



**HITACHI**  
Air conditioning solutions

**HITACHI**

# Scroll Compressors

For Refrigeration Use

air

## 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



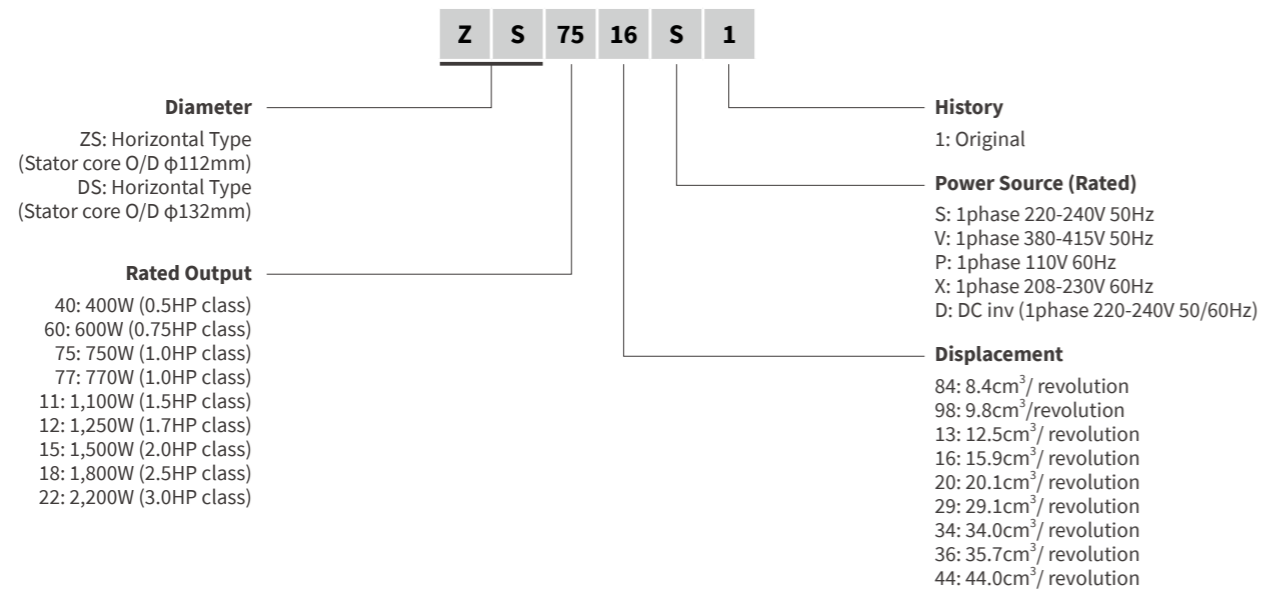
ISO 14000 series  
Shimizu Business Office, Johnson Controls - Hitachi Air Conditioning  
EC97J1107 obtained in October 1997



