



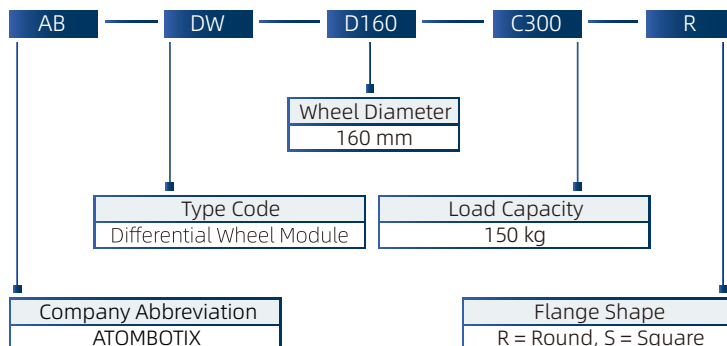
Differential Wheel Module



Overview

The differential drive wheel unit is a fundamental motion solution for AGVs and AMRs, using two independently driven wheels to achieve steering through speed differential. With a wheel diameter of 160 mm and a load capacity of 150 kg, the vehicle can perform forward and backward movement, turning, and in-place rotation with simple control logic and high reliability.

Model Nomenclature



Key Feature



Simple control principle

Differential speed control enables steering without steering additional mechanisms



Compact structure design

Integrated drive unit allows easy installation in various vehicle configurations



Cost-effective solution

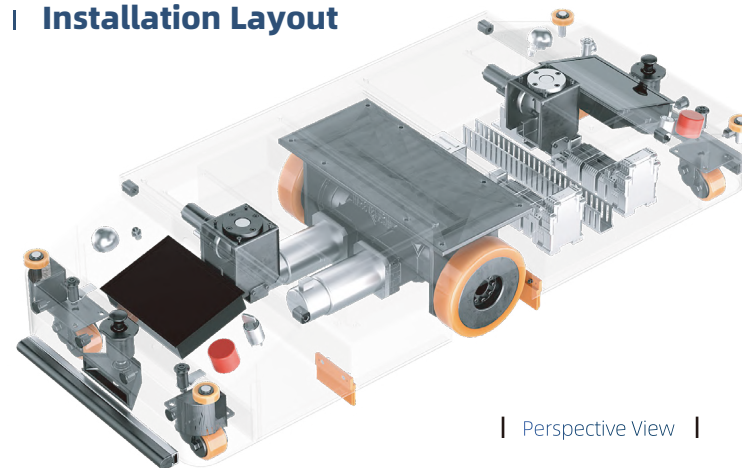
Fewer mechanical components reduce complexity of the system overall and cost



