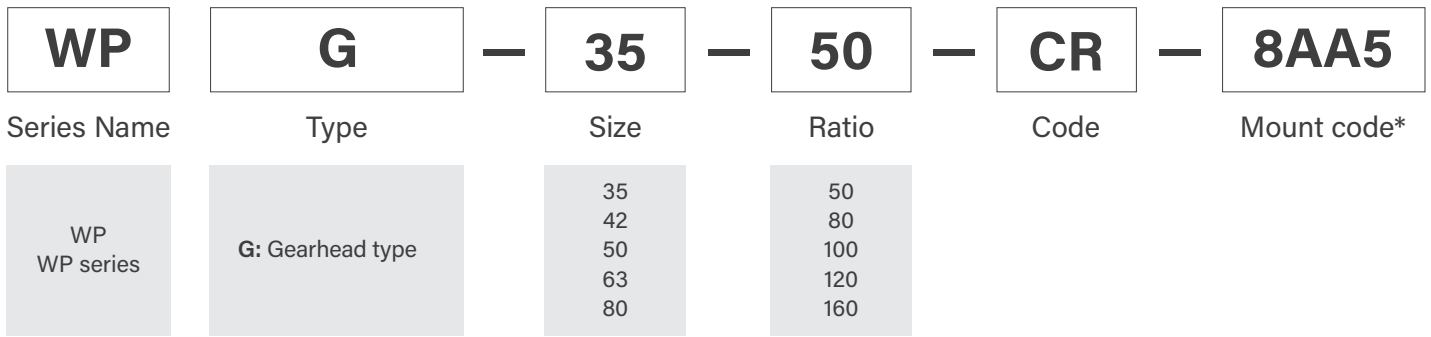


Reducer Model Nomenclature



* Mount code varies depending on the motor selection. Please refer to the 'Reducer Selection Tool' found on our website for further details, or alternatively please contact us for more information.

Ratio Matrix Availability

Frame Size	Reduction Ratio				
	50	80	100	120	160
35					
42					
50					
63					
80					

Reducer Specifications

Size	Ratio R*1	Nominal Output Torque *2	Maximum Output Torque *3	Nominal Input Speed *4	Maximum Input Speed *5	Life *6
		[Nm]	[Nm]	[r/min]	[r/min]	[hours]
35	50	7	23	3000	8500	10000
	80	10	30			
	100	10	36			
42	50	21	44	3000	7300	
	80	29	56			
	100	31	70			
	120	31	70			
50	50	33	73	3000	6500	
	80	44	96			
	100	52	107			
	120	52	113			
	160	52	120			
63	50	51	127	3000	5600	
	80	82	178			
	100	87	204			
	120	87	217			
	160	87	229			
80	50	99	281	3000	4800	
	80	153	395			
	100	178	433			
	120	178	459			
	160	178	484			

*1 Reduction ratio is to be calculated by the formula in the previous page, using R value in this table.

*2 The maximum allowable value at the input rotation speed of 2000r/min

*3 The maximum torque when starting and stopping.

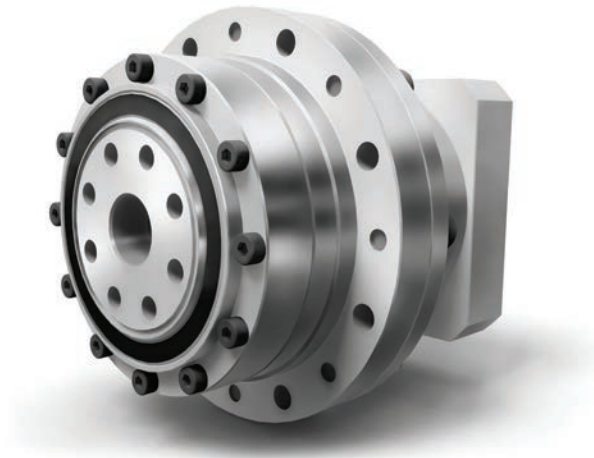
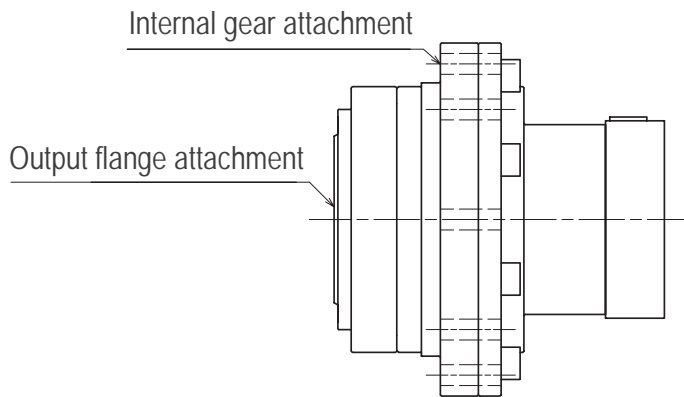
*4 The maximum average input speed.

