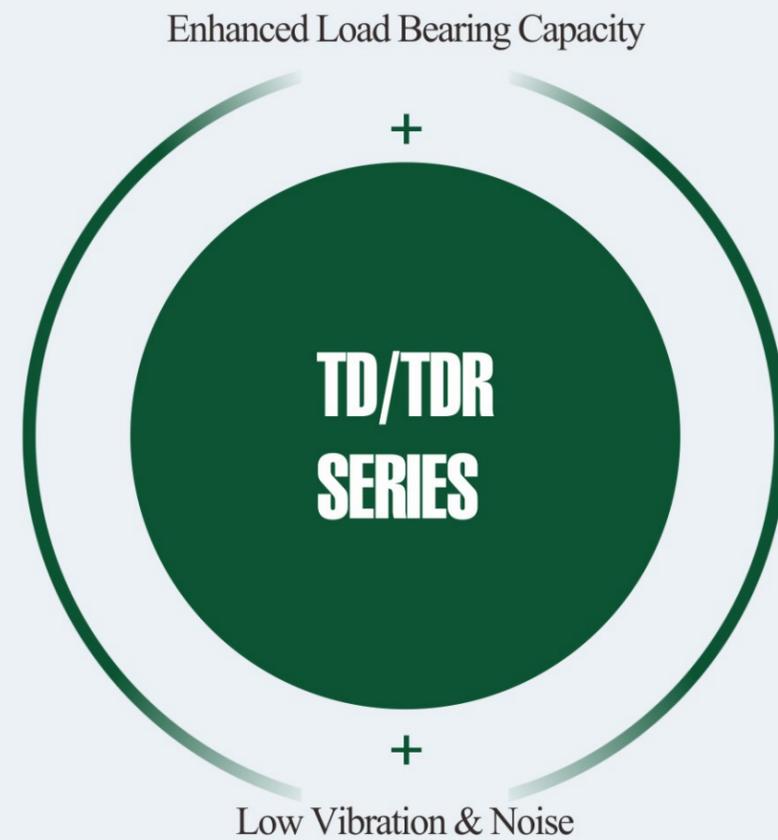


Precision Planetary Reducer



TD/TDR series planetary reducer offers you innovative and advanced solutions in terms of technology, which has achieved outstanding results in any flange-driven applications.

GEARKO[®]

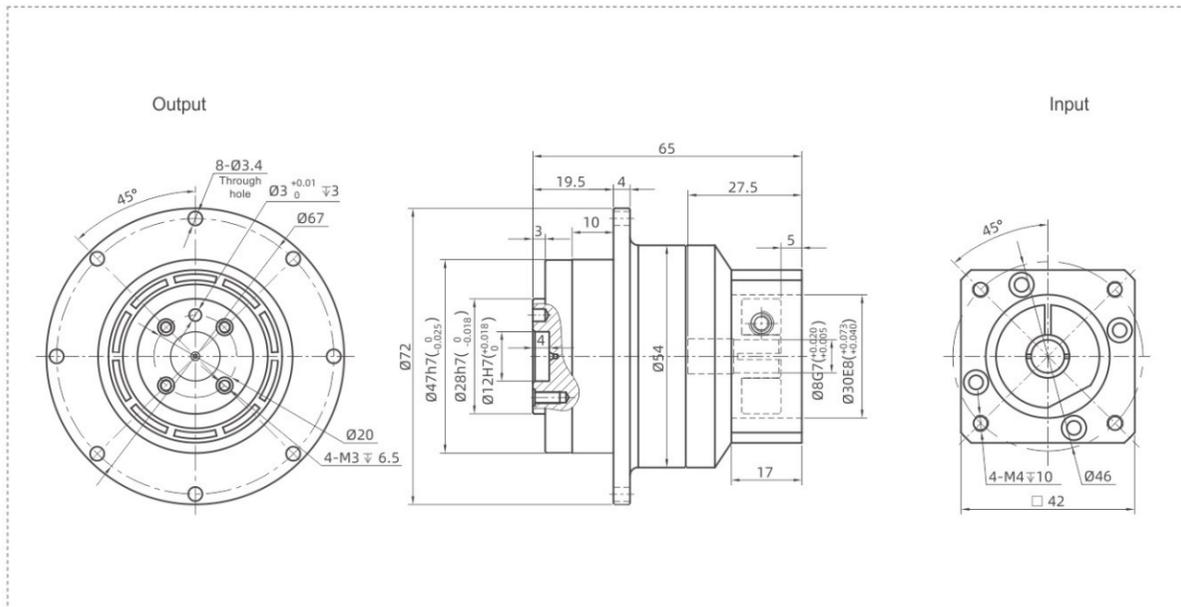
DRIVES

THE PRECISION

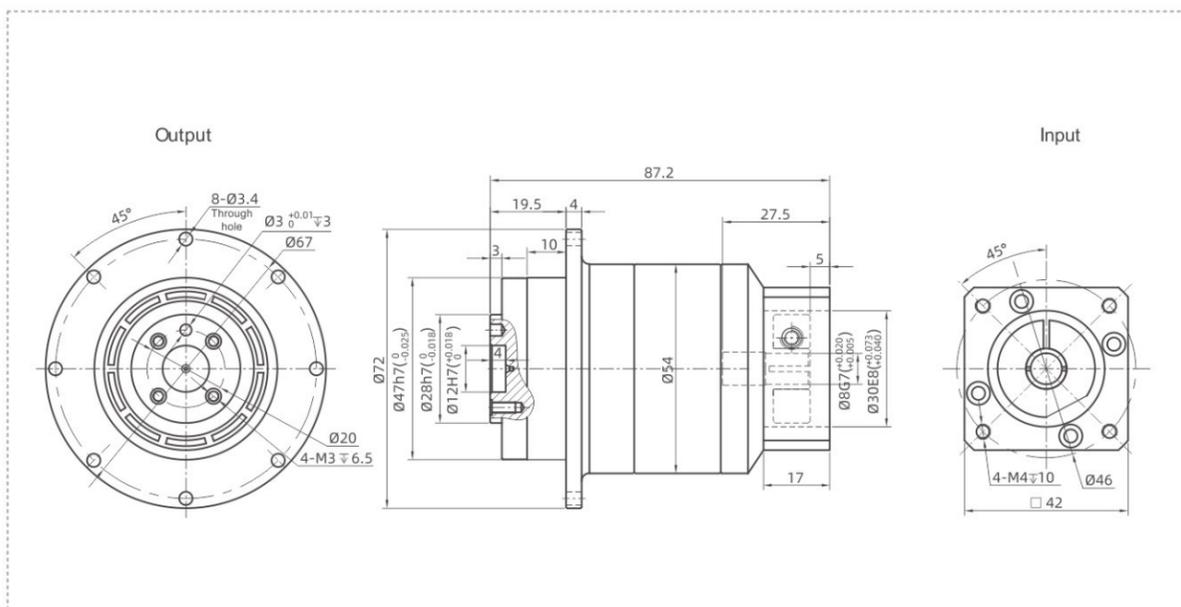


TD047 Series

TD047 One Stage



TD047 Two Stage



Performance Data

TD series reducer offers quiet operation with high axial load and tilt moment. High quality and capacity load bearing ensures smooth operation for any flange-operated applications.

TD047		One Stage						Two Stage					
Speed Ratio	i	4	5	7	10	20	25	35	40	50	70	100	
Nominal Output Torque	T ₁ Nm	19	20	19	14	19	20	19	17	20	19	14	
Emergency Stop Torque	T ₂ Nm	T ₁ × 3						T ₁ × 3					
Nominal Input Speed	S ₁ rpm	5000						5000					
Maximum Input Speed	S ₂ rpm	10000						10000					
Maximum Output Torque	T ₄ Nm	T ₁ × 3 × 60%						T ₁ × 3 × 60%					
Maximum Bending Moment	M _b Nm	780						780					
Maximum Axial Force	F _b N	390						390					
Torsional Rigidity	- Nm/arcmin	3						3					
Efficiency	η %	≥97						≥94					
Service Life	- h	20000						20000					
Noise	- dB	≤55						≤55					
Weight	- Kg	0.65						0.98					
Backlash	P0	≤1						≤3					
	P1	≤3						≤5					
	P2	≤5						≤7					
Operating Temperature	- °C	-20~90						-20~90					
Lubrication	-	Synthetic Grease						Synthetic Grease					
Protection Class	-	IP65						IP65					
Mounting Position	-	Any Direction						Any Direction					
Moment of Inertia	J kg.cm ²	0.03						0.03					

Notes:

- Speed ratio (i=Sin/Sout)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, i=10.

