

## 2.1 Ratings and Specifications

This section gives the ratings and specifications of SERVOPACKs.

### 2.1.1 Ratings

#### Three-Phase, 200 VAC

Model SGD7S-		R70A	R90A	1R6A	2R8A	3R8A	5R5A	7R6A	120A	180A	200A	330A	
Maximum Applicable Motor Capacity [kW]		0.05	0.1	0.2	0.4	0.5	0.75	1.0	1.5	2.0	3.0	5.0	
Continuous Output Current [Arms]		0.66	0.91	1.6	2.8	3.8	5.5	7.6	11.6	18.5	19.6	32.9	
Instantaneous Maximum Output Current [Arms]		2.1	3.2	5.9	9.3	11	16.9	17	28	42	56	84	
Main Circuit	Power Supply	200 VAC to 240 VAC, -15% to +10%, 50 Hz/60 Hz											
	Input Current [Arms]*	0.4	0.8	1.3	2.5	3.0	4.1	5.7	7.3	10	15	25	
Control	Power Supply	200 VAC to 240 VAC, -15% to +10%, 50 Hz/60 Hz											
	Input Current [Arms]*	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.25	0.3	
Power Supply Capacity [kVA]*		0.2	0.3	0.5	1.0	1.3	1.6	2.3	3.2	4.0	5.9	7.5	
Power Loss*	Main Circuit Power Loss [W]	5.0	7.0	11.9	22.5	28.5	38.9	49.2	72.6	104.2	114.2	226.6	
	Control Circuit Power Loss [W]	12	12	12	12	14	14	14	15	16	16	19	
	Built-in Regenerative Resistor Power Loss [W]	–	–	–	–	8	8	8	12	12	12	36	
	Total Power Loss [W]	17.0	19.0	23.9	34.5	50.5	60.9	71.2	97.6	136.2	146.2	281.6	
Regenerative Resistor	Built-In Regenerative Resistor	Resistance [ $\Delta$ ]	–	–	–	–	40	40	40	20	12	12	8
		Capacity [W]	–	–	–	–	40	40	40	60	60	60	180
	Minimum Allowable External Resistance [ $\Delta$ ]	40	40	40	40	40	40	40	40	20	12	12	8
Overvoltage Category		III											

\* This is the net value at the rated load.

Model SGD7S-		470A	550A	590A	780A
Maximum Applicable Motor Capacity [kW]		6.0	7.5	11	15
Continuous Output Current [Arms]		46.9	54.7	58.6	78.0
Instantaneous Maximum Output Current [Arms]		110	130	140	170
Main Circuit	Power Supply	200 VAC to 240 VAC, -15% to +10%, 50 Hz/60 Hz			
	Input Current [Arms] <sup>*1</sup>	29	37	54	73
Control	Power Supply	200 VAC to 240 VAC, -15% to +10%, 50 Hz/60 Hz			
	Input Current [Arms] <sup>*1</sup>	0.3	0.3	0.4	0.4
Power Supply Capacity [kVA] <sup>*1</sup>		10.7	14.6	21.7	29.6
Power Loss <sup>*1</sup>	Main Circuit Power Loss [W]	271.7	326.9	365.3	501.4
	Control Circuit Power Loss [W]	21	21	28	28
	External Regenerative Resistor Unit Power Loss [W]	180 <sup>*2</sup>	350 <sup>*3</sup>	350 <sup>*3</sup>	350 <sup>*3</sup>
	Total Power Loss [W]	292.7	347.9	393.3	529.4
External Regenerative Resistor Unit	Resistance [ $\Delta$ ]	6.25 <sup>*2</sup>	3.13 <sup>*3</sup>	3.13 <sup>*3</sup>	3.13 <sup>*3</sup>
	Capacity [W]	880 <sup>*2</sup>	1760 <sup>*3</sup>	1760 <sup>*3</sup>	1760 <sup>*3</sup>
	Minimum Allowable External Resistance [ $\Delta$ ]	5.8	2.9	2.9	2.9
Overvoltage Category		III			

\*1. This is the net value at the rated load.

\*2. This value is for the optional JUSP-RA04-E Regenerative Resistor Unit.

\*3. This value is for the optional JUSP-RA05-E Regenerative Resistor Unit.

