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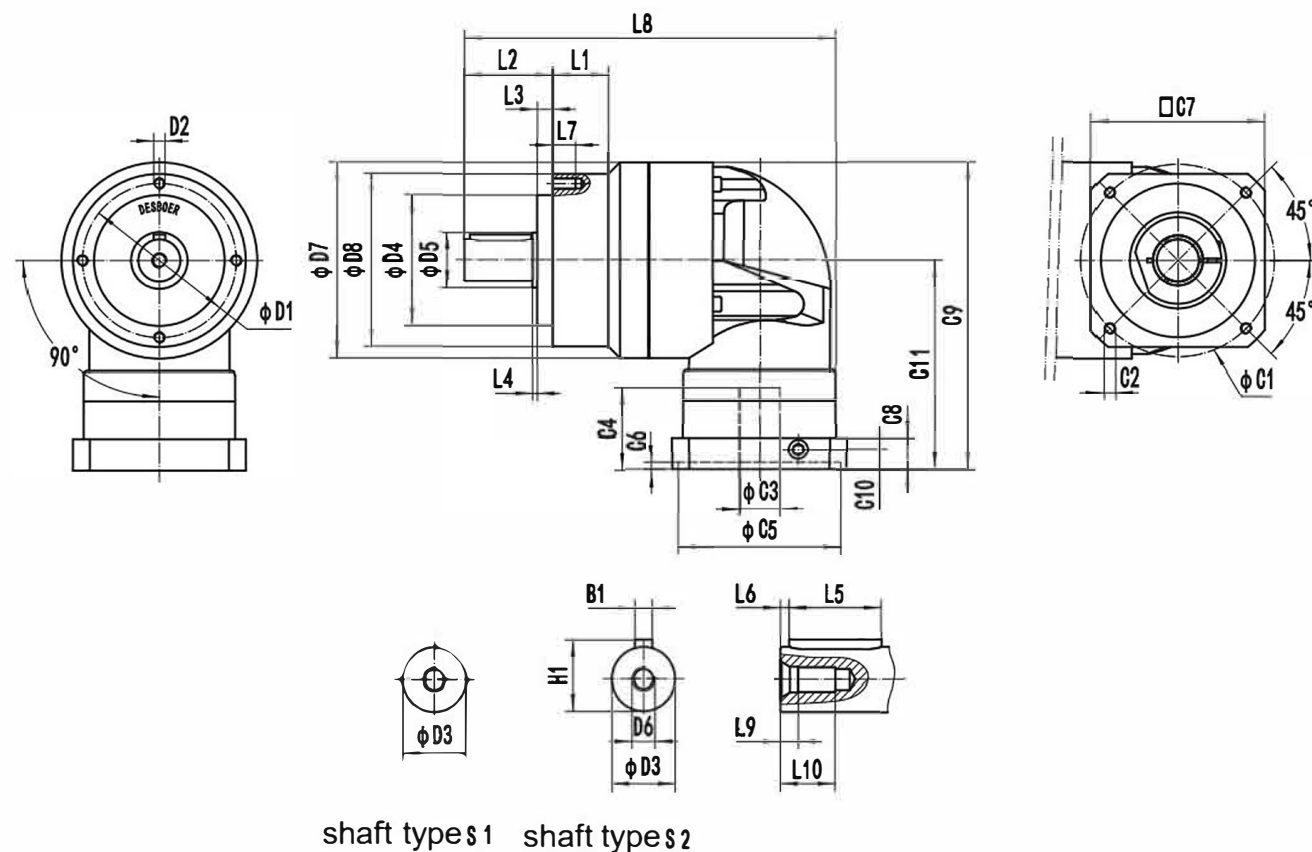


NER SERIES

High precision planetary reducer



NER070 Series



(Unit: mm)

NER070	D1	D2	D3	D4	D5	D6		D7	D8	B1	H1
	62	M5×0.8P	16	52	22	M5×0.8P		70	70	5	18
	L1	L2	L3	L4	L5	L6		L7	L8	L9	L10
	—	36	6.5	1	25	2		10	146	4.8	12.5
	C1*	C2*	C3*	C4*	C5*	C6*	C7*	C8*	C9*	C10*	C11*
	70	M5×0.8P	≤14/≤16	34	50	8	60	19	116.5	13.5	81.5

*Dimensions based on servo-motor please contact us for custom made order.