*5 The maximum input speed.

*6 The life time at the input rotation speed of 2000 r/min and nominal output torque.

Dimensions

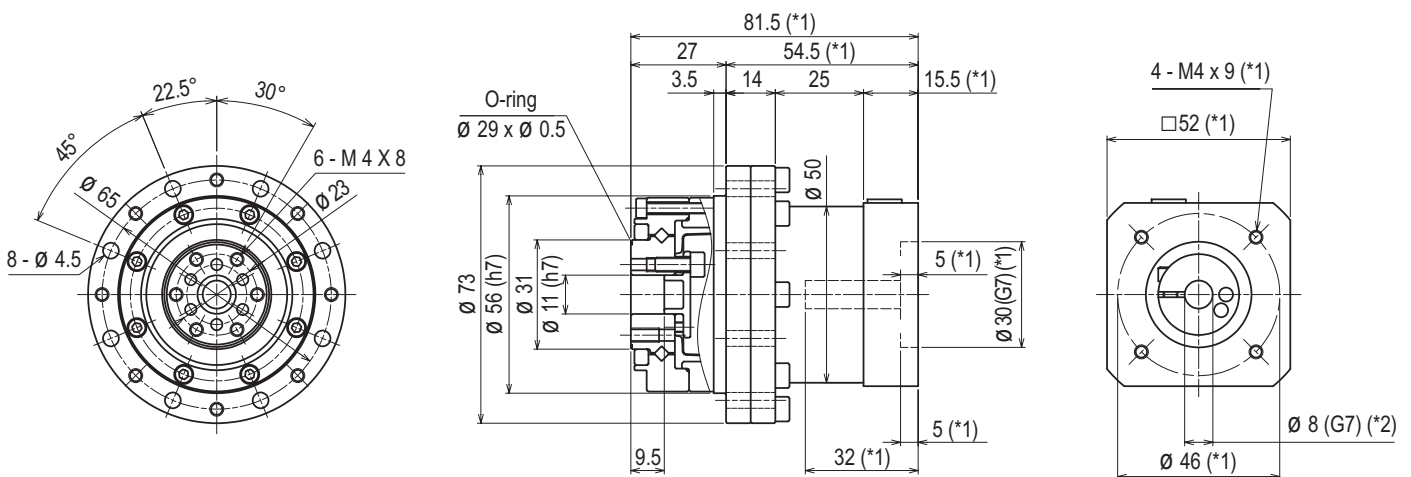
Gearhead Type



Precautions

When attaching equipment parts to the output flange, use the supplied O-rings or implement your own grease leakage prevention measures.

WPG-35-□-CR-8□ (Input shaft diameter ≤ 8)