## Single-Phase, 200 VAC

Model SGD7S-		R70A	R90A	1R6A	2R8A	5R5A	120A
Maximum Applicable Motor Capacity [kW]		0.05	0.1	0.2	0.4	0.75	1.5
Continuous Output Current [Arms]		0.66	0.91	1.6	2.8	5.5	11.6
Instantaneous Maximum Output Current [Arms]		2.1	3.2	5.9	9.3	16.9	28
Main Circuit	Power Supply	200 VAC to 240 VAC, -15% to +10%, 50 Hz/60 Hz					
	Input Current [Arms]*	0.8	1.6	2.4	5.0	8.7	16
Control	Power Supply	200 VAC to 240 VAC, -15% to +10%, 50 Hz/60 Hz					
	Input Current [Arms]*	0.2	0.2	0.2	0.2	0.2	0.25
Power Supply Capacity [kVA]*		0.2	0.3	0.6	1.2	1.9	4.0
Power Loss*	Main Circuit Power Loss [W]	5.0	7.1	12.1	23.7	39.2	71.8
	Control Circuit Power Loss [W]	12	12	12	12	14	16
	Built-in Regenerative Resistor Power Loss [W]	-	-	-	-	8	12
	Total Power Loss [W]	17.0	19.1	24.1	35.7	61.2	103.8
Regenerative Resistor	Built-In Regenerative Resistor	Resistance [ $\Delta$ ]	-	-	-	40	12
		Capacity [W]	-	-	-	40	60
	Minimum Allowable External Resistance [ $\Delta$ ]	40	40	40	40	40	12
Overvoltage Category		III					

\* This is the net value at the rated load.

## 270 VDC

Model SGD7S-		R70A	R90A	1R6A	2R8A	3R8A	5R5A	7R6A	120A
Maximum Applicable Motor Capacity [kW]		0.05	0.1	0.2	0.4	0.5	0.75	1.0	1.5
Continuous Output Current [Arms]		0.66	0.91	1.6	2.8	3.8	5.5	7.6	11.6
Instantaneous Maximum Output Current [Arms]		2.1	3.2	5.9	9.3	11.0	16.9	17.0	28.0
Main Circuit	Power Supply	270 VDC to 324 VDC, -15% to +10%							
	Input Current [Arms] <sup>*1</sup>	0.5	1.0	1.5	3.0	3.8	4.9	6.9	11
Control	Power Supply	270 VDC to 324 VDC, -15% to +10%							
	Input Current [Arms] <sup>*1</sup>	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2 <sup>*2</sup>
Power Supply Capacity [kVA] <sup>*1</sup>		0.2	0.3	0.6	1	1.4	1.6	2.3	3.2
Power Loss <sup>*1</sup>	Main Circuit Power Loss [W]	4.4	5.9	9.8	17.5	23.0	30.7	38.7	55.8
	Control Circuit Power Loss [W]	12	12	12	12	14	14	14	15
	Total Power Loss [W]	16.4	17.9	21.8	29.5	37.0	44.7	52.7	70.8
Overvoltage Category		III							

\*1. This is the net value at the rated load.

\*2. The value is 0.25 Arms for the SGD7S-120A00A008.

Model SGD7S-		180A	200A	330A	470A	550A	590A	780A
Maximum Applicable Motor Capacity [kW]		2.0	3.0	5.0	6.0	7.5	11.0	15.0
Continuous Output Current [Arms]		18.5	19.6	32.9	46.9	54.7	58.6	78.0
Instantaneous Maximum Output Current [Arms]		42.0	56.0	84.0	110	130	140	170
Main Circuit	Power Supply	270 VDC to 324 VDC, -15% to +10%						
	Input Current [Arms]*	14	20	34	36	48	68	92
Control	Power Supply	270 VDC to 324 VDC, -15% to +10%						
	Input Current [Arms]*	0.25	0.25	0.3	0.3	0.3	0.4	0.4
Power Supply Capacity [kVA]*		4.0	5.9	7.5	10.7	14.6	21.7	29.6
Power Loss*	Main Circuit Power Loss [W]	82.7	83.5	146.2	211.6	255.3	243.6	343.4
	Control Circuit Power Loss [W]	16	16	19	21	21	28	28
	Total Power Loss [W]	98.7	99.5	165.2	232.6	276.3	271.6	371.4
Overvoltage Category		III						

\* This is the net value at the rated load.

## Single-Phase, 100 VAC

Model SGD7S-		R70F	R90F	2R1F	2R8F
Maximum Applicable Motor Capacity [kW]		0.05	0.1	0.2	0.4
Continuous Output Current [Arms]		0.66	0.91	2.1	2.8
Instantaneous Maximum Output Current [Arms]		2.1	3.2	6.5	9.3
Main Circuit	Power Supply	100 VAC to 120 VAC, -15% to +10%, 50 Hz/60 Hz			
	Input Current [Arms]*	1.5	2.5	5	10
Control	Power Supply	100 VAC to 120 VAC, -15% to +10%, 50 Hz/60 Hz			
	Input Current [Arms]*	0.38	0.38	0.38	0.38
Power Supply Capacity [kVA]*		0.2	0.3	0.6	1.4
Power Loss*	Main Circuit Power Loss [W]	5.3	7.8	14.2	26.2
	Control Circuit Power Loss [W]	12	12	12	12
	Total Power Loss [W]	17.3	19.8	26.2	38.2
Regenerative Resistor	Minimum Allowable Resistance [ $\Delta$ ]	40	40	40	40
Overvoltage Category		III			

\* This is the net value at the rated load.