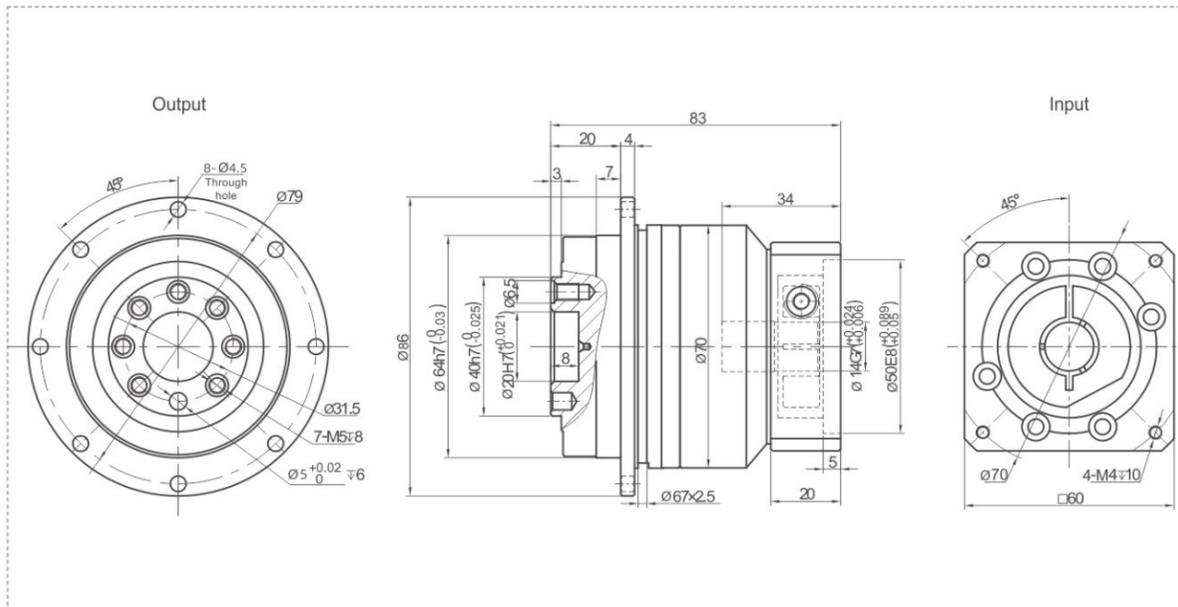
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Performance Data

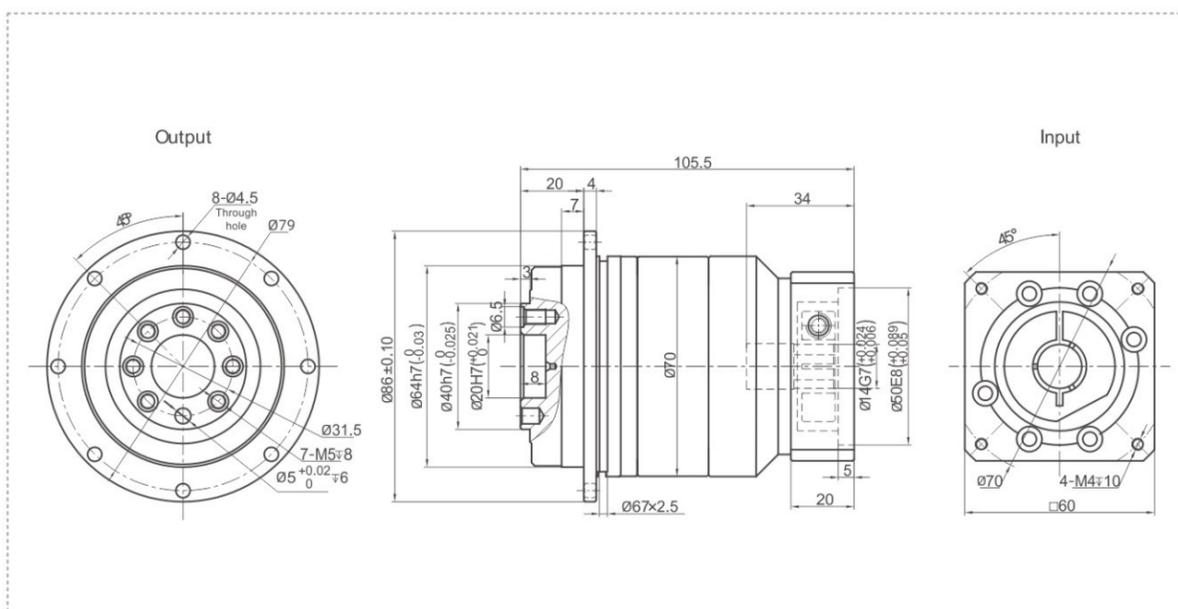
TD series reducer offers quiet operation with high axial load and tilt moment. High quality and capacity load bearing ensures smooth operation for any flange-operated applications.

TD064 Series

TD064 One Stage



TD064 Two Stage



TD064		One Stage						Two Stage					
Speed Ratio	i	4	5	7	10	20	25	35	40	50	70	100	
Nominal Output Torque	T ₁ Nm	50	58	50	42	50	58	50	48	58	50	42	
Emergency Stop Torque	T ₂ Nm	T ₁ × 3						T ₁ × 3					
Nominal Input Speed	S ₁ rpm	5000						5000					
Maximum Input Speed	S ₂ rpm	10000						10000					
Maximum Output Torque	T ₄ Nm	T ₁ × 3 × 60%						T ₁ × 3 × 60%					
Maximum Bending Moment	M _a Nm	125						125					
Maximum Axial Force	F _b N	1050						1050					
Torsional Rigidity	- Nm/arcmin	13						13					
Efficiency	η %	≥ 97						≥ 94					
Service Life	- h	30000						30000					
Noise	- dB	≤ 58						≤ 58					
Weight	- Kg	1.3						1.8					
Backlash	P0	≤ 1						≤ 3					
	P1	≤ 3						≤ 5					
	P2	≤ 5						≤ 7					
Operating Temperature	- °C	-20~90						-20~90					
Lubrication	-	Synthetic Grease						Synthetic Grease					
Protection Class	-	IP65						IP65					
Mounting Position	-	Any Direction						Any Direction					
Moment of Inertia	J kg.cm ²	0.14	0.13				0.13						

