





### EVS-SERIES

- Industry standard mounting dimensions
- Large variety of reduction ratios to choose from
- Thru-bolt mounting style
- Low backlash ( $\leq 4$  arc-min)
- Space-saving design, when minimal envelope available
- Highest radial and axial load ratings among right-angle options
- Readily available

Sold & Serviced By:

 **ELECTROMATE**

Toll Free Phone (877) SERV098

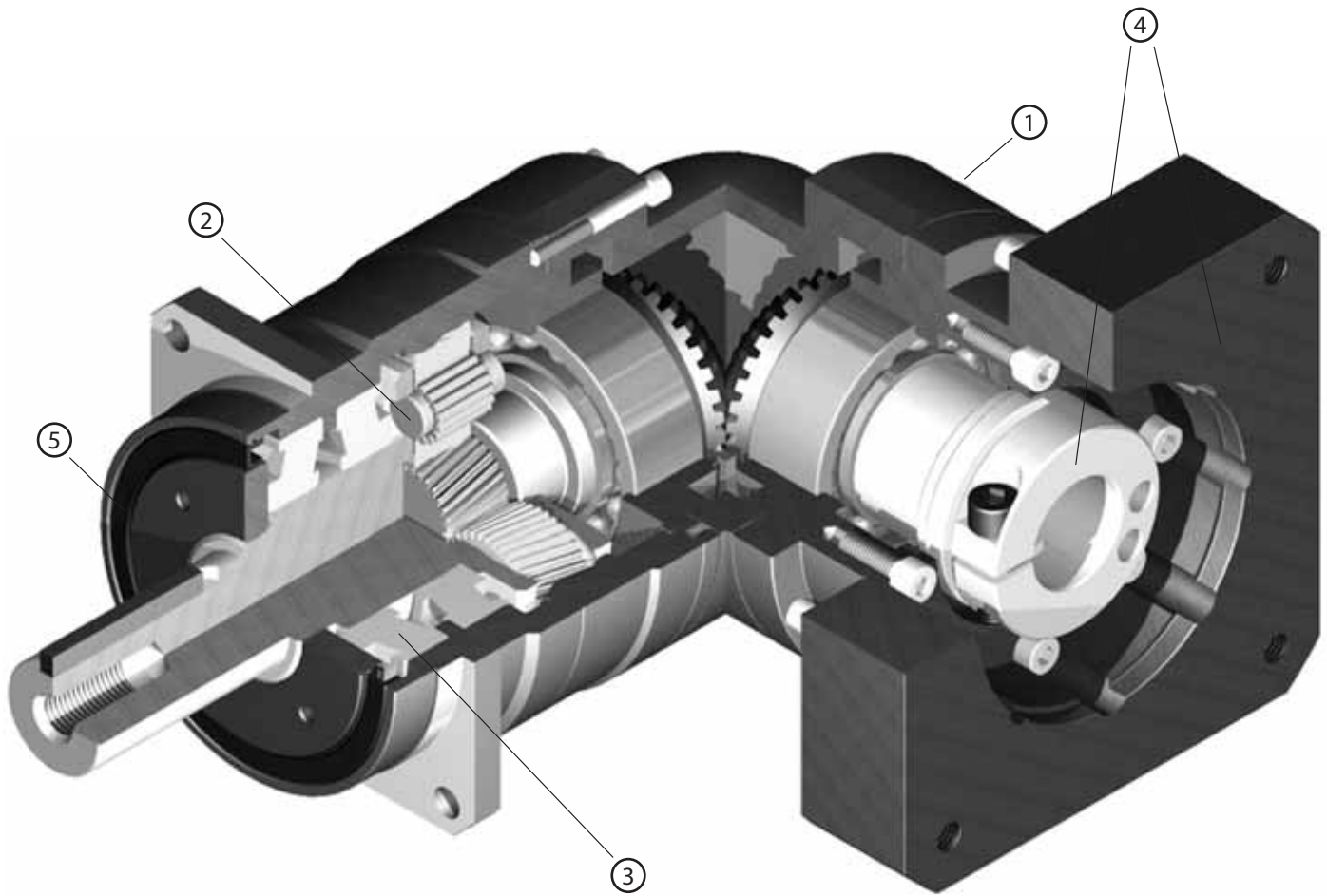
Toll Free Fax (877) SERV099

[www.electromate.com](http://www.electromate.com)

[sales@electromate.com](mailto:sales@electromate.com)

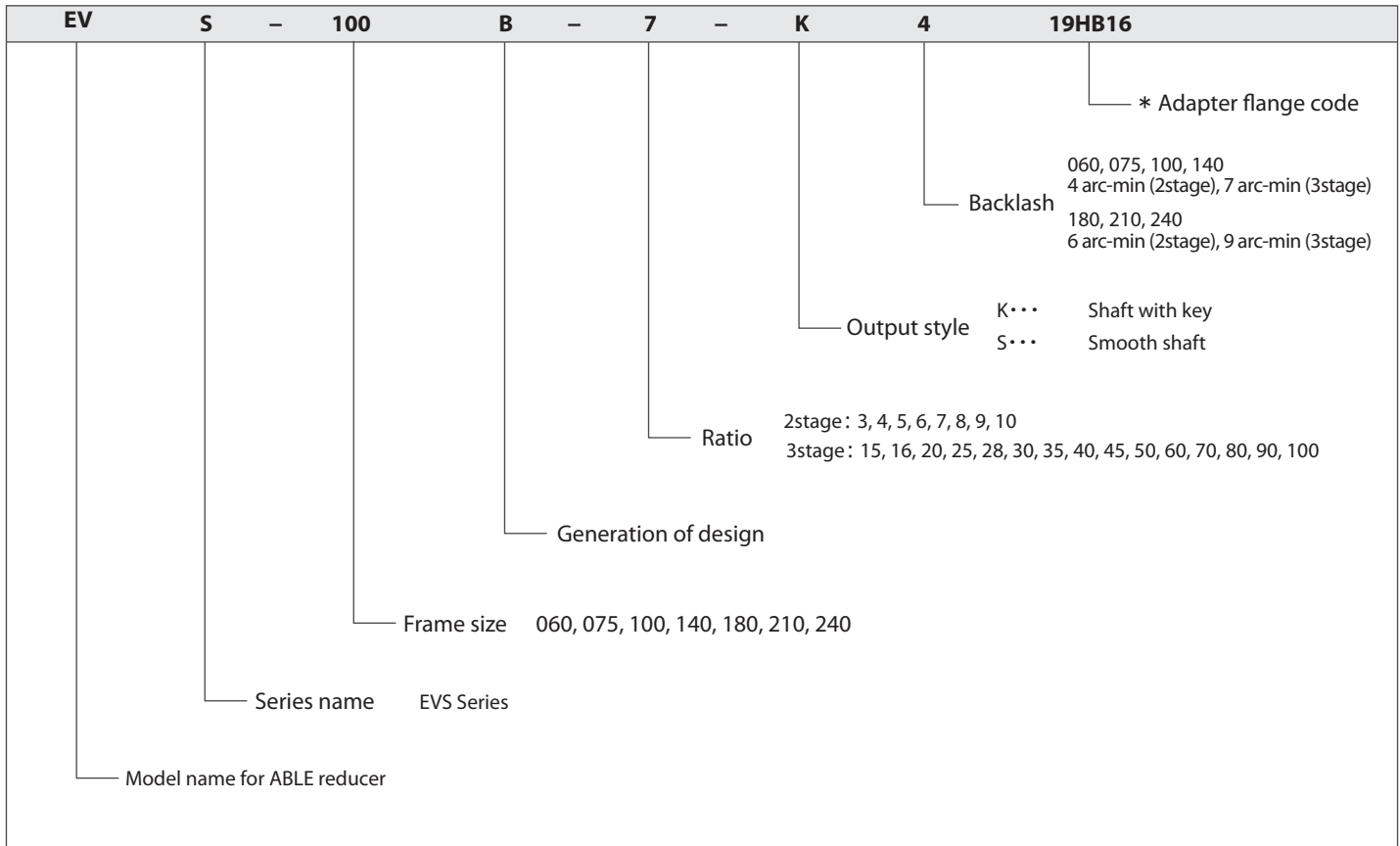
# EVS-SERIES Right-angle shaft

## EVS-Series – Features

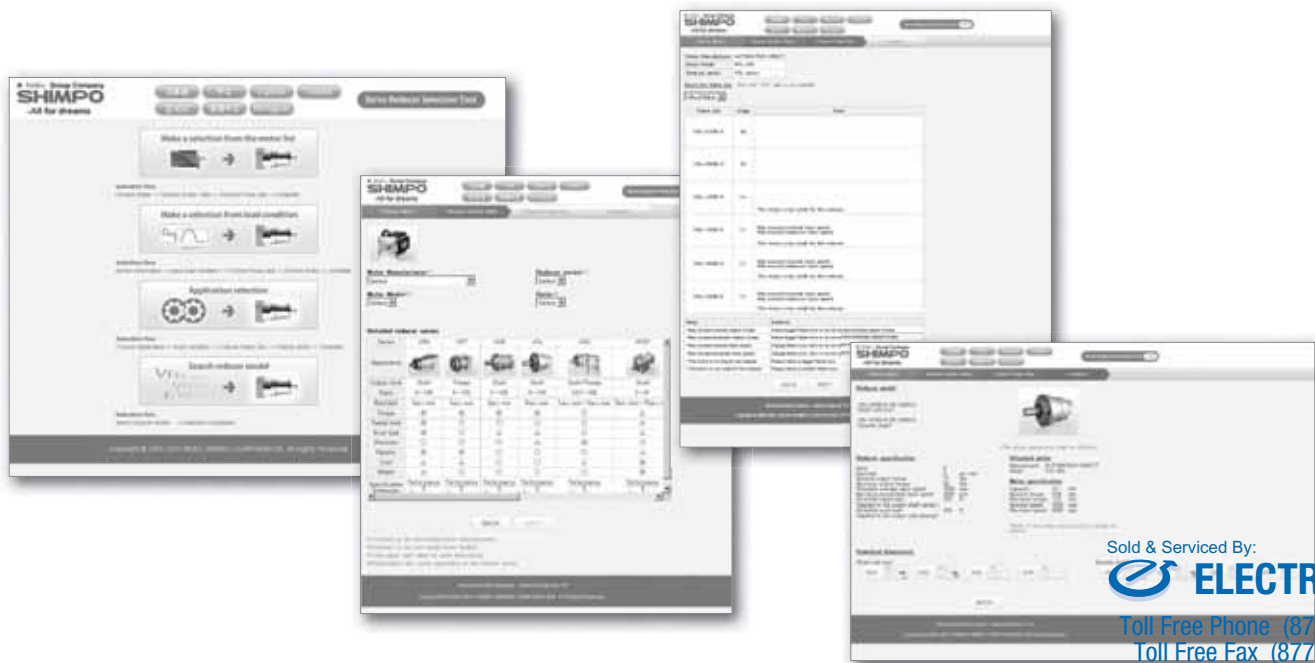


- ① Space-saving features; motor can be located at a 90 degree position from the reducer providing a more compact footprint
- ② High rigidity and torque capacity are achieved by using uncaged needle roller bearings
- ③ High load capacity: Tapered roller bearings were added to the output section to increase radial and axial load ratings
- ④ Adapter-bushing connection enable a simple, effective attachment to most servo motors
- ⑤ No leakage through the seal; high viscosity, anti-separation grease does not liquefy and does not migrate away from the gears
- ⑥ No need to replace the grease for the life of the unit. The reducer can be positioned in any orientation

## EVS-Series – Model Code



\*1) Adapter flange code  
 Adapter flange code varies depending on the motor.



Sold & Serviced By:



Toll Free Phone (877) SERV098  
 Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

# EVS-SERIES Right-angle shaft

## EVS-o6o – 2-Stage Specifications

Frame Size	060									
Stage	2-Stage									
Ratio	Unit	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	12	16	22	24	24	24	16	16
Maximum Acceleration Torque	[Nm]	*2	24	32	40	45	45	45	32	32
Emergency Stop Torque	[Nm]	*3	50	65	80	90	90	90	65	65
Nominal Input Speed	[rpm]	*4	3000							
Maximum Input Speed	[rpm]	*5	6000							
No Load Running Torque	[Nm]	*6	0.33							
Permitted Radial Load	[N]	*7	1700	1900	2000	2100	2200	2300	2400	2400
Permitted Axial Load	[N]	*8	2300	2500	2700	2700	2700	2700	2700	2700
Maximum Radial Load	[N]	*9	3000							
Maximum Axial Load	[N]	*10	2700							
Moment of Inertia ( $\leq \emptyset 8$ )	[kgcm <sup>2</sup> ]	--	0.320	0.271	0.251	0.242	0.235	0.232	0.229	0.228
Moment of Inertia ( $\leq \emptyset 14$ )	[kgcm <sup>2</sup> ]	--	0.395	0.346	0.326	0.317	0.310	0.307	0.304	0.303
Moment of Inertia ( $\leq \emptyset 19$ )	[kgcm <sup>2</sup> ]	--	0.584	0.535	0.516	0.506	0.500	0.496	0.494	0.492
Efficiency	[%]	*11	93							
Torsional Rigidity	[Nm/arc-min]	*12	3							
Maximum Torsional Backlash	[arc-min]	--	$\leq 4$							
Noise Level	[dB]	*13	80							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	2							

## EVS-o6o – 3-Stage Specifications

Frame Size	060									
Stage	3-Stage									
Ratio	Unit	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	16	24	24	24	24	16	24	24
Maximum Acceleration Torque	[Nm]	*2	32	45	45	45	45	32	45	45
Emergency Stop Torque	[Nm]	*3	65	90	90	90	90	65	90	90
Nominal Input Speed	[rpm]	*4	3000							
Maximum Input Speed	[rpm]	*5	6000							
No Load Running Torque	[Nm]	*6	0.20							
Permitted Radial Load	[N]	*7	2800	2800	3000	3000	3000	3000	3000	3000
Permitted Axial Load	[N]	*8	2700	2700	2700	2700	2700	2700	2700	2700
Maximum Radial Load	[N]	*9	3000							
Maximum Axial Load	[N]	*10	2700							
Moment of Inertia ( $\leq \emptyset 8$ )	[kgcm <sup>2</sup> ]	--	0.074	0.079	0.072	0.071	0.077	0.062	0.070	0.061
Moment of Inertia ( $\leq \emptyset 14$ )	[kgcm <sup>2</sup> ]	--	0.118	0.124	0.116	0.115	0.122	0.106	0.115	0.106
Moment of Inertia ( $\leq \emptyset 19$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*11	88							
Torsional Rigidity	[Nm/arc-min]	*12	3							
Maximum Torsional Backlash	[arc-min]	--	$\leq 7$							
Noise Level	[dB]	*13	80							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	1.8							

Sold & Serviced By:  
  
 Toll Free Phone (877) SERV098  
 Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

## EVS-o6o – 3-Stage Specifications

Frame Size	060										
Stage	3-Stage										
Ratio	Unit	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	16	24	24	24	24	16	16		
Maximum Acceleration Torque	[Nm]	*2	32	45	45	45	45	32	32		
Emergency Stop Torque	[Nm]	*3	65	90	90	90	90	65	65		
Nominal Input Speed	[rpm]	*4	3000								
Maximum Input Speed	[rpm]	*5	6000								
No Load Running Torque	[Nm]	*6	0.20								
Permitted Radial Load	[N]	*7	3000	3000	3000	3000	3000	3000	3000		
Permitted Axial Load	[N]	*8	2700	2700	2700	2700	2700	2700	2700		
Maximum Radial Load	[N]	*9	3000								
Maximum Axial Load	[N]	*10	2700								
Moment of Inertia ( $\leq \varnothing 8$ )	[kgcm <sup>2</sup> ]	--	0.070	0.061	0.061	0.061	0.061	0.061	0.061		
Moment of Inertia ( $\leq \varnothing 14$ )	[kgcm <sup>2</sup> ]	--	0.115	0.106	0.106	0.106	0.105	0.105	0.105		
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arc-min]	*12	3								
Maximum Torsional Backlash	[arc-min]	--	$\leq 7$								
Noise Level	[dB]	*13	80								
Protection Class	--	*14	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*15	1.8								

