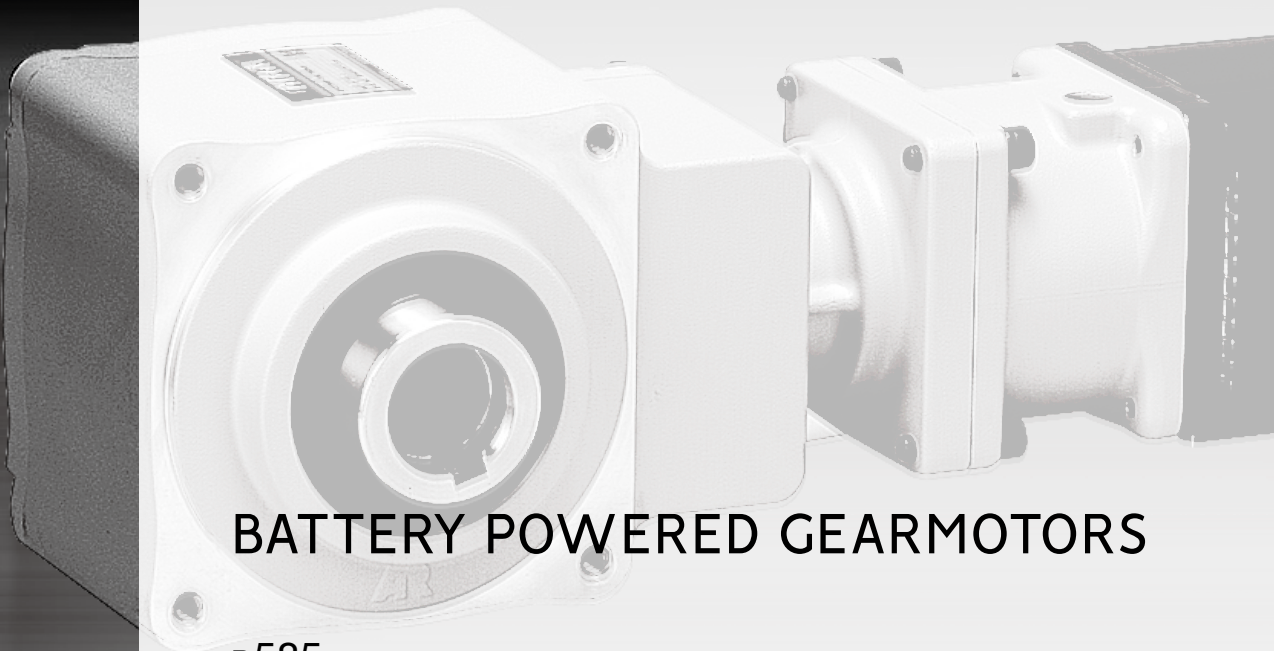


Gearmotors General Catalog



BATTERY POWERED GEARMOTORS

- P.585 VG/APG Type Parallel Shaft
- P.601 VH Type/Right Angle Shaft
- P.609 VF3S/VF3F Type Concentric Right Angle Hollow Bore/
Concentric Right Angle Shaft
F3S Type/Right Angle Shaft
- P.625 Control Unit Specification
- P.661 Technical Documentation

VG/APG Type

Parallel Shaft

P.590

BATTERY POWERED GEARMOTORS

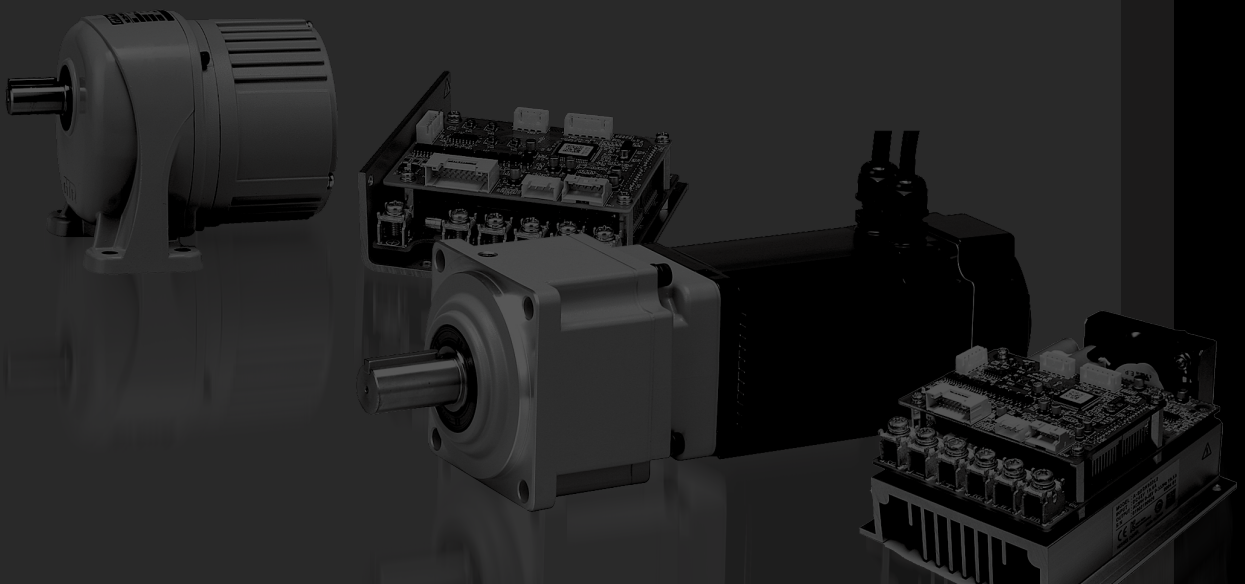
1. Battery Powered Gearmotors

1-1. Performance Tables

1-2. Drawings

Model and Type Codes

Standard Model Lineup



Model and Type Codes

The drive is sold separately. Refer to Type Code on page 633.

