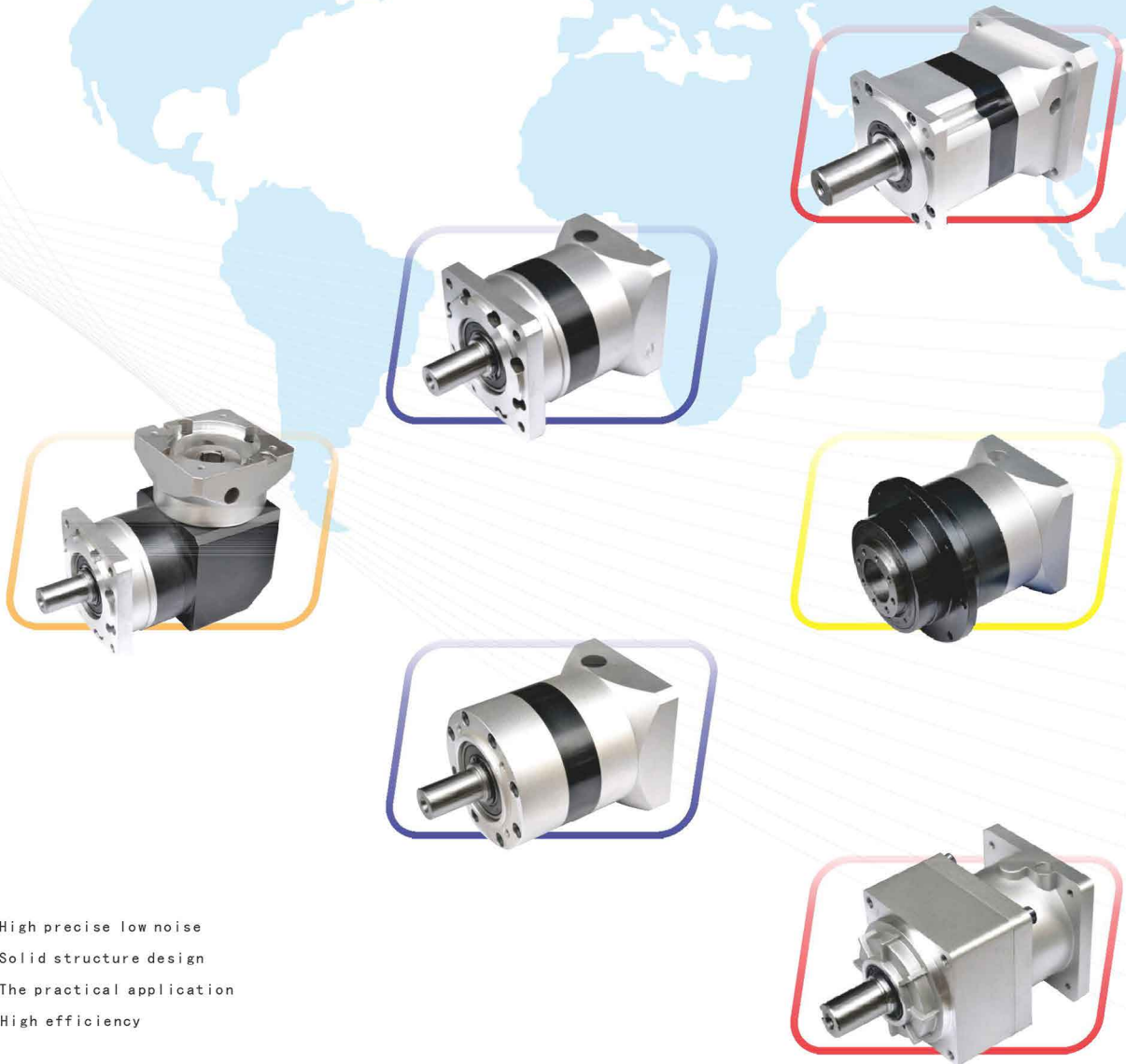


Precision Planetary Gearbox

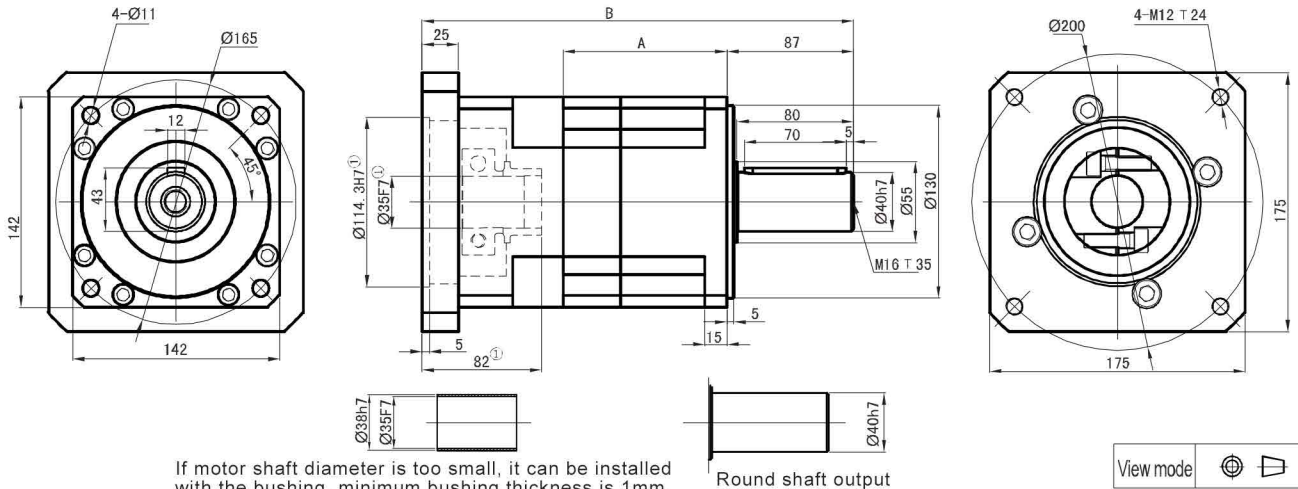


High precise low noise
Solid structure design
The practical application
High efficiency

伍勒斯精密机械有限公司
WOOLARS PRECISION MACHINERY CO., LIMITED

2018版
Product catalogue
welcome to consult for more information

PLX142



If motor shaft diameter is too small, it can be installed with the bushing, minimum bushing thickness is 1mm.

Round shaft output

Stage	Stage 1 (i: 3 4 5 8)		Stage 2 (i: 12 16 20 25 32 40 64)		Stage 3 (i: 60 64 80 100 120 160 200 256 320 512)	
	A	B	A	B	A	B
Length(mm)	112.0	296.0	151.0	335.0	190.0	374.0
Rated input speed(rpm)	3000		3000		3000	
Maximum input speed(rpm)	4500		4500		4500	
The maximum radial force(N) ^②	2200		2700		4650	
The maximum axial force(N) ^②	2300		3000		6200	