\*1) At nominal input speed, service life is 20,000 hours

\*2) The maximum torque when starting or stopping operation

\*3) The maximum torque allowed under a stress situation (Permitted 1,000 times during service life)

\*4) The average input speed

\*5) The maximum intermittent input speed

\*6) This is the torque at no load applied on the input shaft. The input speed is 3000 rpm for EVSo6o

\*7) At this load and nominal input speed, service life will be 20,000 hours. (The radial load applied to the output side bearing)

\*8) At this load and nominal input speed, service life will be 20,000 hours. (The axial load applied to the output shaft center)

\*9) The maximum radial load that the reducer can accept

\*10) The maximum axial load that the reducer can accept

\*11) The efficiency at the nominal torque rating

\*12) This does not include the lost motion

\*13) Contact NIDEC-SHIMPO for the testing conditions and environment

\*14) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options

\*15) The weight may vary slightly between models

Sold & Serviced By:

 **ELECTROMATE**

Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

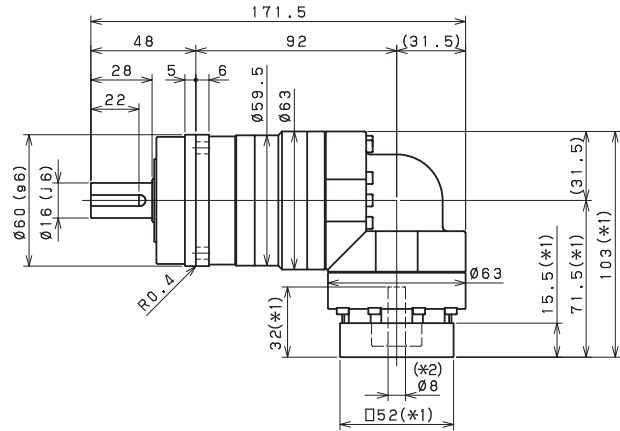
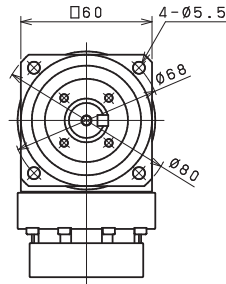
[www.electromate.com](http://www.electromate.com)

[sales@electromate.com](mailto:sales@electromate.com) 329

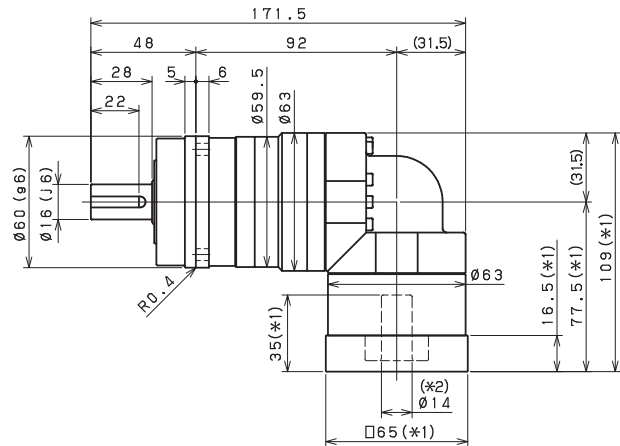
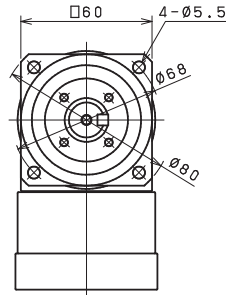
# EVS-SERIES Right-angle shaft

## EVS-o6o – 2-Stage Dimensions

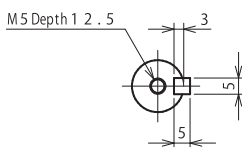
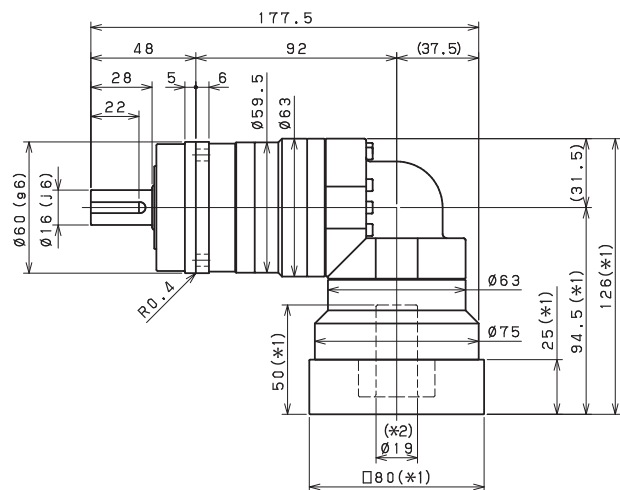
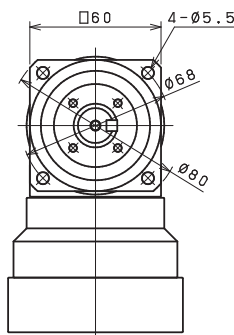
Input shaft bore  $\cong \varnothing 8$



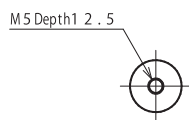
Input shaft bore  $\cong \varnothing 14$



Input shaft bore  $\cong \varnothing 19$



Shaft with key



Smooth shaft

\*1) Length will vary depending on motor sold & serviced by:

\*2) Bushing will be inserted to adapt to motor shaft

**ELECTROMATE**

Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

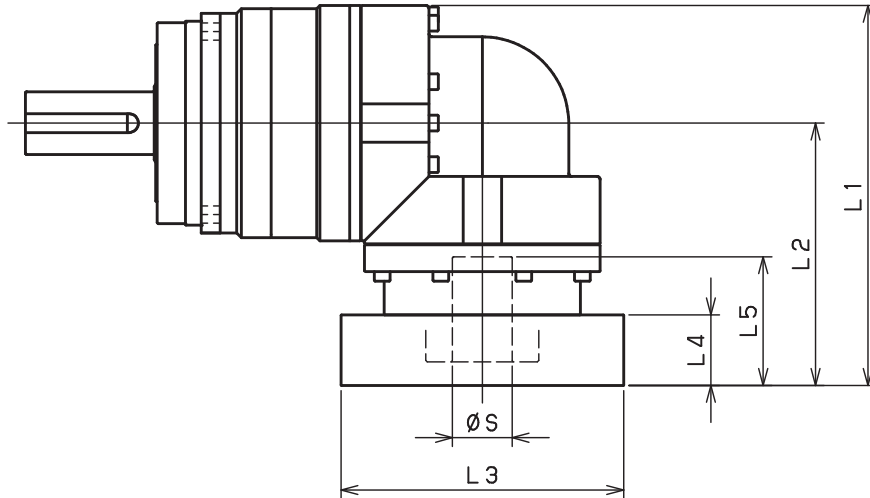
sales@electromate.com





# EVS-SERIES Right-angle shaft

## EVS-o6o – 2-Stage Adapter Dimensions



Model number	**: Adapter code	2-Stage				
		L1	L2	L3	L4	L5
EVS-060-□-□-8** (S ≤ 8)	AA·AC·AD·AF·AG·AL·AM·AN·AQ	103	71.5	□52	15.5	32
	AB·AE·AH·AJ·AK	108	76.5	□52	20.5	37
	BA·BB·BD·BE·BG·BH·BJ	103	71.5	□60	15.5	32
	BC·BF	108	76.5	□60	20.5	37
	CA	108	76.5	□70	20.5	37
EVS-060-□-□-14** (8 < S ≤ 14)	BA·BB·BD·BE·BF·BG·BH·BJ·BK·BP	109	77.5	□65	16.5	35
	BC·BH·BM·BN	114	82.5	□65	21.5	40
	BL	119	87.5	□65	26.5	45
	CA·CC	109	77.5	□70	16.5	35
	CB	114	82.5	□70	21.5	40
	DA·DB·DC·DD·DF·DH·DJ	109	77.5	□80	16.5	35
	DE·DL	114	82.5	□80	21.5	40
	DG·DK	119	87.5	□80	26.5	45
	EA·EB·EC·EF·EG·EK·EL	109	77.5	□90	16.5	35
	EJ·EM	114	82.5	□90	21.5	40
	ED·EE·EH	119	87.5	□90	26.5	45
	FA	109	77.5	□100	16.5	35
	FB	119	87.5	□100	26.5	45
EVS-060-□-□-19** (14 < S ≤ 19)	DA·DB·DC	126	94.5	□80	25	50
	DD	136	104.5	□80	35	60
	DE	131	99.5	□80	30	55
	EA	131	99.5	□90	30	55
	EB·ED	126	94.5	□90	25	50
	EC	136	104.5	□90	35	60
	FA	126	94.5	□100	25	50
FB	136	104.5	□100	35	60	

\*1) Double reduction : 1/3~ 1/10

\*2) Bushing will be inserted to adapt to motor shaft.

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:

 **ELECTROMATE**

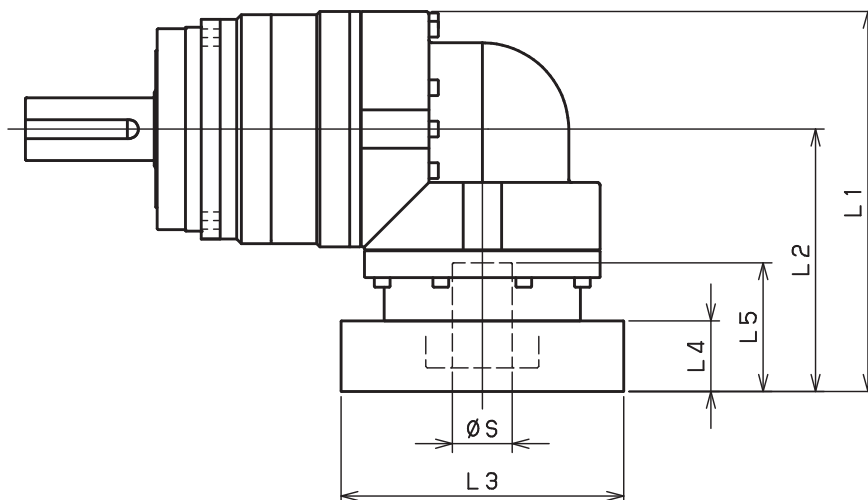
Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

## EVS-o6o – 3-Stage Adapter Dimensions



Model number	**: Adapter code	3-Stage				
		L1	L2	L3	L4	L5
EVS-060-□-□-8** (S ≤ 8)	AA·AC·AD·AF·AG·AL·AM·AN·AQ	96	64.5	□52	15.5	32
	AB·AE·AH·AJ·AK	101	69.5	□52	20.5	37
	BA·BB·BD·BE·BG·BH·BJ	96	64.5	□60	15.5	32
	BC·BF	101	69.5	□60	20.5	37
	CA	101	69.5	□70	20.5	37
EVS-060-□-□-14** (8 < S ≤ 14)	BA·BB·BD·BE·BF·BG·BH·BJ·BK·BP	100	68.5	□65	16.5	35
	BC·BH·BM·BN	105	73.5	□65	21.5	40
	BL	110	78.5	□65	26.5	45
	CA·CC	100	68.5	□70	16.5	35
	CB	105	73.5	□70	21.5	40
	DA·DB·DC·DD·DF·DH·DJ	100	68.5	□80	16.5	35
	DE·DL	105	73.5	□80	21.5	40
	DG·DK	110	78.5	□80	26.5	45
	EA·EB·EC·EF·EG·EK·EL	100	68.5	□90	16.5	35
	EJ·EM	105	73.5	□90	21.5	40
	ED·EE·EH	110	78.5	□90	26.5	45
	FA	100	68.5	□100	16.5	35
	FB	110	78.5	□100	26.5	45
EVS-060-□-□-19** (14 < S ≤ 19)	DA·DB·DC	--	--	--	--	--
	DD	--	--	--	--	--
	DE	--	--	--	--	--
	EA	--	--	--	--	--
	EB·ED	--	--	--	--	--
	EC	--	--	--	--	--
	FA	--	--	--	--	--

\*1) Triple reduction : 1/15~ 1/100

\*2) Bushing will be inserted to adapt to motor shaft.

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:

**ELECTROMATE**

Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com 333

# EVS-SERIES Right-angle shaft

## EVS-075 – 2-Stage Specifications

Frame Size	075									
Stage	2-Stage									
Ratio	Unit	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	45	60	65	65	65	65	45	45
Maximum Acceleration Torque	[Nm]	*2	65	90	90	90	90	90	65	65
Emergency Stop Torque	[Nm]	*3	130	170	220	220	220	220	170	170
Nominal Input Speed	[rpm]	*4	3000							
Maximum Input Speed	[rpm]	*5	6000							
No Load Running Torque	[Nm]	*6	1.13							
Permitted Radial Load	[N]	*7	2300	2500	2700	2800	3000	3100	3200	3300
Permitted Axial Load	[N]	*8	3400	3700	3900	3900	3900	3900	3900	3900
Maximum Radial Load	[N]	*9	4300							
Maximum Axial Load	[N]	*10	3900							
Moment of Inertia ( $\leq \varnothing 8$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Moment of Inertia ( $\leq \varnothing 14$ )	[kgcm <sup>2</sup> ]	--	2.070	1.870	1.780	1.740	1.720	1.700	1.690	1.690
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	2.400	2.200	2.110	2.070	2.050	2.030	2.020	2.020
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	4.530	4.320	4.240	4.200	4.170	4.160	4.150	4.150
Efficiency	[%]	*11	93							
Torsional Rigidity	[Nm/arc-min]	*12	10							
Maximum Torsional Backlash	[arc-min]	--	$\leq 4$							
Noise Level	[dB]	*13	80							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	4.8							

## EVS-075 – 3-Stage Specifications

Frame Size	075									
Stage	3-Stage									
Ratio	Unit	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	45	65	65	65	65	45	65	65
Maximum Acceleration Torque	[Nm]	*2	65	110	110	110	110	65	110	110
Emergency Stop Torque	[Nm]	*3	170	220	220	220	220	170	220	220
Nominal Input Speed	[rpm]	*4	3000							
Maximum Input Speed	[rpm]	*5	6000							
No Load Running Torque	[Nm]	*6	0.55							
Permitted Radial Load	[N]	*7	3700	3800	4000	4300	4300	4300	4300	4300
Permitted Axial Load	[N]	*8	3900	3900	3900	3900	3900	3900	3900	3900
Maximum Radial Load	[N]	*9	4300							
Maximum Axial Load	[N]	*10	3900							
Moment of Inertia ( $\leq \varnothing 8$ )	[kgcm <sup>2</sup> ]	--	0.330	0.380	0.330	0.320	0.370	0.250	0.320	0.250
Moment of Inertia ( $\leq \varnothing 14$ )	[kgcm <sup>2</sup> ]	--	0.410	0.460	0.400	0.400	0.450	0.320	0.400	0.320
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	0.600	0.650	0.590	0.590	0.640	0.510	0.580	0.510
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*11	88							
Torsional Rigidity	[Nm/arc-min]	*12	10							
Maximum Torsional Backlash	[arc-min]	--	$\leq 7$							
Noise Level	[dB]	*13	80							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	4.1							

