

DC Inverter Air Source Heat Pumps (Monoblock Type)

1. Working source temperature range: -30°C to 45°C
2. Control Object: **water tank temperature**
(Setting range: Heating: $30^{\circ}\text{C} \sim 55^{\circ}\text{C}$; Cooling: $32^{\circ}\text{C} \sim 12^{\circ}\text{C}$)
3. Control Way: **wire controller**
4. Water Pump: start/stop according to water tank temp
5. Working Modes: hot water/heating/cooling/hot water+cooling/hot water+heating

CGK025V3L-B, CGK-025V3L-B
CGK030V3L-B, CGK-030V3L-B
CGK040V3L-B, CGK-040V3L-B



CGK050V3L-B, CGK-050V3L-B



CGK060V3L-B, CGK-060V3L-B












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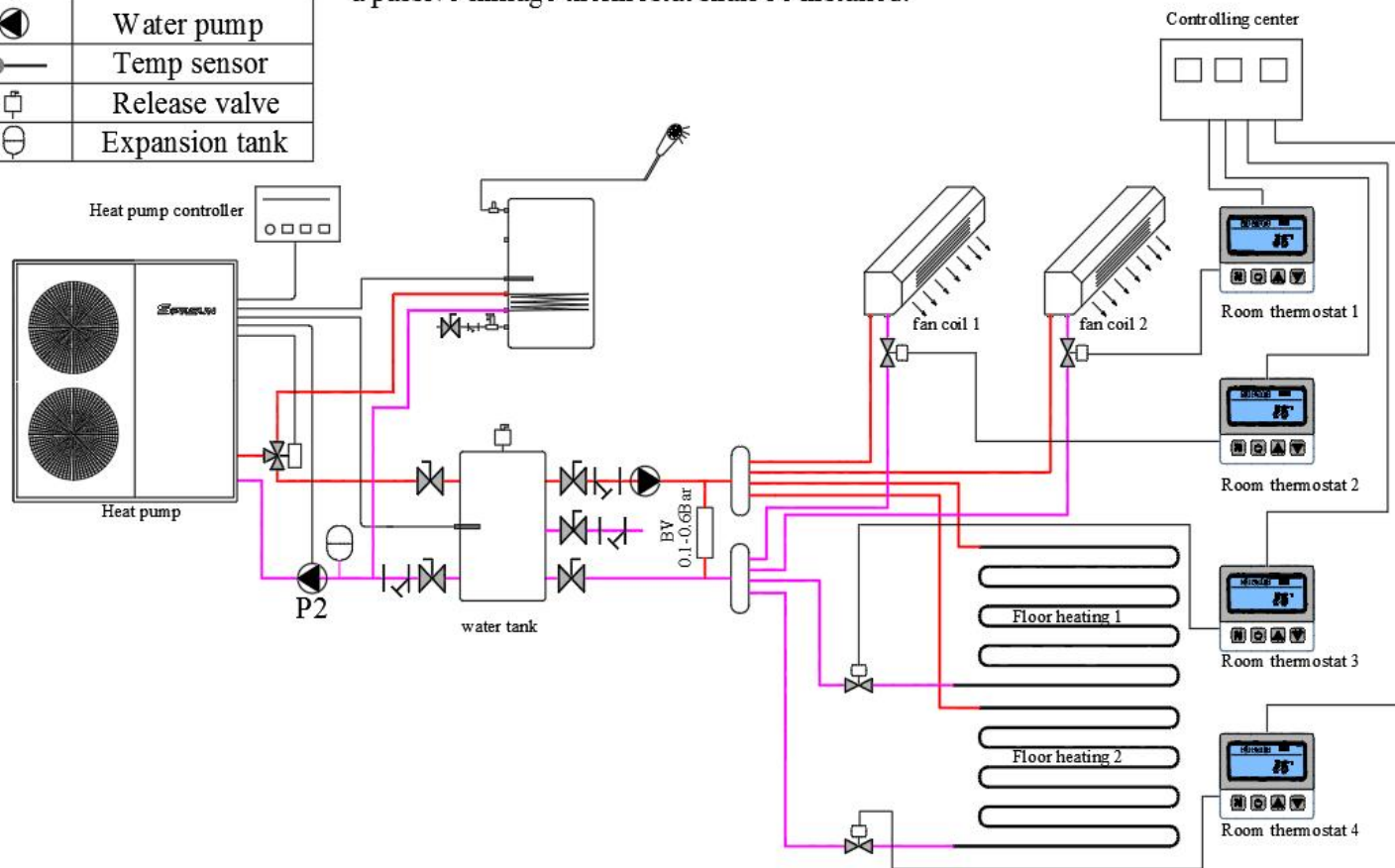
Guangzhou Sprsun New Energy Technology Development Co., Ltd.