Parameter

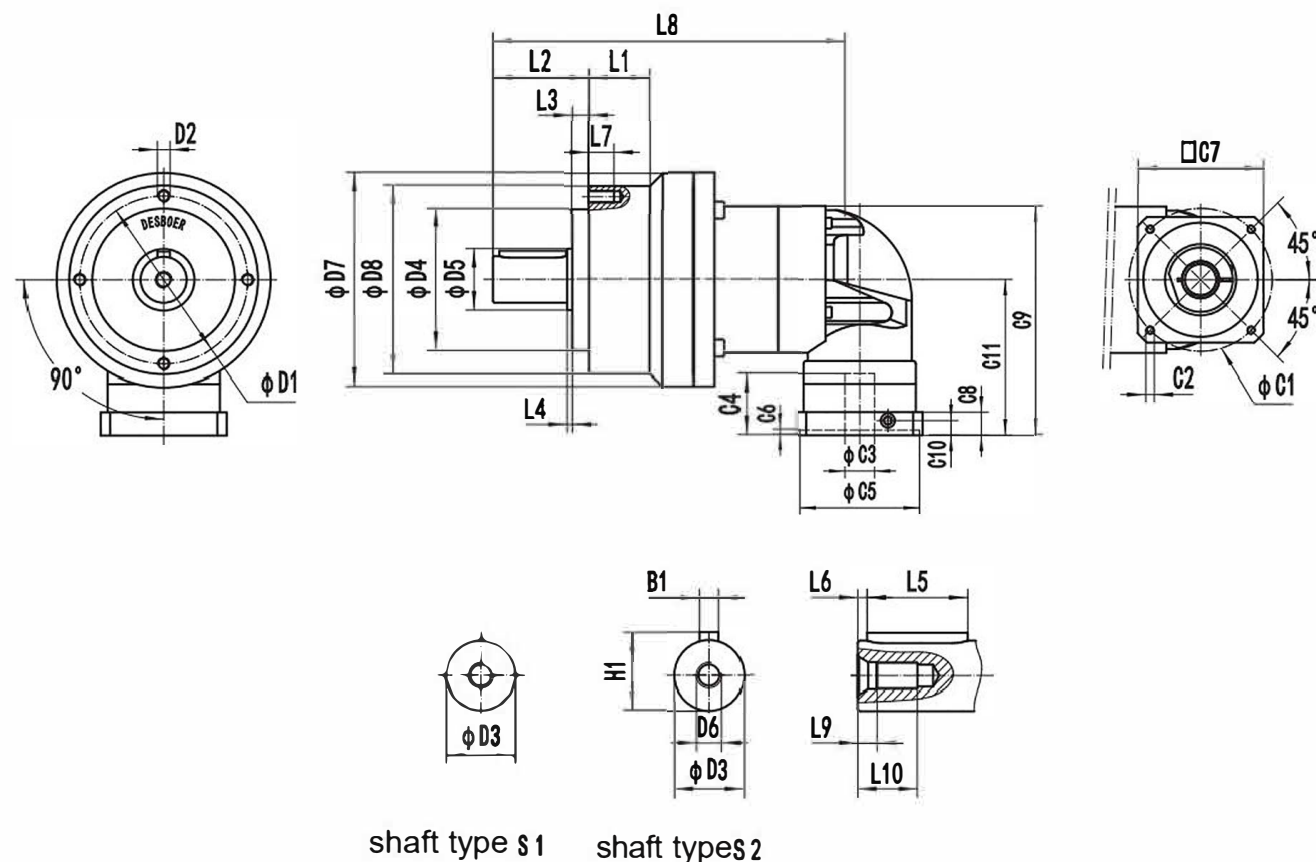
Gearbox performance data

Segment number		Single segment									
Ratio	i	3	4	5	6	7	8	9	10	14	20
Rated output torque	Nm	30	45	55	50	45	40	35	55	35	35
Emergency stop torque	Nm	Three times of Maximum Output Torque									
Rated input speed	rpm	5000									
Max input speed	rpm	10000									
Ultraprecise backlash	arcmin	—									
Precise backlash	arcmin	≤4									
Standard backlash	arcmin	≤6									
Torsional rigidity	Nm/arcmin	7									
Max. radial Force	N	1377									
Max. axial Force	N	765									
Service Life	hr	20000 (10000 under continuous operation)									
Efficiency	%	≥95%									
Weight	kg	2.1									
Operating Temperature	℃	-10℃ ~ +90℃									
Lubrication		Synthetic grease									
Protection Class		IP64									
Mounting Position		All directions									
Noise Level I (N1=3000rpm, Non-Loaded)	dB (A)	≤63									
Rotary inertia	Kg · cm ²	0.35									0.07

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

▲ Measured in the shaft center when the output speed is 100rpm

NER070Series



(Unit: mm)

NER070	D1	D2	D3	D4	D5	D6		D7	D8	B1	H1
	62	M5 × 0.8P	16	52	22	M5 × 0.8P		70	70	5	18
	L1	L2	L3	L4	L5	L6		L7	L8	L9	L10
	—	36	6.5	1	25	2		10	167.5	4.8	12.5
	C1*	C2*	C3*	C4*	C5*	C6*	C7*	C8*	C9*	C10*	C11*
	46	M4 × 0.7P	≤12	30	30	3.5	48	19.5	109	13.25	74

*Dimensions based on servo-motor, please contact us for custom made order.