Sold & Serviced By:



Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

## EVS-075 – 3-Stage Specifications

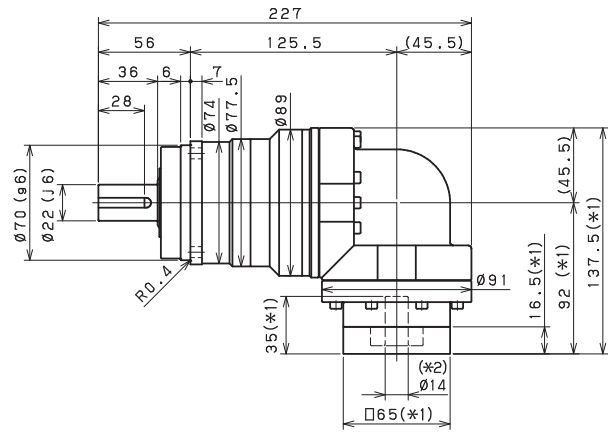
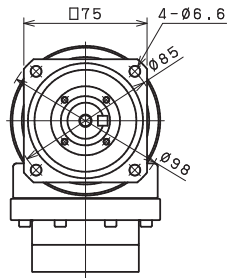
Frame Size	075										
Stage	3-Stage										
Ratio	Unit	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	45	65	65	65	65	45	45		
Maximum Acceleration Torque	[Nm]	*2	65	110	110	110	110	65	65		
Emergency Stop Torque	[Nm]	*3	170	220	220	220	220	170	170		
Nominal Input Speed	[rpm]	*4	3000								
Maximum Input Speed	[rpm]	*5	6000								
No Load Running Torque	[Nm]	*6	0.55								
Permitted Radial Load	[N]	*7	4300	4300	4300	4300	4300	4300	4300		
Permitted Axial Load	[N]	*8	3900	3900	3900	3900	3900	3900	3900		
Maximum Radial Load	[N]	*9	4300								
Maximum Axial Load	[N]	*10	3900								
Moment of Inertia ( $\leq \varnothing 8$ )	[kgcm <sup>2</sup> ]	--	0.320	0.250	0.250	0.250	0.250	0.250	0.250		
Moment of Inertia ( $\leq \varnothing 14$ )	[kgcm <sup>2</sup> ]	--	0.390	0.320	0.320	0.320	0.320	0.320	0.320		
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	0.580	0.510	0.510	0.510	0.510	0.510	0.510		
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arc-min]	*12	10								
Maximum Torsional Backlash	[arc-min]	--	$\leq 7$								
Noise Level	[dB]	*13	80								
Protection Class	--	*14	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*15	4.1								

- \*1) At nominal input speed, service life is 20,000 hours
- \*2) The maximum torque when starting or stopping operation
- \*3) The maximum torque allowed under a stress situation (Permitted 1,000 times during service life)
- \*4) The average input speed
- \*5) The maximum intermittent input speed
- \*6) This is the torque at no load applied on the input shaft. The input speed is 3000 rpm for EVS075
- \*7) At this load and nominal input speed, service life will be 20,000 hours. (The radial load applied to the output side bearing)
- \*8) At this load and nominal input speed, service life will be 20,000 hours. (The axial load applied to the output shaft center)
- \*9) The maximum radial load that the reducer can accept
- \*10) The maximum axial load that the reducer can accept
- \*11) The efficiency at the nominal torque rating
- \*12) This does not include the lost motion
- \*13) Contact NIDEC-SHIMPO for the testing conditions and environment
- \*14) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options
- \*15) The weight may vary slightly between models

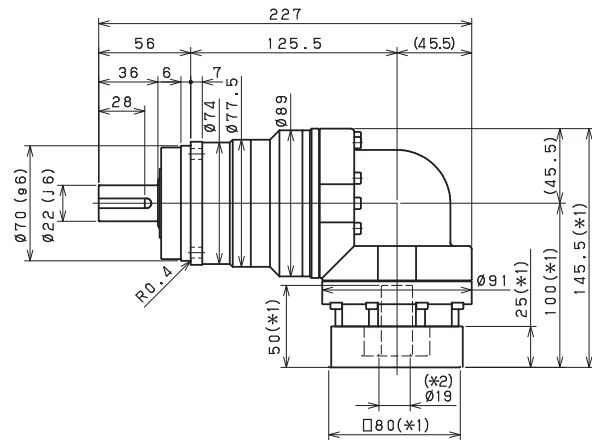
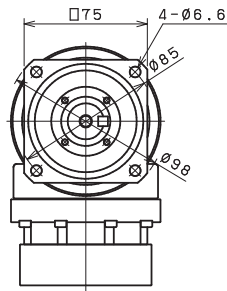
# EVS-SERIES Right-angle shaft

## EVS-075 – 2-Stage Dimensions

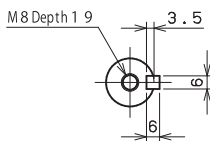
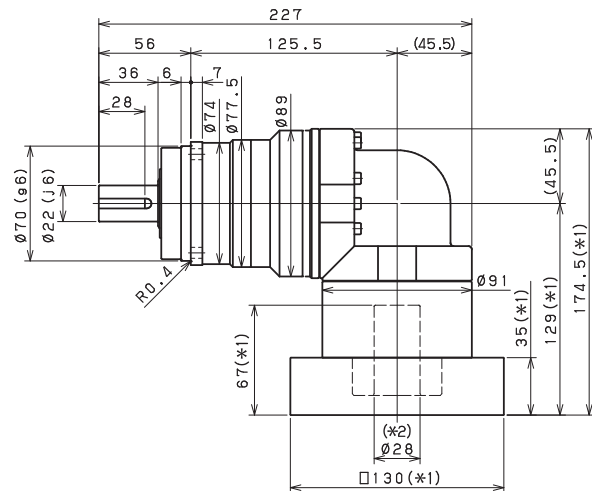
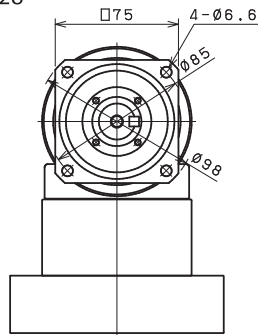
Input shaft bore  $\leq \varnothing 14$



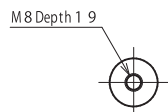
Input shaft bore  $\leq \varnothing 19$



Input shaft bore  $\leq \varnothing 28$



Shaft with key



Smooth shaft

\*1) Length will vary depending on motor sold & serviced by:

\*2) Bushing will be inserted to adapt to motor shaft



Toll Free Phone (877) SERV098

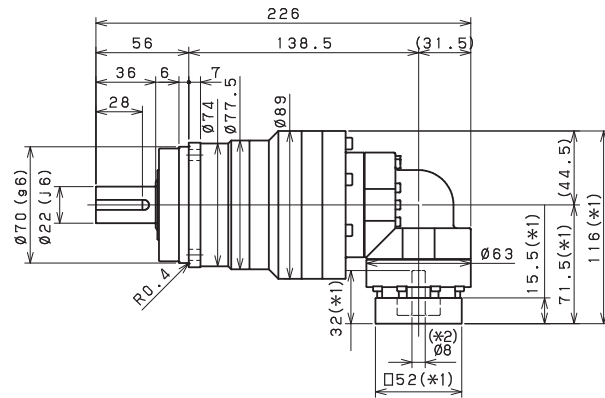
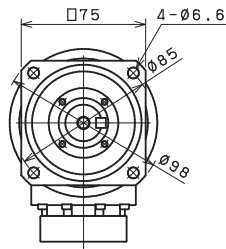
Toll Free Fax (877) SERV099

www.electromate.com

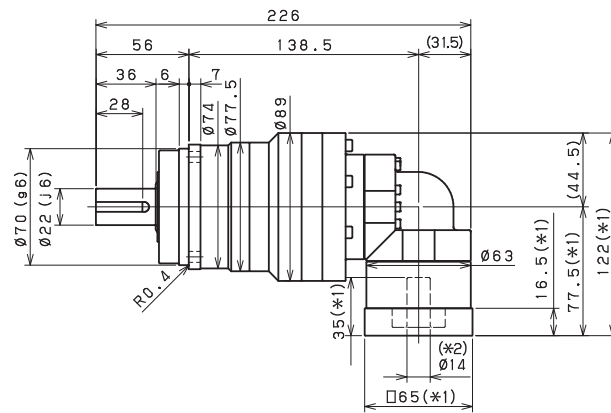
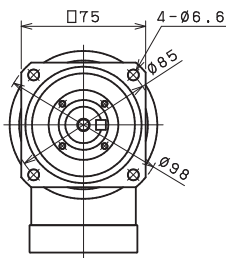
sales@electromate.com

## EVS-075 – 3-Stage Dimensions

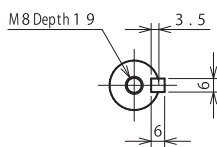
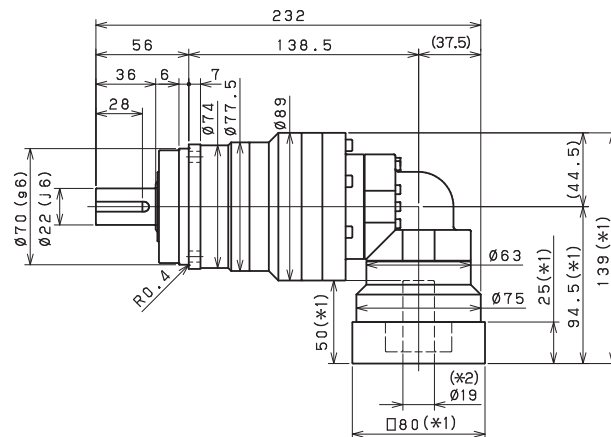
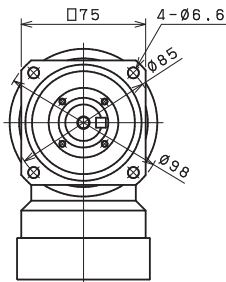
Input shaft bore  $\leq \phi 8$



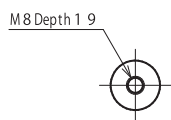
Input shaft bore  $\leq \phi 14$



Input shaft bore  $\leq \phi 19$



Shaft with key



Smooth shaft

\*1) Length will vary depending on motor. Serviced By:

\*2) Bushing will be inserted to adapt for input shaft

**ELECTROMATE**

Toll Free Phone (877) SERV098

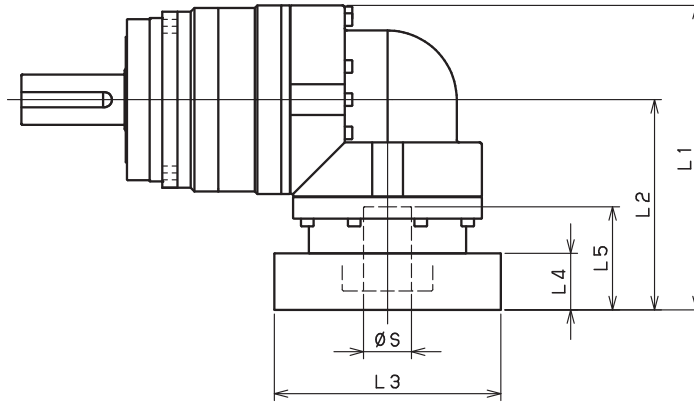
Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

# EVS-SERIES Right-angle shaft

## EVS-075 – 2-Stage Adapter Dimensions



Model number	**: Adapter code	2-Stage				
		L1	L2	L3	L4	L5
EVS-075-□-□-8** (S ≤ 8)	AA·AC·AD·AF·AG·AL·AM·AN·AQ	--	--	--	--	--
	AB·AE·AH·AJ·AK	--	--	--	--	--
	BA·BB·BD·BE·BG·BH·BJ	--	--	--	--	--
	CA	--	--	--	--	--
EVS-075-□-□-14** (8 < S ≤ 14)	BA·BB·BD·BE·BF·BG·BH·BJ·BK·BP	137.5	92	□65	16.5	35
	BC·BH·BM·BN	142.5	97	□65	21.5	40
	CA·CC	137.5	92	□70	16.5	35
	DA·DB·DC·DD·DF·DH·DJ	137.5	92	□80	16.5	35
	EA·EB·EC·EF·EG·EK·EL	137.5	92	□90	16.5	35
	FA	137.5	92	□100	16.5	35
	FB	147.5	102	□100	26.5	45
EVS-075-□-□-19** (14 < S ≤ 19)	DA·DB·DC	145.5	100	□80	25	50
	EB·ED	145.5	100	□90	25	50
	FA	145.5	100	□100	25	50
	FB	155.5	110	□100	35	60
	GA·GC·GH	150.5	105	□115	30	55
	GB·GD·GJ	145.5	100	□115	25	50
	GE·GF	155.5	110	□115	35	60
	HA	145.5	100	□130	25	50
	HB	160.5	115	□130	40	65
	HC·HD·HE	150.5	105	□130	30	55
	JA	155.5	110	□150	35	60
EVS-075-□-□-28** (19 < S ≤ 28)	FA·FB·FC	174.5	129	□100	35	67
	FD·FE	169.5	124	□100	30	62
	GA·GB·GC·GD·GE·GF·GG·GH	174.5	129	□115	35	67
	HA·HC·HD	174.5	129	□130	35	67
	HB	184.5	139	□130	45	77
	HE	189.5	144	□130	50	82
	HF	169.5	124	□130	30	62
	JA·JB·JC·JF	174.5	129	□150	35	67
	JD	194.5	149	□150	55	87
JE	184.5	139	□150	45	77	

\*1) Double reduction : 1/3~ 1/10

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:



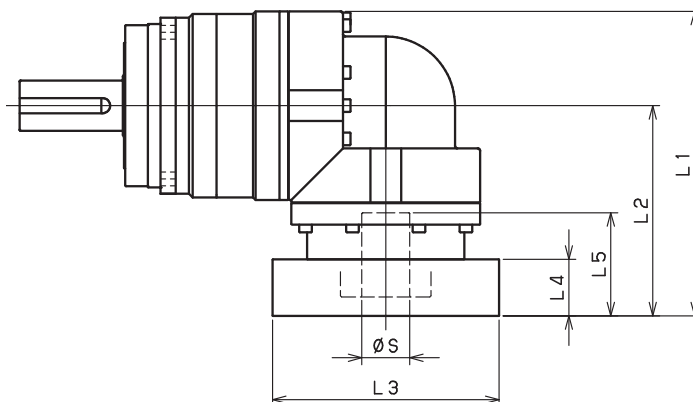
Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