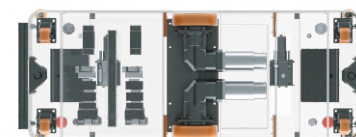
Reliable performance

Proven structure ensures stable operation and low maintenance requirements

Installation Layout



Perspective View



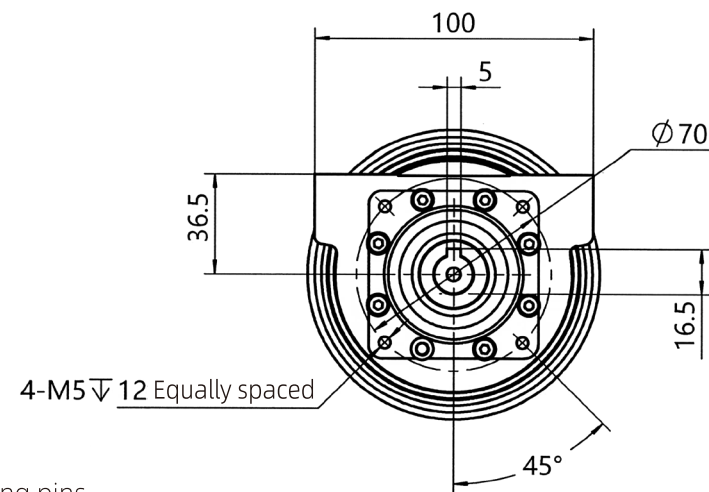
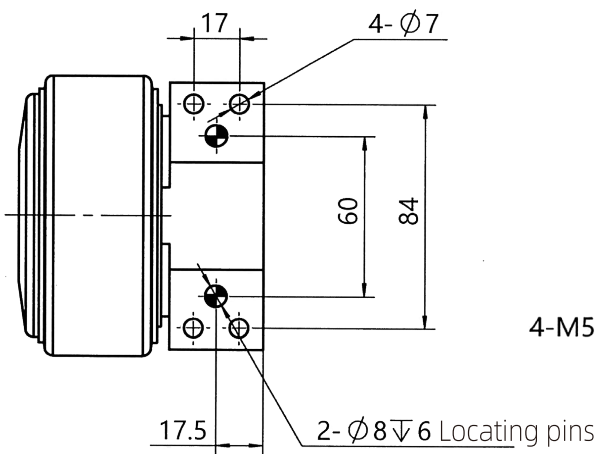
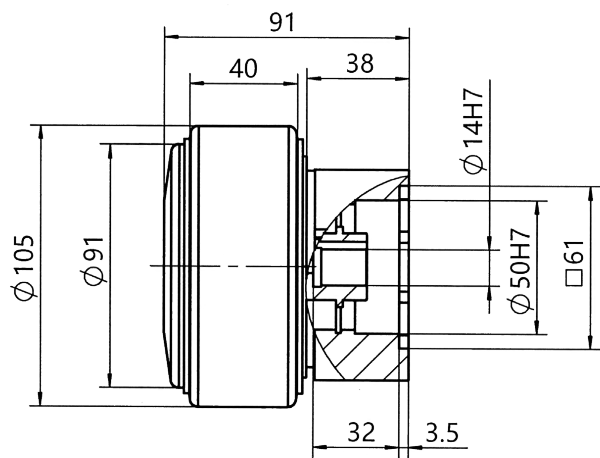
Bottom View



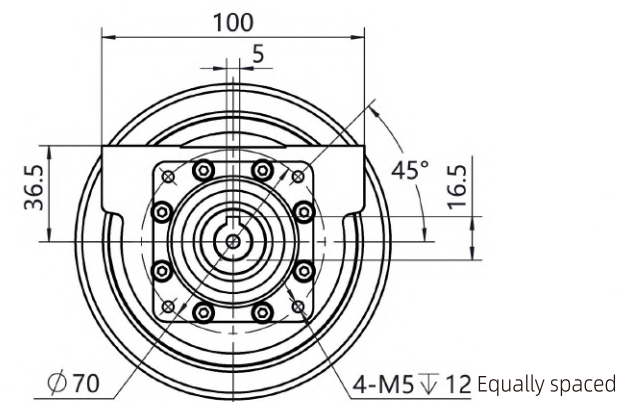
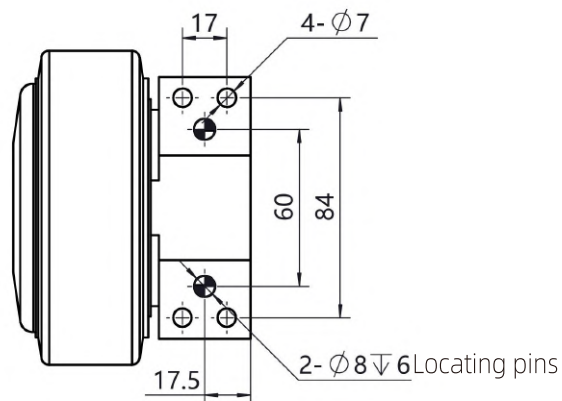
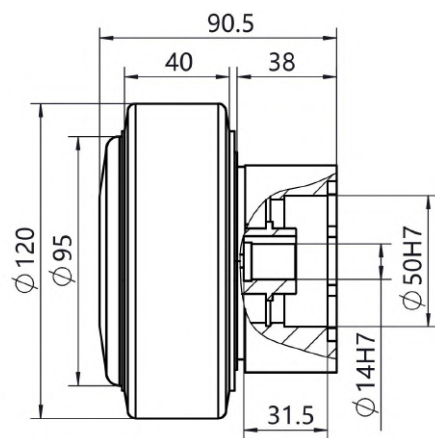
Side View