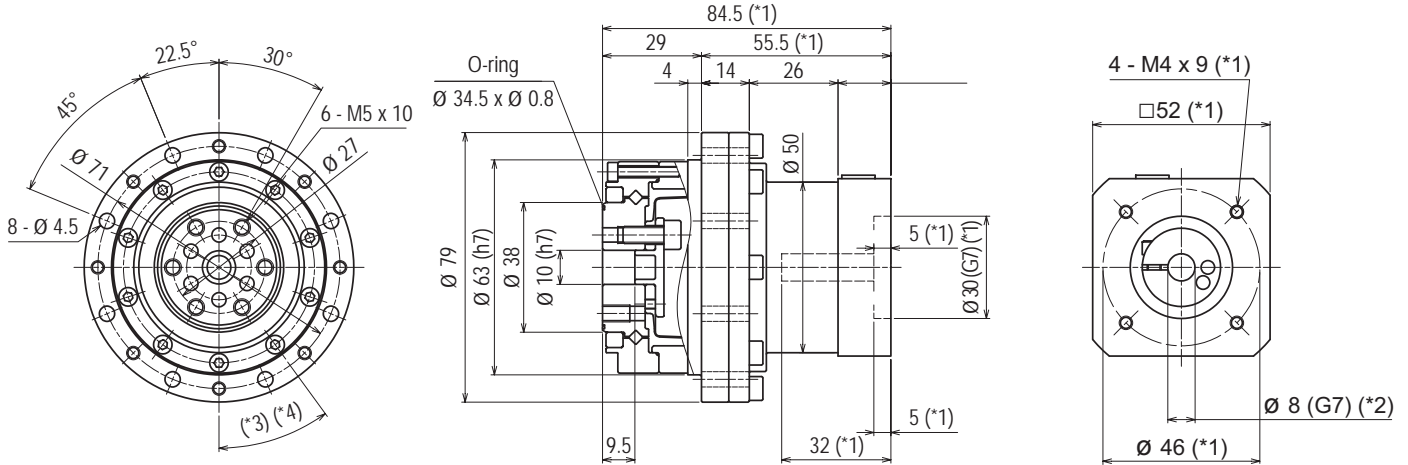
*1 The length depends on the motor.

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

Reducer Model/ Specifications	Dimensions	Life Estimation (Elastic Bearing)	Life Estimation (Main Bearing)	Lubricant Information	Transmitting Torque
----------------------------------	------------	--------------------------------------	-----------------------------------	-----------------------	---------------------

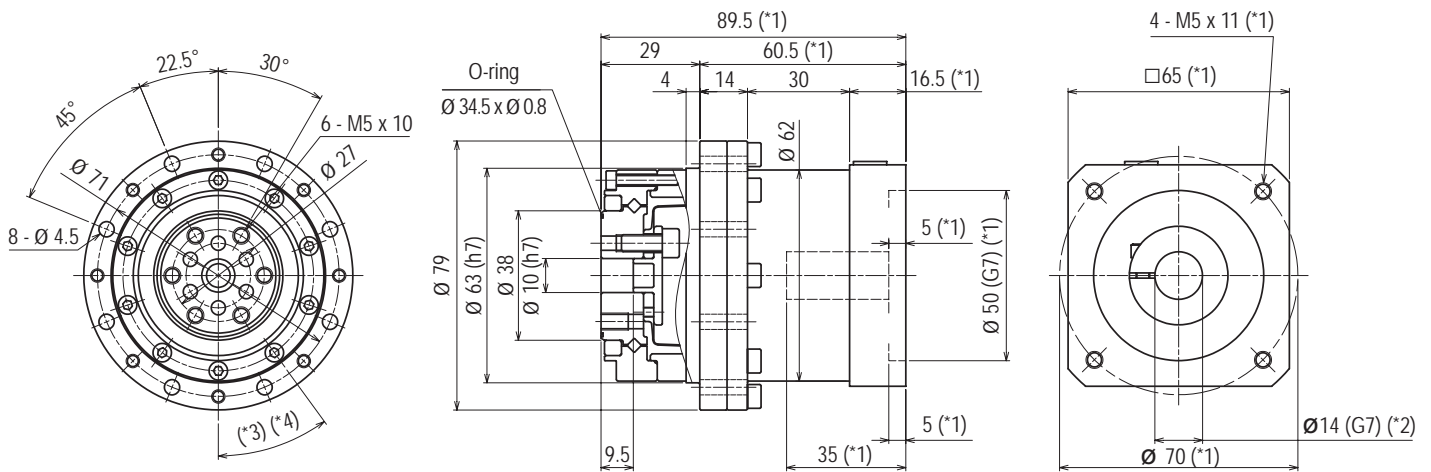
Dimensions

WPG-42-□-CR-8□ (Input shaft diameter ≤ 8)



- *1 The length depends on the motor.
- *2 Bushing will be inserted to adapt to motor shaft.
- *3 The actual placement may differ.
- *4 These bolts are for reducer assembly purposes and do not affect installation.