## EVS-075 – 3-Stage Adapter Dimensions



Model number	**: Adapter code	3-Stage				
		L1	L2	L3	L4	L5
EVS-075-□-□-8** (S ≤ 8)	AA·AC·AD·AF·AG·AL·AM·AN·AQ	116	71.5	□52	15.5	32
	AB·AE·AH·AJ·AK	121	76.5	□52	20.5	37
	BA·BB·BD·BE·BG·BH·BJ	116	71.5	□60	15.5	32
	CA	121	76.5	□70	20.5	37
EVS-075-□-□-14** (8 < S ≤ 14)	BA·BB·BD·BE·BF·BG·BH·BJ·BK·BP	122	77.5	□65	16.5	35
	BC·BH·BM·BN	127	82.5	□65	21.5	40
	CA·CC	122	77.5	□70	16.5	35
	DA·DB·DC·DD·DF·DH·DJ	122	77.5	□80	16.5	35
	EA·EB·EC·EF·EG·EK·EL	122	77.5	□90	16.5	35
	FA	122	77.5	□100	16.5	35
	FB	132	87.5	□100	26.5	45
EVS-075-□-□-19** (14 < S ≤ 19)	DA·DB·DC	139	94.5	□80	25	50
	EB·ED	139	94.5	□90	25	50
	FA	139	94.5	□100	25	50
	FB	149	104.5	□100	35	60
	GA·GC·GH	144	99.5	□115	30	55
	GB·GD·GJ	139	94.5	□115	25	50
	GE·GF	149	104.5	□115	35	60
	HA	139	94.5	□130	25	50
	HB	154	109.5	□130	40	65
	HC·HD·HE	144	99.5	□130	30	55
	JA	149	104.5	□150	35	60
EVS-075-□-□-28** (19 < S ≤ 28)	FA·FB·FC	--	--	--	--	--
	FD·FE	--	--	--	--	--
	GA·GB·GC·GD·GE·GF·GG·GH	--	--	--	--	--
	HA·HC·HD	--	--	--	--	--
	HB	--	--	--	--	--
	HE	--	--	--	--	--
	HF	--	--	--	--	--
	JA·JB·JC·JF	--	--	--	--	--
	JD	--	--	--	--	--
JE	--	--	--	--	--	

\*1) Triple reduction : 1/15~ 1/100

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:

**ELECTROMATE**

Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com



# EVS-SERIES Right-angle shaft

## EVS-100 – 2-Stage Specifications

Frame Size	100									
Stage	2-Stage									
Ratio	Unit	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	75	100	120	150	150	150	110	110
Maximum Acceleration Torque	[Nm]	*2	150	200	240	300	300	300	200	200
Emergency Stop Torque	[Nm]	*3	320	430	500	550	550	550	450	450
Nominal Input Speed	[rpm]	*4	3000							
Maximum Input Speed	[rpm]	*5	6000							
No Load Running Torque	[Nm]	*6	1.88							
Permitted Radial Load	[N]	*7	3400	3700	4000	4200	4400	4600	4800	4900
Permitted Axial Load	[N]	*8	4800	5200	5600	5900	6100	6300	6300	6300
Maximum Radial Load	[N]	*9	7000							
Maximum Axial Load	[N]	*10	6300							
Moment of Inertia ( $\leq \varnothing 14$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	6.610	5.410	4.970	4.730	4.620	4.530	4.470	4.450
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	8.210	7.010	6.570	6.330	6.220	6.120	6.070	6.040
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	15.280	14.080	13.640	13.400	13.290	13.200	13.140	13.110
Efficiency	[%]	*11	93							
Torsional Rigidity	[Nm/arc-min]	*12	31							
Maximum Torsional Backlash	[arc-min]	--	$\leq 4$							
Noise Level	[dB]	*13	85							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	10.5							

## EVS-100 – 3-Stage Specifications

Frame Size	100									
Stage	3-Stage									
Ratio	Unit	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	110	130	150	150	150	110	150	150
Maximum Acceleration Torque	[Nm]	*2	200	260	300	300	300	200	300	300
Emergency Stop Torque	[Nm]	*3	450	550	550	550	550	450	550	550
Nominal Input Speed	[rpm]	*4	3000							
Maximum Input Speed	[rpm]	*5	6000							
No Load Running Torque	[Nm]	*6	1.11							
Permitted Radial Load	[N]	*7	5600	5700	6100	6500	6700	6900	7000	7000
Permitted Axial Load	[N]	*8	6300	6300	6300	6300	6300	6300	6300	6300
Maximum Radial Load	[N]	*9	7000							
Maximum Axial Load	[N]	*10	6300							
Moment of Inertia ( $\leq \varnothing 14$ )	[kgcm <sup>2</sup> ]	--	2.240	2.450	2.190	2.180	2.400	1.870	2.160	1.860
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	2.570	2.780	2.520	2.510	2.730	2.200	2.490	2.190
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	4.700	4.910	4.650	4.630	4.860	4.330	4.620	4.320
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*11	88							
Torsional Rigidity	[Nm/arc-min]	*12	31							
Maximum Torsional Backlash	[arc-min]	--	$\leq 7$							
Noise Level	[dB]	*13	85							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	10.1							

Sold & Serviced By:  
  
 Toll Free Phone (877) SERV098  
 Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

## EVS-100 – 3-Stage Specifications

Frame Size	100										
Stage	3-Stage										
Ratio	Unit	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	110	150	150	150	150	110	110		
Maximum Acceleration Torque	[Nm]	*2	200	300	300	300	300	200	200		
Emergency Stop Torque	[Nm]	*3	450	550	550	550	550	450	450		
Nominal Input Speed	[rpm]	*4	3000								
Maximum Input Speed	[rpm]	*5	6000								
No Load Running Torque	[Nm]	*6	1.11								
Permitted Radial Load	[N]	*7	7000	7000	7000	7000	7000	7000	7000		
Permitted Axial Load	[N]	*8	6300	6300	6300	6300	6300	6300	6300		
Maximum Radial Load	[N]	*9	7000								
Maximum Axial Load	[N]	*10	6300								
Moment of Inertia ( $\leq \varnothing 14$ )	[kgcm <sup>2</sup> ]	--	2.150	1.860	1.850	1.850	1.850	1.850	1.850		
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	2.480	2.190	2.180	2.180	2.180	2.180	2.180		
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	4.610	4.310	4.310	4.310	4.310	4.310	4.310		
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arc-min]	*12	31								
Maximum Torsional Backlash	[arc-min]	--	$\leq 7$								
Noise Level	[dB]	*13	85								
Protection Class	--	*14	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*15	10.1								

- \*1) At nominal input speed, service life is 20,000 hours
- \*2) The maximum torque when starting or stopping operation
- \*3) The maximum torque allowed under a stress situation (Permitted 1,000 times during service life)
- \*4) The average input speed
- \*5) The maximum intermittent input speed
- \*6) This is the torque at no load applied on the input shaft. The input speed is 3000 rpm for EVS100
- \*7) At this load and nominal input speed, service life will be 20,000 hours. (The radial load applied to the output side bearing)
- \*8) At this load and nominal input speed, service life will be 20,000 hours. (The axial load applied to the output shaft center)
- \*9) The maximum radial load that the reducer can accept
- \*10) The maximum axial load that the reducer can accept
- \*11) The efficiency at the nominal torque rating
- \*12) This does not include the lost motion
- \*13) Contact NIDEC-SHIMPO for the testing conditions and environment
- \*14) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options
- \*15) The weight may vary slightly between models

Sold &amp; Serviced By:

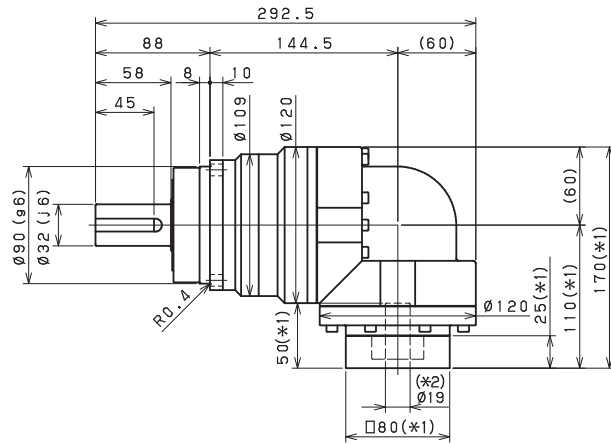
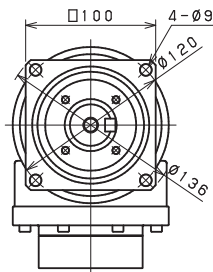


Toll Free Phone (877) SERV098  
Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

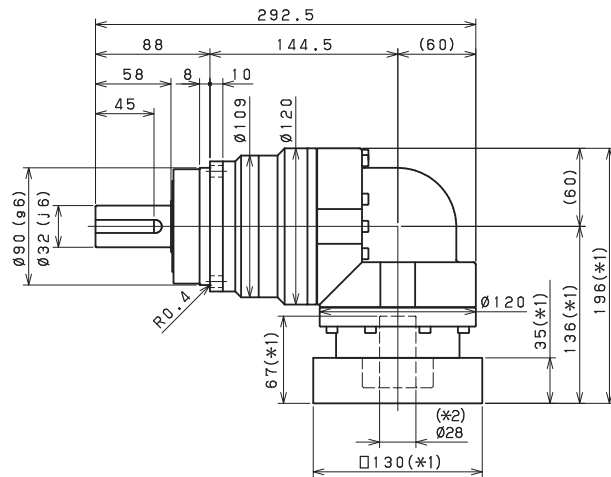
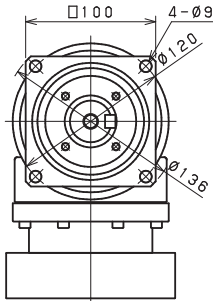
# EVS-SERIES Right-angle shaft

## EVS-100 – 2-Stage Dimensions

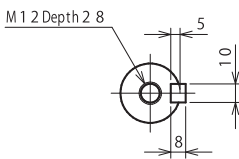
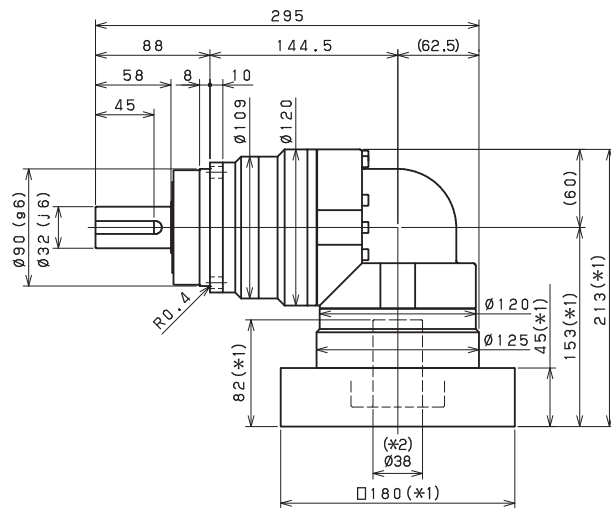
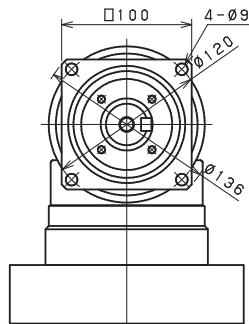
Input shaft bore  $\leq \phi 19$



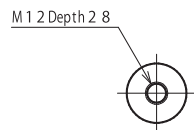
Input shaft bore  $\leq \phi 28$



Input shaft bore  $\leq \phi 38$



Shaft with key



Smooth shaft

\*1) Length will vary depending on motor size.

\*2) Bushing will be inserted to adapt to motor shaft.



Toll Free Phone (877) SERV098

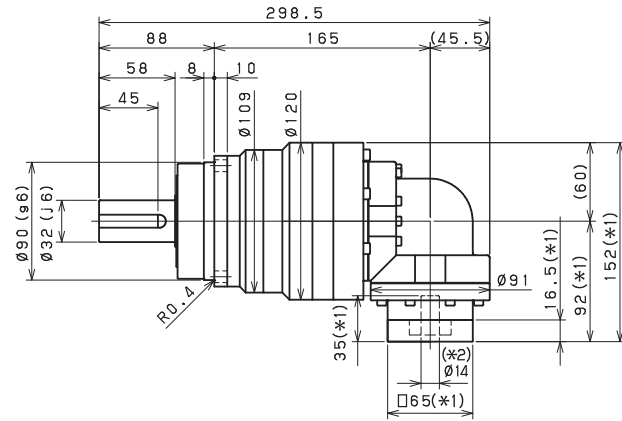
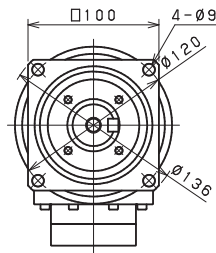
Toll Free Fax (877) SERV099

www.electromate.com

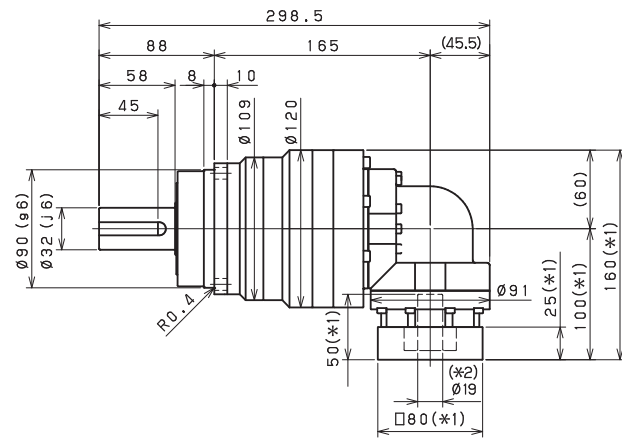
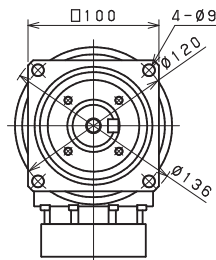
sales@electromate.com

## EVS-100 – 3-Stage Dimensions

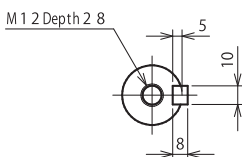
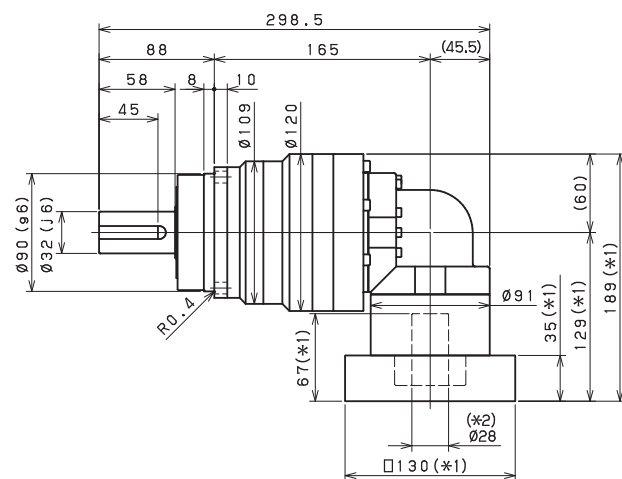
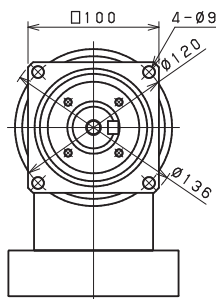
Input shaft bore  $\cong \phi 14$



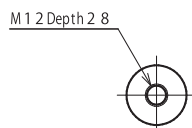
Input shaft bore  $\cong \phi 19$



Input shaft bore  $\cong \phi 28$



Shaft with key



Smooth shaft

\*1) Length will vary depending on motor. Serviced By:

\*2) Bushing will be inserted to adapt to motor shaft.