No load torque(Nm)	about 3.2		about 2.1		about 2.1	
Efficiency withfull load(%)	96		94		90	
Back lash(arcmin)	<12		<15		<18	
Noise(dB)	≤68		≤68		≤68	
Weight(Kg)	17.0		23.0		29.0	
Average lifetime(h)			>20000			
Torsional rigidity(Nm/arcmin)			27.0			
lubricant	Effective lubrication					
direction of rotation	The input and output to the same					
Protection level	IP65					
Installation	arbitrarily					

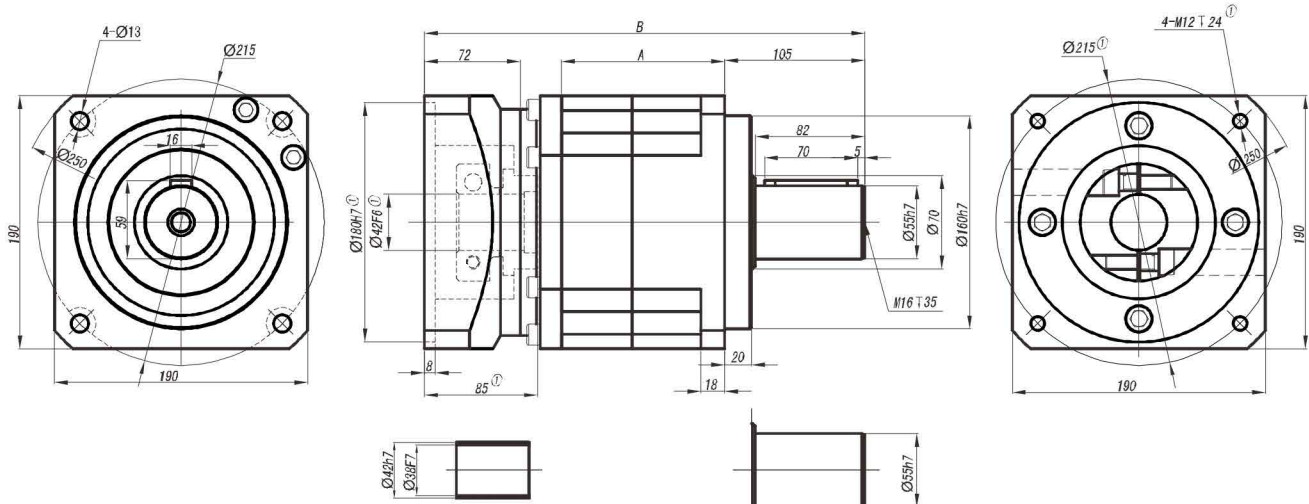
Ratio(i)	3	4	5	8	12	16	20	25	32	40	60	64 ^{Stage 2}	64 ^{Stage 3}	80
Rated output torque(Nm)	310.0	605.0	420.0	270.0	680.0	680.0	680.0	460.0	680.0	460.0	900.0	310.0	900.0	900.0
maximum output torque(Nm)	620.0	1210.0	840.0	540.0	1360.0	1360.0	1360.0	920.0	1360.0	920.0	1800.0	620.0	1800.0	1800.0
Moment of inertia(Kgcm ²)	6.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	6.31	4.84	4.93	4.93