VG Type Battery Powered Gearmotors

Mounting Type	Brake Type	Frame Size	Shaft Arrangement	Reduction Ratio	Common Code	Motor Power	Supply Voltage	Option
VGL	C	12		- 30	N	50	L1A	
VGL	D	22		- 80	N	200	L4A	X
VGK	C	28		- 160	N	200	L2A	
VGK	D	32		- 120	N	400	L2A	
①	②	③	④	⑤	⑥	⑦	⑧	⑨

① Mounting Type	VGL : Parallel Shaft Foot Mount
	VGK : Parallel Shaft Small Flange Mount
② Brake Type	C : No Brake
	D : Brakemotor
③ Frame Size and Output Shaft Diameter	Output Shaft Diameter
④ Shaft Arrangement	Parallel Shaft: Blank
⑤ Reduction Ratio	5:1/5 to 200:1/200
⑥ Common Code	N : Common Code
⑦ Motor Power	50 : 50 W
	100 : 0.1 kW
	200 : 0.2 kW
	400 : 0.4 kW
⑧ Supply Voltage (Note 1)	L1A : 12 VDC
	L2A : 24 VDC
	L4A : 48 VDC
⑨ Option	Blank : Standard Specification
	X : Special Specification Code

Note 1: 48 VDC is CCC-certified Product.

VG/APG Type Parallel Shaft

VH Type Right Angle Shaft

VF3S/VF3F Type Concentric Right Angle Hollow Bore Concentric Right Angle Shaft F3S Type Right Angle Shaft

Control Unit Specification

Technical Documentation

The drive is sold separately. Refer to Type Code on page 633.

APG Type Battery Powered Gearmotors

Mounting Type	Frame Size	Shaft Arrangement	Reduction Ratio		Motor Type	Motor Specifications	Motor Power	Supply Voltage	Standard	Brake Type	Option
APG	22	N	20	-	SD	M	080	L4	A	N	
APG	28	N	60	-	SD	W	080	L4	A	B	X
APG	28	N	50	-	SD	M	080	L4	A	N	
①	②	③	④		⑤	⑥	⑦	⑧	⑨	⑩	⑪

① Mounting Type	APG : Parallel Shaft
② Frame Size and Output Shaft Diameter	Output Shaft Diameter
③ Shaft Arrangement	N : Parallel Shaft
④ Reduction Ratio	15:1/15 to 60:1/60
⑤ Motor Type	SD : Brushless Motor SD Series
⑥ Motor Specifications	M : IP44
	W : IP65
⑦ Motor Power	080 : 0.75 kW
⑧ Supply Voltage	L4 : 48 VDC
⑨ Standard	A : No Standards
⑩ Brake Type	N : No Brake
	B : Brakemotor
⑪ Option	Blank : Standard Specification
	X : Special Specification Code

VG/APG Type Parallel Shaft

VH Type Right Angle Shaft

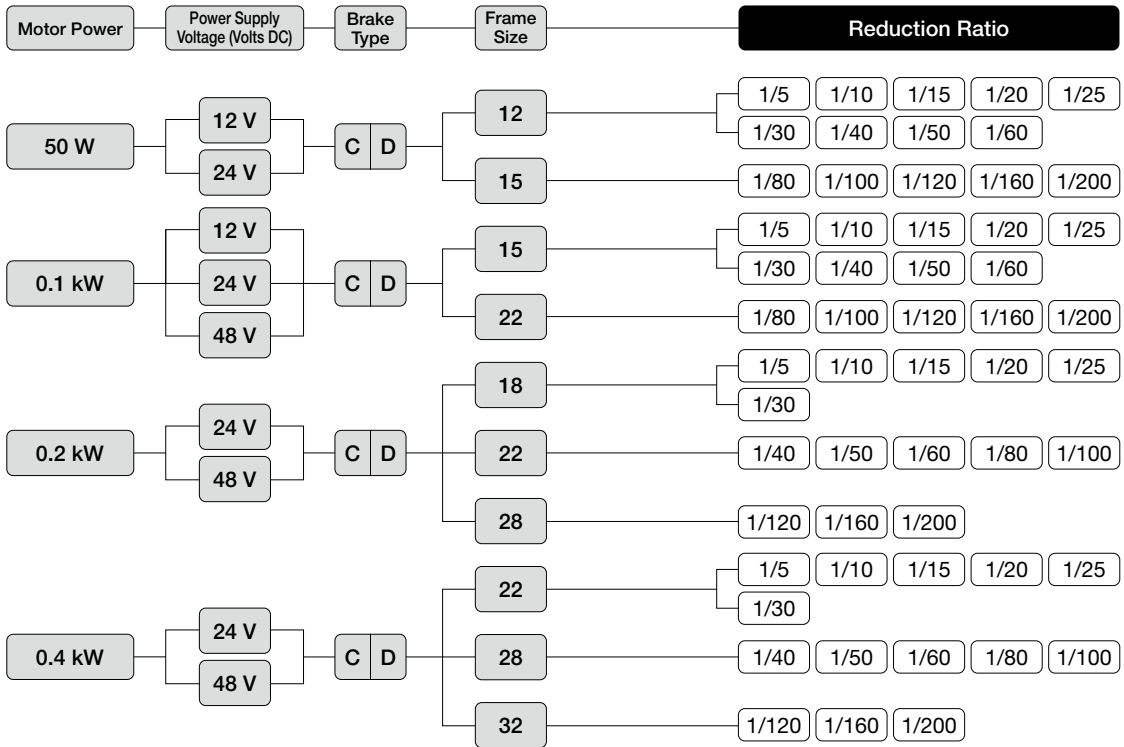
VF3S/VF3F Type
Concentric Right-Angle Hollow Bore Concentric Right-Angle Shaft
F3S Type Right-Angle Shaft