**ELECTROMATE**

Toll Free Phone (877) SERV098

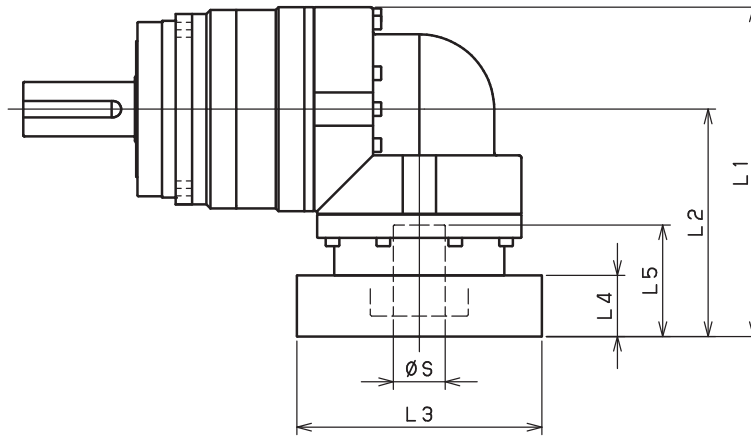
Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

# EVS-SERIES Right-angle shaft

## EVS-100 – 2-Stage Adapter Dimensions



Model number	**: Adapter code	2-Stage				
		L1	L2	L3	L4	L5
EVS-100-□-□-14** (S ≤ 14)	BA•BB•BD•BE•BF•BG•BH•BJ•BK•BP	--	--	--	--	--
	BC•BH•BM•BN	--	--	--	--	--
	CA•CC	--	--	--	--	--
	DA•DB•DC•DD•DF•DH•DJ	--	--	--	--	--
	EA•EB•EC•EF•EG•EK•EL	--	--	--	--	--
	FA	--	--	--	--	--
	FB	--	--	--	--	--
EVS-100-□-□-19** (14 < S ≤ 19)	DA•DB•DC	170	110	□80	25	50
	EB•ED	170	110	□90	25	50
	FA	170	110	□100	25	50
	FB	180	120	□100	35	60
	GB•GD•GJ	170	110	□115	25	50
	HA	170	110	□130	25	50
	HB	185	125	□130	40	65
EVS-100-□-□-28** (19 < S ≤ 28)	JA	180	120	□150	35	60
	FA•FB•FC	196	136	□100	35	67
	FD•FE	191	131	□100	30	62
	GA•GB•GC•GD•GE•GF•GG•GH	196	136	□115	35	67
	HA•HC•HD	196	136	□130	35	67
	HB	206	146	□130	45	77
	HE	211	151	□130	50	82
	HF	191	131	□130	30	62
	JA•JB•JC•JF	196	136	□150	35	67
	JD	216	156	□150	55	87
	JE	206	146	□150	45	77
EVS-100-□-□-38** (28 < S ≤ 38)	KA•KB•KE	196	136	□180	35	67
	KD	206	146	□180	45	77
	HA	213	153	□130	45	82
	HB•HE	208	148	□130	40	77
	JA	213	153	□150	45	82
	KA•KB•KC	213	153	□180	45	82
	KD	248	188	□180	80	117
	KE	228	168	□180	60	60

\*1) Double reduction : 1/3~ 1/10

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:



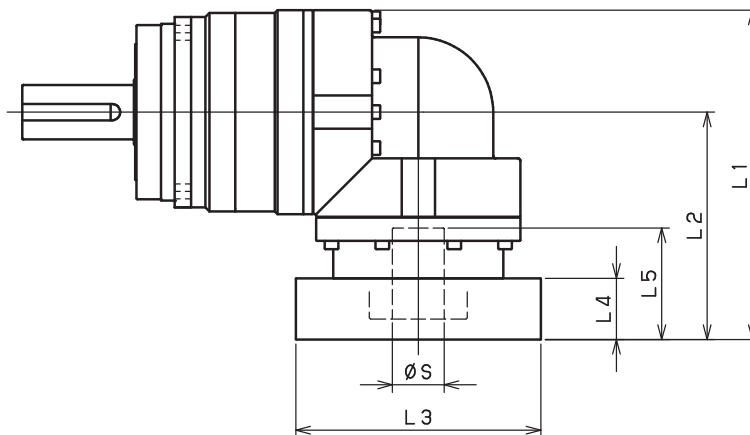
Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

## EVS-100 – 3-Stage Adapter Dimensions



Model number	**: Adapter code	3-Stage				
		L1	L2	L3	L4	L5
EVS-100-□-□-14** (S ≤ 14)	BA•BB•BD•BE•BF•BG•BH•BJ•BK•BP	152	92	□65	16.5	35
	BC•BH•BM•BN	157	97	□65	21.5	40
	CA•CC	152	92	□70	16.5	35
	DA•DB•DC•DD•DF•DH•DJ	152	92	□80	16.5	35
	EA•EB•EC•EF•EG•EK•EL	152	92	□90	16.5	35
	FA	152	92	□100	16.5	35
	FB	162	102	□100	26.5	45
EVS-100-□-□-19** (14 < S ≤ 19)	DA•DB•DC	160	100	□80	25	50
	EB•ED	160	100	□90	25	50
	FA	160	100	□100	25	50
	FB	170	110	□100	35	60
	GB•GD•GJ	160	100	□115	25	50
	HA	160	100	□130	25	50
	HB	175	115	□130	40	65
EVS-100-□-□-28** (19 < S ≤ 28)	FA•FB•FC	189	129	□100	35	67
	FD•FE	184	124	□100	30	62
	GA•GB•GC•GD•GE•GF•GG•GH	189	129	□115	35	67
	HA•HC•HD	189	129	□130	35	67
	HB	199	139	□130	45	77
	HE	204	144	□130	50	82
	HF	184	124	□130	30	62
	JA•JB•JC•JF	189	129	□150	35	67
	JD	209	149	□150	55	87
	JE	199	139	□150	45	77
	KA•KB•KE	189	129	□180	35	67
EVS-100-□-□-38** (28 < S ≤ 38)	HA	--	--	--	--	--
	HB•HE	--	--	--	--	--
	JA	--	--	--	--	--
	KA•KB•KC	--	--	--	--	--
	KD	--	--	--	--	--
	KE	--	--	--	--	--

\*1) Triple reduction : 1/15~ 1/100

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:



Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

# EVS-SERIES Right-angle shaft

## EVS-140 – 2-Stage Specifications

Frame Size	140									
Stage	2-Stage									
Ratio	Unit	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	130	170	200	260	300	300	200	200
Maximum Acceleration Torque	[Nm]	*2	260	340	400	520	600	600	400	400
Emergency Stop Torque	[Nm]	*3	700	950	1100	1100	1100	1100	750	750
Nominal Input Speed	[rpm]	*4	2000							
Maximum Input Speed	[rpm]	*5	4000							
No Load Running Torque	[Nm]	*6	3.26							
Permitted Radial Load	[N]	*7	6700	7400	7900	8300	8700	9100	9400	9700
Permitted Axial Load	[N]	*8	9000	9000	9000	9000	9000	9000	9000	9000
Maximum Radial Load	[N]	*9	10000							
Maximum Axial Load	[N]	*10	9000							
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	23.010	18.490	16.850	15.970	15.550	15.210	14.750	14.640
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	27.380	22.860	21.220	20.340	19.920	19.580	19.120	19.020
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	40.610	36.090	34.450	33.570	33.150	32.810	32.250	32.250
Efficiency	[%]	*11	93							
Torsional Rigidity	[Nm/arc-min]	*12	60							
Maximum Torsional Backlash	[arc-min]	--	$\leq 4$							
Noise Level	[dB]	*13	85							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	20.6							

## EVS-140 – 3-Stage Specifications

Frame Size	140									
Stage	3-Stage									
Ratio	Unit	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	200	300	300	300	300	200	300	300
Maximum Acceleration Torque	[Nm]	*2	400	600	600	600	600	400	600	600
Emergency Stop Torque	[Nm]	*3	750	1100	1100	1100	1100	750	1100	1100
Nominal Input Speed	[rpm]	*4	2000							
Maximum Input Speed	[rpm]	*5	4000							
No Load Running Torque	[Nm]	*6	2.56							
Permitted Radial Load	[N]	*7	10000	10000	10000	10000	10000	10000	10000	10000
Permitted Axial Load	[N]	*8	9000	9000	9000	9000	9000	9000	9000	9000
Maximum Radial Load	[N]	*9	10000							
Maximum Axial Load	[N]	*10	9000							
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	6.400	7.290	6.220	6.150	7.090	4.990	6.090	4.940
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	7.990	8.880	7.810	7.750	8.680	6.580	7.680	6.540
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	15.060	15.950	14.880	14.820	15.750	13.660	14.760	13.610
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*11	88							
Torsional Rigidity	[Nm/arc-min]	*12	60							
Maximum Torsional Backlash	[arc-min]	--	$\leq 7$							
Noise Level	[dB]	*13	85							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	20.7							

Sold & Serviced By:  
  
 Toll Free Phone (877) SERV098  
 Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

## EVS-140 – 3-Stage Specifications

Frame Size	140										
Stage	3-Stage										
Ratio	Unit	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	200	300	300	300	300	200	200		
Maximum Acceleration Torque	[Nm]	*2	400	600	600	600	600	400	400		
Emergency Stop Torque	[Nm]	*3	750	1100	1100	1100	1100	750	750		
Nominal Input Speed	[rpm]	*4	2000								
Maximum Input Speed	[rpm]	*5	4000								
No Load Running Torque	[Nm]	*6	2.56								
Permitted Radial Load	[N]	*7	10000	10000	10000	10000	10000	10000	10000		
Permitted Axial Load	[N]	*8	9000	9000	9000	9000	9000	9000	9000		
Maximum Radial Load	[N]	*9	10000								
Maximum Axial Load	[N]	*10	9000								
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	6.070	4.930	4.920	4.910	4.910	4.910	4.910		
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	7.660	6.520	6.510	6.510	6.500	6.500	6.500		
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	14.730	13.590	13.590	13.580	13.580	13.570	13.570		
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arc-min]	*12	60								
Maximum Torsional Backlash	[arc-min]	--	$\leq 7$								
Noise Level	[dB]	*13	85								
Protection Class	--	*14	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*15	20.7								

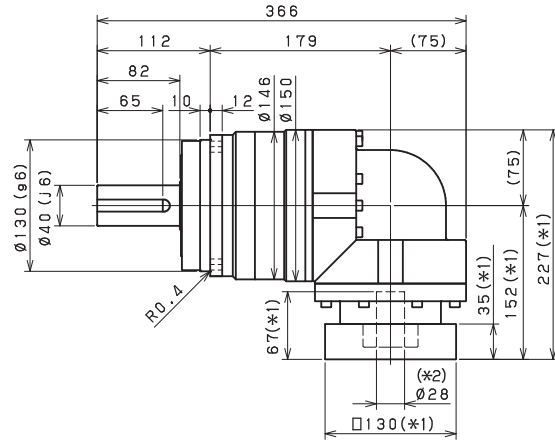
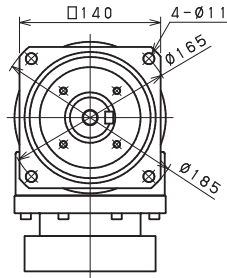
- \*1) At nominal input speed, service life is 20,000 hours
- \*2) The maximum torque when starting or stopping operation
- \*3) The maximum torque allowed under a stress situation (Permitted 1,000 times during service life)
- \*4) The average input speed
- \*5) The maximum intermittent input speed
- \*6) This is the torque at no load applied on the input shaft. The input speed is 2000 rpm for EVS140
- \*7) At this load and nominal input speed, service life will be 20,000 hours. (The radial load applied to the output side bearing)
- \*8) At this load and nominal input speed, service life will be 20,000 hours. (The axial load applied to the output shaft center)
- \*9) The maximum radial load that the reducer can accept
- \*10) The maximum axial load that the reducer can accept
- \*11) The efficiency at the nominal torque rating
- \*12) This does not include the lost motion
- \*13) Contact NIDEC-SHIMPO for the testing conditions and environment
- \*14) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options
- \*15) The weight may vary slightly between models



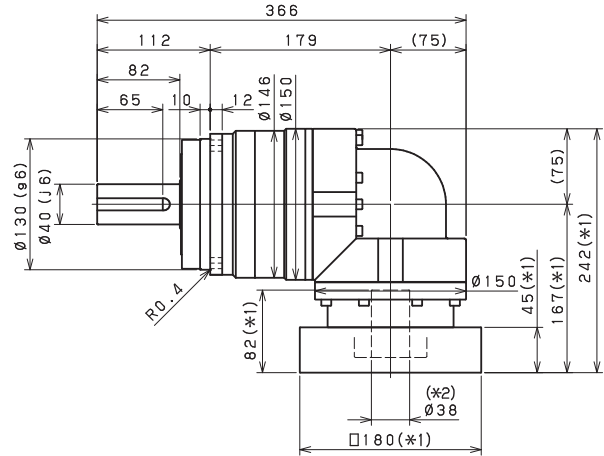
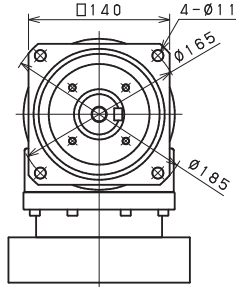
# EVS-SERIES Right-angle shaft

## EVS-140 – 2-Stage Dimensions

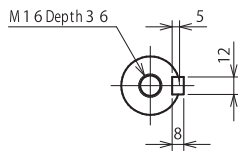
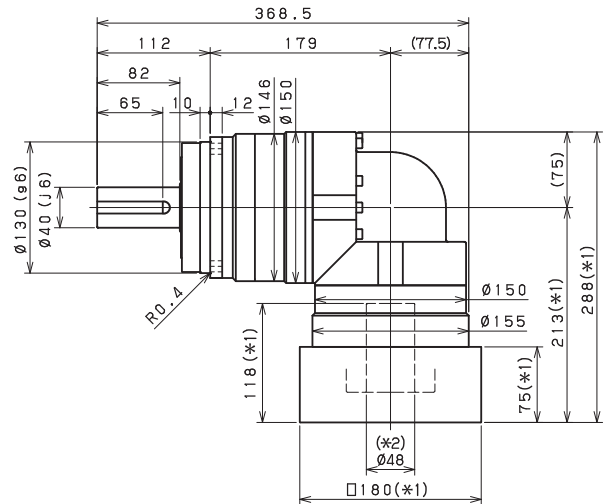
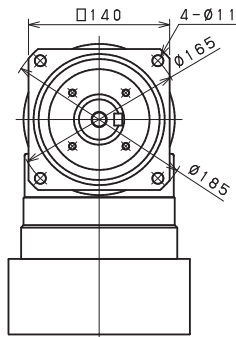
Input shaft bore  $\cong \varnothing 28$



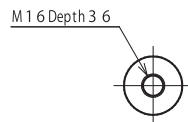
Input shaft bore  $\cong \varnothing 38$



Input shaft bore  $\cong \varnothing 48$



Shaft with key



Smooth shaft

\*1) Length will vary depending on motor sold & serviced by:

\*2) Bushing will be inserted to adapt to motor shaft



Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

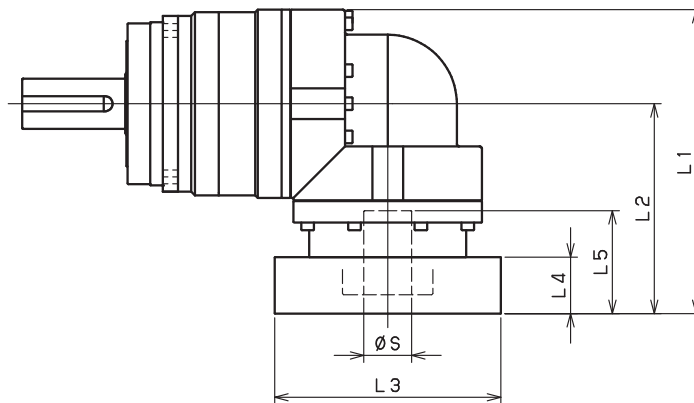
www.electromate.com

sales@electromate.com



# EVS-SERIES Right-angle shaft

## EVS-140 – 2-Stage Adapter Dimensions



Model number	**: Adapter code	2-Stage				
		L1	L2	L3	L4	L5
EVS-140-□-□-19** (S ≤ 19)	DA•DB•DC	--	--	--	--	--
	EB•ED	--	--	--	--	--
	FA	--	--	--	--	--
	FB	--	--	--	--	--
	GB•GD•GJ	--	--	--	--	--
	HA	--	--	--	--	--
	HB	--	--	--	--	--
	JA	--	--	--	--	--
EVS-140-□-□-28** (19 ≤ S ≤ 28)	FA•FB•FC	227	152	□100	35	67
	GA•GB•GC•GD•GE•GF•GG•GH	227	152	□115	35	67
	HA•HC•HD	227	152	□130	35	67
	HB	237	162	□130	45	77
	HF	222	147	□130	30	62
	JA•JB•JC•JF	227	152	□150	35	67
	KA•KB•KE	227	152	□180	35	67
	LA	227	152	□200	35	67
	LB	237	162	□200	45	77
	MA	227	152	□220	35	67
	MB	237	162	□220	45	77
EVS-140-□-□-38** (28 < S ≤ 38)	HA	242	167	□130	45	82
	HB•HE	237	162	□130	40	77
	JA	242	167	□150	45	82
	KA•KB•KC	242	167	□180	45	82
	KD	277	202	□180	80	117
	KE	257	182	□180	60	97
	LB	252	177	□200	55	92
	MA•MB	242	167	□220	45	82
	MC	257	182	□220	60	97
	MD	252	177	□220	55	92
EVS-140-□-□-48** (38 < S ≤ 48)	KA	288	213	□180	75	118
	KB•KC	268	193	□180	55	98
	LA	268	193	□200	55	98
	MA	268	193	□220	55	98
	MB	288	213	□220	75	118

\*1) Double reduction : 1/3~ 1/10

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:

**ELECTROMATE**

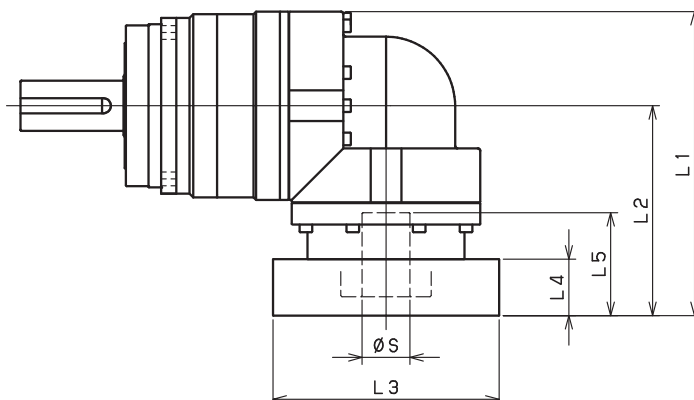
Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

## EVS-140 – 3-Stage Adapter Dimensions



Model number	**: Adapter code	3-Stage				
		L1	L2	L3	L4	L5
EVS-140-□-□-19** (S ≤ 19)	DA•DB•DC	185	110	□80	25	50
	EB•ED	185	110	□90	25	50
	FA	185	110	□100	25	50
	FB	195	120	□100	35	60
	GB•GD•GJ	185	110	□115	25	50
	HA	185	110	□130	25	50
	HB	200	125	□130	40	65
	JA	195	120	□150	35	60
EVS-140-□-□-28** (19 ≤ S ≤ 28)	FA•FB•FC	211	136	□100	35	67
	GA•GB•GC•GD•GE•GF•GG•GH	211	136	□115	35	67
	HA•HC•HD	211	136	□130	35	67
	HB	221	146	□130	45	77
	HF	206	131	□130	30	62
	JA•JB•JC•JF	211	136	□150	35	67
	KA•KB•KE	211	136	□180	35	67
	LA	211	136	□200	35	67
	LB	221	146	□200	45	77
	MA	211	136	□220	35	67
	MB	221	146	□220	45	77
EVS-140-□-□-38** (28 < S ≤ 38)	HA	228	153	□130	45	82
	HB•HE	223	148	□130	40	77
	JA	228	153	□150	45	82
	KA•KB•KC	228	153	□180	45	82
	KD	263	188	□180	80	117
	KE	243	168	□180	60	97
	LB	238	163	□200	55	92
	MA•MB	228	153	□220	45	82
	MC	243	168	□220	60	97
	MD	238	163	□220	55	92
EVS-140-□-□-48** (38 < S ≤ 48)	KA	--	--	--	--	--
	KB•KC	--	--	--	--	--
	LA	--	--	--	--	--
	MA	--	--	--	--	--
	MB	--	--	--	--	--

\*1) Triple reduction : 1/15~ 1/100

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:

**ELECTROMATE**

Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

# EVS-SERIES Right-angle shaft

## EVS-180 – 2-Stage Specifications

Frame Size	180											
Stage	2-Stage											
Ratio	Units	Note	3	4	5	6	7	8	9	10		
Nominal Output Torque	[Nm]	*1	400	575	600	600	600	600	400	400		
Maximum Acceleration Torque	[Nm]	*2	575	770	960	1120	1120	1120	775	775		
Emergency Stop Torque	[Nm]	*3	1300	1700	2000	2500	2500	2500	2000	2000		
Nominal Input Speed	[rpm]	*4	1500									
Maximum Input Speed	[rpm]	*5	3000									
No Load Running Torque	[Nm]	*6	10.8									
Permitted Radial Load	[N]	*7	12000	13000	14000	15000	16000	17000	17000	18000		
Permitted Axial Load	[N]	*8	16000	17000	17000	17000	17000	17000	17000	17000		
Maximum Radial Load	[N]	*9	19000									
Maximum Axial Load	[N]	*10	17000									
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--		
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	92.00	76.72	71.23	68.28	66.08	65.00	64.38	64.10		
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	126.9	111.6	106.1	103.1	100.9	99.86	99.25	98.97		
Moment of Inertia ( $\leq \varnothing 65$ )	[kgcm <sup>2</sup> ]	--	212.5	197.2	191.7	188.7	186.6	185.5	184.9	184.6		
Efficiency	[%]	*11	93									
Torsional Rigidity	[Nm/arcmin]	*12	175									
Maximum Torsional Backlash	[Arc-min]	--	$\leq 6$									
Noise Level	[dB]	*13	$\leq 85$									
Protection Class	--	*14	IP54 (IP65)									
Ambient Temperature	[°C]	--	0-40									
Permitted Housing Temperature	[°C]	--	90									
Weight	[kg]	*15	52									

## EVS-180 – 3-Stage Specifications

Frame Size	180											
Stage	3-Stage											
Ratio	Units	Note	15	16	20	25	28	30	35	40		
Nominal Output Torque	[Nm]	*1	400	555	600	600	600	400	600	600		
Maximum Acceleration Torque	[Nm]	*2	775	1120	1120	1120	1120	775	1120	1120		
Emergency Stop Torque	[Nm]	*3	2000	2500	2500	2500	2500	2000	2500	2500		
Nominal Input Speed	[rpm]	*4	1500									
Maximum Input Speed	[rpm]	*5	3000									
No Load Running Torque	[Nm]	*6	4.7									
Permitted Radial Load	[N]	*7	19000	19000	19000	19000	19000	19000	19000	19000		
Permitted Axial Load	[N]	*8	17000	17000	17000	17000	17000	17000	17000	17000		
Maximum Radial Load	[N]	*9	19000									
Maximum Axial Load	[N]	*10	17000									
Moment of Inertia ( $\leq \varnothing 28$ )	[kgcm <sup>2</sup> ]	--	11.42	12.03	11.11	10.96	11.57	10.31	10.82	10.23		
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	20.21	20.82	19.90	19.74	20.36	19.10	19.60	19.02		
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	25.03	25.64	24.72	24.56	25.18	23.92	24.42	23.84		
Moment of Inertia ( $\leq \varnothing 65$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88									
Torsional Rigidity	[Nm/arcmin]	*12	175									
Maximum Torsional Backlash	[Arc-min]	--	$\leq 9$									
Noise Level	[dB]	*13	$\leq 85$									
Protection Class	--	*14	IP54 (IP65)									
Ambient Temperature	[°C]	--	0-40									
Permitted Housing Temperature	[°C]	--	90									
Weight	[kg]	*15	39									

Sold & Serviced By:  
  
 Toll Free Phone (877) SERV098  
 Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

## EVS-180 – 3-Stage Specifications

Frame Size	180										
Stage	3-Stage										
Ratio	Units	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	400	600	600	600	600	400	400		
Maximum Acceleration Torque	[Nm]	*2	775	1120	1120	1120	1120	775	775		
Emergency Stop Torque	[Nm]	*3	2000	2500	2500	2500	2500	2000	2000		
Nominal Input Speed	[rpm]	*4	1500								
Maximum Input Speed	[rpm]	*5	3000								
No Load Running Torque	[Nm]	*6	4.7								
Permitted Radial Load	[N]	*7	19000	19000	19000	19000	19000	19000	19000		
Permitted Axial Load	[N]	*8	17000	17000	17000	17000	17000	17000	17000		
Maximum Radial Load	[N]	*9	19000								
Maximum Axial Load	[N]	*10	17000								
Moment of Inertia ( $\leq \emptyset 28$ )	[kgcm <sup>2</sup> ]	--	10.76	10.19	10.17	10.16	10.15	10.14	10.14		
Moment of Inertia ( $\leq \emptyset 38$ )	[kgcm <sup>2</sup> ]	--	19.54	18.98	18.96	18.94	18.94	18.93	18.93		
Moment of Inertia ( $\leq \emptyset 48$ )	[kgcm <sup>2</sup> ]	--	24.36	23.80	23.78	23.77	23.76	23.75	23.75		
Moment of Inertia ( $\leq \emptyset 65$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arcmin]	*12	175								
Maximum Torsional Backlash	[Arc-min]	--	$\leq 9$								
Noise Level	[dB]	*13	$\leq 85$								
Protection Class	--	*14	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*15	39								

- \*1) At nominal input speed, service life is 20,000 hours
- \*2) The maximum torque when starting or stopping operation
- \*3) The maximum torque allowed under a stress situation (Permitted 1,000 times during service life)
- \*4) The average input speed
- \*5) The maximum intermittent input speed
- \*6) This is the torque at no load applied on the input shaft. The input speed is 1500 rpm for EVS180
- \*7) At this load and nominal input speed, service life will be 20,000 hours. (The radial load applied to the output side bearing)
- \*8) At this load and nominal input speed, service life will be 20,000 hours. (The axial load applied to the output shaft center)
- \*9) The maximum radial load that the reducer can accept
- \*10) The maximum axial load that the reducer can accept
- \*11) The efficiency at the nominal torque rating
- \*12) This does not include the lost motion
- \*13) Contact NIDEC-SHIMPO for the testing conditions and environment
- \*14) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options
- \*15) The weight may vary slightly between models

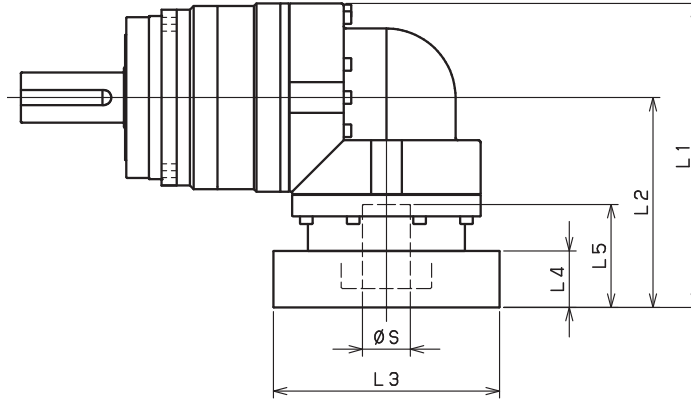






# EVS-SERIES Right-angle shaft

## EVS-180 – 2-Stage Adapter Dimensions



Model number	**: Adapter code	2-Stage				
		L1	L2	L3	L4	L5
EVS-180-□-□-28** (S ≤ 28)	FA•FB•FC	--	--	--	--	--
	GA•GB•GC•GD•GE•GF•GG•GH	--	--	--	--	--
	HA•HC•HD	--	--	--	--	--
	HB	--	--	--	--	--
	HF	--	--	--	--	--
	JA•JB•JC•JF	--	--	--	--	--
	KA•KB•KE	--	--	--	--	--
	LA	--	--	--	--	--
	LB	--	--	--	--	--
	MA	--	--	--	--	--
EVS-180-□-□-38** (28 < S ≤ 38)	HA	331.5	231.5	□130	45	82
	HB•HE	326.5	226.5	□130	40	77
	JA	331.5	231.5	□150	45	82
	KA•KB•KC	331.5	231.5	□180	45	82
	KD	366.5	266.5	□180	80	117
	KE	346.5	246.5	□180	60	97
	LB	341.5	241.5	□200	55	92
	MA•MB	331.5	231.5	□220	45	82
	MC	346.5	246.5	□220	60	97
	MD	341.5	241.5	□220	55	92
NA	331.5	231.5	□250	45	82	
EVS-180-□-□-48** (38 < S ≤ 48)	KA	368	268	□180	75	118
	KB•KC	348	248	□180	55	98
	LA	348	248	□200	55	98
	MA	348	248	□220	55	98
	MB	368	268	□220	75	118
	NA	368	268	□250	75	118
	PA	368	268	□280	75	118
EVS-180-□-□-65** (48 < S ≤ 65)	MA•MB•MC•MD	381	281	□220	80	122
	NA•NC	381	281	□250	80	122
	NB•ND	411	311	□250	110	152
	PA	401	301	□280	100	142
	PB	411	311	□280	110	152

\*1) Double reduction : 1/3~ 1/10

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:



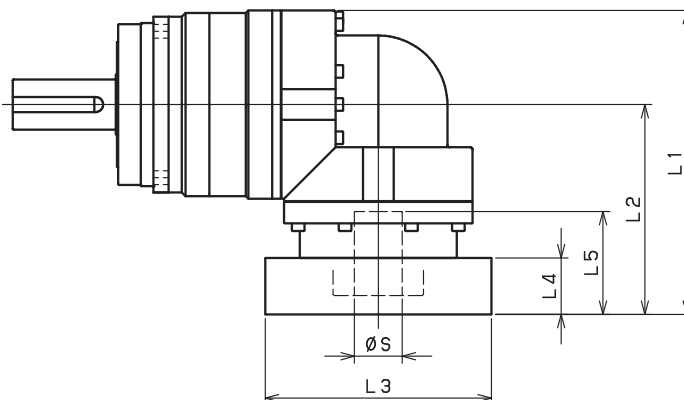
Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