Parameter

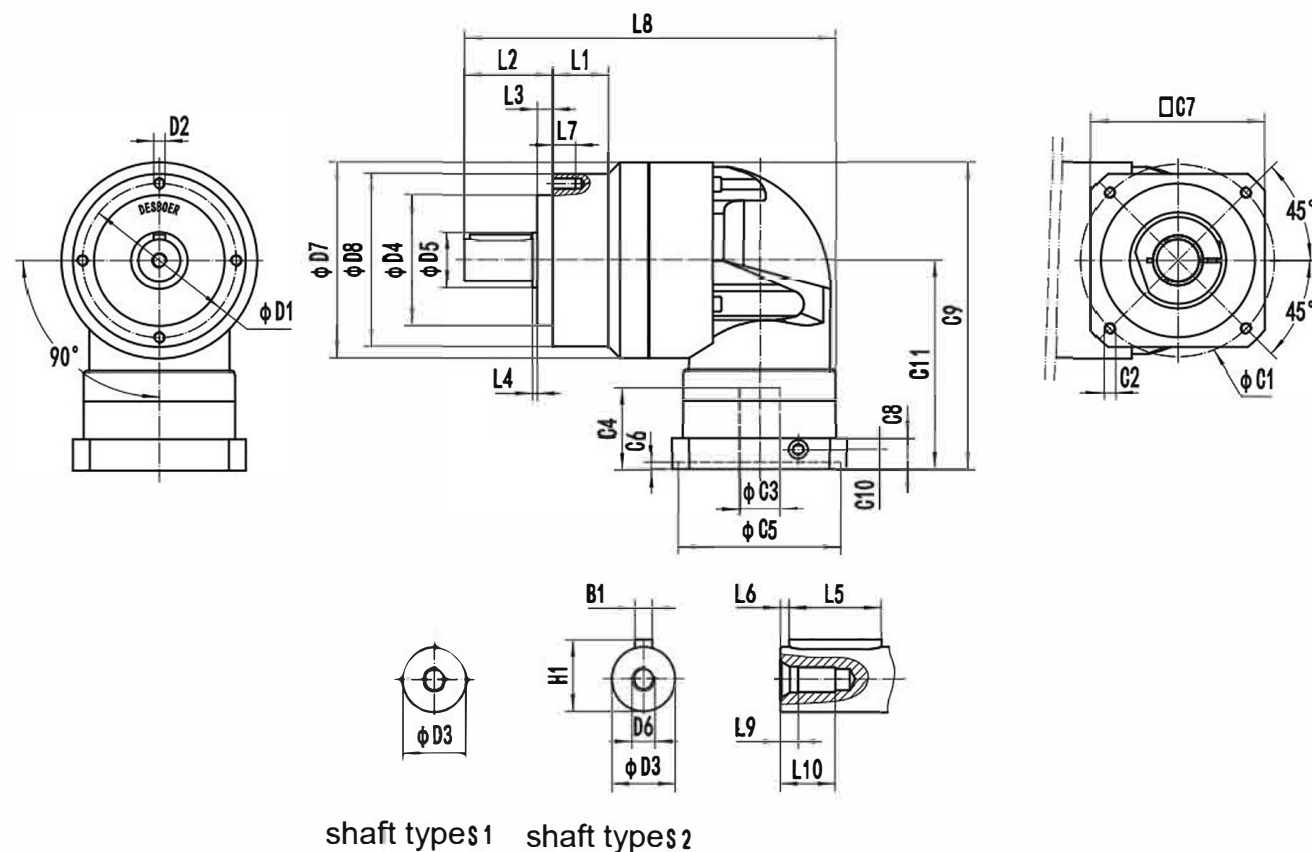
Gearbox performance data

Segment number		Double segment															
Ratio	i	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200
Rated output torque	Nm	55	50	45	40	35	55	50	45	40	35	35	—	—	—	—	—
Emergency stop torque	Nm	Three times of Maximum Output Torque															
Rated input speed	rpm	5000															
Max input speed	rpm	10000															
Ultraprecise backlash	arcmin	—															
Precise backlash	arcmin	≤7															
Standard backlash	arcmin	≤9															
Torsional rigidity	Nm/arcmin	7															
Max. radial Force	N	1377															
Max. axial Force	N	765															
Service Life	hr	20000 (10000 under continuous operation)															
Efficiency	%	≥92%															
Weight	kg	2															
Operating Temperature	℃	-10℃ ~ +90℃															
Lubrication		Synthetic grease															
Protection Class		IP64															
Mounting Position		All directions															
Noise Level I (N1=3000rpm, Non-Loaded)	dB (A)	≤63															
Rotary inertia	Kg · cm ²	0.09	0.1	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	—	—	—	—	—

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

▲ Measured in the shaft center when the output speed is 100rpm

NER090 Series



shaft types 1 shaft types 2

(Unit: mm)

NER090	D1	D2	D3	D4	D5	D6		D7	D8	B1	H1
	80	M6 × 1P	22	68	30	M8 × 1.25P		104	90	6	24.5
	L1	L2	L3	L4	L5	L6		L7	L8	L9	L10
	33.5	46	8.5	1	32	3		12	201	7.2	19
	C1*	C2*	C3*	C4*	C5*	C6*	C7*	C8*	C9*	C10*	C11*
	100	M6 × 1P	≤19/≤24	40	80	4	90	17	159.5	10.75	107.5

*Dimensions based on servo-motor, please contact us for custom made order.