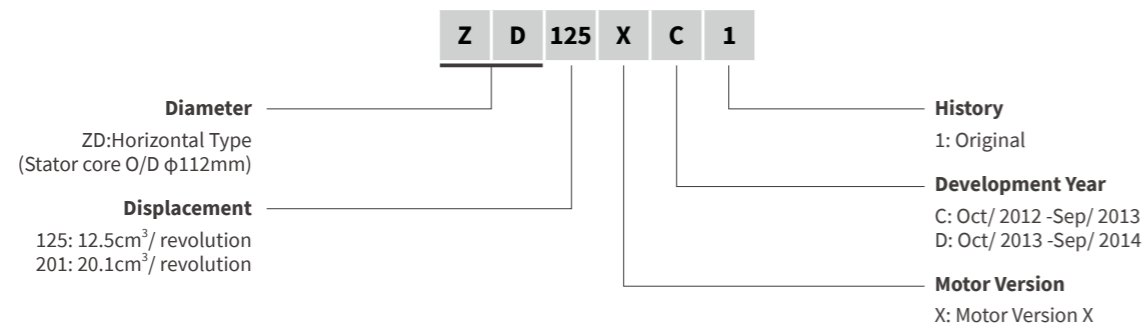


# NOMENCLATURE

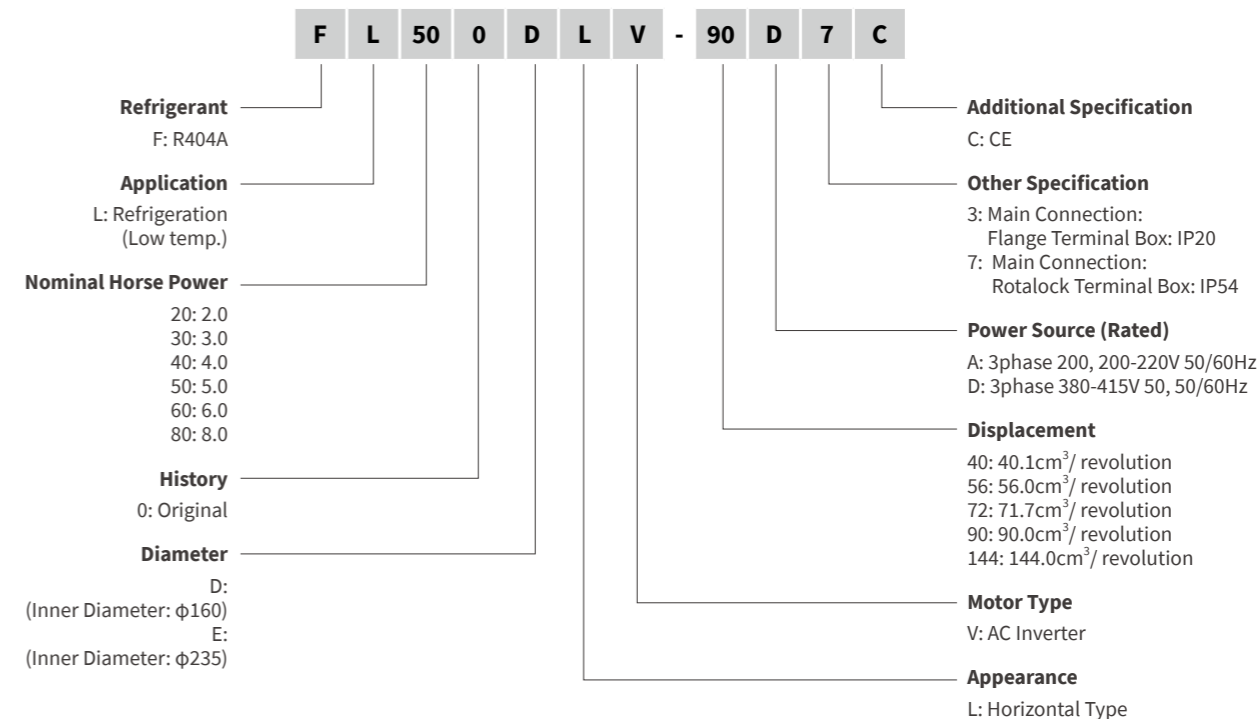
## Z Series & DS Series (Type A)



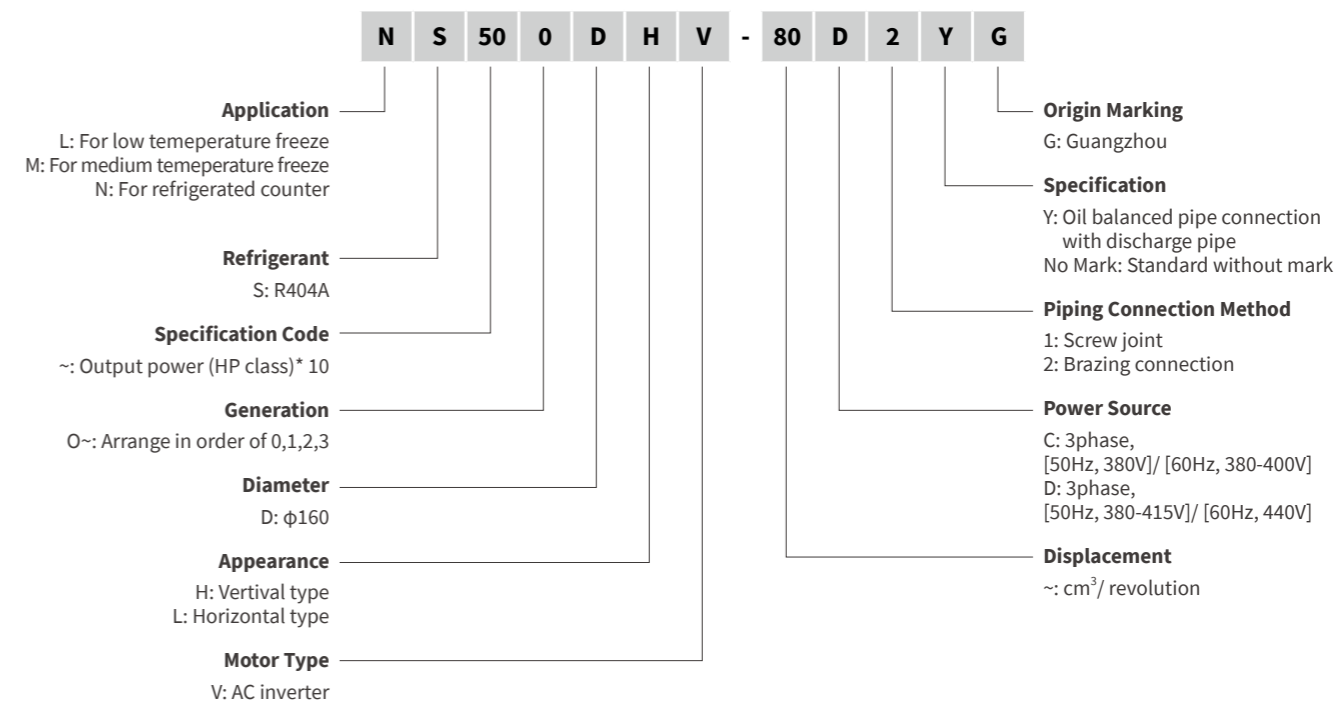
## (Type B)