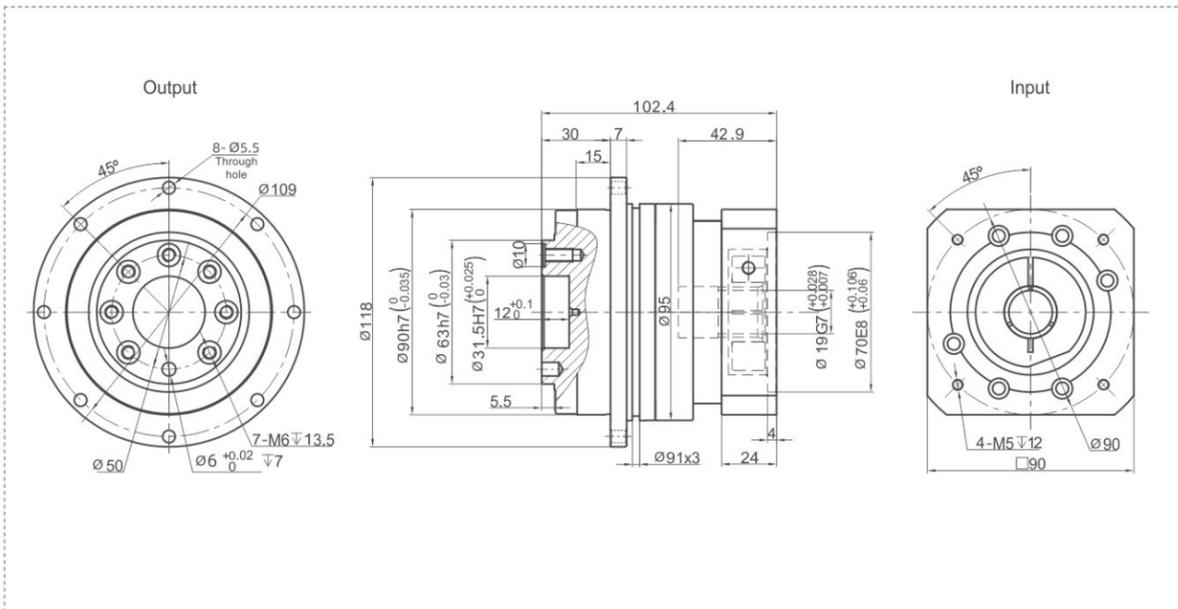
Notes:

- Speed ratio (i=S_{in}/S_{out})
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, i=10.

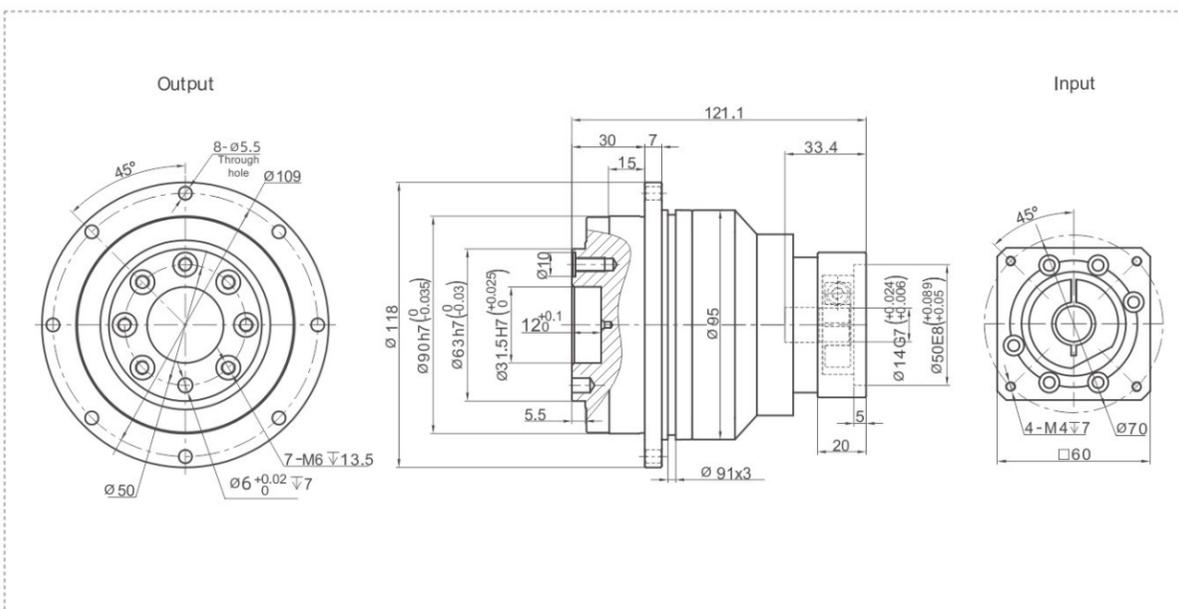
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TD090 Series

TD090 One Stage



TD090 Two Stage



Performance Data

TD series reducer offers quiet operation with high axial load and tilt moment. High quality and capacity load bearing ensures smooth operation for any flange-operated applications.

TD090		One Stage						Two Stage					
Speed Ratio	i	4	5	7	10	20	25	35	40	50	70	100	
Nominal Output Torque	T_1 Nm	130	160	140	102	130	160	140	123	160	140	102	
Emergency Stop Torque	T_2 Nm	$T_1 \times 3$						$T_1 \times 3$					
Nominal Input Speed	S_1 rpm	4000						4000					
Maximum Input Speed	S_2 rpm	8000						8000					
Maximum Output Torque	T_4 Nm	$T_1 \times 3 \times 60\%$						$T_1 \times 3 \times 60\%$					
Maximum Bending Moment	M_b Nm	235						235					
Maximum Axial Force	F_b N	2850						2850					
Torsional Rigidity	- Nm/arcmin	31						31					
Efficiency	η %	≥ 97						≥ 94					
Service Life	- h	30000						30000					
Noise	- dB	≤ 60						≤ 60					
Weight	- Kg	3.9						3.1					
Backlash	P0	≤ 1						≤ 3					
	P1	≤ 3						≤ 5					
	P2	≤ 5						≤ 7					
Operating Temperature	- °C	-20-90						-20-90					
Lubrication	-	Synthetic Grease						Synthetic Grease					
Protection Class	-	IP65						IP65					
Mounting Position	-	Any Direction						Any Direction					
Moment of Inertia	J kg.cm ²	0.51	0.47	0.45	0.44	0.13							

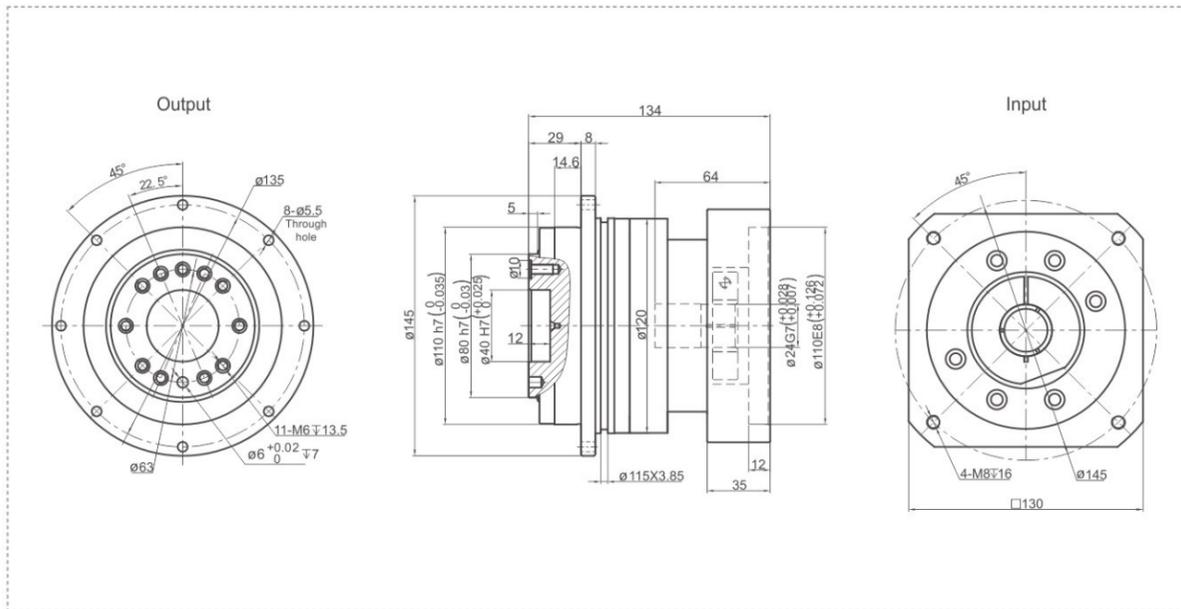
Notes:

- Speed ratio ($i = S_{in}/S_{out}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