NER090 Series

Parameter

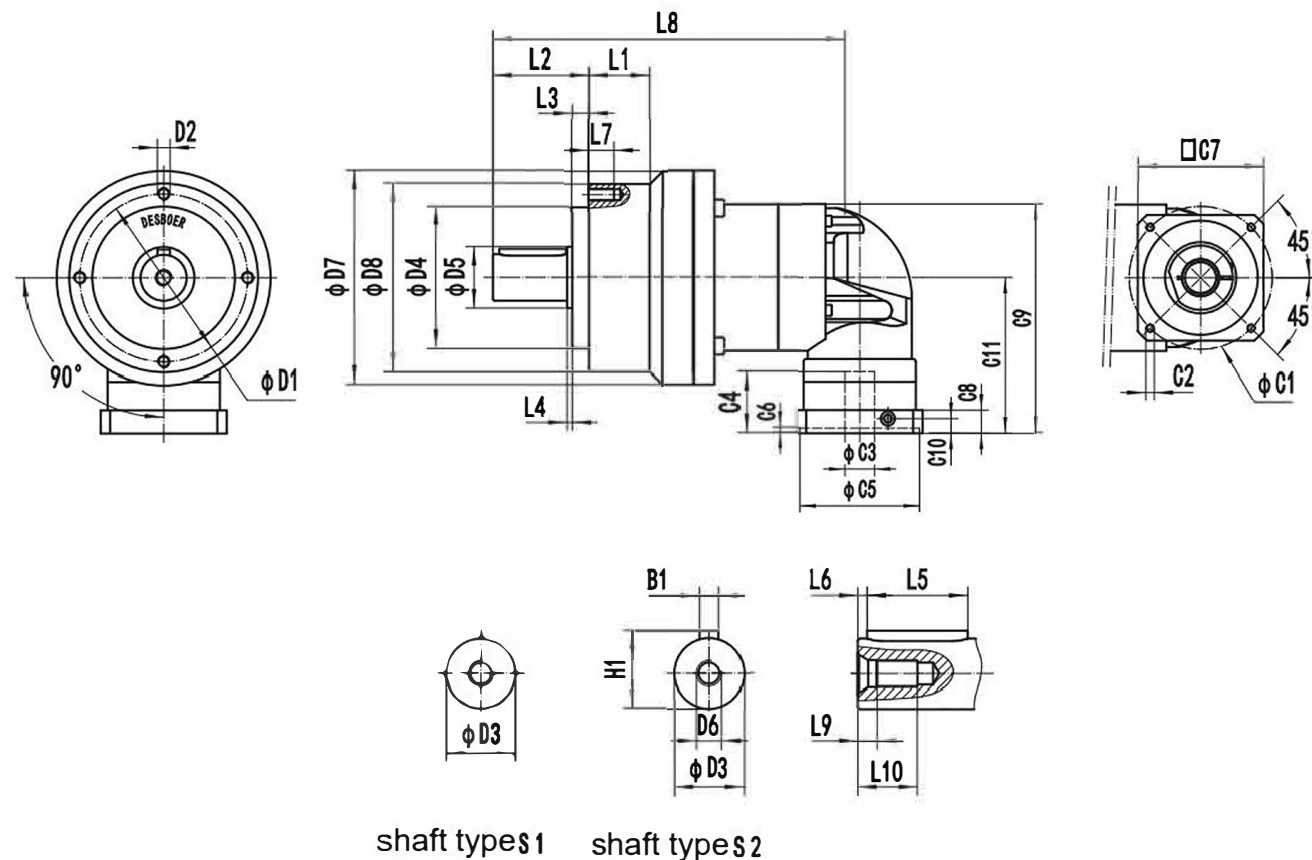
Gearbox performance data

Segment number		Single segment									
Ratio	i	3	4	5	6	7	8	9	10	14	20
Rated output torque	Nm	85	110	140	140	130	110	95	140	130	95
Emergency stop torque	Nm	Three times of Maximum Output Torque									
Rated input speed	rpm	4000									
Max input speed	rpm	8000									
Ultraprecise backlash	arcmin	≤2									
Precise backlash	arcmin	≤4									
Standard backlash	arcmin	≤6									
Torsional rigidity	Nm/arcmin	14									
Max. radial Force	N	2985									
Max. axial Force	N	1625									
Service Life	hr	20000 (10000 under continuous operation)									
Efficiency	%	≥95%									
Weight	kg	5.8									
Operating Temperature	℃	-10℃ ~ +90℃									
Lubrication		Synthetic grease									
Protection Class		IP64									
Mounting Position		All directions									
Noise Level I (N1=3000rpm, Non-Loaded)	dB (A)	≤65									
Rotary inertia	Kg · cm ²	2.25									1.87

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

▲ Measured in the shaft center when the output speed is 100rpm

NER090 Series



(Unit: mm)

NER090	D1	D2	D3	D4	D5	D6		D7	D8	B1	H1
	80	M6 × 1P	22	68	30	M8 × 1.25P		104	90	6	24.5
	L1	L2	L3	L4	L5	L6		L7	L8	L9	L10
	33.5	46	8.5	1	32	3		12	207.5	7.2	19
	C1*	C2*	C3*	C4*	C5*	C6*	C7*	C8*	C9*	C10*	C11*
	70	M5 × 0.8P	≤ 14/≤ 16	34	50	8	60	19	133.5	13.5	81.5

*Dimensions based on servo-motor, please contact us for custom made order.