Ratio(i)	100	120	160	200	256	320	512							
Rated output torque(Nm)	900.0	580.0	900.0	580.0	900.0	580.0	400.0							
maximum output torque(Nm)	1800.0	1160.0	1800.0	1160.0	1800.0	1160.0	800.0							
Moment of inertia(Kgcm ²)	4.93	4.84	4.84	4.84	4.84	4.84	4.84							

Subscript ①: We offer different adapter for different size of motors. Our speed reducer can be matched to any motor.

Subscript ②: The allowable radial force and axial force are measured at the center of the output shaft (at the 1/2 axis length, stressed at same time), when the output speed is 1 sate 100rpm, 2 stage 50rpm, 3 stage 10rpm.

PLX190



If motor shaft diameter is too small, it can be installed with the bushing, minimum bushing thickness is 1mm.

Round shaft output

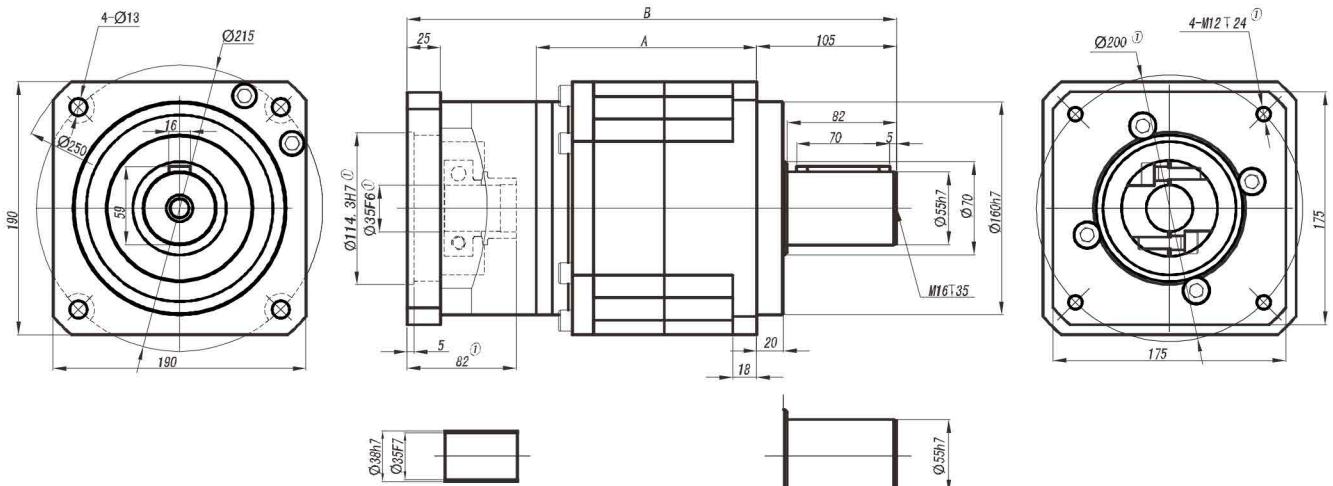
View mode

Stage	Stage 1 (i: 4 5 8)		Stage 2 (i: 16 20 25 32 40 64)	
	A	B	A	B
Length(mm)	112.5	300.5	175.5	383.5
Rated input speed(rpm)	2000		2000	
Maximum input speed(rpm)	4500		4500	
The maximum radial force(N) ^②	13000		16000	
The maximum axial force(N) ^②	20000		30000	
No load torque(Nm)	about 6.0		about 4.1	
Efficiency with full load(%)	96		94	
Back lash(arcmin)	<10		<18	
Noise(dB)	≤ 68		≤ 68	
Weight(Kg)	42.0		50.0	
Average lifetime(h)	>20000			
Torsional rigidity(Nm/arcmin)	68.0			
lubricant	Effective lubrication			
direction of rotation	The input and output to the same			
Protection level	IP65			
Installation	arbitrarily			