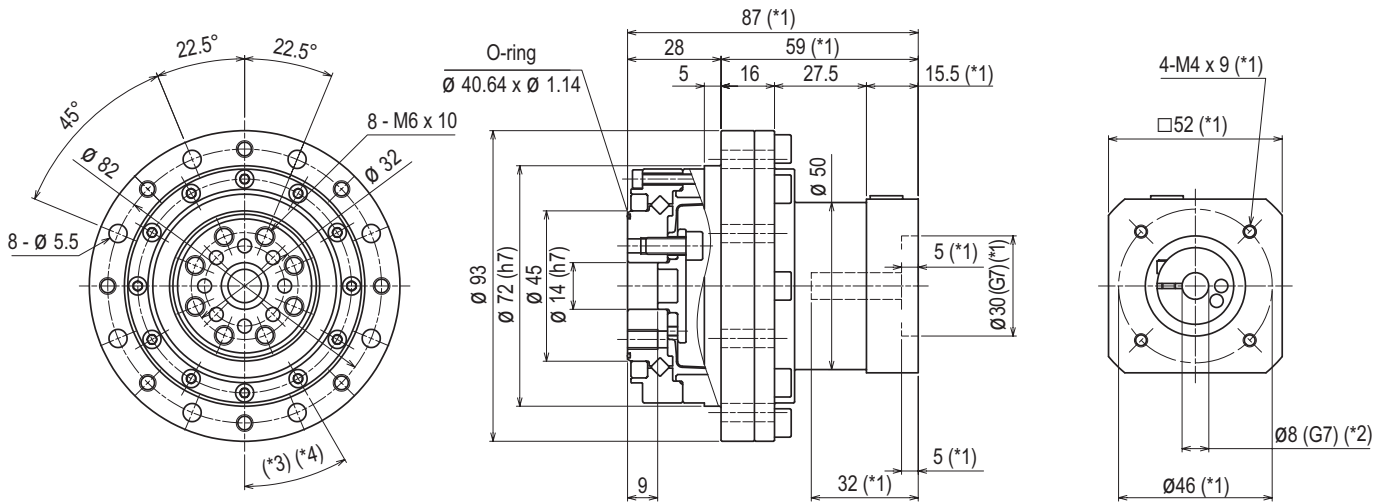
WPG-42-□-CR-14□ (8 < Input shaft diameter ≤ 14)



- *1 The length depends on the motor.
- *2 Bushing will be inserted to adapt to motor shaft.
- *3 The actual placement may differ.
- *4 These bolts are for reducer assembly purposes and do not affect installation.