Control Unit Specification

Technical Documentation

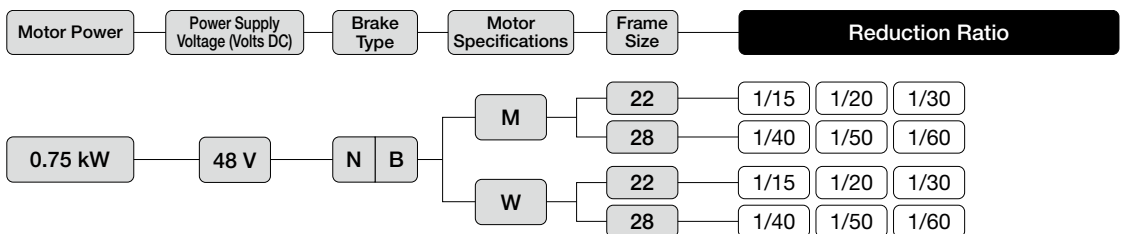
Standard Model Lineup

VG Type Battery Powered Gearmotors



Note 1: The VG Type is available in two different mounting types: Foot mount and Flange mount.

APG Type Battery Powered Gearmotors



VG/APG Type Parallel Shaft

VH Type Right Angle Shaft

VF3S/VF3F Type Coaxial Right Angle Hollow Bore Coaxial Right Angle Shaft F3S Type Right Angle Shaft

Control Unit Specification

Technical Documentation

MEMO

Technical Documentation	Control Unit Specification	VF3S/VF3F Type Concentric Right-Angle Hollow Bore Concentric Right-Angle Shaft F3S Type Right-Angle Shaft	VH Type Right Angle Shaft	VG/AG C Type Parallel Shaft
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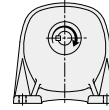
1. Battery Powered Gearmotors

1-1. Performance Tables

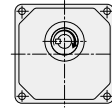
VG Type Battery Powered Gearmotors

[Notes]

- in the performance table indicates that the shaft rotates clockwise with a drive CW command when viewed from the output shaft side under the conditions shown in the figure on the right.
- Change the signal from the drive to CCW in order to change the rotation direction.
- The performance table shows two reduction ratios: reduction ratio and actual reduction ratio.
- The key dimensions and tolerances for output shafts conform to the normal type specified in JIS B 1301-1996 plain form.
- Allowable output shaft O.H.L. is the value at the middle of the output shaft. For other cases, refer to page 667.
- The output shaft speed is the variable speed range shown on page 637 calculated from the actual reduction ratio.