## FL Series



## LS, MS, NS Series



# 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	1	1	1	1	1	1	1		
	Voltage	V	220-240	220-240	220-240	220-240	220-240	220-230	220-230	
	Frequency	Hz	50	50	50	50	50	50	50	
Oil		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	EN12900 MT	
	N(Hz)	50	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	5,835
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								
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	1	1	1	1	1	1	1	1									
	Voltage	V	115	115	208-230	208-230	208-230	208-230	208-230	208-230								
	Frequency	Hz	60	60	60	60	60	60	60	60								
Oil		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	EN12900 ARI540	EN12900 ARI540	EN12900 ARI540	EN12900 ARI540	
	N(Hz)	60	60	60	60	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	7,586
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	1	1	1						1						
	Voltage	V	220-240	220-240						208-230						
	Frequency	Hz	50	50						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	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT
	N(Hz)	50	50	50	60	60	60	60	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	3			3			3
	Voltage	V			380-415			380-415
	Frequency	Hz			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	
	N(Hz)	50	50	50	50	50	50	
Performance	R404A	Cooling Capacity	W	2,875	1,110	3,360	1,300	4,345
		BTU/h	9,811	3,788	11,466	4,436	14,827	5,733
Performance	R410A	Cooling Capacity	W	-	-	-	-	-
		BTU/h	-	-	-	-	-	-
Certificate		CE			CE			CE



# GENERAL DATA

## Z Series DC inverter

Series				Z															
Model				ZS7798D1						ZS1216D1									
Scroll Profile				Algebraic															
Rated Output				770						1,250									
Displacement				9.8						15.9									
Power supply				DC inverter						DC inverter									
Oil				POE						POE									
Oil Charge				550						650									
Weight				10.8						11.1									
				23.8						24.5									
Overload Protection				OHR(Overheat relay)						OHR(Overheat relay)									
Motor Type				DC Inverter						DC Inverter									
Test Condition				EN12900 MT		ARI540 MT		EN12900 LT		ARI540 LT		EN12900 MT		ARI540 MT		EN12900 LT		ARI540 LT	
				25 100		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						CE									

Series				Z															
Model				ZS1520D1						ZS098XJ1									
Scroll Profile				Algebraic															
Rated Output				1,500						770									
Displacement				20.1						9.8									
Power supply				DC inverter						DC inverter									
Oil				POE						POE									
Oil Charge				650						550									
Weight				10.9						10.8									
				24.0						23.8									
Overload Protection				OHR(Overheat relay)						OH thermista(Temperature detection) + Inverter control									
Motor Type				DC Inverter						DC Inverter									
Test Condition				EN12900 MT		ARI540 MT		EN12900 LT		ARI540 LT		EN12900 MT		ARI540 MT		EN12900 LT		ARI540 LT	
				25 91.7		25 91.7		25 91.7		25 91.7		25 100		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						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						1,500									
Displacement				15.9						20.1									
Power supply				DC inverter						DC inverter									
Oil				POE						POE									
Oil Charge				650						650									
Weight				11.1						10.9									
				24.5						24.0									
Overload Protection				OH thermista(Temperature detection) + Inverter control						OH thermista(Temperature detection) + Inverter control									
Motor Type				DC Inverter						DC Inverter									
Test Condition				EN12900 MT		ARI540 MT		EN12900 LT		ARI540 LT		EN12900 MT		ARI540 MT		EN12900 LT		ARI540 LT	
				25 100		25 100		25 100		25 100		25 91.7		25 91.7		25 91.7		25 91.7	
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
	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						CE									