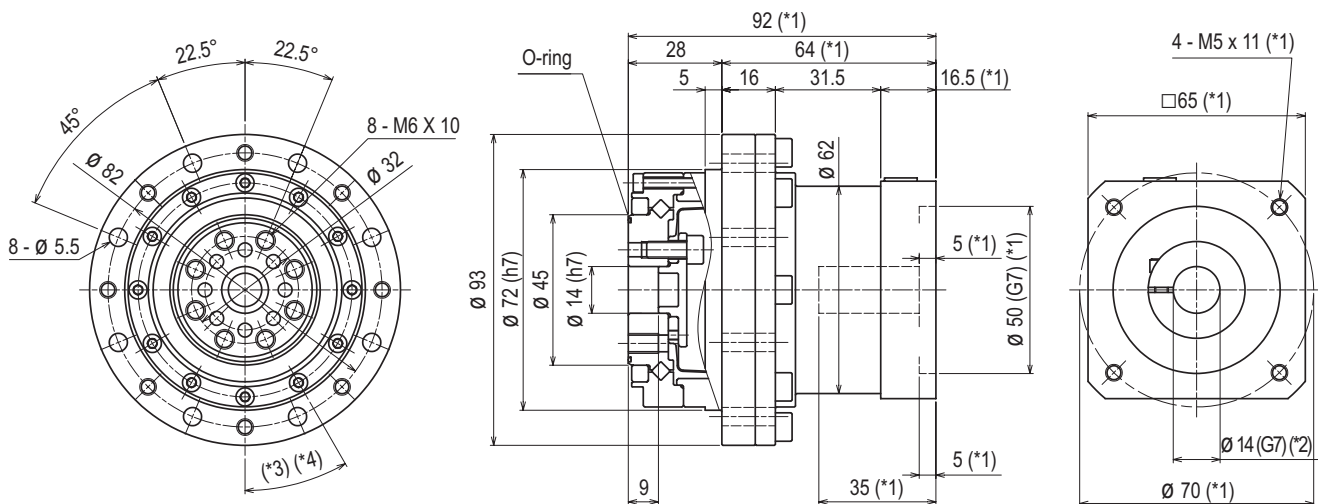
Dimensions

WPG-50-□-CR-8□ (Input shaft diameter ≤ 8)



- *1 The length depends on the motor.
- *2 Bushing will be inserted to adapt to motor shaft.
- *3 The actual placement may differ.
- *4 These bolts are for reducer assembly purposes and do not affect installation.

WPG-50-□-CR-14□ (8 < Input shaft diameter ≤ 14)

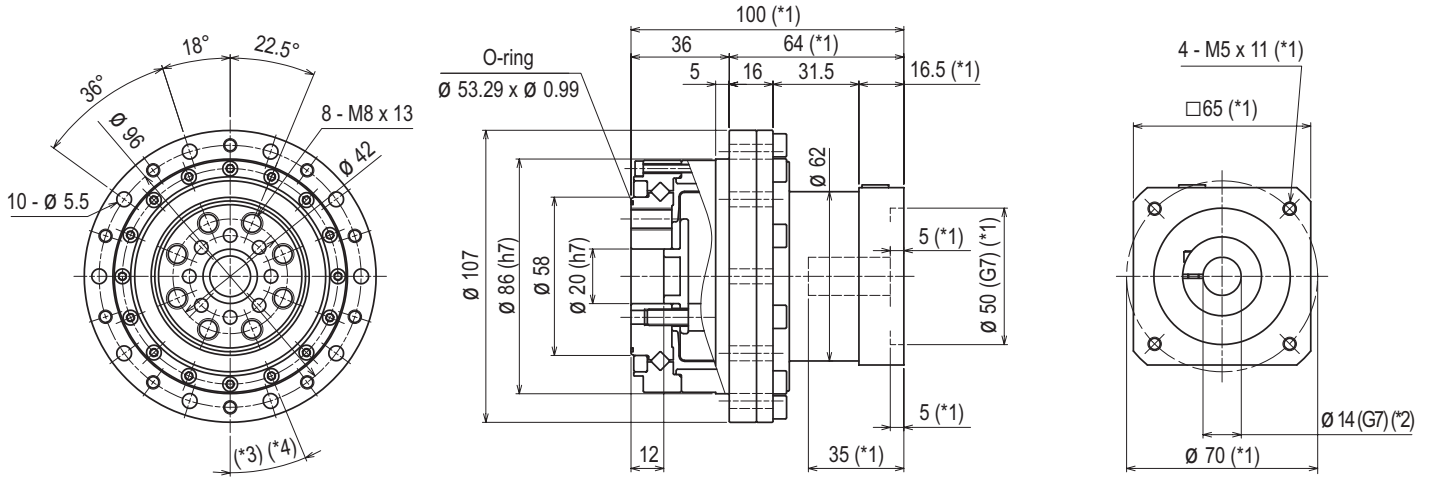


- *1 The length depends on the motor.
- *2 Bushing will be inserted to adapt to motor shaft.
- *3 The actual placement may differ.
- *4 These bolts are for reducer assembly purposes and do not affect installation.