## EVS-180 – 3-Stage Adapter Dimensions



Model number	**: Adapter code	3-Stage				
		L1	L2	L3	L4	L5
EVS-180-□-□-28** (S ≤ 28)	FA•FB•FC	252	152	□100	35	67
	GA•GB•GC•GD•GE•GF•GG•GH	252	152	□115	35	67
	HA•HC•HD	252	152	□130	35	67
	HB	262	162	□130	45	77
	HF	247	147	□130	30	62
	JA•JB•JC•JF	252	152	□150	35	67
	KA•KB•KE	252	152	□180	35	67
	LA	252	152	□200	35	67
	LB	262	162	□200	45	77
	MA	252	152	□220	35	67
	MB	262	162	□220	45	77
EVS-180-□-□-38** (28 < S ≤ 38)	HA	267	167	□130	45	82
	HB•HE	262	162	□130	40	77
	JA	267	167	□150	45	82
	KA•KB•KC	267	167	□180	45	82
	KD	302	202	□180	80	117
	KE	282	182	□180	60	97
	LB	277	177	□200	55	92
	MA•MB	267	167	□220	45	82
	MC	282	182	□220	60	97
	MD	277	177	□220	55	92
NA	267	167	□250	45	82	
EVS-180-□-□-48** (38 < S ≤ 48)	KA	313	213	□180	75	118
	KB•KC	293	193	□180	55	98
	LA	293	193	□200	55	98
	MA	293	193	□220	55	98
	MB	313	213	□220	75	118
	NA	313	213	□250	75	118
	PA	313	213	□280	75	118
EVS-180-□-□-65** (48 < S ≤ 65)	MA•MB•MC•MD	--	--	--	--	--
	NA•NC	--	--	--	--	--
	NB•ND	--	--	--	--	--
	PA	--	--	--	--	--
	PB	--	--	--	--	--

\*1) Triple reduction : 1/15~ 1/100

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:

**ELECTROMATE**

Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

# EVS-SERIES Right-angle shaft

## EVS-210 – 2-Stage Specifications

Frame Size	210									
Stage	2-Stage									
Ratio	Units	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	575	765	960	1150	1200	1200	800	800
Maximum Acceleration Torque	[Nm]	*2	1015	1355	1695	1840	1840	1760	1520	1280
Emergency Stop Torque	[Nm]	*3	2500	3300	4000	4500	4500	4500	3600	3600
Nominal Input Speed	[rpm]	*4	1000							
Maximum Input Speed	[rpm]	*5	2000							
No Load Running Torque	[Nm]	*6	14.5							
Permitted Radial Load	[N]	*7	17000	18000	20000	21000	22000	23000	24000	24000
Permitted Axial Load	[N]	*8	22000	22000	22000	22000	22000	22000	22000	22000
Maximum Radial Load	[N]	*9	24000							
Maximum Axial Load	[N]	*10	22000							
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	149.7	123.8	113.9	108.5	105.0	103.0	101.7	101.1
Moment of Inertia ( $\leq \varnothing 65$ )	[kgcm <sup>2</sup> ]	--	224.9	199.0	189.1	183.7	180.3	178.2	176.9	176.3
Efficiency	[%]	*11	93							
Torsional Rigidity	[Nm/arcmin]	*12	400							
Maximum Torsional Backlash	[Arc-min]	--	$\leq 6$							
Noise Level	[dB]	*13	$\leq 85$							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	71							

## EVS-210 – 3-Stage Specifications

Frame Size	210									
Stage	3-Stage									
Ratio	Units	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	800	1200	1200	1200	1200	800	1200	1200
Maximum Acceleration Torque	[Nm]	*2	1280	1840	1840	1840	1840	1280	1840	1840
Emergency Stop Torque	[Nm]	*3	3600	4500	4500	4500	4500	3600	4500	4500
Nominal Input Speed	[rpm]	*4	1000							
Maximum Input Speed	[rpm]	*5	2000							
No Load Running Torque	[Nm]	*6	10.2							
Permitted Radial Load	[N]	*7	24000	24000	24000	24000	24000	24000	24000	24000
Permitted Axial Load	[N]	*8	22000	22000	22000	22000	22000	22000	22000	22000
Maximum Radial Load	[N]	*9	24000							
Maximum Axial Load	[N]	*10	22000							
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	36.39	37.30	35.79	35.49	36.41	34.41	35.22	34.26
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	66.21	67.12	65.61	65.31	66.23	64.23	65.04	64.08
Moment of Inertia ( $\leq \varnothing 65$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*11	88							
Torsional Rigidity	[Nm/arcmin]	*12	400							
Maximum Torsional Backlash	[Arc-min]	--	$\leq 9$							
Noise Level	[dB]	*13	$\leq 85$							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	73							

Sold & Serviced By:



Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

## EVS-210 – 3-Stage Specifications

Frame Size	210										
Stage	3-Stage										
Ratio	Units	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	800	1200	1200	1200	1200	800	800		
Maximum Acceleration Torque	[Nm]	*2	1040	1840	1840	1840	1440	1040	960		
Emergency Stop Torque	[Nm]	*3	3600	4500	4500	4500	4500	3600	3600		
Nominal Input Speed	[rpm]	*4	1000								
Maximum Input Speed	[rpm]	*5	2000								
No Load Running Torque	[Nm]	*6	10.2								
Permitted Radial Load	[N]	*7	24000	24000	24000	24000	24000	24000	24000		
Permitted Axial Load	[N]	*8	22000	22000	22000	22000	22000	22000	22000		
Maximum Radial Load	[N]	*9	24000								
Maximum Axial Load	[N]	*10	22000								
Moment of Inertia ( $\leq \varnothing 38$ )	[kgcm <sup>2</sup> ]	--	35.11	34.18	34.14	34.12	34.10	34.09	34.08		
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	64.92	64.00	63.96	63.93	63.92	63.90	63.90		
Moment of Inertia ( $\leq \varnothing 65$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arcmin]	*12	400								
Maximum Torsional Backlash	[Arc-min]	--	$\leq 9$								
Noise Level	[dB]	*13	$\leq 85$								
Protection Class	--	*14	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*15	73								

\*1) At nominal input speed, service life is 20,000 hours

\*2) The maximum torque when starting or stopping operation

\*3) The maximum torque allowed under a stress situation (Permitted 1,000 times during service life)

\*4) The average input speed

\*5) The maximum intermittent input speed

\*6) This is the torque at no load applied on the input shaft. The input speed is 1000 rpm for EVS210

\*7) At this load and nominal input speed, service life will be 20,000 hours. (The radial load applied to the output side bearing)

\*8) At this load and nominal input speed, service life will be 20,000 hours. (The axial load applied to the output shaft center)

\*9) The maximum radial load that the reducer can accept

\*10) The maximum axial load that the reducer can accept

\*11) The efficiency at the nominal torque rating

\*12) This does not include the lost motion

\*13) Contact NIDEC-SHIMPO for the testing conditions and environment

\*14) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options

\*15) The weight may vary slightly between models

Sold & Serviced By:

 **ELECTROMATE**

Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

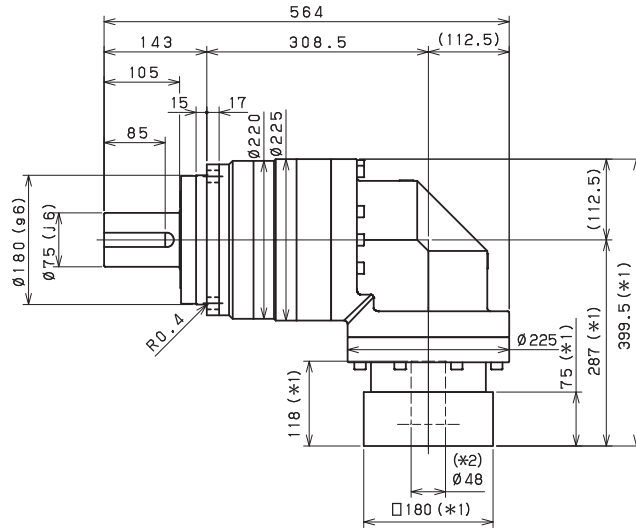
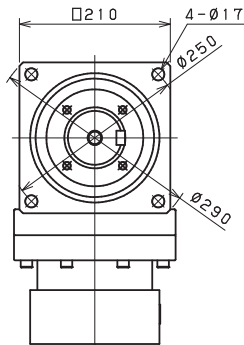
[www.electromate.com](http://www.electromate.com)

[sales@electromate.com](mailto:sales@electromate.com) 359

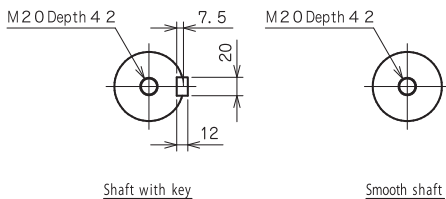
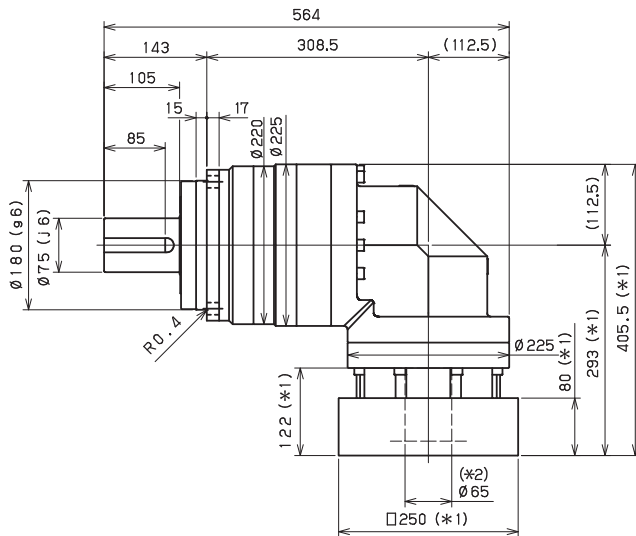
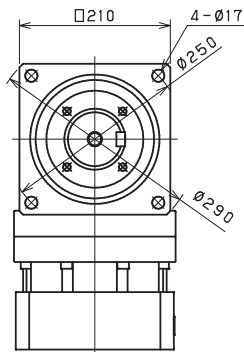
# EVS-SERIES Right-angle shaft

## EVS-210 – 2-Stage Dimensions

Input shaft bore  $\leq \phi 48$



Input shaft bore  $\leq \phi 65$



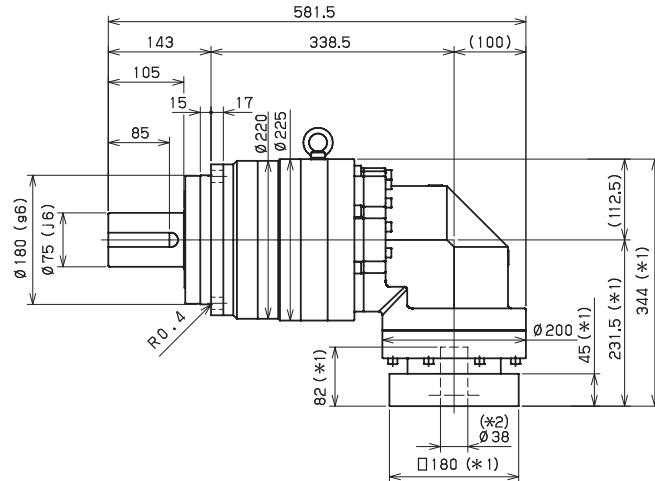
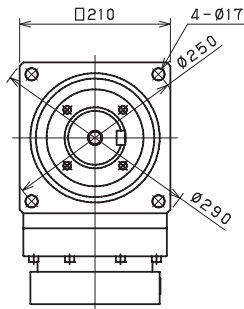
- \*1) Length will vary depending on motor
- \*2) Bushing will be inserted to adapt to motor shaft

Sold & Serviced By:  

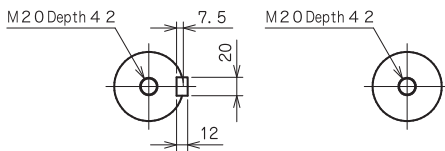
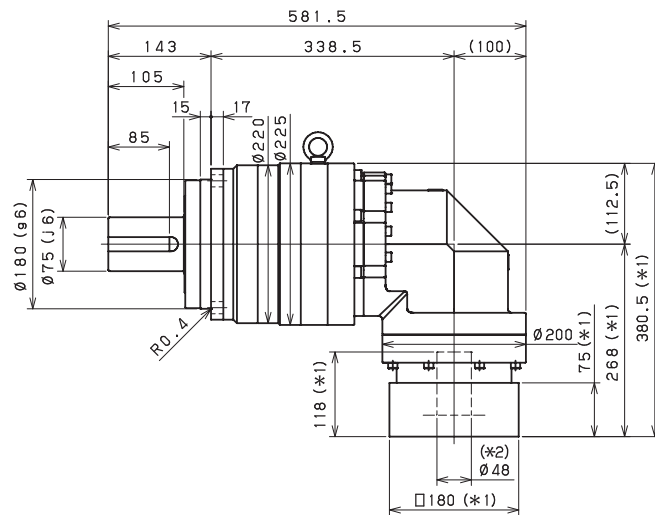
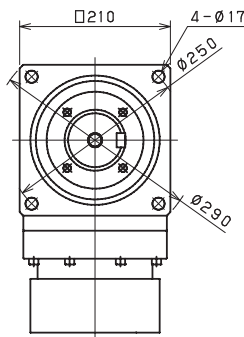

Toll Free Phone (877) SERV098  
 Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

## EVS-210 – 3-Stage Dimensions

Input shaft bore  $\leq \phi 38$



Input shaft bore  $\leq \phi 48$



Shaft with key

Smooth shaft

\*1) Length will vary depending on motor

\*2) Bushing will be inserted to adapt to motor shaft

Sold & Serviced By:



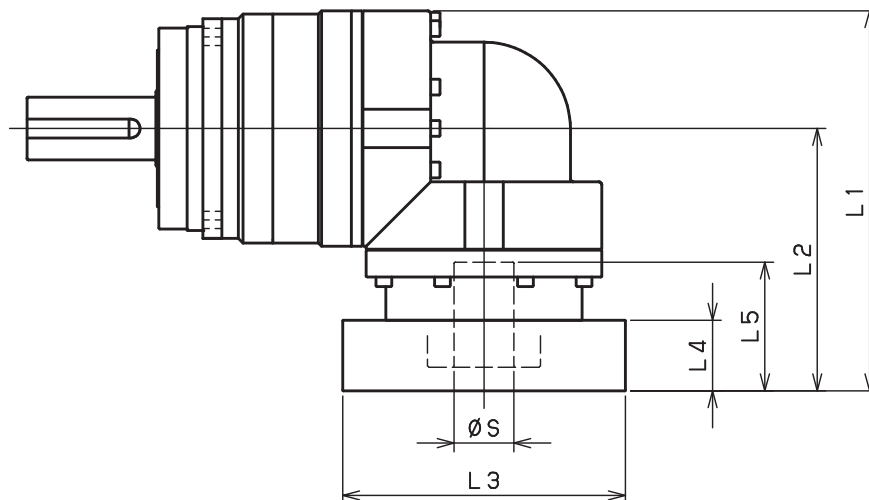
Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

## EVS-210 – 2-Stage Adapter Dimensions



Model number	**: Adapter code	2-Stage				
		L1	L2	L3	L4	L5
EVS-210-□-□-38** (S ≤ 38)	HA	--	--	--	--	--
	HB-HE	--	--	--	--	--
	JA	--	--	--	--	--
	KA-KB-KC	--	--	--	--	--
	KD	--	--	--	--	--
	KE	--	--	--	--	--
	LA	--	--	--	--	--
	LB	--	--	--	--	--
	MA-MB	--	--	--	--	--
	MC	--	--	--	--	--
	MD	--	--	--	--	--
NA	--	--	--	--	--	
EVS-210-□-□-48** (38 < S ≤ 48)	KA	399.5	287	□180	75	118
	KB-KC	379.5	267	□180	55	98
	LA	379.5	267	□200	55	98
	MA	379.5	267	□220	55	98
	MB	399.5	287	□220	75	118
	NA	399.5	287	□250	75	118
	PA	399.5	287	□280	75	118
EVS-210-□-□-65** (48 < S ≤ 65)	MA-MB-MC-MD	405.5	293	□220	80	122
	NA-NC	405.5	293	□250	80	122
	NB-ND	435.5	323	□250	110	152
	PA	425.5	313	□280	100	142
	PB	435.5	323	□280	110	152
	QA-QB	425.5	313	□320	100	142