Installation Diagram

Symbol	Name
	3-way valve
	2-way valve
	Ball valve
	Non-return valve
	Filter
	Water pump
	Temp sensor
	Release valve
	Expansion tank










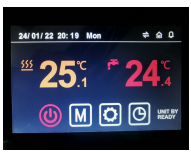
Notice:

1. Pls select the right modes according to your demand then install it according to the installation diagram. If only hot water function required, pls select heating+hot water mode , and then put the hot water sensor into the hot water tank.
2. Two-way valve and BV valve are optional for installation. Only If you need to control the temperature by different zone, then pls install both.
3. Fan coil can be controlled by linkage with the secondary circulation pump . Meanwhile, a passive linkage thermostat shall be installed.



SPRSUN DC inverter air source heat pump

Standard Materials

Name	Description	Picture	Name	Description	Picture	Name	Description	Picture
Condenser	Plate Heat Exchanger		Evaporator	Hydropilic Aluminium foil and internal thread copper pipe heat exchanger		High Pressure Sensor	Manqiwei 0-4.5MPa	
Compressor	Panasonic Rotary Compressor		Expansion Valve	Danfoss Electronic expansion valve		Low Pressure Sensor	Manqiwei 0-3.45MPa	
4-way valve	SANHUA		DC Fan	NIDEC DC Fan		Package	corrugated board case / plywood case	
Controller	Touch screen Controller							