Reducer Model/ Specifications	Dimensions	Life Estimation (Elastic Bearing)	Life Estimation (Main Bearing)	Lubricant Information	Transmitting Torque
----------------------------------	------------	--------------------------------------	-----------------------------------	-----------------------	---------------------

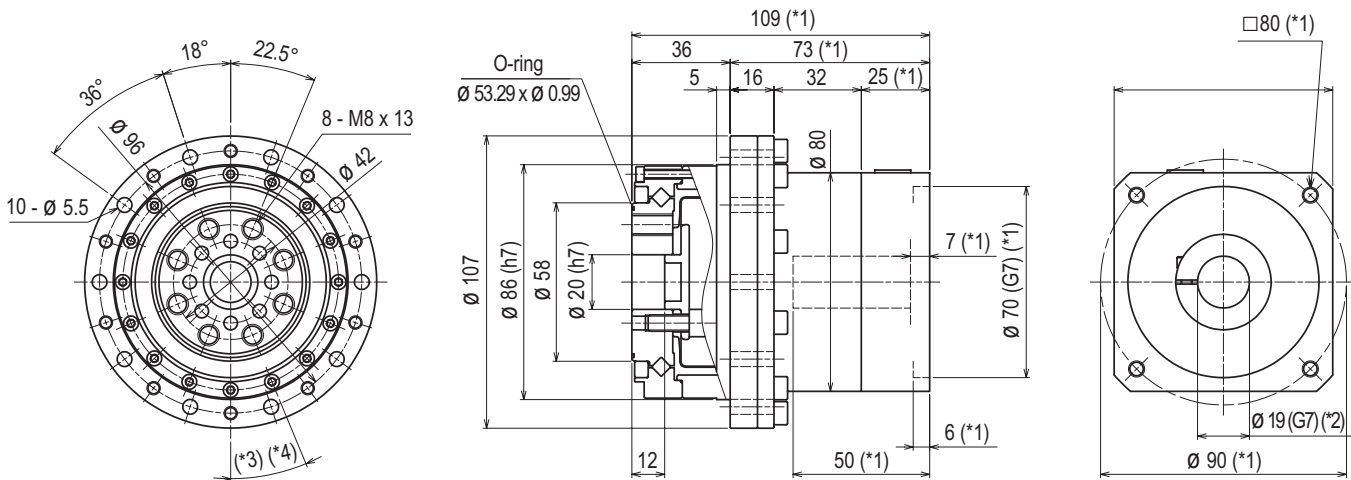
Dimensions

WPG-63-□-CR-14□ (8 < Input shaft diameter ≤ 14)



- *1 The length depends on the motor.
- *2 Bushing will be inserted to adapt to motor shaft.
- *3 The actual placement may differ.
- *4 These bolts are for reducer assembly purposes and do not affect installation.

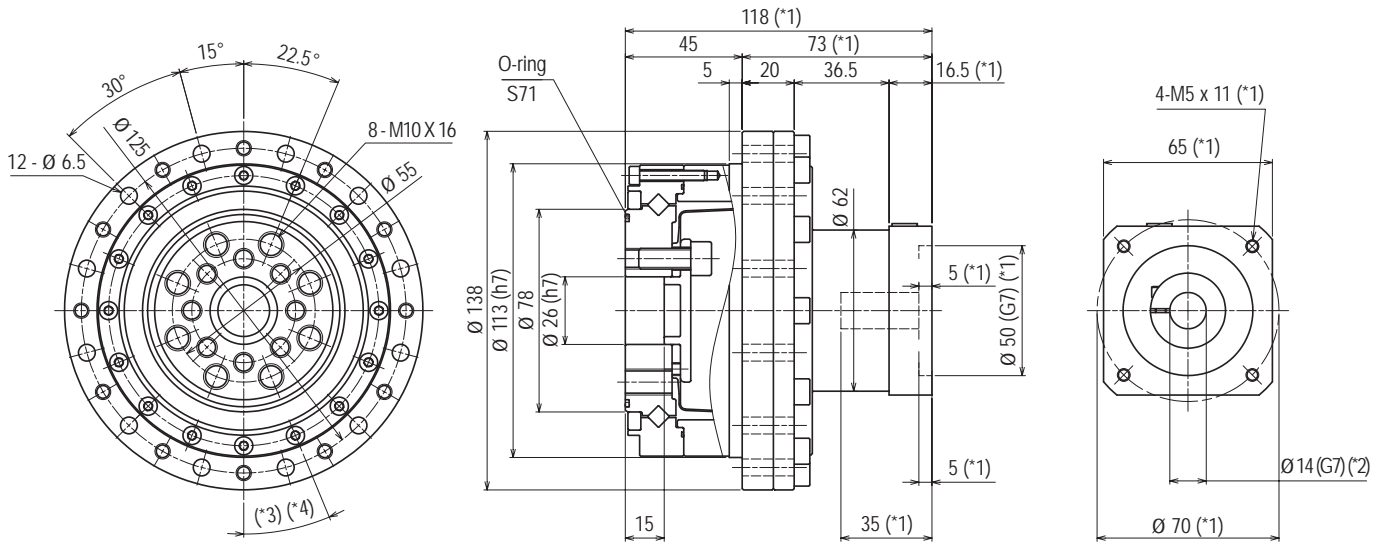
WPG-63-□-CR-19□ (14 < Input shaft diameter ≤ 19)