\*1) Double reduction : 1/3~ 1/10

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:

 **ELECTROMATE**

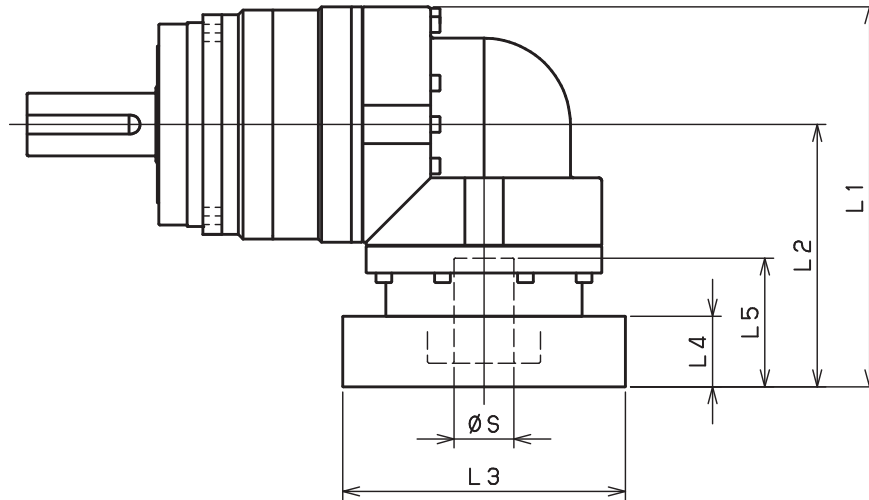
Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

www.electromate.com

sales@electromate.com

## EVS-210 – 3-Stage Adapter Dimensions



Model number	**: Adapter code	3-Stage				
		L1	L2	L3	L4	L5
EVS-210-□-□-38** (S ≤ 38)	HA	344	231.5	□130	45	82
	HB-HE	339	226.5	□130	40	77
	JA	344	231.5	□150	45	82
	KA-KB-KC	344	231.5	□180	45	82
	KD	379	266.5	□180	80	117
	KE	359	246.5	□180	60	97
	LA	344	231.5	□200	45	82
	LB	354	241.5	□200	55	92
	MA-MB	344	231.5	□220	45	82
	MC	359	246.5	□220	60	97
	MD	354	241.5	□220	55	92
NA	344	231.5	□250	45	82	
EVS-210-□-□-48** (38 < S ≤ 48)	KA	380.5	268	□180	75	118
	KB-KC	360.5	248	□180	55	98
	LA	360.5	248	□200	55	98
	MA	360.5	248	□220	55	98
	MB	380.5	268	□220	75	118
	NA	380.5	268	□250	75	118
EVS-210-□-□-65** (48 < S ≤ 65)	MA-MB-MC-MD	--	--	--	--	--
	NA-NC	--	--	--	--	--
	NB-ND	--	--	--	--	--
	PA	--	--	--	--	--
	PB	--	--	--	--	--
	QA-QB	--	--	--	--	--

\*1) Triple reduction : 1/15~ 1/100

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:

 **ELECTROMATE**

Toll Free Phone (877) SERV098  
Toll Free Fax (877) SERV099  
www.electromate.com  
sales@electromate.com



# EVS-SERIES Right-angle shaft

## EVS-240 – 2-Stage Specifications

Frame Size	240									
Stage	2-Stage									
Ratio	Units	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	1005	1340	1680	1920	1920	1920	1280	1280
Maximum Acceleration Torque	[Nm]	*2	2000	2960	2960	2960	2960	2880	2400	2080
Emergency Stop Torque	[Nm]	*3	4000	5400	6500	7200	7200	7200	5400	5400
Nominal Input Speed	[rpm]	*4	1000							
Maximum Input Speed	[rpm]	*5	2000							
No Load Running Torque	[Nm]	*6	25.3							
Permitted Radial Load	[N]	*7	21000	22000	24000	25000	26000	28000	29000	29000
Permitted Axial Load	[N]	*8	27000	27000	27000	27000	27000	27000	27000	27000
Maximum Radial Load	[N]	*9	30000							
Maximum Axial Load	[N]	*10	27000							
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Moment of Inertia ( $\leq \varnothing 65$ )	[kgcm <sup>2</sup> ]	--	217.5	156.7	134.5	122.4	112.9	108.3	105.5	104.0
Efficiency	[%]	*11	93							
Torsional Rigidity	[Nm/arcmin]	*12	550							
Maximum Torsional Backlash	[Arc-min]	--	$\leq 6$							
Noise Level	[dB]	*13	$\leq 85$							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	122							

## EVS-240 – 3-Stage Specifications

Frame Size	240									
Stage	3-Stage									
Ratio	Units	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	1280	1920	1920	1920	1920	1280	1920	1920
Maximum Acceleration Torque	[Nm]	*2	2000	2960	2960	2960	2960	2000	2960	2960
Emergency Stop Torque	[Nm]	*3	5400	7200	7200	7200	7200	5400	7200	7200
Nominal Input Speed	[rpm]	*4	1000							
Maximum Input Speed	[rpm]	*5	2000							
No Load Running Torque	[Nm]	*6	16.4							
Permitted Radial Load	[N]	*7	30000	30000	30000	30000	30000	30000	30000	30000
Permitted Axial Load	[N]	*8	27000	27000	27000	27000	27000	27000	27000	27000
Maximum Radial Load	[N]	*9	30000							
Maximum Axial Load	[N]	*10	27000							
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	40.47	42.59	39.21	38.59	40.73	35.09	38.02	34.78
Moment of Inertia ( $\leq \varnothing 65$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*11	88							
Torsional Rigidity	[Nm/arcmin]	*12	550							
Maximum Torsional Backlash	[Arc-min]	--	$\leq 9$							
Noise Level	[dB]	*13	$\leq 85$							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	113							

Sold & Serviced By:



Toll Free Phone (877) SERV098  
Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

## EVS-240 – 3-Stage Specifications

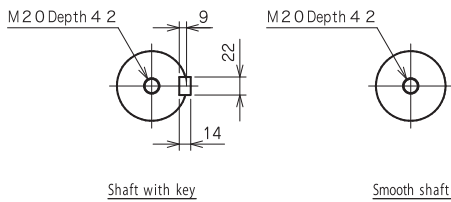
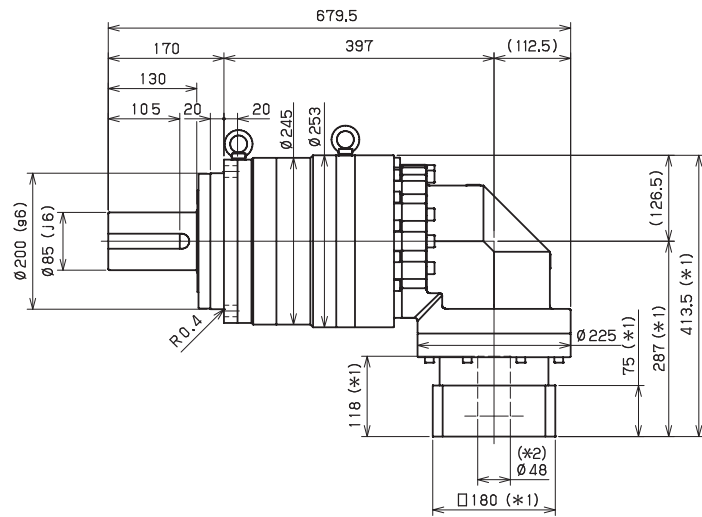
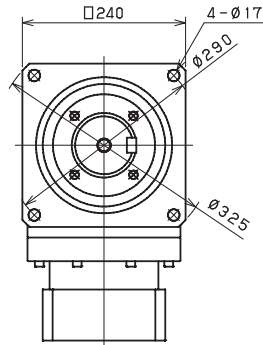
Frame Size	240										
Stage	3-Stage										
Ratio	Units	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	1280	1920	1920	1920	1920	1280	1280		
Maximum Acceleration Torque	[Nm]	*2	1680	2960	2960	2960	2160	1680	1440		
Emergency Stop Torque	[Nm]	*3	5400	7200	7200	7200	7200	5400	5400		
Nominal Input Speed	[rpm]	*4	1000								
Maximum Input Speed	[rpm]	*5	2000								
No Load Running Torque	[Nm]	*6	16.4								
Permitted Radial Load	[N]	*7	30000	30000	30000	30000	30000	30000	30000		
Permitted Axial Load	[N]	*8	27000	27000	27000	27000	27000	27000	27000		
Maximum Radial Load	[N]	*9	30000								
Maximum Axial Load	[N]	*10	27000								
Moment of Inertia ( $\leq \varnothing 48$ )	[kgcm <sup>2</sup> ]	--	37.78	34.62	34.53	34.48	34.45	34.42	34.41		
Moment of Inertia ( $\leq \varnothing 65$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arcmin]	*12	550								
Maximum Torsional Backlash	[Arc-min]	--	$\leq 9$								
Noise Level	[dB]	*13	$\leq 85$								
Protection Class	--	*14	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*15	113								

- \*1) At nominal input speed, service life is 20,000 hours
- \*2) The maximum torque when starting or stopping operation
- \*3) The maximum torque allowed under a stress situation (Permitted 1,000 times during service life)
- \*4) The average input speed
- \*5) The maximum intermittent input speed
- \*6) This is the torque at no load applied on the input shaft. The input speed is 1000 rpm for EVS210
- \*7) At this load and nominal input speed, service life will be 20,000 hours. (The radial load applied to the output side bearing)
- \*8) At this load and nominal input speed, service life will be 20,000 hours. (The axial load applied to the output shaft center)
- \*9) The maximum radial load that the reducer can accept
- \*10) The maximum axial load that the reducer can accept
- \*11) The efficiency at the nominal torque rating
- \*12) This does not include the lost motion
- \*13) Contact NIDEC-SHIMPO for the testing conditions and environment
- \*14) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options
- \*15) The weight may vary slightly between models



## EVS-240 – 3-Stage Dimensions

Input shaft bore  $\cong \phi 48$



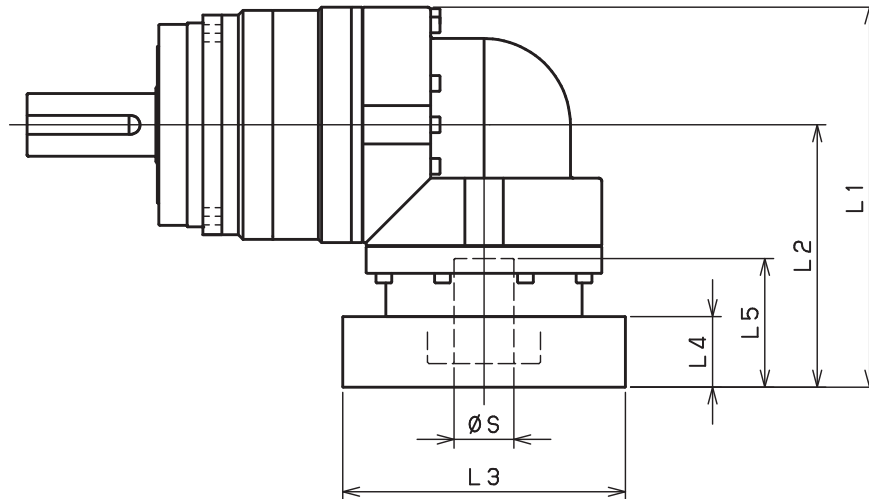
Shaft with key

Smooth shaft

- \*1) Length will vary depending on motor
- \*2) Bushing will be inserted to adapt to motor shaft

# EVS-SERIES Right-angle shaft

## EVS-240 – 2-Stage Adapter Dimensions



Model number	**: Adapter code	2-Stage				
		L1	L2	L3	L4	L5
EVS-240-□-□-48** (S ≤ 48)	KA	--	--	--	--	--
	KB-KC	--	--	--	--	--
	LA	--	--	--	--	--
	MA	--	--	--	--	--
	MB	--	--	--	--	--
	NA	--	--	--	--	--
	PA	--	--	--	--	--
EVS-240-□-□-65** (48 < S ≤ 65)	MA-MB-MC-MD	447.5	321	□220	80	122
	NA-NC	447.5	321	□250	80	122
	NB-ND	477.5	351	□250	110	152
	PA	467.5	341	□280	100	142
	PB	477.5	351	□280	110	152
	QA-QB	467.5	341	□320	100	142

\*1) Double reduction : 1/3~ 1/10

\*2) Bushing will be inserted to adapt to motor shaft

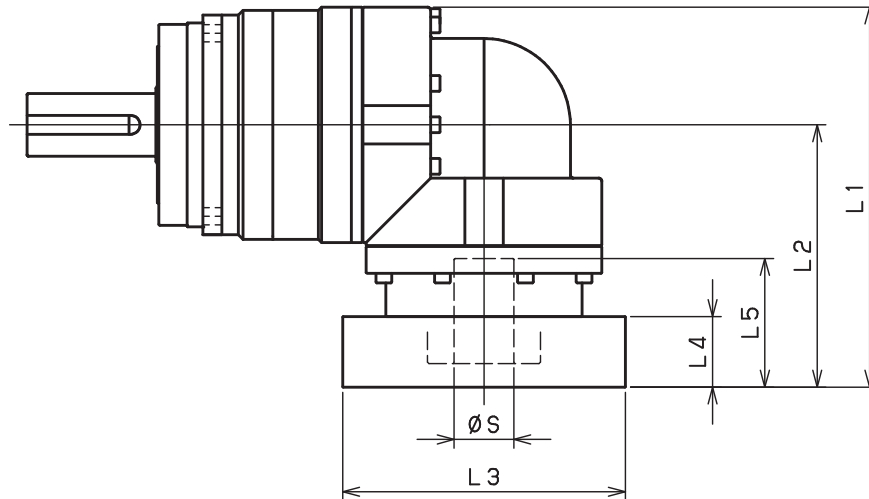
For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:  


Toll Free Phone (877) SERV098  
 Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

## EVS-240 – 3-Stage Adapter Dimensions



Model number	**: Adapter code	3-Stage				
		L1	L2	L3	L4	L5
EVS-240-□-□-48** (S ≤ 48)	KA	413.5	287	□180	75	118
	KB-KC	393.5	267	□180	55	98
	LA	393.5	267	□200	55	98
	MA	393.5	267	□220	55	98
	MB	413.5	287	□220	75	118
	NA	413.5	287	□250	75	118
	PA	413.5	287	□280	75	118
EVS-240-□-□-65** (48 < S ≤ 65)	MA-MB-MC-MD	--	--	--	--	--
	NA-NC	--	--	--	--	--
	NB-ND	--	--	--	--	--
	PA	--	--	--	--	--
	PB	--	--	--	--	--
	QA-QB	--	--	--	--	--

\*1) Triple reduction : 1/15~ 1/100

\*2) Bushing will be inserted to adapt to motor shaft

For an explanation on the Adapter Flange Code, please turn to page 422.

A more comprehensive adapter flange offering can be found using the NIDEC-SHIMPO Online Selector Tool. The variety is constantly expanding and being updated on the Selector Tool. If you have any questions or need any support, contact NIDEC-SHIMPO.

Sold & Serviced By:

 **ELECTROMATE**

Toll Free Phone (877) SERV098

Toll Free Fax (877) SERV099

[www.electromate.com](http://www.electromate.com)

[sales@electromate.com](mailto:sales@electromate.com) 369