Foot Mount



Small Flange Mount

Series	Power	Power Supply V	Frame Size	Nominal Reduction Ratio	Actual Reduction Ratio	Output Shaft Speed	Allowable Output Shaft Torque (Continuous)	Allowable Output Shaft O.H.L.	Drawings	
						r/min	N·m	N	Foot Mount	Small Flange Mount
V	50 W	12 VDC 24 VDC	12	1/5	1/5	20.0 to 600	0.76	150	P.592	P.595
				1/10	1/10	10.0 to 300	1.57	220		
				1/15	17/260	6.6 to 196	2.35	250		
				1/20	1/20	5.0 to 150	3.23	290		
				1/25	1/25	4.0 to 120	4.02	340		
			1/30	1/30	3.4 to 100	4.90	390			
			1/40	1/40	2.5 to 75	6.47	390	P.592	P.595	
			1/50	1/50	2.0 to 60	8.13	390			
			1/60	1/60	1.7 to 50	9.70	390			
			1/80	1/80	1.3 to 37	12.7	690			
1/100	1/100	1.0 to 30	15.7	690						
V	0.1 kW	12 VDC 24 VDC 48 VDC	15	1/120	11/1280	0.9 to 25	18.6	690	P.592	P.595
				1/160	1/160	0.7 to 18	24.5	690		
				1/200	1/200	0.5 to 15	30.4	690		
				1/5	1/5	20.0 to 600	1.67	150		
				1/10	1/10	10.0 to 300	3.43	340		
			1/15	1/15	6.7 to 200	5.10	440	P.592	P.595	
			1/20	1/20	5.0 to 150	6.86	540			
			1/25	1/25	4.0 to 120	8.53	590			
			1/30	1/30	3.4 to 100	9.80	690			
			1/40	1/40	2.5 to 75	12.7	780			
V	0.1 kW	12 VDC 24 VDC 48 VDC	15	1/50	1/50	2.0 to 60	16.7	880	P.592	P.595
				1/60	1/60	1.7 to 50	19.6	880		
				1/80	21/1634	1.3 to 38	25.5	1570		
				1/100	7/684	1.1 to 30	32.3	1670		
				1/120	147/17974	0.9 to 24	39.2	1670		
			22	1/160	21/3268	0.7 to 19	51.9	1760	P.593	P.596
				1/200	21/4085	0.6 to 15	64.7	1760		
				1/5	231/1148	20.2 to 603	3.04	250		
				1/10	77/779	9.9 to 296	6.18	540		
				1/15	119/1804	6.6 to 197	9.21	780		
V	0.2 kW	24 VDC 48 VDC	18	1/20	49/984	5.0 to 149	11.7	1080	P.593	P.596
				1/25	28/697	4.1 to 120	15.7	1180		
				1/30	35/1066	3.3 to 98	18.6	1320		
				1/40	91/3600	2.6 to 75	24.5	1570		
				1/50	11/540	2.1 to 61	30.4	1620		
			22	1/60	637/39600	1.7 to 48	35.3	1670	P.593	P.596
				1/80	91/7200	1.3 to 37	47.0	1720		
				1/100	11/1080	1.1 to 30	58.8	1760		
				1/120	91/11000	0.9 to 24	70.6	2600		
				1/160	1/165	0.7 to 18	94.1	2700		
28	1/200	7/1375	0.6 to 15	118	2740	P.594	P.597			
	1/5	7/34	20.6 to 617	5.40	390					
	1/10	7/68	10.3 to 308	10.8	780					
	1/15	49/748	6.6 to 196	17.6	1080					
	1/20	7/136	5.2 to 154	23.5	1370					
V	0.4 kW	24 VDC 48 VDC	22	1/25	7/170	4.2 to 123	31.4	1470	P.593	P.596
				1/30	35/1037	3.4 to 101	37.2	1670		
				1/40	221/8610	2.6 to 77	49.0	2250		
				1/50	187/9030	2.1 to 62	60.8	2350		
				1/60	169/9840	1.8 to 51	70.6	2450		
			28	1/80	65/5166	1.3 to 37	94.1	2550	P.594	P.597
				1/100	55/5418	1.1 to 30	118	2650		
				1/120	77/9360	0.9 to 24	137	4700		
				1/160	21/3328	0.7 to 18	186	5000		
				1/200	189/38272	0.5 to 14	235	5100		

VH Type
Right Angle Shaft

VF3S/VF3F Type
Concentric Right Angle Hollow Drive Concentric Right Angle Shaft
F3S Type Right Angle Shaft

Control Unit Specification

Technical Documentation

APG Type Battery Powered Gearmotors

[Notes]

- Allowable output shaft O.H.L. is the value at the middle of the output shaft. For other cases, see page 667.
- The rotational direction of the output shaft is the same as that of the motor.
- The key dimensions and tolerances for output shafts conform to the normal type specified in JIS B 1301-1996 plain form.
- Adjust the speed control proportional gain so that the load of inertia on the output shaft side does not vibrate during acceleration and deceleration.
- It is a time rated product. Refer to page 632.

Series	Power	Power Supply	Frame Size	Reduction Ratio	Output Shaft Speed	Allowable Output Shaft Torque	Allowable Output Shaft O.H.L.	Allowable Output Shaft Thrust Load	Drawings
		V			r/min	N·m	N	N	
SD	0.75 kW	48 VDC	22	1/15	5.3 to 270	30.4	1950	975	P.598
				1/20	4.0 to 200	40.6	2150	1075	
				1/30	2.7 to 130	60.9	2450	1225	
			28	1/40	2.0 to 100	81.2	3450	1725	P.599
				1/50	1.6 to 80	95.5	3520	1760	
				1/60	1.3 to 67	121.8	3520	1760	

VG/APG Type Parallel Shaft

VH Type Right Angle Shaft

VF3S/VF3F Type
Concentric Right-Angle Hollow Bore Concentric Right-Angle Shaft
F3S Type Right-Angle Shaft

Control Unit Specification

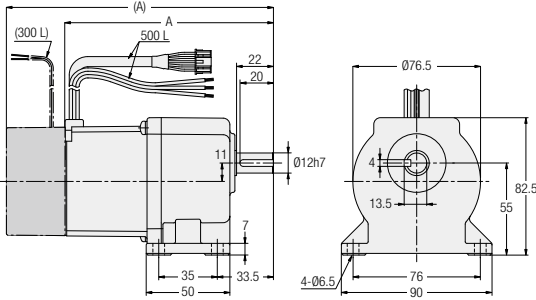
Technical Documentation

1-2. Drawings

VG Type Parallel Shaft Shaft Diameter **12** Foot Mounting

The values in parenthesis are those for gearmotors with a brake.