Unit Name		DC Inverter Air Source Heat Pumps (Monoblock Type)																																					
Model		CGK015V3L-B	CGK025V3L-B	CGK030V3L-B	CGK040V3L-B	CGK050V3L-B	CGK060V3L-B	CGK-025V3L-B	CGK-030V3L-B	CGK-040V3L-B	CGK-050V3L-B	CGK-060V3L-B	CGK-080V3L-B																										
Power Supply / Refrigerant	V/Hz/P	220-240/50/1 - R32							380-420/50/3 - R32																														
Max. Heating Capacity (A7°C/W35°C)	kW	6		9.4		11.6		15.8		19.8		21.8		9.4		11.6		15.8		19.8		21.8		28															
C.O.P (A7°C/W35°C)	W/W	4.45		4.56		4.41		4.61		4.71		4.61		4.56		4.42		4.62		4.72		4.62		4.62															
Heating Capacity Min./Max.(A7°C/W35°C)	kW	2.76	/	6	4.32	/	9.40	5.34	/	11.60	7.27	/	15.80	9.11	/	19.80	10.03	/	21.80	4.32	/	9.40	5.34	/	11.60	7.27	/	15.80	9.11	/	19.80	10.03	/	21.80	12.88	/	28.00		
Heating Power Input Min./Max.(A7°C/W35°C)	W	564	/	1348	759	/	2061	968	/	2630	1261	/	3427	1547	/	4204	1740	/	4729	759	/	2061	966	/	2824	1259	/	3420	1544	/	4195	1736	/	4719	2230	/	6061		
C.O.P Min./Max.(A7°C/W35°C)	W/W	4.45	/	4.90	4.56	/	5.70	4.41	/	5.51	4.61	/	5.76	4.71	/	5.89	4.61	/	5.76	4.56	/	5.70	4.42	/	5.53	4.62	/	5.78	4.72	/	5.90	4.62	/	5.78	4.62	/	5.78		
Max. Heating Capacity(A7°C/W45°C)	kW	5.8		9.0		11.1		15.2		19.0		20.9		9.0		11.1		15.2		19.0		20.9		26.9															
C.O.P (A7°C/W45°C)	W/W	3.56		3.65		3.53		3.69		3.77		3.69		3.65		3.54		3.70		3.65		3.70		3.70															
Heating Capacity Min./Max.(A7°C/W45°C)	kW	2.65	/	5.76	4.15	/	9.02	5.12	/	11.14	6.98	/	15.17	8.74	/	19.01	9.63	/	20.93	4.15	/	9.02	5.12	/	11.14	6.98	/	15.17	8.74	/	19.01	9.63	/	20.93	12.36	/	26.88		
Heating power input Min./Max.(A7°C/W45°C)	W	677	/	1618	958	/	2474	1223	/	3156	1593	/	4113	1954	/	5045	2198	/	5675	958	/	2474	1220	/	3149	1590	/	4104	1950	/	5034	2193	/	5662	2817	/	7273		
C.O.P Min./Max.(A7°C/W45°C)	W/W	3.56	/	3.92	3.65	/	4.33	3.53	/	4.19	3.69	/	4.38	3.77	/	4.47	3.69	/	4.38	3.65	/	4.33	3.54	/	4.20	3.70	/	4.39	3.78	/	4.48	3.70	/	4.39	3.70	/	4.39		
Max. Cooling Capacity(A35°C/W18°C)	kW	5.5		8.6		10.6		14.4		18.1		19.9		8.6		10.6		14.4		18.1		19.9		25.5															
E.E.R (A35°C/W18°C)	W/W	3.45		3.54		3.42		3.58		3.65		3.58		3.54		3.43		3.59		3.66		3.59		3.59															
Cooling Capacity Min./Max.(A35°C/W18°C)	kW	2.52	/	5.47	3.94	/	8.57	4.87	/	10.58	6.63	/	14.41	8.31	/	18.06	9.15	/	19.88	3.94	/	8.57	4.87	/	10.58	6.63	/	14.41	8.31	/	18.06	9.15	/	19.88	11.75	/	25.54		
Cooling Power Input Min./Max.(A35°C/W18°C)	W	656	/	1852	929	/	2423	1185	/	3091	1544	/	4028	1894	/	4941	2131	/	5558	929	/	2423	1183	/	3084	1541	/	4019	1890	/	4930	2126	/	5546	2731	/	7123		
E.E.R Min./Max.(A35°C/W18°C)	W/W	2.95	/	3.84	3.54	/	4.25	3.42	/	4.11	3.58	/	4.29	3.65	/	4.39	3.58	/	4.29	3.54	/	4.25	3.43	/	4.12	3.59	/	4.30	3.66	/	4.39	3.59	/	4.30	3.59	/	4.30		
Max. Cooling Capacity(A35°C/W7°C)	kW	4.3		6.0		7.5		10.2		12.7		14.0		6.0		7.5		10.2		12.7		14.0		18.0															
E.E.R(A35°C/W7°C)	W/W	2.59		2.48		2.40		2.50		2.56		2.50		2.48		2.40		2.51		2.56		2.51		2.51															
Cooling Capacity Min./Max.(A35°C/W7°C)	kW	1.99	/	4.32	2.78	/	6.05	3.43	/	7.46	4.67	/	10.16	5.86	/	12.74	6.45	/	14.02	2.78	/	6.05	3.43	/	7.46	4.67	/	10.16	5.86	/	12.74	6.45	/	14.02	8.28	/	18.01		