Series				Z															
Model				ZD125XC1						ZD201XC1									
Scroll Profile				Algebraic															
Rated Output				750						1,500									
Displacement				12.5						20.1									
Power supply				DC inverter						DC inverter									
Oil				POE						POE									
Oil Charge				510						600									
Weight				11.0						11.0									
				24.3						24.3									
Overload Protection				OH thermista(Temperature detection) + Inverter control						OH thermista(Temperature detection) + Inverter control									
Motor Type				DC Inverter						DC Inverter									
Test Condition				EN12900 MT		ARI540 MT		EN12900 LT		ARI540 LT		EN12900 MT		ARI540 MT		EN12900 LT		ARI540 LT	
				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						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	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	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	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				LS			
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

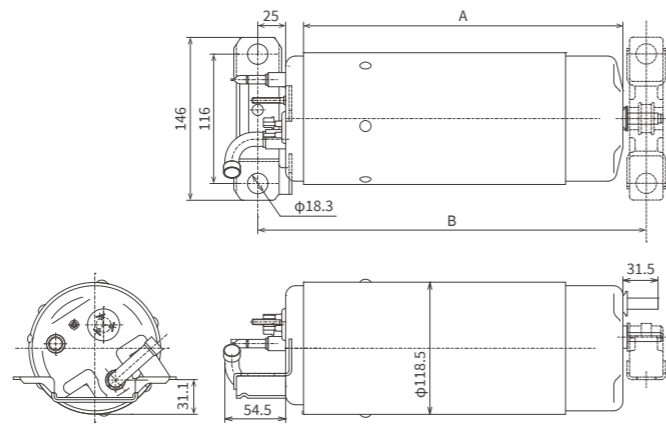
# SPECIFICATION

## Z Series



## DIMENSIONS

	mm	
	A	B
ZS4084	311	357
ZS6013	316	362
ZS7516	321	367
ZS1120	302	348
ZS7798/ZS098	302	348
ZS1216/ZS159	307	353
ZS1520/ZS201	307	353
ZD125XC1	302	348
ZD201XC1	307	353



## WORKING RANGE

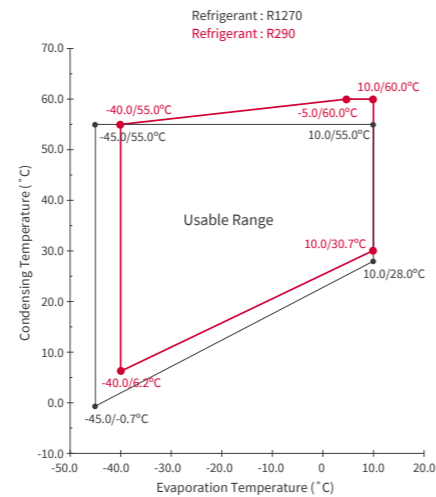
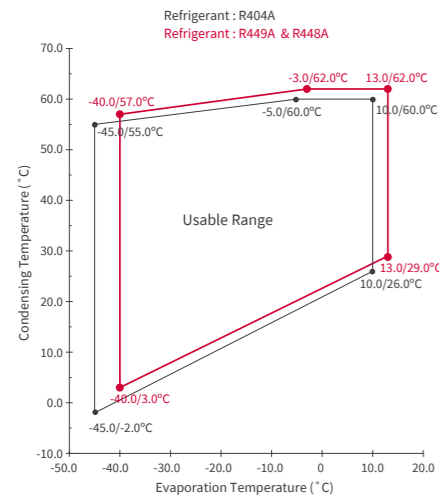
**R404A**  
ZS4084S1/ZS4084P1/ZS6013S1/ZS6013P1/ZS6013X1/ZS7516S1/ZS7516X1