<Figure 1>

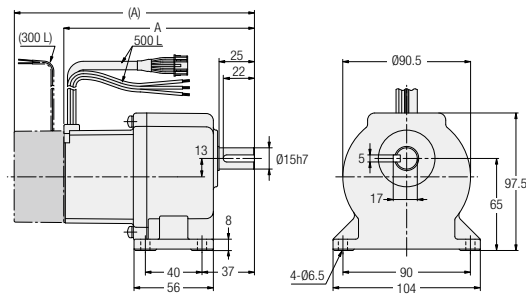


Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
50 W	12 VDC	VGLC12-***N50L1A	5, 10, 15, 20, 25, 30, 40, 50, 60	1	No	1.1	126.5
		VGLD12-***N50L1A			Yes	1.5	159.5
50 W	24 VDC	VGLC12-***N50L2A	5, 10, 15, 20, 25, 30, 40, 50, 60	1	No	1.1	126.5
		VGLD12-***N50L2A			Yes	1.5	159.5

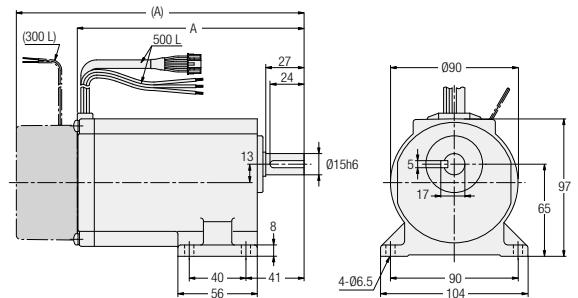
Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **15** Foot Mounting

<Figure 2>



<Figure 3>



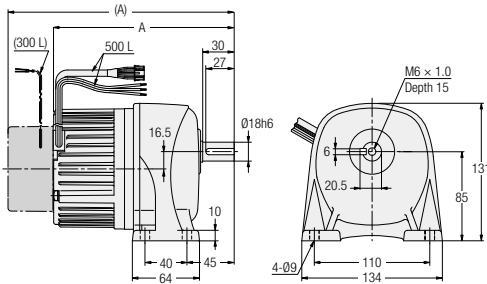
Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
50 W	12 VDC	VGLC15-***N50L1A	80, 100, 120, 160, 200	2	No	1.5	136.5
		VGLD15-***N50L1A			Yes	1.9	169.5
50 W	24 VDC	VGLC15-***N50L2A	80, 100, 120, 160, 200	2	No	1.5	136.5
		VGLD15-***N50L2A			Yes	1.9	169.5
0.1 kW	12 VDC	VGLC15-***N100L1A	5, 10, 15, 20, 25, 30, 40, 50, 60	3	No	2.3	162
		VGLD15-***N100L1A			Yes	2.8	203
0.1 kW	24 VDC	VGLC15-***N100L2A	5, 10, 15, 20, 25, 30, 40, 50, 60	3	No	2.3	162
		VGLD15-***N100L2A			Yes	2.8	203
0.1 kW	48 VDC	VGLC15-***N100L4A	5, 10, 15, 20, 25, 30, 40, 50, 60	3	No	2.3	162
		VGLD15-***N100L4A			Yes	2.8	203

Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **18** Foot Mounting

The values in parenthesis are those for gearmotors with a brake.

<Figure 1>

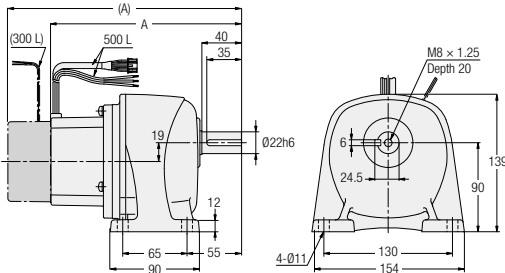


Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
0.2 kW	24 VDC	VGLC18-***N200L2A	5, 10, 15, 20, 25, 30	1	No	4.5	174.5
		VGLD18-***N200L2A			Yes	5.0	216
0.2 kW	48 VDC	VGLC18-***N200L4A	5, 10, 15, 20, 25, 30	1	No	4.5	174.5
		VGLD18-***N200L4A			Yes	5.0	216

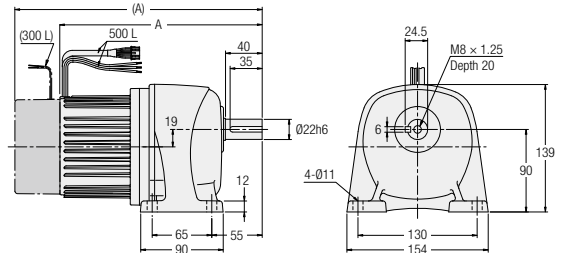
Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **22** Foot Mounting

<Figure 2>



<Figure 3>



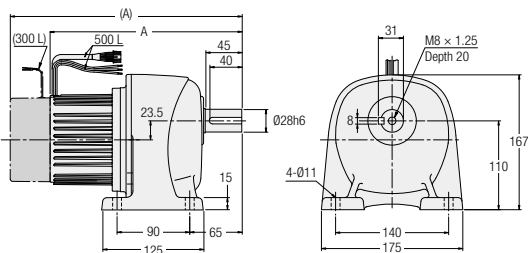
Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
0.1 kW	12 VDC	VGLC22-***N100L1A	80, 100, 120, 160, 200	2	No	4.5	195
		VGLD22-***N100L1A			Yes	5.0	236
0.1 kW	24 VDC	VGLC22-***N100L2A	80, 100, 120, 160, 200	2	No	4.5	195
		VGLD22-***N100L2A			Yes	5.0	236
0.1 kW	48 VDC	VGLC22-***N100L4A	80, 100, 120, 160, 200	2	No	4.5	195
		VGLD22-***N100L4A			Yes	5.0	236
0.2 kW	24 VDC	VGLC22-***N200L2A	40, 50, 60, 80, 100	2	No	5.0	200.5
		VGLD22-***N200L2A			Yes	5.5	242
0.2 kW	48 VDC	VGLC22-***N200L4A	40, 50, 60, 80, 100	2	No	5.0	200.5
		VGLD22-***N200L4A			Yes	5.5	242
0.4 kW	24 VDC	VGLC22-***N400L2A	5, 10, 15, 20, 25, 30	3	No	6.0	223
		VGLD22-***N400L2A			Yes	6.5	269
0.4 kW	48 VDC	VGLC22-***N400L4A	5, 10, 15, 20, 25, 30	3	No	6.0	223
		VGLD22-***N400L4A			Yes	6.5	269

Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **28** Foot Mounting

The values in parenthesis are those for gearmotors with a brake.