- *1 The length depends on the motor.
- *2 Bushing will be inserted to adapt to motor shaft.
- *3 The actual placement may differ.
- *4 These bolts are for reducer assembly purposes and do not affect installation.

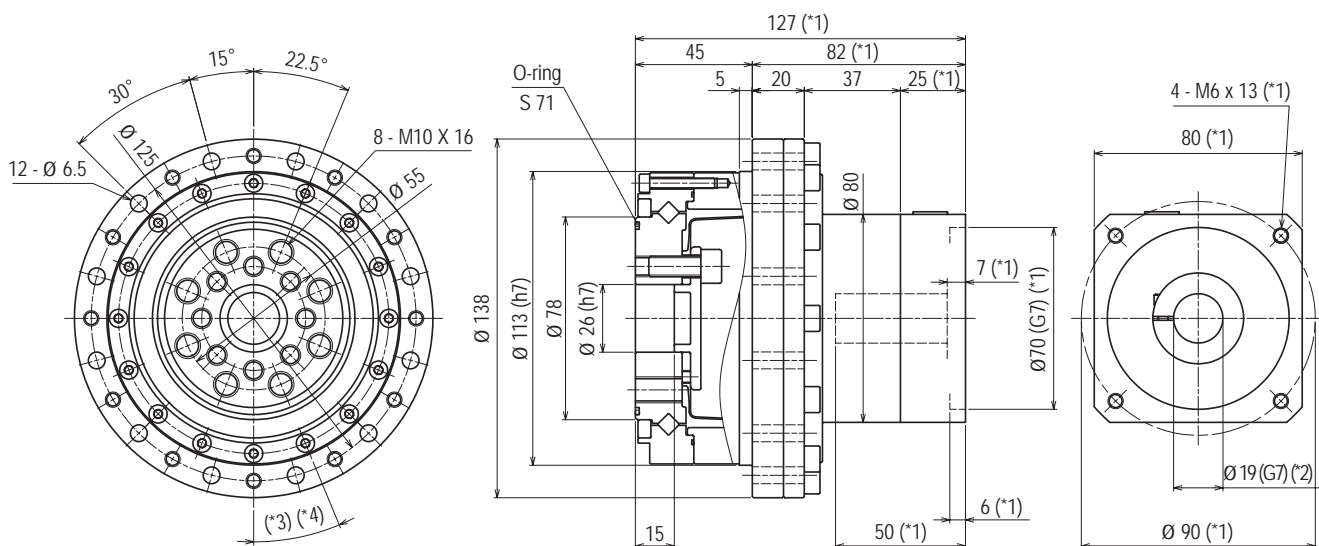
Dimensions

WPG-80-□-CR-14□ (8 < Input shaft diameter ≤ 14)



- *1 The length depends on the motor.
- *2 Bushing will be inserted to adapt to motor shaft.
- *3 The actual placement may differ.
- *4 These bolts are for reducer assembly purposes and do not affect installation.

WPG-80-□-CR-19□ (14 < Input shaft diameter ≤ 19)



- *1 The length depends on the motor.
- *2 Bushing will be inserted to adapt to motor shaft.
- *3 The actual placement may differ.
- *4 These bolts are for reducer assembly purposes and do not affect installation.