Cooling Power Input Min./Max.(A35°C/W7°C)	W	575	/	1720	744	/	2441	950	/	3115	1238	/	4058	1518	/	4978	1708	/	5599	744	/	2441	948	/	3108	1235	/	4049	1515	/	4967	1704	/	5587	2189	/	7176		
E.E.R Min./Max.(A35°C/W7°C)	W/W	2.51	/	3.45	2.48	/	3.74	2.40	/	3.61	2.50	/	3.78	2.56	/	3.86	2.50	/	3.78	2.48	/	3.74	2.40	/	3.62	2.51	/	3.79	2.56	/	3.87	2.51	/	3.79	2.51	/	3.79		
Max Power Input	kW	2.02		3.09		3.95		5.14		6.31		7.09		3.09		3.94		5.13		6.29		7.08		9.09															
Max Current	A	9.68		14.79		18.88		24.60		30.17		33.94		6.53		8.31		10.83		13.28		14.94		19.18															
Wire diameter	mm ²	2.5		4.0		4.0		6.0		6.0		6.0		2.5		2.5		2.5		4.0		4.0		4.0															
Fuse or circuitbreaker	A	13A		20A		25A		32A		40A		40A		13A		13A		16A		20A		20A		25A															
Compressor	Type - Quantity/System	Twin Rotary - 1																																					
Fan	Quantity	1		1		1		1		2		2		1		1		1		2		2		2															
	Airflow	m ³ /h	1500		2500		3000		3500		5000		5500		2500		3000		3500		5000		5500		7500														
	Rated power	W	30		80		100		120		200		210		80		100		120		200		210		250														
Water Side Heat Exchanger	Type	Plate Heat Exchanger																																					
Water Side Heat Exchanger	Water Pressure Drop	kPa	15		18		20		21		23		25		18		20		21		23		25		25														
	Piping Connection	Inch	G3/4"		G1"		G1"		G1"		G1"		G1"		G1"		G1"		G1"		G1"		G1"		G1"														
Allowable Water Flow	Min./Rated./Max.	L/S	0.18	0.29	0.48	0.28	0.45	0.75	0.35	0.55	0.92	0.47	0.75	1.26	0.59	0.95	1.58	0.65	1.04	1.74	0.28	0.45	0.75	1.26	0.35	0.55	0.92	0.47	0.75	1.26	0.59	0.95	1.58	0.65	1.04	1.74	0.84	1.34	2.23
Noise Level	dB(A)	49		56		59		60		61		62		56		59		60		61		62		65															
机身尺寸Net Dimension(L×D×H)	mm	990*375*655		1110*475*810		1110*475*810		1110*475*960		1110*475*1355		1110*475*1355		1110*475*810		1110*475*810		1110*475*960		1110*475*1355		1110*475*1355		1110*475*1455															
纸箱包装外尺寸Packing Dimension(L×D×H)	mm	1100*460*725		1165*490*960		1165*490*960		1165*490*1100		1165*490*1520		1165*490*1520		1165*490*960		1165*490*960		1165*490*1100		1165*490*1520		1165*490*1520		1165*490*1590															
夹板包装外尺寸Packing Dimension(L×D×H)	mm	1070*405*800		1200*540*970		1200*540*970		1200*540*1120		1200*540*1510		1200*540*1510		1200*540*970		1220*540*970		1200*540*1120		1200*540*1510		1200*540*1510		1200*540*1610															
净重Net Weight	kg	59		78		88		105		124		124		78		88		105		124		124		150															
纸箱包装毛重Gross Weight	kg	70		101		105		120		150		150		101		105		120		150		150		183															
夹板包装毛重Gross Weight	kg	80		106		116		126		161		161		106		116		126		161		161		188															
Note: (1) Heating condition: water inlet/outlet temperature: 30°C/35°C, Ambient temperature: DB 7°C/WB 6°C;																																							
(2) Heating condition: water inlet/outlet temperature: 40°C/45°C, Ambient temperature: DB 7°C/WB 6°C;																																							
(3) Cooling condition: water inlet/outlet temperature: 23°C/18°C, Ambient temperature: DB35°C/WB24°C;																																							
(4) Cooling condition: water inlet/outlet temperature: 12°C/7°C, Ambient temperature: DB35°C/WB24°C;																																							