Ratio(i)	4	5	8	16	20	25	32	40	64					
Rated output torque(Nm)	1780.0	1345.0	745.0	2035.0	2035.0	1485.0	2035.0	1485.0	840.0					
maximum output torque(Nm)	3560.0	2690.0	1490.0	4070.0	4070.0	2970.0	4070.0	2970.0	1680.0					
Moment of inertia(Kgcm ²)	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6					

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PLX190



If motor shaft diameter is too small, it can be installed with the bushing, minimum bushing thickness is 1mm.

Round shaft output

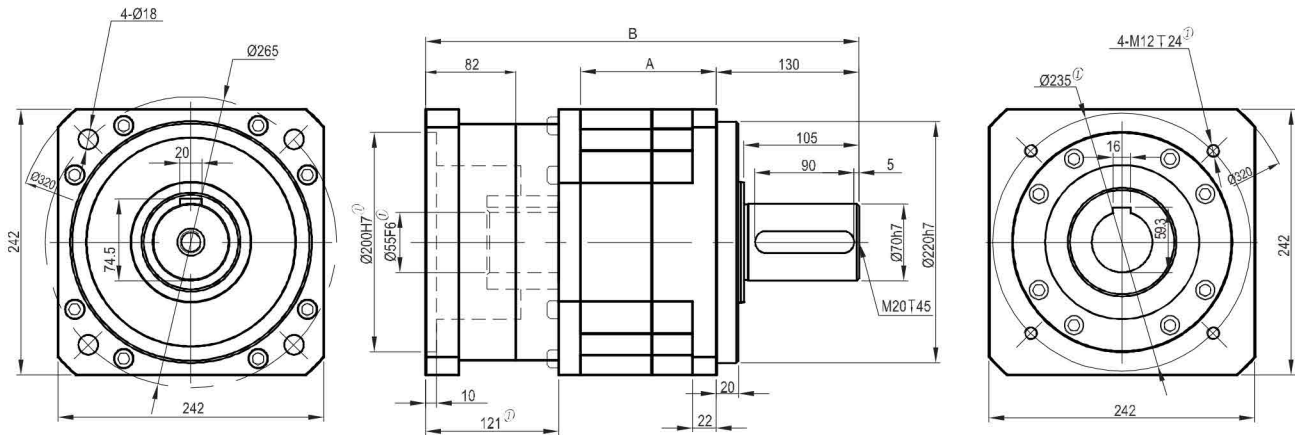


Stage	Stage 2 (i: 12 16 20 25 32 40 64)		Stage 3 (i: 64 80 100 125 160 200 256 320 512)			
	A	B	A	B		
Length(mm)	165.5	367.5	218.5	420.5		
Rated input speed(rpm)	3000		3000			
Maximum input speed(rpm)	4500		4500			
The maximum radial force(N) ^②	16000		26000			
The maximum axial force(N) ^②	30000		45000			
No load torque(Nm)	about 3.8		about 3.1			
Efficiency withfull load(%)	96		94			
Back lash(arcmin)	<10		<18			
Noise(dB)	≤ 68		≤ 68			
Weight(Kg)	43.0		48.0			
Average lifetime(h)	>20000					
Torsional rigidity(Nm/arcmin)	68.0					
lubricant	Effective lubrication					
direction of rotation	The input and output to the same					
Protection level	IP65					
Installation	arbitrarily					

Ratio(i)	12	16	20	25	32	40	64	64	80	100	125	160	200	256	320	512
Rated output torque(Nm)	2035.0	2035.0	2035.0	1485.0	2035.0	1485.0	840.0	2035.0	2590.0	2590.0	1855.0	2590.0	1855.0	2590.0	1855.0	1070.0
maximum output torque(Nm)	4070.0	4070.0	4070.0	2970.0	4070.0	2970.0	1680.0	4070.0	5180.0	5180.0	3710.0	5180.0	3710.0	5180.0	3710.0	2140.0
Moment of inertia(Kgcm ²)	6.31	5.15	4.93	4.93	4.84	4.84	4.84	6.31	4.93	4.93	4.93	4.84	4.84	4.84	4.84	4.84