Reducer Model/ Specifications	Dimensions	Life Estimation (Elastic Bearing)	Life Estimation (Main Bearing)	Lubricant Information	Transmitting Torque
----------------------------------	------------	--------------------------------------	-----------------------------------	-----------------------	---------------------

Life Estimation (Elastic Bearing)

Life estimation (Main bearing)

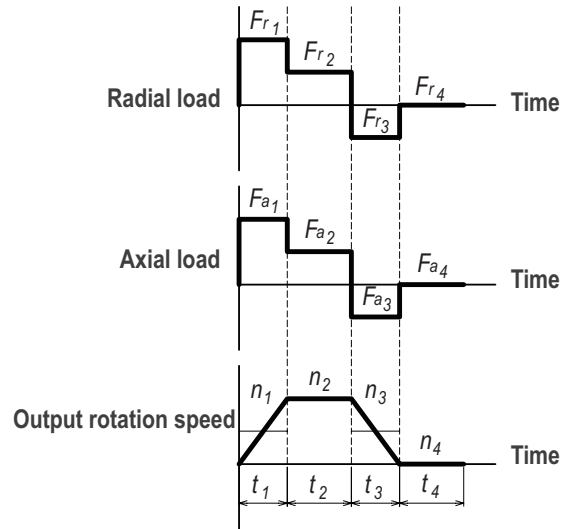
* Please check the formula on page 11

Life Estimation (Main Bearing)

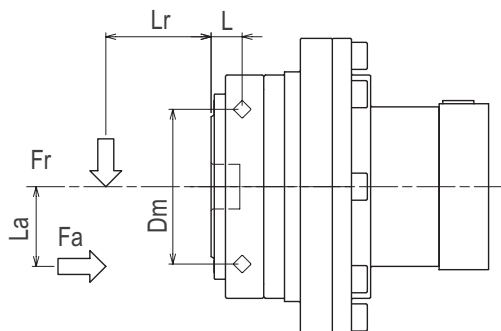
Main bearing specification (Cross roller bearing)

Series	Size	Pitch Circle Diameter of the Bearing Rollers	Offset	Basic Dynamic Load Rating	Basic Static Load Rating	Allowable Moment	Moment Rigidity
		Dm	L	C	Co	Mal	Km
		m	m	N	N	Nm	$\times 10^4$ Nm/rad
WPG-□-□-CR	35	0.035	0.010	4700	6070	41	4.38
	42	0.043	0.010	5290	7550	64	7.75
	50	0.050	0.010	5780	9000	91	12.8
	63	0.062	0.012	9600	15100	156	24.2
	80	0.080	0.013	15000	25000	313	53.9

Operation cycle example



External load



* Please check the formula on page 13

Lubricant Information

Grease

Sumiplex SFB No.1 (SUMICO LUBRICANT CO., LTD.)

Operating temperature range: 0-40°C (ambient temperature)

Grease application

- Grease is already sealed inside the reducer at the factory, so it can be used as-is.

Transmitting Torque

Bolting

Please refer to the table below for the bolt tightening torque.

Please be noted that the transmittable torque varies depending on the bolt count (different between CF and CN) and tightening torque.

Tightening torque for bolts

Bolt size	M3	M4	M5	M6	M8	M10
Tightening torque [Nm]	1.9	4.3	8.7	15	36	71

Recommended bolt: Strength rating above 12.9

Bolt specifications and Transmitting torque

Output flange attachment

Size	35	42	50	63	80
Bolt size	M4	M5	M6	M8	M10
Bolt count	6	6	8	8	8
Bolt PCD [mm]	23	27	32	42	55
Tightening torque [Nm]	4.3	8.7	15	36	71
Transmitting torque [Nm]	56	106	238	566	1177

Internal gear attachment (CR)

Size	35	42	50	63	80
Bolt size	M4	M4	M5	M5	M6
Bolt count	8	8	8	10	12
Bolt PCD [mm]	65	71	82	96	125
Tightening torque [Nm]	4.3	4.3	8.7	8.7	15
Transmitting torque [Nm]	210	230	430	629	1392