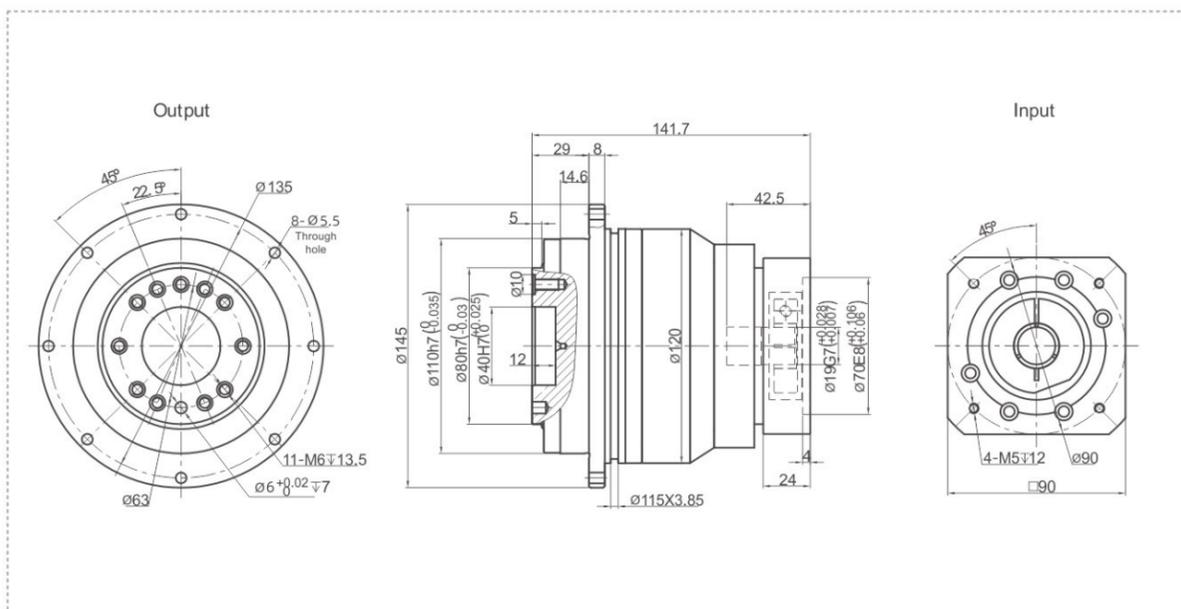
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TD110 Series

TD110 One Stage



TD110 Two Stage



Performance Data

TD series reducer offers quiet operation with high axial load and tilt moment. High quality and capacity load bearing ensures smooth operation for any flange-operated applications.

TD110		One Stage						Two Stage					
Speed Ratio	i	4	5	7	10	20	25	35	40	50	70	100	
Nominal Output Torque	T ₁ Nm	290	333	300	235	290	333	300	260	333	300	235	
Emergency Stop Torque	T ₂ Nm	T ₁ × 3						T ₁ × 3					
Nominal Input Speed	S ₁ rpm	4000						4000					
Maximum Input Speed	S ₂ rpm	8000						8000					
Maximum Output Torque	T ₄ Nm	T ₁ × 3 × 60%						T ₁ × 3 × 60%					
Maximum Bending Moment	M _b Nm	430						430					
Maximum Axial Force	F _b N	2990						2990					
Torsional Rigidity	- Nm/arcmin	82						82					
Efficiency	η %	≥ 97						≥ 94					
Service Life	- h	30000						30000					
Noise	- dB	≤ 63						≤ 63					
Weight	- Kg	5.9						7.9					
Backlash	P0	≤ 1						≤ 3					
	P1	≤ 3						≤ 5					
	P2	≤ 5						≤ 7					
Operating Temperature	- °C	-20-90						-20-90					
Lubrication	-	Synthetic Grease						Synthetic Grease					
Protection Class	-	IP65						IP65					
Mounting Position	-	Any Direction						Any Direction					
Moment of Inertia	J kg.cm ²	2.87	2.71	2.62	2.57	0.47				0.44			

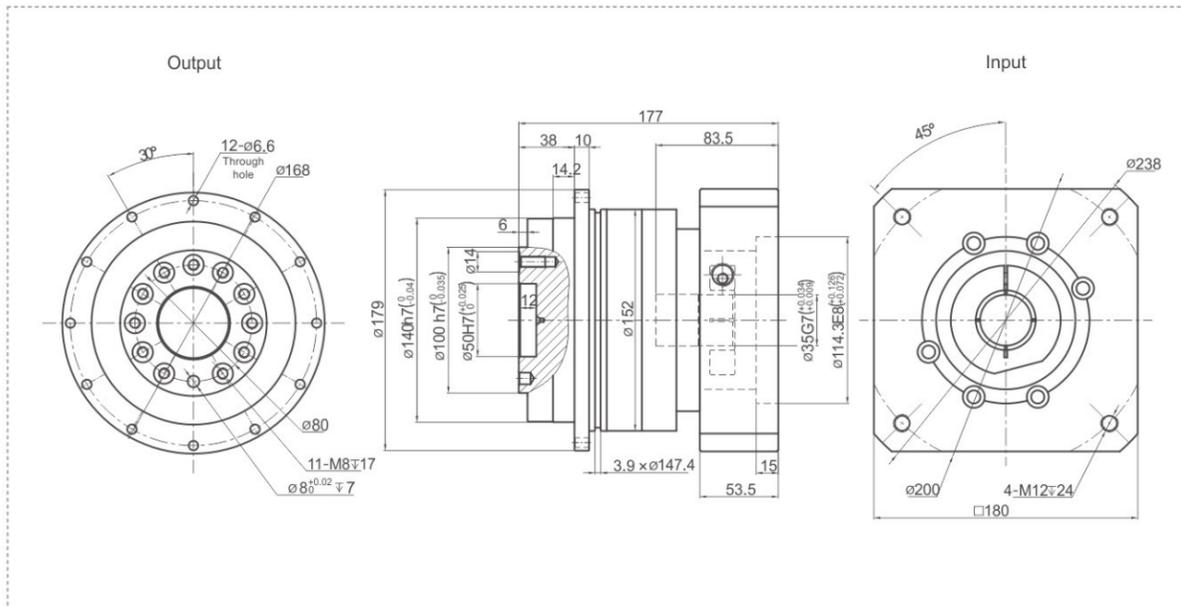
Notes:

- Speed ratio (i=S_{in}/S_{out})
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, i=10.

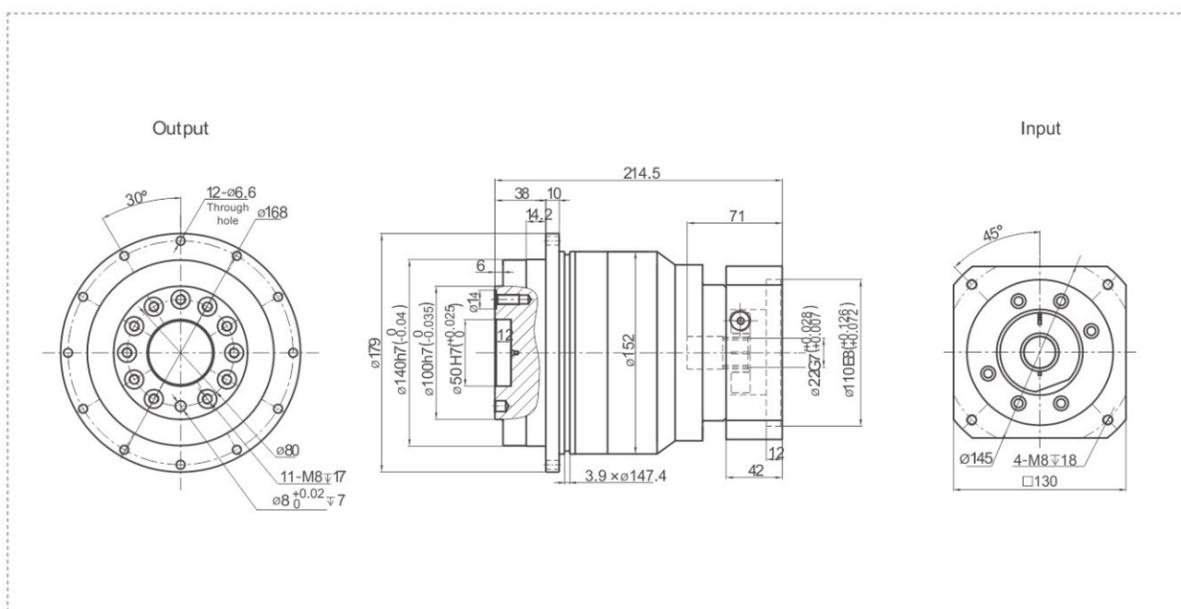
Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

TD140 Series

TD140 One Stage



TD140 Two Stage



Performance Data

TD series reducer offers quiet operation with high axial load and tilt moment. High quality and capacity load bearing ensures smooth operation for any flange-operated applications.