Heating Capacity at Different Conditions

Model	CGK015V3L-B			CGK025V3L-B			CGK030V3L-B			CGK040V3L-B			CGK050V3L-B			CGK060V3L-B			CGK025V3L-B			CGK030V3L-B			CGK040V3L-B			CGK050V3L-B			CGK060V3L-B																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Air temp °C	Heating capacity (KW)									Heating capacity (KW)									Heating capacity (KW)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
-25	2.71	2.67	2.84	4.25	4.19	4.46	5.25	5.17	5.50	7.15	6.61	7.49	8.96	8.28	9.39	9.86	9.12	10.33	12.00	11.26	12.57	14.25	13.51	14.82	16.50	15.76	17.07	18.75	18.01	19.32	21.00	20.26	21.57	23.25	22.51	23.82	25.50	24.76	26.07	27.75	27.01	28.32	30.00	29.26	30.57	32.25	31.51	32.82	34.50	33.76	35.07	36.75	36.01	37.32	39.00	38.26	39.57	41.25	40.51	41.82	43.50	42.76	44.07	45.75	45.01	46.32	48.00	47.26	48.57	50.25	49.51	50.82	52.50	51.76	53.07	54.75	54.01	55.32	57.00	56.26	57.57	59.25	58.51	59.82	61.50	60.76	62.07	63.75	63.01	64.32	66.00	65.26	66.57	68.25	67.51	68.82	70.50	69.76	71.07	72.75	72.01	73.32	75.00	74.26	75.57	77.25	76.51	77.82	79.50	78.76	80.07	81.75	81.01	82.32	84.00	83.26	84.57	86.25	85.51	86.82	88.50	87.76	89.07	90.75	90.01	91.32	93.00	92.26	93.57	95.25	94.51	95.82	97.50	96.76	98.07	99.75	99.01	100.32	102.00	101.26	102.57	104.25	103.51	104.82	106.50	105.76	107.07	108.75	108.01	109.32	111.00	110.26	111.57	113.25	112.51	113.82	115.50	114.76	116.07	117.75	117.01	118.32	120.00	119.26	120.57	122.25	121.51	122.82	124.50	123.76	125.07	126.75	126.01	127.32	129.00	128.26	129.57	131.25	130.51	131.82	133.50	132.76	134.07	135.75	135.01	136.32	138.00	137.26	138.57	140.25	139.51	140.82	142.50	141.76	143.07	144.75	144.01	145.32	147.00	146.26	147.57	149.25	148.51	149.82	151.50	150.76	152.07	153.75	153.01	154.32	156.00	155.26	156.57	158.25	157.51	158.82	160.50	159.76	161.07	162.75	162.01	163.32	165.00	164.26	165.57	167.25	166.51	167.82	169.50	168.76	170.07	171.75	171.01	172.32	174.00	173.26	174.57	176.25	175.51	176.82	178.50	177.76	179.07	180.75	180.01	181.32	183.00	182.26	183.57	185.25	184.51	185.82	187.50	186.76	188.07	189.75	189.01	190.32	192.00	191.26	192.57	194.25	193.51	194.82	196.50	195.76	197.07	198.75	198.01	199.32	201.00	200.26	201.57	203.25	202.51	203.82	205.50	204.76	206.07	207.75	207.01	208.32	210.00	209.26	210.57	212.25	211.51	212.82	214.50	213.76	215.07	216.75	216.01	217.32	219.00	218.26	219.57	221.25	220.51	221.82	223.50	222.76	224.07	225.75	225.01	226.32	228.00	227.26	228.57	230.25	229.51	230.82	232.50	231.76	233.07	234.75	234.01	235.32	237.00	236.26	237.57	239.25	238.51	239.82	241.50	240.76	242.07	243.75	243.01	244.32	246.00	245.26	246.57	248.25	247.51	248.82	250.50	249.76	251.07	252.75	252.01	253.32	255.00	