<Figure 1>

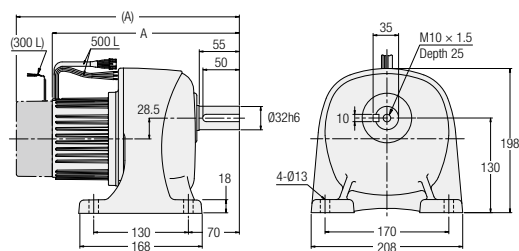


Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
0.2 kW	24 VDC	VGLC28-***N200L2A	120, 160, 200	1	No	7.0	213.5
		VGLD28-***N200L2A			Yes	7.5	255
0.2 kW	48 VDC	VGLC28-***N200L4A	120, 160, 200	1	No	7.0	213.5
		VGLD28-***N200L4A			Yes	7.5	255
0.4 kW	24 VDC	VGLC28-***N400L2A	40, 50, 60, 80, 100	1	No	8.0	239
		VGLD28-***N400L2A			Yes	8.5	285
0.4 kW	48 VDC	VGLC28-***N400L4A	40, 50, 60, 80, 100	1	No	8.0	239
		VGLD28-***N400L4A			Yes	8.5	285

Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **32** Foot Mounting

<Figure 2>



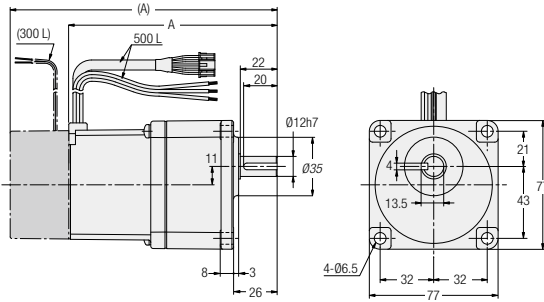
Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
0.4 kW	24 VDC	VGLC32-***N400L2A	120, 160, 200	2	No	11.5	258
		VGLD32-***N400L2A			Yes	12.0	304
0.4 kW	48 VDC	VGLC32-***N400L4A	120, 160, 200	2	No	11.5	258
		VGLD32-***N400L4A			Yes	12.0	304

Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **12** **Small Flange Mounting**

The values in parenthesis are those for gearmotors with a brake.

<Figure 1>



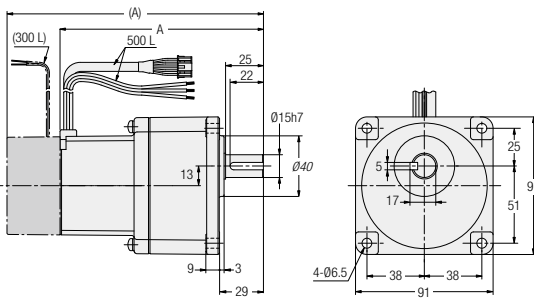
Note: The italic dimension indicates areas with remaining casting surface. Please add 0.5 mm or more to the italic dimension for the diameter of the mating hole.

Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
50 W	12 VDC	VGKC12-***N50L1A	5, 10, 15, 20, 25, 30, 40, 50, 60	1	No	1.1	126.5
		VGKD12-***N50L1A			Yes	1.5	159.5
50 W	24 VDC	VGKC12-***N50L2A	5, 10, 15, 20, 25, 30, 40, 50, 60	1	No	1.1	126.5
		VGKD12-***N50L2A			Yes	1.5	159.5

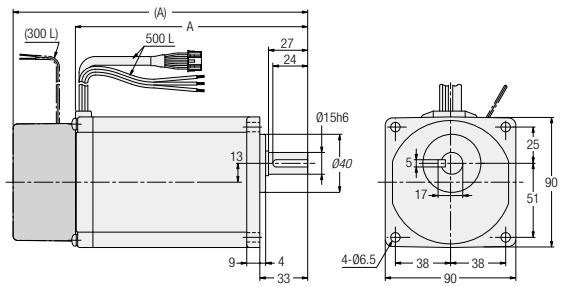
Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **15** **Small Flange Mounting**

<Figure 2>



<Figure 3>



Note: The italic dimension indicates areas with remaining casting surface. Please add 0.5 mm or more to the italic dimension for the diameter of the mating hole.