TD140		One Stage						Two Stage					
Speed Ratio	i	4	5	7	10	20	25	35	40	50	70	100	
Nominal Output Torque	T_1 Nm	545	650	555	460	545	650	555	560	650	555	460	
Emergency Stop Torque	T_2 Nm	$T_1 \times 3$						$T_1 \times 3$					
Nominal Input Speed	S_1 rpm	3000						3000					
Maximum Input Speed	S_2 rpm	6000						6000					
Maximum Output Torque	T_4 Nm	$T_1 \times 3 \times 60\%$						$T_1 \times 3 \times 60\%$					
Maximum Bending Moment	M_a Nm	1300						1300					
Maximum Axial Force	F_b N	10590						10590					
Torsional Rigidity	- Nm/arcmin	151						151					
Efficiency	η %	≥ 97						≥ 94					
Service Life	- h	30000						30000					
Noise	- dB	≤ 65						≤ 65					
Weight	- Kg	14.6						15.5					
Backlash	P0	≤ 1						≤ 3					
	P1	≤ 3						≤ 5					
	P2	≤ 5						≤ 7					
Operating Temperature	- °C	-20~90						-20~90					
Lubrication	-	Synthetic Grease						Synthetic Grease					
Protection Class	-	IP65						IP65					
Mounting Position	-	Any Direction						Any Direction					
Moment of Inertia	J kg.cm ²	7.54	7.42	7.14	7.03	2.71		2.57					

Notes:

- Speed ratio ($i = S_{in}/S_{out}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

Performance Data

TD series reducer offers quiet operation with high axial load and tilt moment. High quality and capacity load bearing ensures smooth operation for any flange-operated applications.

TD255		One Stage						Two Stage					
Speed Ratio	i	4	5	7	10	20	25	35	40	50	70	100	
Nominal Output Torque	T ₁ Nm	1700	2008	1810	1550	1700	2008	1810	1700	2008	1810	1550	
Emergency Stop Torque	T ₂ Nm	T ₁ × 3						T ₁ × 3					
Nominal Input Speed	S ₁ rpm	2000						2000					
Maximum Input Speed	S ₂ rpm	4000						4000					
Maximum Output Torque	T ₄ Nm	T ₁ × 3 × 60%						T ₁ × 3 × 60%					
Maximum Bending Moment	M _b Nm	5900						5900					
Maximum Axial Force	F _b N	29430						29430					
Torsional Rigidity	- Nm/arcmin	1006						1006					
Efficiency	η %	≥ 97						≥ 94					
Service Life	- h	30000						30000					
Noise	- dB	≤ 70						≤ 70					
Weight	- Kg	64.5						70.4					
Backlash	P0	≤ 1						≤ 3					
	P1	≤ 3						≤ 5					
	P2	≤ 5						≤ 7					
Operating Temperature	- °C	-20~90						-20~90					
Lubrication	-	Synthetic Grease						Synthetic Grease					
Protection Class	-	IP65						IP65					
Mounting Position	-	Any Direction						Any Direction					
Moment of Inertia	J kg.cm ²	58.31	53.27	50.97	50.56	23.29		22.51					

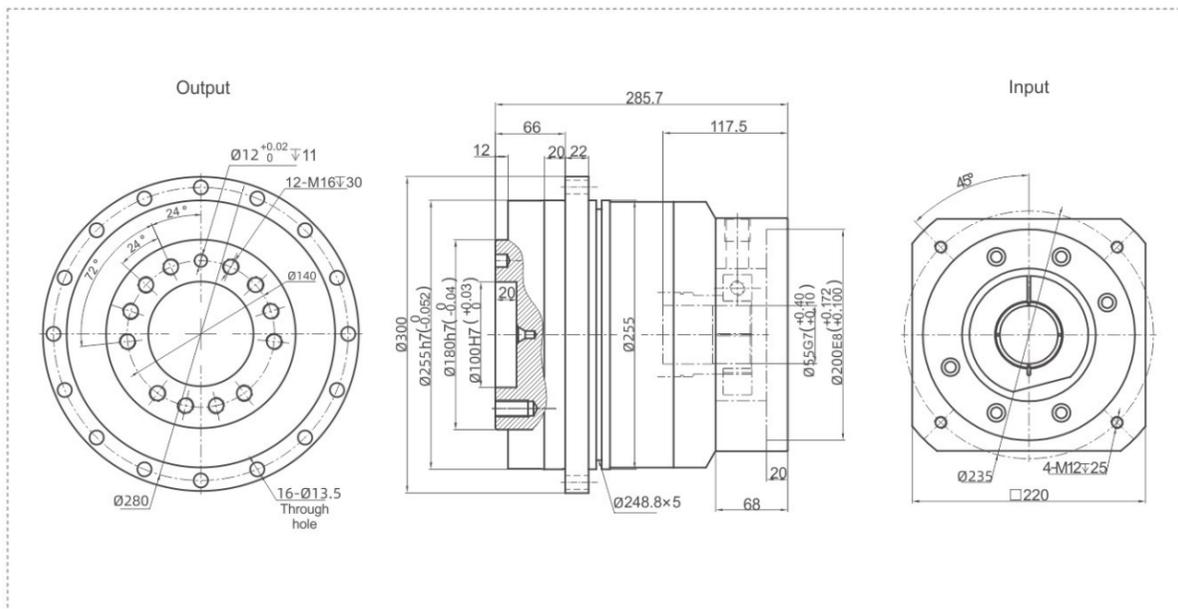
Notes:

- Speed ratio (i=S_{in}/S_{out})
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, i=10.

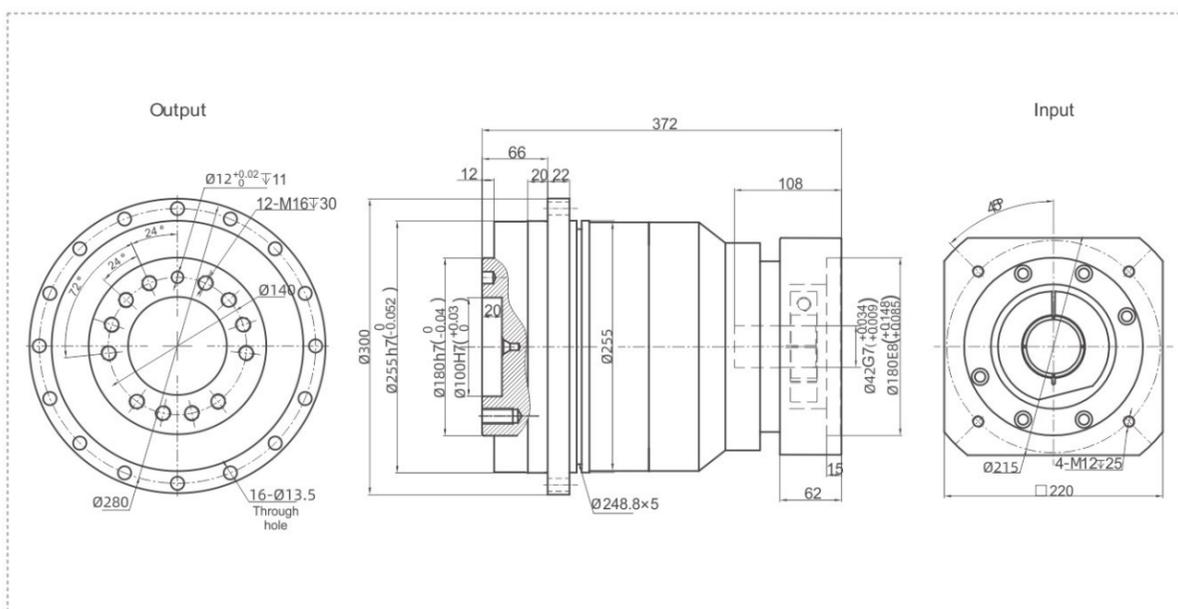
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TD255 Series