254.26	255.57	257.25	256.51	257.82	259.50	258.76	260.07	261.75	261.01	262.32	264.00	263.26	264.57	266.25	265.51	266.82	268.50	267.76	269.07	270.75	270.01	271.32	273.00	272.26	273.57	275.25	274.51	275.82	277.50	276.76	278.07	279.75	279.01	280.32	282.00	281.26	282.57	284.25	283.51	284.82	286.50	285.76	287.07	288.75	288.01	289.32	291.00	290.26	291.57	293.25	292.51	293.82	295.50	294.76	296.07	297.75	297.01	298.32	300.00	299.26	300.57	302.25	301.51	302.82	304.50	303.76	305.07	306.75	306.01	307.32	309.00	308.26	309.57	311.25	310.51	311.82	313.50	312.76	314.07	315.75	315.01	316.32	318.00	317.26	318.57	320.25	319.51	320.82	322.50	321.76	323.07	324.75	324.01	325.32	327.00	326.26	327.57	329.25	328.51	329.82	331.50	330.76	332.07	333.75	333.01	334.32	336.00	335.26	336.57	338.25	337.51	338.82	340.50	339.76	341.07	342.75	342.01	343.32	345.00	344.26	345.57	347.25	346.51	347.82	349.50	348.76	350.07	351.75	351.01	352.32	354.00	353.26	354.57	356.25	355.51	356.82	358.50	357.76	359.07	360.75	360.01	361.32	363.00	362.26	363.57	365.25	364.51	365.82	367.50	366.76	368.07	369.75	369.01	370.32	372.00	371.26	372.57	374.25	373.51	374.82	376.50	375.76	377.07	378.75	378.01	379.32	381.00	380.26	381.57	383.25	382.51	383.82	385.50	384.76	386.07	387.75	387.01	388.32	390.00	389.26	390.57	392.25	391.51	392.82	394.50	393.76	395.07	396.75	396.01	397.32	399.00	398.26	399.57	401.25	400.51	401.82	403.50	402.76	404.07	405.75	405.01	406.32	408.00	407.26	408.57	410.25	409.51	410.82	412.50	411.76	413.07	414.75	414.01	415.32	417.00	416.26	417.57	419.25	418.51	419.82	421.50	420.76	422.07	423.75	423.01	424.32	426.00	425.26	426.57	428.25	427.51	428.82	430.50	429.76	431.07	432.75	432.01	433.32	435.00	434.26	435.57	437.25	436.51	437.82	439.50	438.76	440.07	441.75	441.01	442.32	444.00	443.26	444.57	446.25	445.51	446.82	448.50	447.76	449.07	450.75	450.01	451.32	453.00	452.26	453.57	455.25	454.51	455.82	457.50	456.76	458.07	459.75	459.01	460.32	462.00	461.26	462.57	464.25	463.51	464.82	466.50	465.76	467.07	468.75	468.01	469.32	471.00	470.26	471.57	473.25	472.51	473.82	475.50	474.76	476.07	477.75	477.01	478.32	480.00	479.26	480.57	482.25	481.51	482.82	484.50	483.76	485.07	486.75	486.01	487.32	489.00	488.26	489.57	491.25	490.51	491.82	493.50	492.76	494.07	495.75	495.01	496.32	498.00	497.26	498.57	500.25	499.51	500.82	502.50	501.76	503.07	504.75	504.01	505.32	507.00	506.26	507.57	509.25	508.51	509.82	511.50	510.76	512.07	513.75	513.01	514.32	516.00	515.26	516.57	518.25	517.51	518.82	520.50	519.76	521.07	522.75	522.01	523.32	525.00	524.26	525.57	527.25	526.51	527.82	529.50	528.76	530.07	531.75	531.01	532.32	534.00	533.26	534.57	536.25	535.51	536.82	538.50	537.76	539.07	540.75	540.01	