Parameter

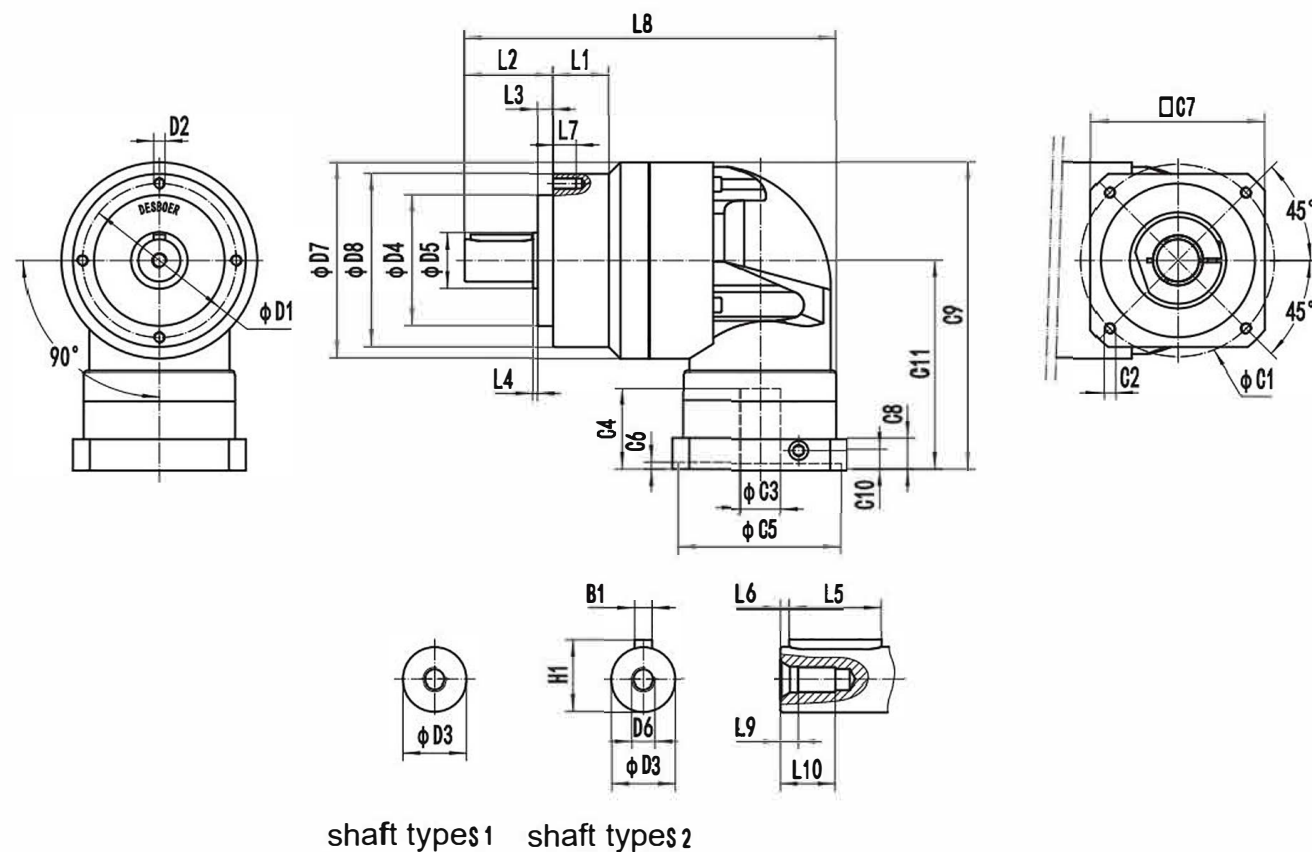
Gearbox performance data

Segment number		Double segment															
Ratio	i	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200
Rated output torque	Nm	140	140	130	110	95	95	140	130	110	95	95	140	130	110	95	95
Emergency stop torque	Nm	Three times of Maximum Output Torque															
Rated input speed	rpm	4000															
Max input speed	rpm	8000															
Ultraprecise backlash	arcmin	≤4															
Precise backlash	arcmin	≤7															
Standard backlash	arcmin	≤9															
Torsional rigidity	Nm/arcmin	14															
Max. radial Force	N	2985															
Max. axial Force	N	1625															
Service Life	hr	20000 (10000 under continuous operation)															
Efficiency	%	≥92%															
Weight	kg	4.6															
Operating Temperature	℃	-10℃ ~ +90℃															
Lubrication		Synthetic grease															
Protection Class		IP64															
Mounting Position		All directions															
Noise Level I (N1=3000rpm, Non-Loaded)	dB (A)	≤65															
Rotary inertia	Kg · cm ²	0.35								0.31							

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

▲ Measured in the shaft center when the output speed is 100rpm

NER120 Series



(Unit: mm)

NER120	D1	D2	D3	D4	D5	D6		D7	D8	B1	H1
	108	M8×1.25P	32	90	40	M12×1.75P		130	120	10	35
	L1	L2	L3	L4	L5	L6		L7	L8	L9	L10
	38	70	17.5	1.5	40	5		16	252	10	28
	C1*	C2*	C3*	C4*	C5*	C6*	C7*	C8*	C9*	C10*	C11*
	130	M8×1.25P	≤35	50	110	5	115	19.5	199	13	134

*Dimensions based on servo-motor, please contact us for custom made order.