TD255 One Stage

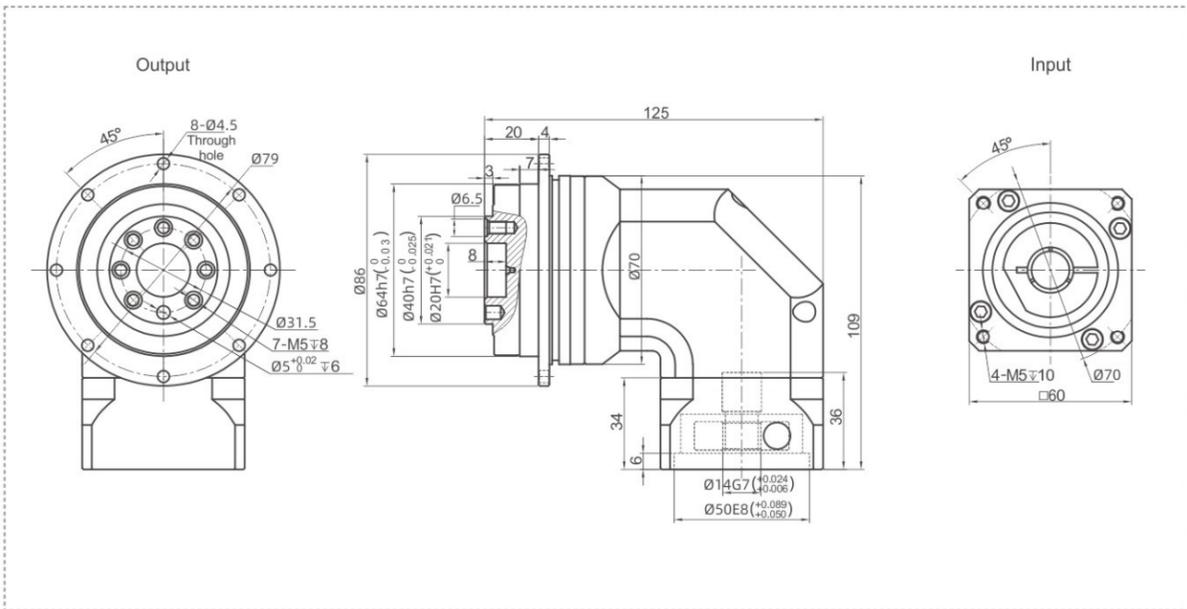


TD255 Two Stage

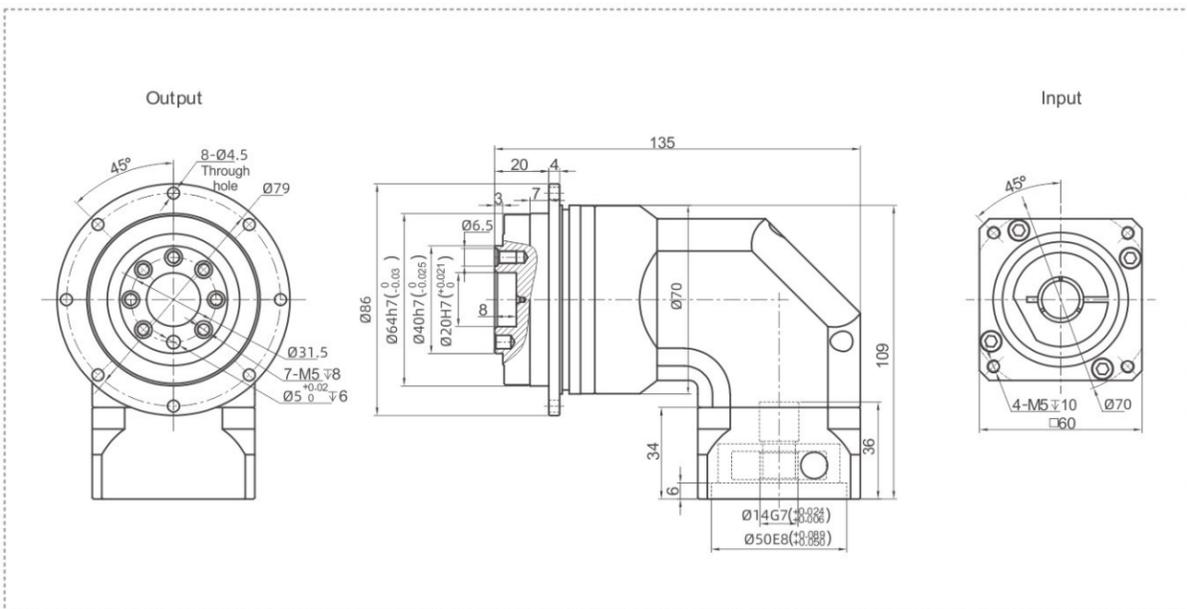


TDR064 Series

TDR064 One Stage



TDR064 Two Stage



Performance Data

TDR series reducer offers quiet operation with high axial load and tilt moment. High quality and capacity load bearing ensures smooth operation for any flange-operated applications.

TDR064		One Stage										Two Stage				
Speed Ratio	i	4	5	7	10	14	20	25	35	40	50	70	100	140	200	
Nominal Output Torque	T_1 Nm	48	58	50	42	42	42	58	50	48	58	50	42	-	-	
Emergency Stop Torque	T_2 Nm	$T_1 \times 3$										$T_1 \times 3$				
Nominal Input Speed	S_1 rpm	5000										5000				
Maximum Input Speed	S_2 rpm	10000										10000				
Maximum Output Torque	T_4 Nm	$T_1 \times 3 \times 60\%$										$T_1 \times 3 \times 60\%$				
Maximum Bending Moment	M_b Nm	125										125				
Maximum Axial Force	F_b N	1050										1050				
Torsional Rigidity	- Nm/arcmin	13										13				
Efficiency	η %	≥ 95										≥ 92				
Service Life	- h	30000										30000				
Noise	- dB	≤ 63										≤ 63				
Weight	- Kg	2.2										2.6				
Backlash	$P0$	-										-				
	$P1$ arcmin	≤ 4										≤ 7				
	$P2$	≤ 6										≤ 9				
Operating Temperature	- °C	-20~90										-20~90				
Lubrication	-	Synthetic Grease										Synthetic Grease				
Protection Class	-	IP65										IP65				
Mounting Position	-	Any Direction										Any Direction				
Moment of Inertia	J kg.cm ²	0.35					0.07					0.09				