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

**R448A**  
ZS6013X1/ZS7516X1

**R1270**  
ZS7516S3

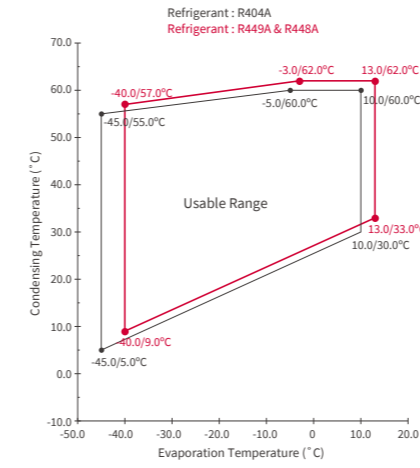
**R290**  
ZS6013X3/ZS7516S3/ZS7516X3



## WORKING RANGE

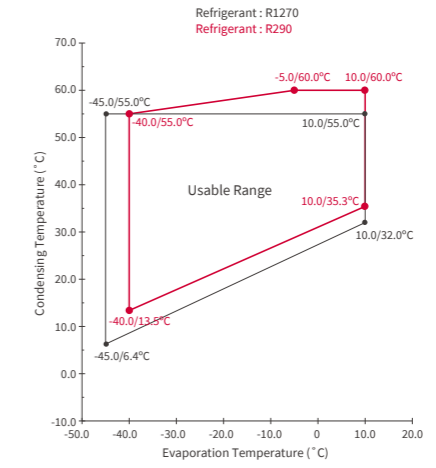
**R404A**  
ZS1120S1/ZS1120S2/ZS1120X1

**R449A**      **R448A**  
ZS1120S1/ZS1120X1      ZS1120X1



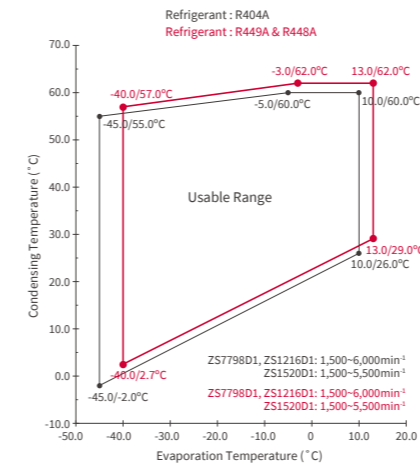
**R1270**  
ZS1120S3

**R290**  
ZS1120S3/ZS1120X3



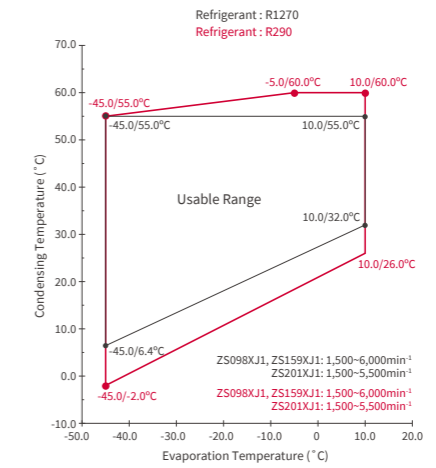
**R404A**  
ZS7798D1/ZS1216D1/ZS1520D1

**R449A, R448A**  
ZS7798D1/ZS1216D1/ZS1520D1