NER120 Series

Parameter

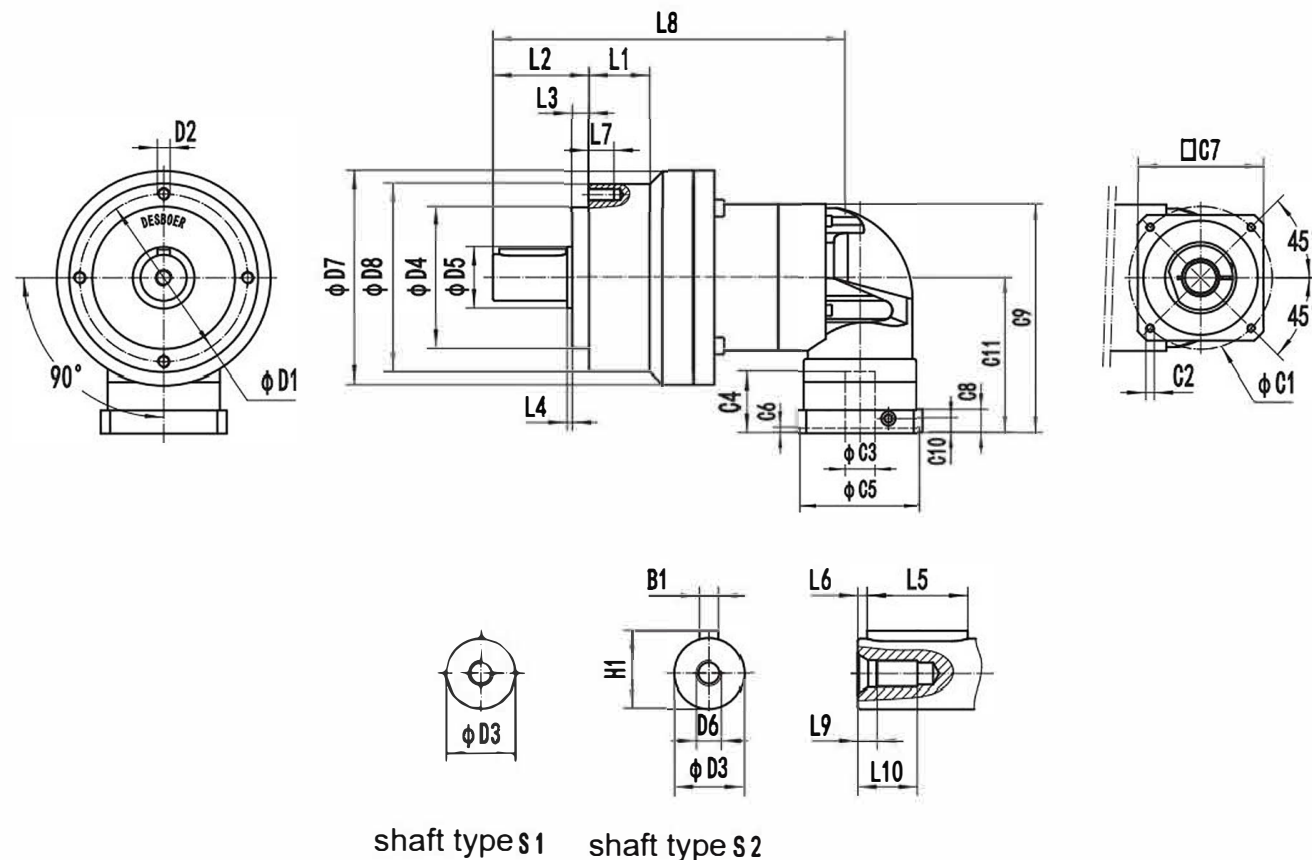
Gearbox performance data

Segment number		Single segment									
Ratio	i	3	4	5	6	7	8	9	10	14	20
Rated output torque	Nm	180	240	300	290	280	240	210	300	280	210
Emergency stop torque	Nm	Three times of Maximum Output Torque									
Rated input speed	rpm	4000									
Max input speed	rpm	8000									
Ultraprecise backlash	arcmin	≦2									
Precise backlash	arcmin	≦4									
Standard backlash	arcmin	≦6									
Torsional rigidity	Nm/arcmin	25									
Max. radial Force	N	6100									
Max. axial Force	N	3350									
Service Life	hr	20000 (10000 under continuous operation)									
Efficiency	%	≧95%									
Weight	kg	11.2									
Operating Temperature	℃	-10℃ ~ +90℃									
Lubrication		Synthetic grease									
Protection Class		IP64									
Mounting Position		All directions									
Noise Level I (N1=3000rpm,Non-Loaded)	dB (A)	≦68									
Rotary inertia	Kg · cm²	6.84									6.25

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

▲ Measured in the shaft center when the output speed is 100rpm

NER120Series



(Unit: mm)

NER120	D1	D2	D3	D4	D5	D6		D7	D8	B1	H1
	108	M8 × 1.25P	32	90	40	M12 × 1.75P		130	120	10	35
	L1	L2	L3	L4	L5	L6		L7	L8	L9	L10
	38	70	17.5	1.5	40	5		16	283	10	28
	C1*	C2*	C3*	C4*	C5*	C6*	C7*	C8*	C9*	C10*	C11*
	100	M6 × 1P	≤ 19/≤ 24	40	80	4	90	17	172.5	10.75	107.5

*Dimensions based on servo-motor, please contact us for custom made order.