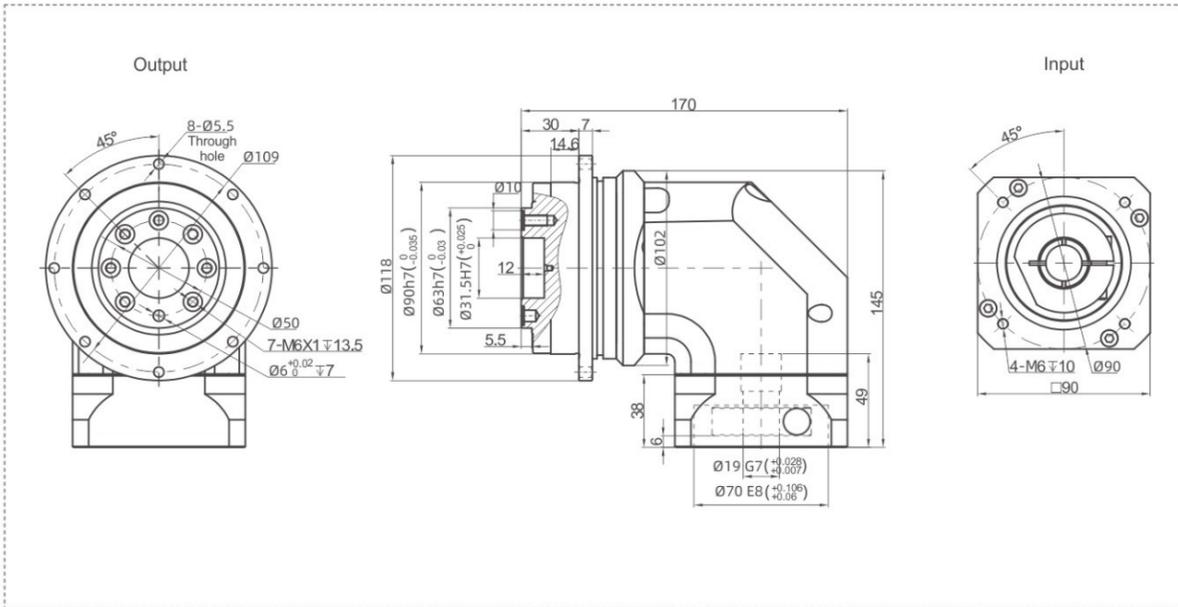
Notes:

- Speed ratio ($i = S_{in}/S_{out}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

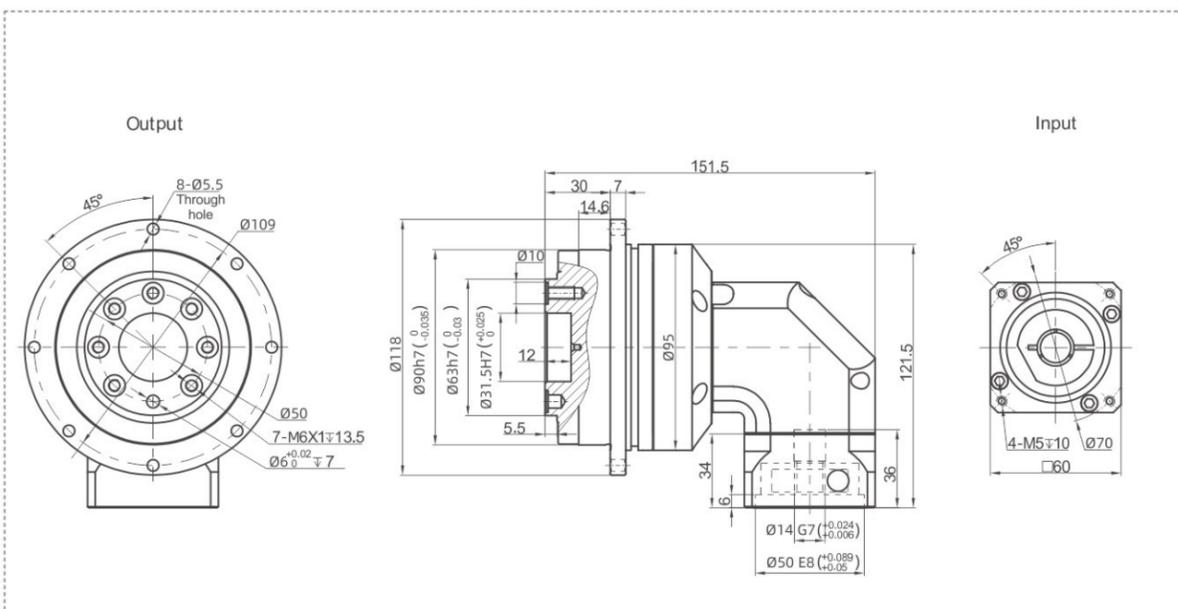
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TDR090 Series

TDR090 One Stage



TDR090 Two Stage



Performance Data

TDR series reducer offers quiet operation with high axial load and tilt moment. High quality and capacity load bearing ensures smooth operation for any flange-operated applications.

TDR090		One Stage										Two Stage			
Speed Ratio	i	4	5	7	10	14	20	25	35	40	50	70	100	140	200
Nominal Output Torque	T_1 Nm	120	150	140	102	140	102	160	148	120	150	140	102	140	102
Emergency Stop Torque	T_2 Nm	$T_1 \times 3$										$T_1 \times 3$			
Nominal Input Speed	S_1 rpm	4000										4000			
Maximum Input Speed	S_2 rpm	8000										8000			
Maximum Output Torque	T_4 Nm	$T_1 \times 3 \times 60\%$										$T_1 \times 3 \times 60\%$			
Maximum Bending Moment	M_b Nm	235										235			
Maximum Axial Force	F_b N	2850										2850			
Torsional Rigidity	- Nm/arcmin	31										31			
Efficiency	η %	≥ 95										≥ 92			
Service Life	- h	30000										30000			
Noise	- dB	≤ 65										≤ 65			
Weight	- Kg	5										3.7			
Backlash	P_0	≤ 2										≤ 4			
	P_1 arcmin	≤ 4										≤ 7			
	P_2	≤ 6										≤ 9			
Operating Temperature	- °C	-20-90										-20-90			
Lubrication	-	Synthetic Grease										Synthetic Grease			
Protection Class	-	IP65										IP65			
Mounting Position	-	Any Direction										Any Direction			
Moment of Inertia	J kg.cm ²	2.25					1.87					0.35		0.31	

Notes:

- Speed ratio ($i = S_{in}/S_{out}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

Performance Data

TDR series reducer offers quiet operation with high axial load and tilt moment. High quality and capacity load bearing ensures smooth operation for any flange-operated applications.

TDR110		One Stage										Two Stage				
Speed Ratio	i	4	5	7	10	14	20	25	35	40	50	70	100	140	200	
Nominal Output Torque	T_1 Nm	260	330	300	235	300	235	330	300	260	330	300	235	300	235	
Emergency Stop Torque	T_2 Nm	$T_1 \times 3$					$T_1 \times 3$									
Nominal Input Speed	S_1 rpm	4000					4000									
Maximum Input Speed	S_2 rpm	8000					8000									
Maximum Output Torque	T_4 Nm	$T_1 \times 3 \times 60\%$					$T_1 \times 3 \times 60\%$									
Maximum Bending Moment	M_b Nm	430					430									
Maximum Axial Force	F_b N	2990					2990									
Torsional Rigidity	- Nm/arcmin	82					82									
Efficiency	η %	≥ 95					≥ 92									
Service Life	- h	30000					30000									
Noise	- dB	≤ 68					≤ 68									
Weight	- Kg	10.5					11									
Backlash	P_0	≤ 2					≤ 4									
	P_1	≤ 4					≤ 7									
	P_2	≤ 6					≤ 9									
Operating Temperature	- °C	-20-90					-20-90									
Lubrication	-	Synthetic Grease					Synthetic Grease									
Protection Class	-	IP65					IP65									
Mounting Position	-	Any Direction					Any Direction									
Moment of Inertia	J kg.cm ²	6.84				6.25					2.25				1.87	