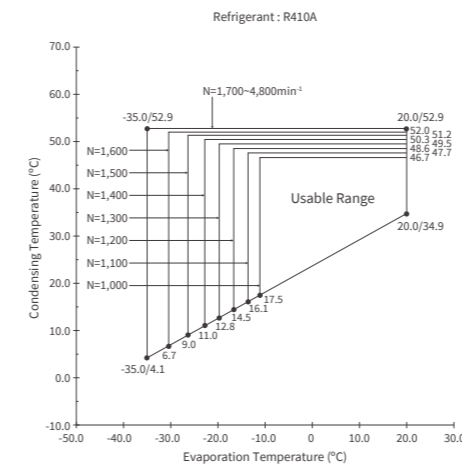


**R1270**  
ZS098XJ1/ZS159XJ1/ZS201XJ1

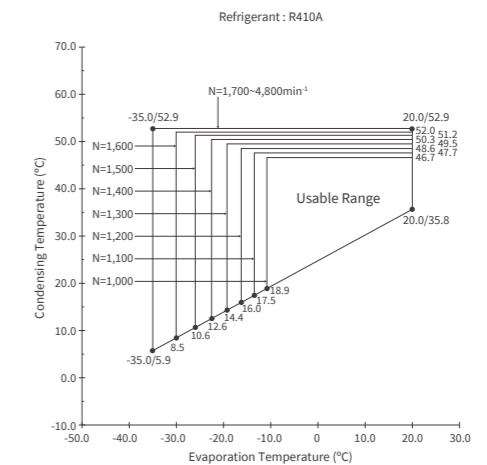
**R290**  
ZS098XJ1/ZS159XJ1/ZS201XJ1



**R410A**  
ZD125XC1



**R410A**  
ZD201XC







# SPECIFICATION

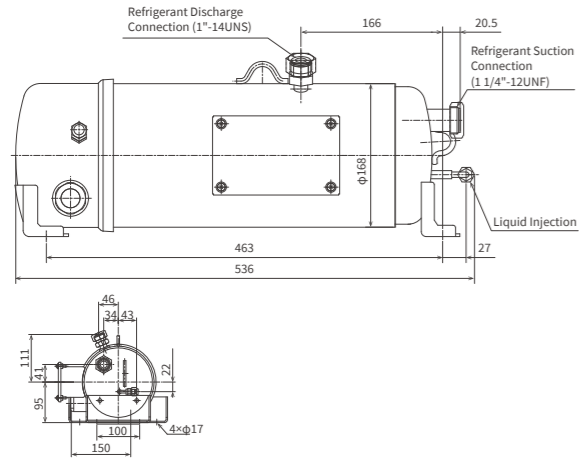
## FL Series



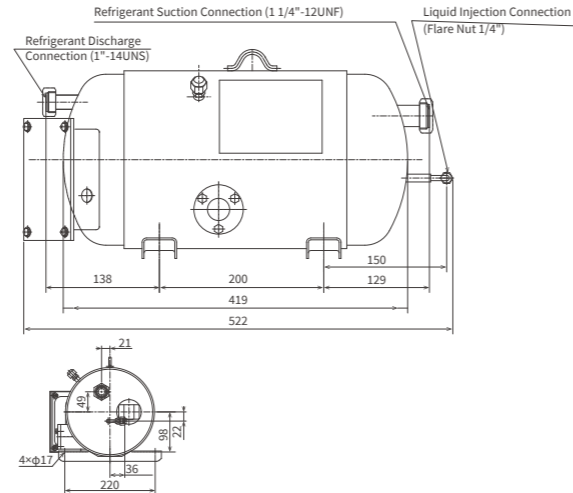
### DIMENSIONS

Unit:mm

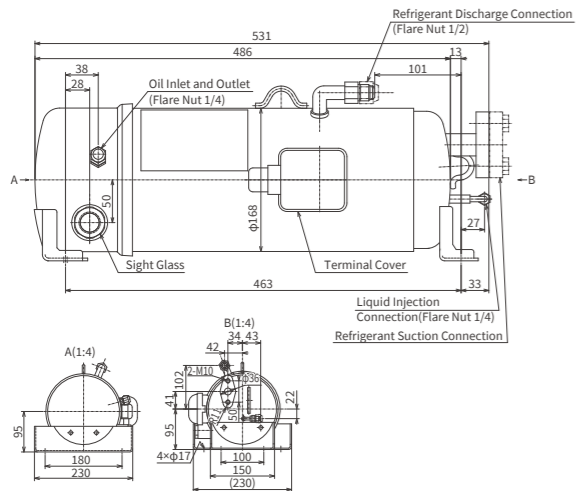
**MODEL:**  
FL200DL-40D7C,  
FL300DL-56D7C



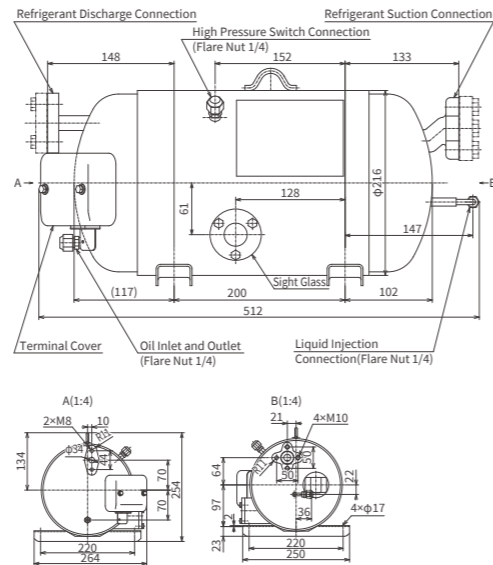
**MODEL:**  
FL400DL-72D7C,  
FL500DL-90D7C