541.32	543.00	542.26	543.57	545.25	544.51	545.82	547.50	546.76	548.07	549.75	549.01	550.32	552.00	551.26	552.57	554.25	553.51	554.82	556.50	555.76	557.07	558.75	558.01	559.32	561.00	560.26	561.57	563.25	562.51	563.82	565.50	564.76	566.07	567.75	567.01	568.32	570.00	569.26	570.57	572.25	571.51	572.82	574.50	573.76	575.07	576.75	576.01	577.32	579.00	578.26	579.57	581.25	580.51	581.82	583.50	582.76	584.07	585.75	585.01	586.32	588.00	587.26	588.57	590.25	589.51	590.82	592.50	591.76	593.07	594.75	594.01	595.32	597.00	596.26	597.57	599.25	598.51	599.82	601.50	600.76	602.07	603.75	603.01	604.32	606.00	605.26	606.57	608.25	607.51	608.82	610.50	609.76	611.07	612.75	612.01	613.32	615.00	614.26	615.57	617.25	616.51	617.82	619.50	618.76	620.07	621.75	621.01	622.32	624.00	623.26	624.57	626.25	625.51	626.82	628.50	627.76	629.07	630.75	630.01	631.32	633.00	632.26	633.57	635.25	634.51	635.82	637.50	636.76	638.07	639.75	639.01	640.32	642.00	641.26	642.57	644.25	643.51	644.82	646.50	645.76	647.07	648.75	648.01	649.32	651.00	650.26	651.57	653.25	652.51	653.82	655.50	654.76	656.07	657.75	657.01	658.32	660.00	659.26	660.57	662.25	661.51	662.82	664.50	663.76	665.07	666.75	666.01	667.32	669.00	668.26	669.57	671.25	670.51	671.82	673.50	672.76	674.07	675.75	675.01	676.32	678.00	677.26	678.57	680.25	679.51	680.82	682.50	681.76	683.07	684.75	684.01	685.32	687.00	686.26	687.57	689.25	688.51	689.82	691.50	690.76	692.07	693.75	693.01	694.32	696.00	695.26	696.57	698.25	697.51	698.82	700.50	699.76	701.07	702.75	702.01	703.32	705.00	704.26	705.57	707.25	706.51	707.82	709.50	708.76	710.07	711.75	711.01	712.32	714.00	713.26	714.57	716.25	715.51	716.82	718.50	717.76	719.07	720.75	720.01	721.32	723.00	722.26	723.57	725.25	724.51	725.82	727.50	726.76	728.07	729.75	729.01	730.32	732.00	731.26	732.57	734.25	733.51	734.82	736.50	735.76	737.07	738.75	738.01	739.32	741.00	740.26	741.57	743.25	742.51	743.82	745.50	744.76	746.07	747.75	747.01	748.32	750.00	749.26	750.57	752.25	751.51	752.82	754.50	753.76	755.07	756.75	756.01	757.32	759.00	758.26	759.57	761.25	760.51	761.82	763.50	762.76	764.07	765.75	765.01	766.32	768.00	767.26	768.57	770.25	769.51	770.82	772.50	771.76	773.07	774.75	774.01	775.32	777.00	776.26	777.57	779.25	778.51	779.82	781.50	780.76	782.07	783.75	783.01	784.32	786.00	785.26	786.57	788.25	787.51	788.82	790.50	789.76	791.07	792.75	792.01	793.32	795.00	794.26	795.57	797.25	796.51	797.82	799.50	798.76	800.07	801.75	801.01	802.32	804.00	803.26	804.57	806.25	805.51	806.82	808.50	807.76	809.07	810.75	810.01	811.32	813.00	812.26	813.57	815.25	814.51	815.82	817.50	816.76	818.07	819.75	819.01	820.32	822.00	821.26	822.57	824.25	823.51	824.82	826.50	825.76	