NER120 Series

Parameter

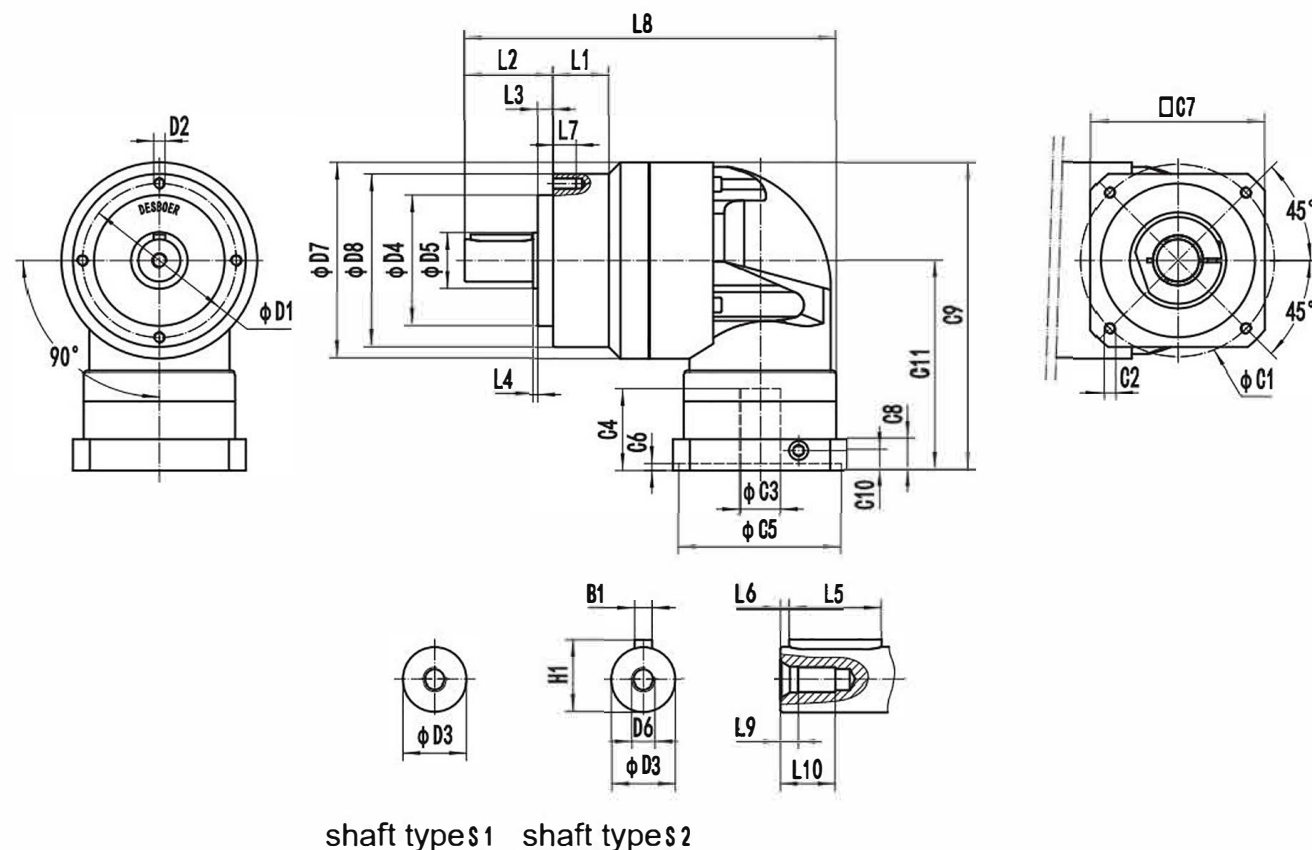
Gearbox performance data

Segment number		Double segment															
Ratio	i	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200
Rated output torque	Nm	300	290	280	240	210	210	290	280	240	210	210	290	280	240	210	210
Emergency stop torque	Nm	Three times of Maximum Output Torque															
Rated input speed	rpm	4000															
Max input speed	rpm	8000															
Ultraprecise backlash	arcmin	≤ 4															
Precise backlash	arcmin	≤ 7															
Standard backlash	arcmin	≤ 9															
Torsional rigidity	Nm/arcmin	25															
Max. radial Force	N	6100															
Max. axial Force	N	3350															
Service Life	hr	20000 (10000 under continuous operation)															
Efficiency	%	≥ 92%															
Weight	kg	11.1															
Operating Temperature	℃	-10℃ ~ +90℃															
Lubrication		Synthetic grease															
Protection Class		IP64															
Mounting Position		All directions															
Noise Level I (N1=3000rpm, Non-Loaded)	dB (A)	≤ 68															
Rotary inertia	Kg · cm ²	2.25								1.87							

★ Maximum Output Torque $T_{2B} = 60\% \times T_{2NOT}$

▲ Measured in the shaft center when the output speed is 100rpm

NER155Series



shaft types1 shaft types2

(Unit : mm)

NER155	D1	D2	D3	D4	D5	D6		D7	D8	B1	H1
	140	M10×1.5P	40	120	75	M16×2P		162	155	12	43
	L1	L2	L3	L4	L5	L6		L7	L8	L9	L10
	50	97	15	3	63	5		20	324.5	12	36
	C1*	C2*	C3*	C4*	C5*	C6*	C7*	C8*	C9*	C10*	C11*
	165	M10×1.5P	≤42	60	130	6	142	22.5	245.5	15	164.5

*Dimensions based on servo-motor, please contact us for custom made order.

NER155 Series

Parameter

Gearbox performance data

Segment number		Single segment									
Ratio	i	3	4	5	6	7	8	9	10	14	20
Rated output torque	Nm	320	490	620	570	520	470	420	620	520	420
Emergency stop torque	Nm	Three times of Maximum Output Torque									
Rated input speed	rpm	3000									
Max input speed	rpm	6000									
Ultraprecise backlash	arcmin	≤2									
Precise backlash	Nm/arcmin	≤4									
Standard backlash	N	≤6									
Torsional rigidity	N	50									
Max. radial Force	hr	8460									
Max. axial Force	%	4700									
Service Life	kg	20000 (10000 under continuous operation)									
Efficiency	°C	≥95%									
Weight		22.4									
Operating Temperature		-10°C ~ +90°C									
Lubrication		Synthetic grease									
Protection Class	dB (A)	IP64									
Mounting Position	Kg · cm ²	All directions									
Noise Level I (N1=3000rpm, Non-Loaded)		≤70									
Rotary inertia		23.4									21.8

★ Maximum Output Torque $T_{2B} = 60\% \times T_{2NOT}$

▲ Measured in the shaft center when the output speed is 100rpm

NER155 Series

Parameter

Gearbox performance data

Segment number		Double segment															
Ratio	i	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200
Rated output torque	Nm	610	570	520	470	420	610	570	520	470	420	420	570	520	520	420	420
Emergency stop torque	Nm	Three times of Maximum Output Torque															
Rated input speed	rpm	3000															
Max input speed	rpm	6000															
Ultraprecise backlash	arcmin	≤4															
Precise backlash	arcmin	≤7															
Standard backlash	arcmin	≤9															
Torsional rigidity	Nm/arcmin	50															
Max. radial Force	N	8460															
Max. axial Force	N	4700															
Service Life	hr	20000 (10000 under continuous operation)															
Efficiency	%	≥92%															
Weight	kg	21.8															
Operating Temperature	℃	-10℃ ~ +90℃															
Lubrication		Synthetic grease															
Protection Class		IP64															
Mounting Position		All directions															
Noise Level I (N1=3000rpm,Non-Loaded)	dB (A)	≤70															
Rotary inertia	Kg · cm²	6.84								6.25							

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$
▲ Measured in the shaft center when the output speed is 100rpm

(Unit: mm)

NER155	D1	D2	D3	D4	D5	D6		D7	D8	B1	H1
	140	M10×1.5P	40	120	75	M16×2P		162	155	12	43
	L1	L2	L3	L4	L5	L6		L7	L8	L9	L10
	50	97	15	3	63	5		20	358	12	36
	C1*	C2*	C3*	C4*	C5*	C6*	C7*	C8*	C9*	C10*	C11*
	130	M8×1.25P	≤35	50	110	5	115	19.5	215	13	134

*Dimensions based on servo-motor,please contact us for custom made order.

NER205Series

Parameter

Gearbox
performance data

Segment number		Single segment									
Ratio	i	3	4	5	6	7	8	9	10	14	20
Rated output torque	Nm	550	980	1140	1040	1040	950	850	1140	1040	850
Emergency stop torque	Nm	Three times of Maximum Output Torque									
Rated input speed	rpm	3000									
Max input speed	rpm	6000									
Ultraprecise backlash	arcmin	≤2									
Precise backlash	arcmin	≤4									
Standard backlash	arcmin	≤6									
Torsional rigidity	Nm/arcmin	145									
Max. radial Force	N	13050									
Max. axial Force	N	7250									
Service Life	hr	20000 (10000 under continuous operation)									
Efficiency	%	≥95%									
Weight	kg	46.8									
Operating Temperature	℃	-10℃ ~ +90℃									
Lubrication		Synthetic grease									
Protection Class		IP64									
Mounting Position		All directions									
Noise Level I (N1=3000rpm,Non-Loaded)	dB (A)	≤72									
Rotary inertia	Kg · cm²	68.9									65.6

