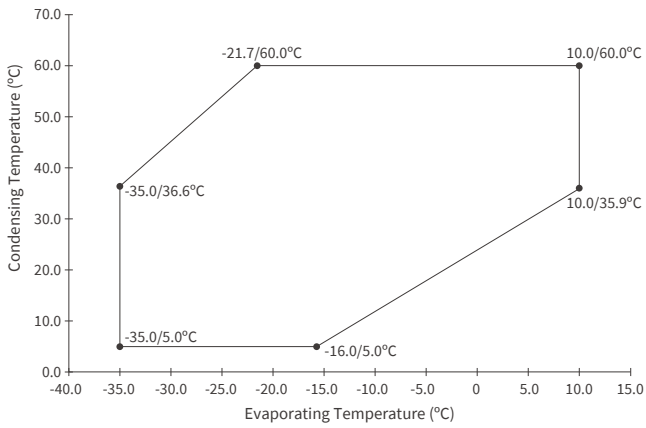


**WORKING RANGE**

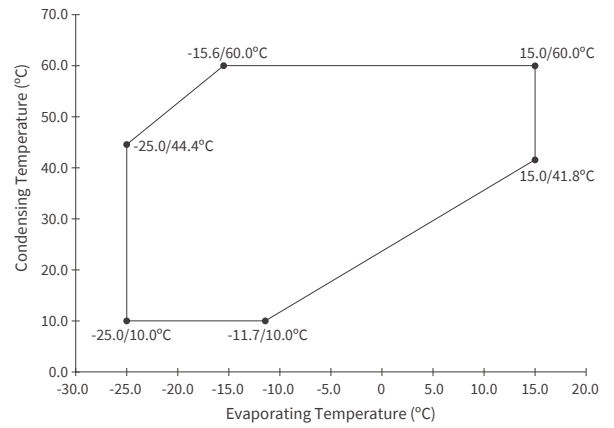
**LS Series (R404)**



**MS Series (R404)**



**NS Series (R404)**



SCROLL COMPRESSORS FOR REFRIGERATION USE

SPECIFICATION



Hitachi

## Johnson Controls - Hitachi Air Conditioning

### HEAD QUARTER

New Pier Takeshiba South Tower  
1-16-1, Kaigan Minato-ku, Tokyo 105-0022, JAPAN  
[www.jci-hitachi.com](http://www.jci-hitachi.com)

### Product Web Address

<https://www.jci-hitachi.com/products/compressors>



### Catalogue Page

<https://www.jci-hitachi.com/products/catalog>



### Contact Address

<https://www.jci-hitachi.com/products/contact/>



### CERTIFICATION



ISO 9000 series  
Shimizu Air Conditioning Headquarters, Professional-Use Air Conditioning  
Business Division, Johnson Controls – Hitachi Air Conditioning  
JQA-1084 obtained in November 1995



ISO 14000 series  
Shimizu Business Office, Johnson Controls – Hitachi Air Conditioning  
EC97J1107 obtained in October 1997