**MODEL:**  
FL300DLV

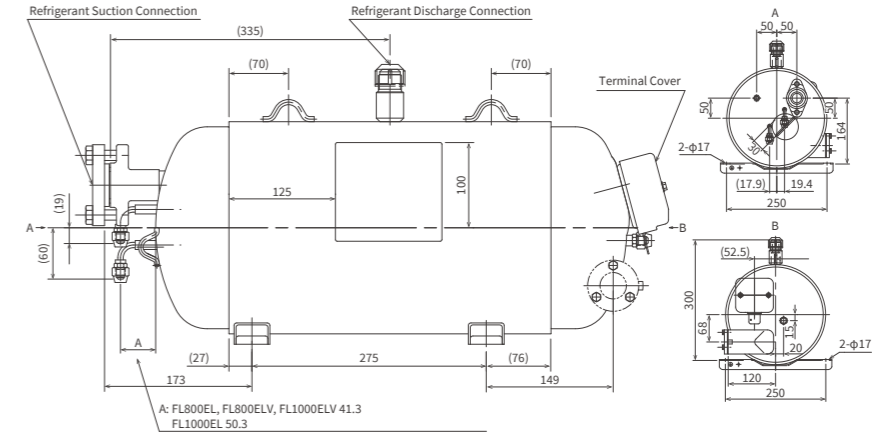


**MODEL:**  
FL600DLV-90A3



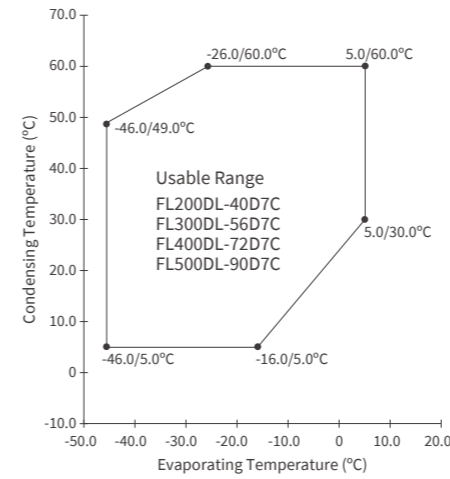
### DIMENSIONS

**MODEL:**  
FL800EL,  
FL800ELV

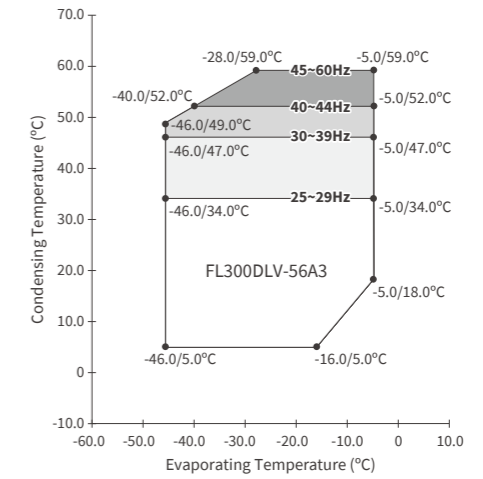


### WORKING RANGE

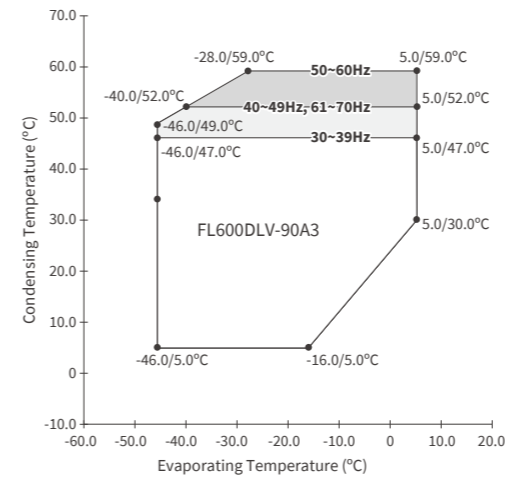
#### Fixed Speed



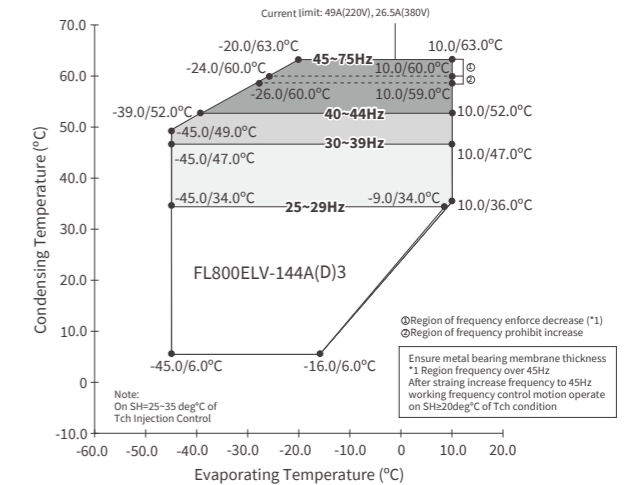
#### AC inverter



#### AC inverter



#### AC inverter



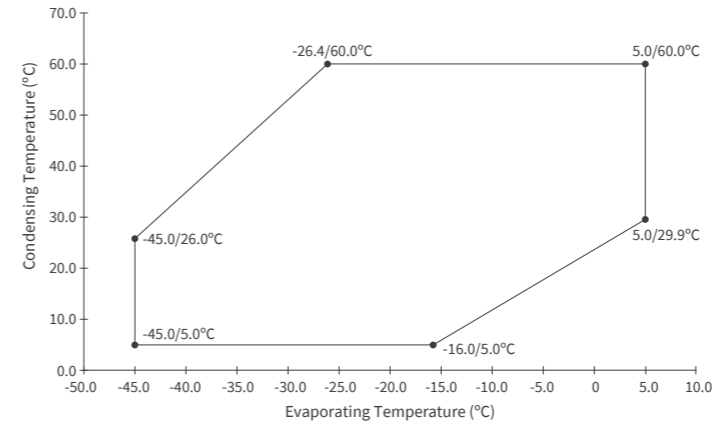