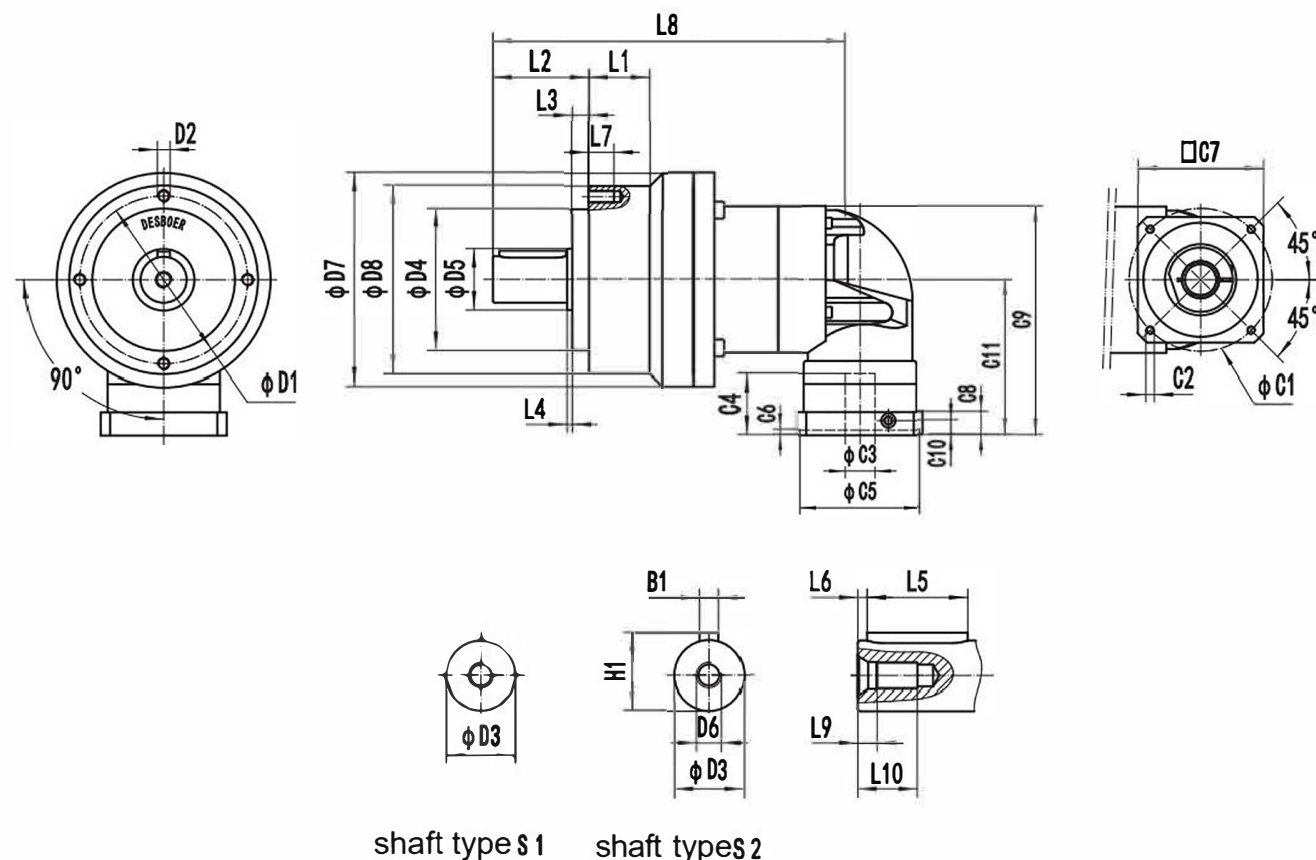
★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$
▲ Measured in the shaft center when the output speed is 100rpm

(Unit: mm)

NER205	D1	D2	D3	D4	D5	D6		D7	D8	B1	H1
	184	M12×1.75P	55	160	95	M20×2.5P		205	205	16	59
	L1	L2	L3	L4	L5	L6		L7	L8	L9	L10
	—	100	15	3	70	6		22	379.5	15	42
	C1*	C2*	C3*	C4*	C5*	C6*	C7*	C8*	C9*	C10*	C11*
	215	M12×1.75P	≤55	85	180	6	190	29	316	20.75	213.5

*Dimensions based on servo-motor,please contact us for custom made order.

NER205 Series



shaft type \$1 shaft types 2

(Unit: mm)

NER205	D1	D2	D3	D4	D5	D6		D7	D8	B1	H1
	184	M12×1.75P	55	160	95	M20×2.5P		205	205	16	59
	L1	L2	L3	L4	L5	L6		L7	L8	L9	L10
	—	100	15	3	70	6		22	422.5	15	42
	C1*	C2*	C3*	C4*	C5*	C6*	C7*	C8*	C9*	C10*	C11*
	165	M10×1.5P	≤42	60	130	6	142	22.5	267	15	164.5

*Dimensions based on servo-motor, please contact us for custom made order.

Parameter

Gearbox performance data

Segment number		Double segment															
Ratio	i	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200
Rated output torque	Nm	1140	1040	1040	950	850	1140	1040	1040	950	850	850	1040	1040	950	850	850
Emergency stop torque	Nm	Three times of Maximum Output Torque															
Rated input speed	rpm	3000															
Max input speed	rpm	6000															
Ultraprecise backlash	arcmin	≤4															
Precise backlash	arcmin	≤7															
Standard backlash	arcmin	≤9															
Torsional rigidity	Nm/arcmin	145															
Max. radial Force	N	13050															
Max. axial Force	N	7250															
Service Life	hr	20000 (10000 under continuous operation)															
Efficiency	%	≥92%															
Weight	kg	43.7															
Operating Temperature	℃	-10℃ ~ +90℃															
Lubrication		Synthetic grease															
Protection Class		IP64															
Mounting Position		All directions															
Noise Level I (N1=3000rpm, Non-Loaded)	dB (A)	≤72															
Rotary inertia	Kg · cm ²	23.4								21.8							

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

▲ Measured in the shaft center when the output speed is 100rpm