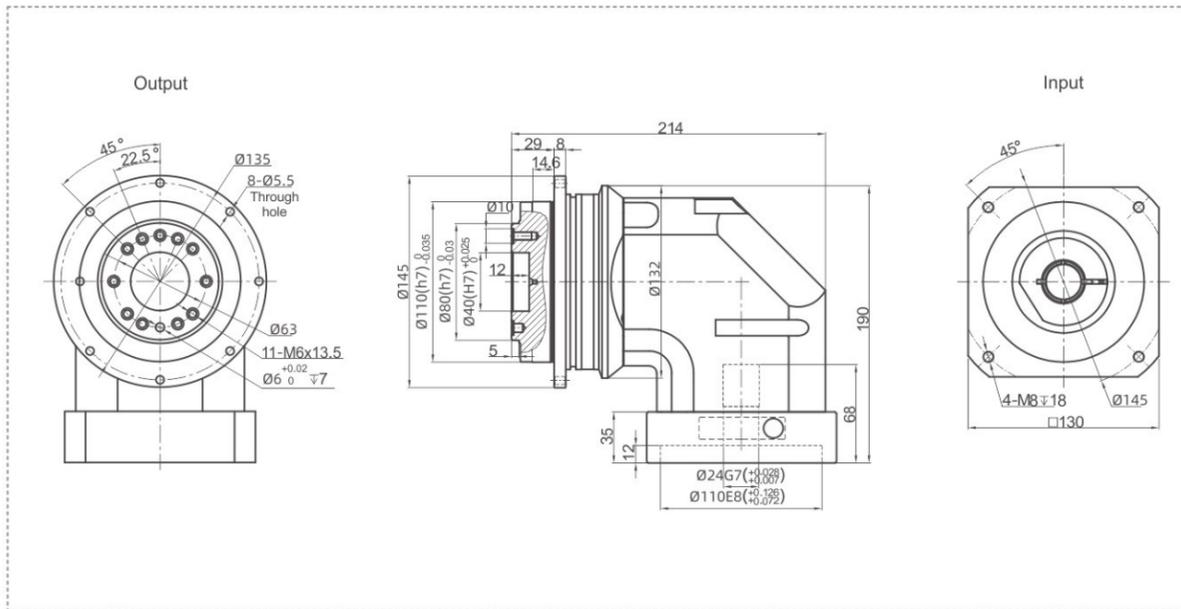
Notes:

- Speed ratio ($i = S_{in}/S_{out}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

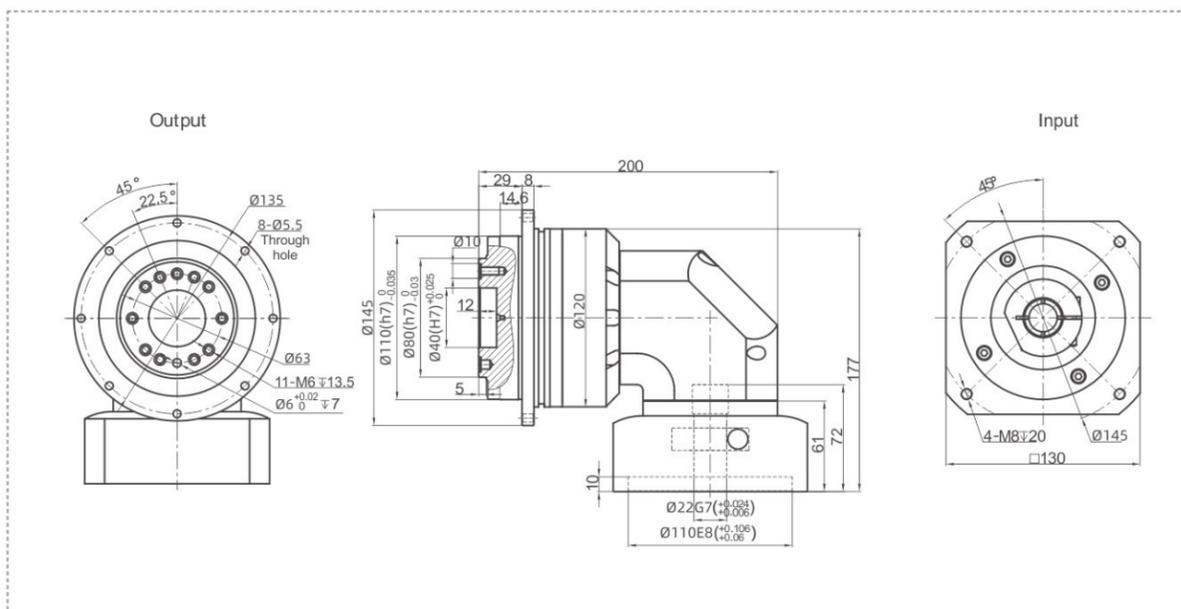
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TDR110 Series

TDR110 One Stage



TDR110 Two Stage



Performance Data

TDR series reducer offers quiet operation with high axial load and tilt moment. High quality and capacity load bearing ensures smooth operation for any flange-operated applications.

TDR140		One Stage										Two Stage				
Speed Ratio	i	4	5	7	10	14	20	25	35	40	50	70	100	140	200	
Nominal Output Torque	T_1 Nm	540	650	555	460	555	450	650	555	560	650	555	460	555	460	
Emergency Stop Torque	T_2 Nm	$T_1 \times 3$					$T_1 \times 3$									
Nominal Input Speed	S_1 rpm	3000					3000									
Maximum Input Speed	S_2 rpm	6000					6000									
Maximum Output Torque	T_4 Nm	$T_1 \times 3 \times 60\%$					$T_1 \times 3 \times 60\%$									
Maximum Bending Moment	M_b Nm	1300					1300									
Maximum Axial Force	F_b N	10590					10590									
Torsional Rigidity	- Nm/arcmin	151					151									
Efficiency	η %	≥ 95					≥ 92									
Service Life	- h	30000					30000									
Noise	- dB	≤ 70					≤ 70									
Weight	- Kg	25					22.1									
Backlash	P_0	≤ 2					≤ 4									
	P_1	≤ 4					≤ 7									
	P_2	≤ 6					≤ 9									
Operating Temperature	- °C	-20-90					-20-90									
Lubrication	-	Synthetic Grease					Synthetic Grease									
Protection Class	-	IP65					IP65									
Mounting Position	-	Any Direction					Any Direction									
Moment of Inertia	J kg.cm ²	23.4		21.8			6.84		6.25							

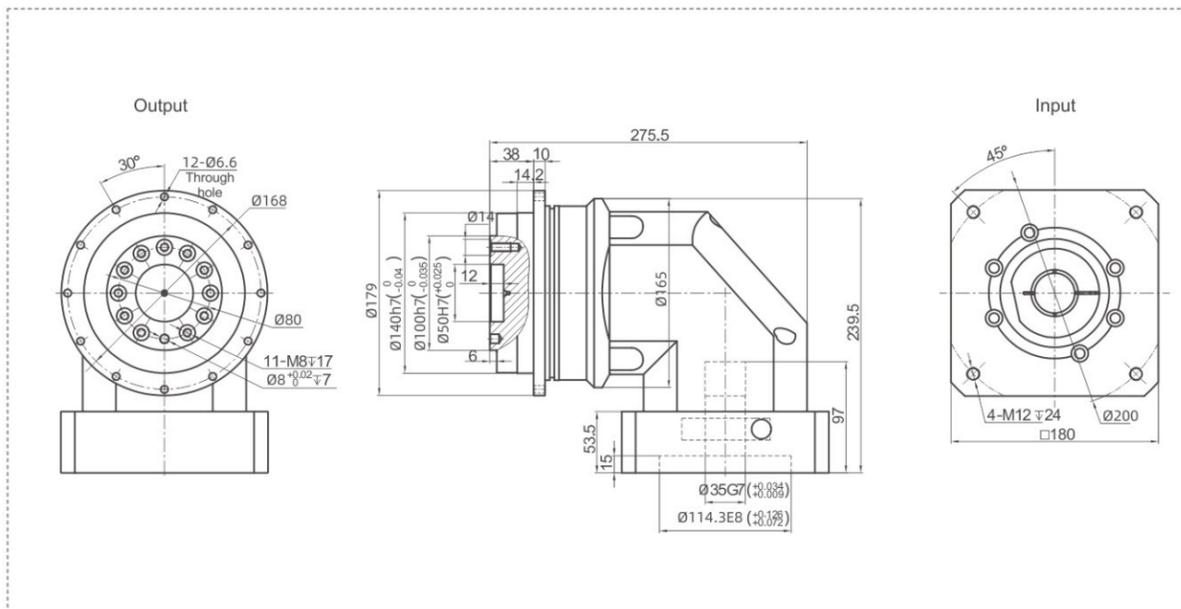
Notes:

- Speed ratio ($i = S_{in}/S_{out}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

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TDR140 Series

TDR140 One Stage



TDR140 Two Stage