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PLX242

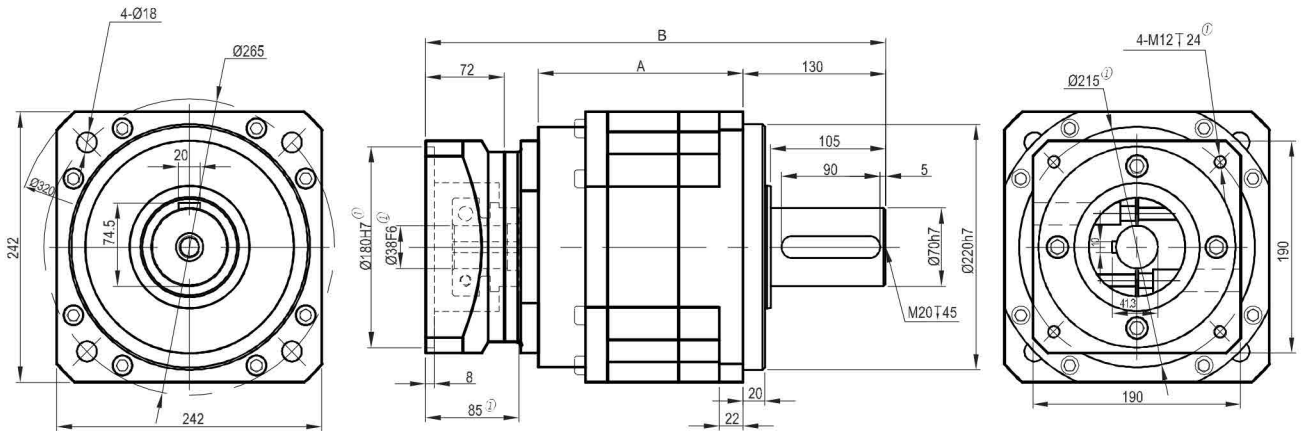


Stage	Stage 1 (i: 4 5 8)		Stage 2 (i: 16 20 25 32 40 64)	
	A	B	A	B
Length(mm)	124.0	395.0	211.0	482.0
Rated input speed(rpm)	2000		2000	
Maximum input speed(rpm)	4000		4000	
The maximum radial force(N) ^②	12000		15000	
The maximum axial force(N) ^②	6400		8600	
No load torque(Nm)	about 7.0		about 6.0	
Efficiency withfull load(%)	96		94	
Back lash(arcmin)	<12		<20	
Noise(dB)	≤70		≤70	
Weight(Kg)	71.0		88.0	
Average lifetime(h)	>20000			
Torsional rigidity(Nm/arcmin)	125			
lubricant	Effective lubrication			
direction of rotation	The input and output to the same			
Protection level	IP65			
Installation	arbitrarily			

Ratio(i)	4	5	8	16	20	25	32	40	64					
Rated output torque(Nm)	3200.0	2500.0	1360.0	3390.0	3390.0	2650.0	3390.0	2650.0	1450.0					
maximum output torque(Nm)	6400.0	5000.0	2720.0	6780.0	6780.0	5300.0	6780.0	5300.0	2900.0					
Moment of inertia(Kgcm ²)	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6					

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PLX242



View mode

Stage	Stage 2 (i: 16 20 25 32 40 64)		Stage 3 (i: 64 80 100 125 160 200 256 320 512)	
	A	B	A	B
Length(mm)	187.0	420.0	240.0	473.0
Rated input speed(rpm)	2000		2000	
Maximum input speed(rpm)	4500		4500	
The maximum radial force(N) ^②	15000		25000	
The maximum axial force(N) ^②	8600		12500	
No load torque(Nm)	about 5.0		about 5.0	
Efficiency with full load(%)	94		90	
Back lash(arcmin)	<20		<26	
Noise(dB)	≤70		≤70	
Weight(Kg)	75.0		92.0	
Average lifetime(h)	>20000			
Torsional rigidity(Nm/arcmin)	125			
lubricant	Effective lubrication			
direction of rotation	The input and output to the same			
Protection level	IP65			
Installation	arbitrarily			

Ratio(i)	16	20	25	32	40	64 ^{二級}	64 ^{三級}	80	100	125	160	200	256	320	512
Rated output torque(Nm)	3390.0	3420.0	2650.0	3390.0	2650.0	1450.0	3390.0	4420.0	3420.0	3420.0	4420.0	3420.0	4420.0	3420.0	1840.0
maximum output torque(Nm)	6780.0	6840.0	5300.0	6780.0	5300.0	2900.0	6780.0	8840.0	6840.0	6840.0	8840.0	6840.0	8840.0	6840.0	3680.0
Moment of inertia(Kgcm ²)	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6

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