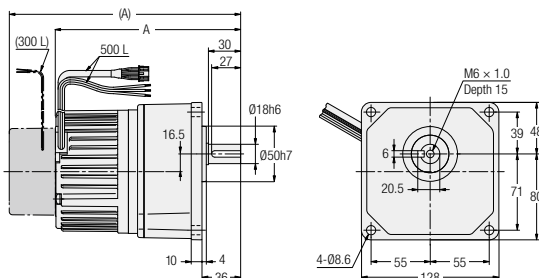
Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
50 W	12 VDC	VGKC15-***N50L1A	80, 100, 120, 160, 200	2	No	1.5	136.5
		VGKD15-***N50L1A			Yes	1.9	169.5
50 W	24 VDC	VGKC15-***N50L2A	80, 100, 120, 160, 200	2	No	1.5	136.5
		VGKD15-***N50L2A			Yes	1.9	169.5
0.1 kW	12 VDC	VGKC15-***N100L1A	5, 10, 15, 20, 25, 30, 40, 50, 60	3	No	2.3	162
		VGKD15-***N100L1A			Yes	2.8	203
0.1 kW	24 VDC	VGKC15-***N100L2A	5, 10, 15, 20, 25, 30, 40, 50, 60	3	No	2.3	162
		VGKD15-***N100L2A			Yes	2.8	203
0.1 kW	48 VDC	VGKC15-***N100L4A	5, 10, 15, 20, 25, 30, 40, 50, 60	3	No	2.3	162
		VGKD15-***N100L4A			Yes	2.8	203

Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **18** **Small Flange Mounting**

The values in parenthesis are those for gearmotors with a brake.

<Figure 1>

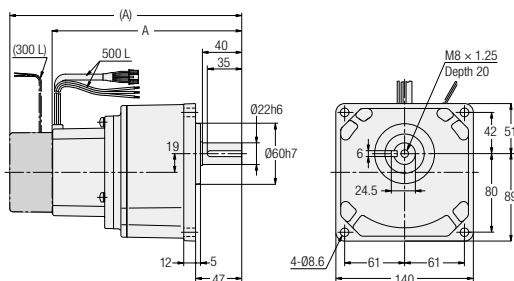


Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
0.2 kW	24 VDC	VGKC18-***N200L2A	5, 10, 15, 20, 25, 30	1	No	4.5	174.5
		VGKD18-***N200L2A			Yes	5.0	216
0.2 kW	48 VDC	VGKC18-***N200L4A	5, 10, 15, 20, 25, 30	1	No	4.5	174.5
		VGKD18-***N200L4A			Yes	5.0	216

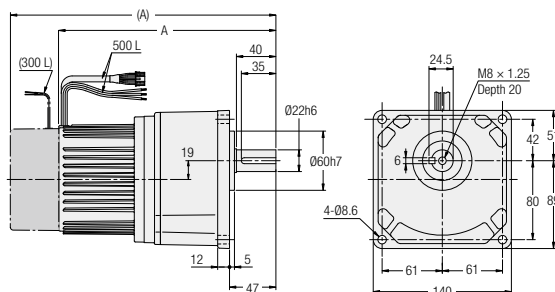
Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **22** **Small Flange Mounting**

<Figure 2>



<Figure 3>



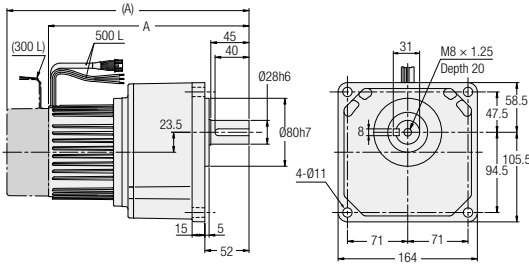
Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
0.1 kW	12 VDC	VGKC22-***N100L1A	80, 100, 120, 160, 200	2	No	4.5	195
		VGKD22-***N100L1A			Yes	5.0	236
0.1 kW	24 VDC	VGKC22-***N100L2A	80, 100, 120, 160, 200	2	No	4.5	195
		VGKD22-***N100L2A			Yes	5.0	236
0.1 kW	48 VDC	VGKC22-***N100L4A	80, 100, 120, 160, 200	2	No	4.5	195
		VGKD22-***N100L4A			Yes	5.0	236
0.2 kW	24 VDC	VGKC22-***N200L2A	40, 50, 60, 80, 100	3	No	5.0	200.5
		VGKD22-***N200L2A			Yes	5.5	242
0.2 kW	48 VDC	VGKC22-***N200L4A	40, 50, 60, 80, 100	3	No	5.0	200.5
		VGKD22-***N200L4A			Yes	5.5	242
0.4 kW	24 VDC	VGKC22-***N400L2A	5, 10, 15, 20, 25, 30	3	No	6.0	223
		VGKD22-***N400L2A			Yes	6.5	269
0.4 kW	48 VDC	VGKC22-***N400L4A	5, 10, 15, 20, 25, 30	3	No	6.0	223
		VGKD22-***N400L4A			Yes	6.5	269

Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **28** **Small Flange Mounting**

The values in parenthesis are those for gearmotors with a brake.

<Figure 1>

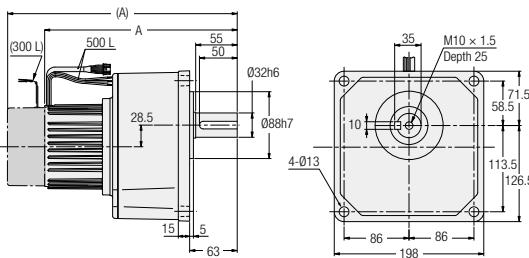


Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
0.2 kW	24 VDC	VGKC28-***N200L2A	120, 160, 200	1	No	7.0	213.5
		VGKD28-***N200L2A			Yes	7.5	255
0.2 kW	48 VDC	VGKC28-***N200L4A	120, 160, 200	1	No	7.0	213.5
		VGKD28-***N200L4A			Yes	7.5	255
0.4 kW	24 VDC	VGKC28-***N400L2A	40, 50, 60, 80, 100	1	No	8.0	239
		VGKD28-***N400L2A			Yes	8.5	285
0.4 kW	48 VDC	VGKC28-***N400L4A	40, 50, 60, 80, 100	1	No	8.0	239
		VGKD28-***N400L4A			Yes	8.5	285

Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG Type Parallel Shaft Shaft Diameter **32** **Small Flange Mounting**

<Figure 2>



Power	Voltage	Part Number	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)	A
0.4 kW	24 VDC	VGKC32-***N400L2A	120, 160, 200	2	No	11.5	258
		VGKD32-***N400L2A			Yes	12.0	304
0.4 kW	48 VDC	VGKC32-***N400L4A	120, 160, 200	2	No	11.5	258
		VGKD32-***N400L4A			Yes	12.0	304

Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 590 for the performance table.

VG/PG Type Parallel Shaft

VH Type Right Angle Shaft

VF3S/VF3F Type Concentric Right-Angle Hollow Bore Concentric Right-Angle Shaft F3S Type Right-Angle Shaft

Control Unit Specification

Technical Documentation

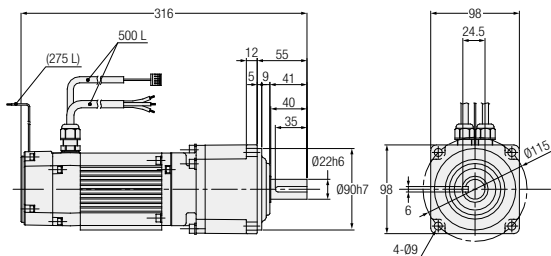
APG Type Parallel Shaft

Shaft Diameter **22**

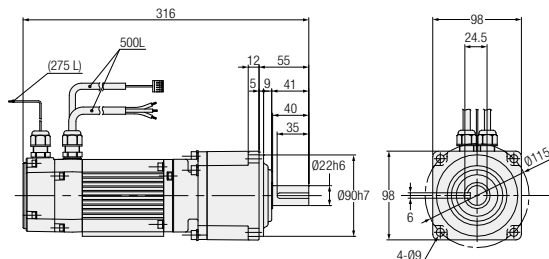
Flange Mounting

The values in parenthesis are those for gearmotors with a brake.

<Figure 1>



<Figure 2>



Power	Supply Voltage	Frame Size	Part Number	Motor Specifications	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)
0.75 kW	48 VDC	22	APG22N***-SDM080L4AN	IP44	15, 20, 30	1	No	7.0
			APG22N***-SDM080L4AB	IP44			Yes	7.7
			APG22N***-SDW080L4AN	IP65		2	No	7.0
			APG22N***-SDW080L4AB	IP65			Yes	7.7

Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 591 for the performance table.
 Note: It is a time rated product. Refer to page 632.

VG/APG Type Parallel Shaft

VH Type Right Angle Shaft

VFS3M/F3F Type Concentric Right Angle Hollow Bore Concentric Right Angle Shaft F3S Type Right Angle Shaft

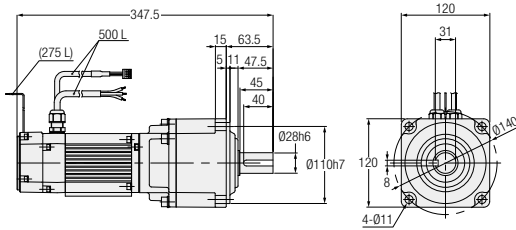
Control Unit Specification

Technical Documentation

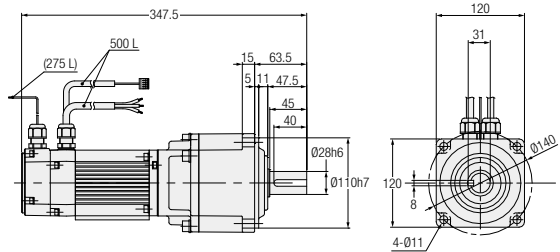
APG Type Parallel Shaft **Shaft Diameter 28** **Flange Mounting**

The values in parenthesis are those for gearmotors with a brake.

<Figure 1>



<Figure 2>



Power	Supply Voltage	Frame Size	Part Number	Motor Specifications	Reduction Ratio	Figure Number	Brake	Approx. Weight (kg)
0.75 kW	48 VDC	28	APG28N***-SDM080L4AN	IP44	40, 50, 60	1	No	9.8
			APG28N***-SDM080L4AB	IP44			Yes	10.5
			APG28N***-SDW080L4AN	IP65		2	No	9.8
			APG28N***-SDW080L4AB	IP65			Yes	10.5

Note: A reduction ratio will be indicated as *** in the nomenclature.
 Note: Please refer to page 591 for the performance table.
 Note: It is a time rated product. Refer to page 632.

VG/APG Type Parallel Shaft

VH Type Right Angle Shaft

VF3S/VF3F Type Concentric Right-Angle Hollow Core Concentric Right-Angle Shaft F3S Type Right-Angle Shaft

Control Unit Specification

Technical Documentation

MEMO

VG/APG Type
Parallel Shaft

VH Type
Right Angle Shaft

V/FSM/FSF Type
Concentric Right Angle Hollow Bore
Concentric Right Angle Shaft
FSS Type Right Angle Shaft

Control Unit Specification

Technical Documentation