SPECIFICATION

LS, MS, NS Series

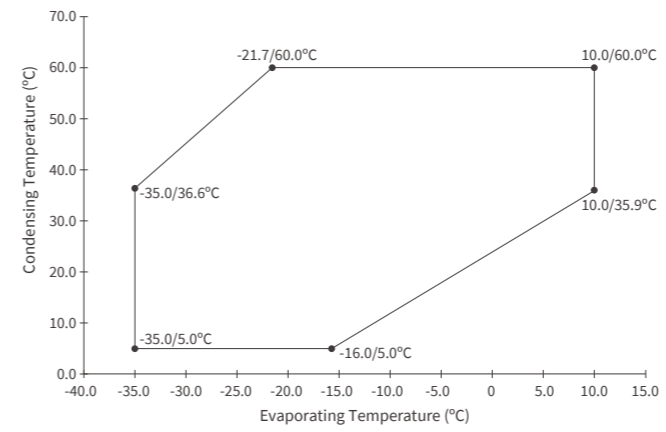


WORKING RANGE

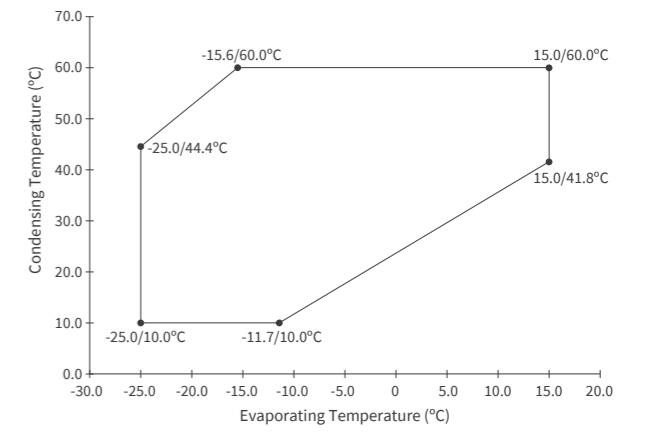
LS Series (R404)



MS Series (R404)



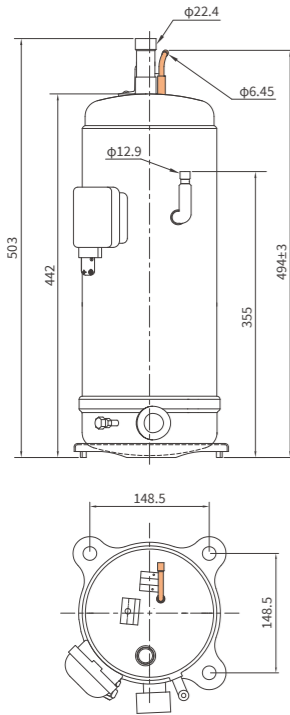
NS Series (R404)



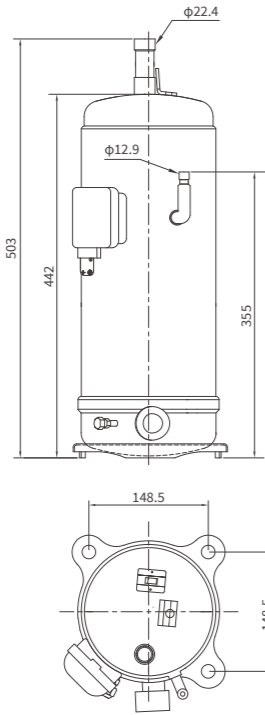
DIMENSIONS

Unit:mm

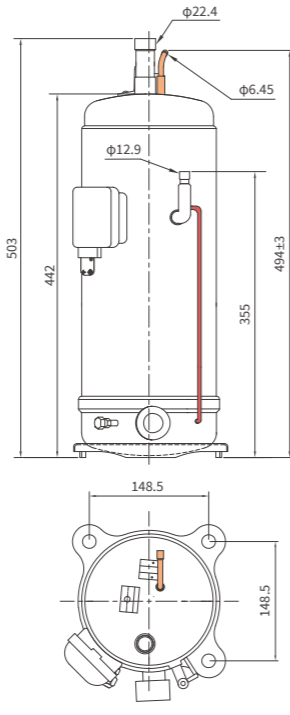
LS, MS Standard Series



NS Standard Series



LS, MS Multiple Series



NS Multiple Series