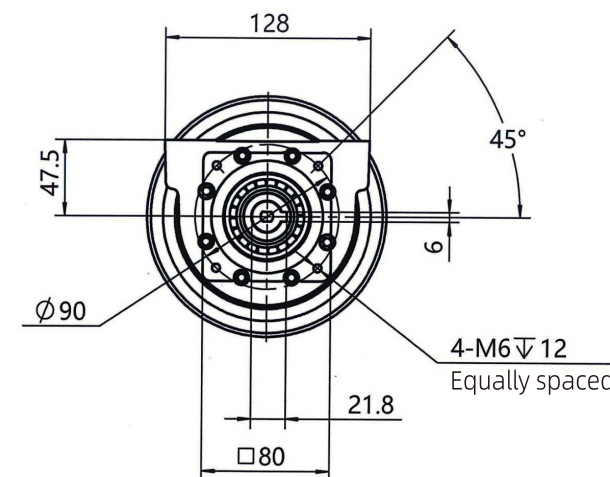
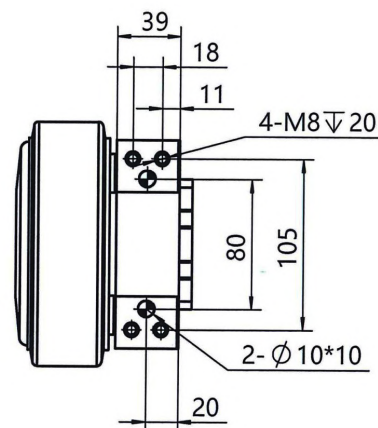
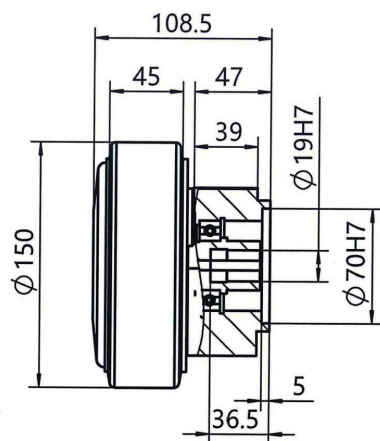
Basic Information								
Wheel Diameter(mm)	105							
Wheel Hub Diameter(mm)	95							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	150				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	40				/			
Flange Type	Square flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Vertical Center Distance(mm)	84							
Diameter of Fixing Holes (mm)	7							
Number of Fixing Holes (pcs)	4							
Horizontal Center Distance(mm)	17							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	30	30	33	30	33	30	33	21.5

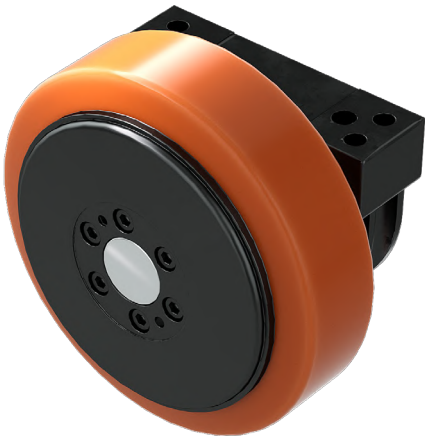


Basic Information								
Wheel Diameter(mm)	120							
Wheel Hub Diameter(mm)	95							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	150				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	40				/			
Flange Type	Square flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Vertical Center Distance(mm)	84							
Diameter of Fixing Holes (mm)	7							
Number of Fixing Holes (pcs)	4							
Horizontal Center Distance(mm)	17							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	30	30	33	30	33	30	33	21.5

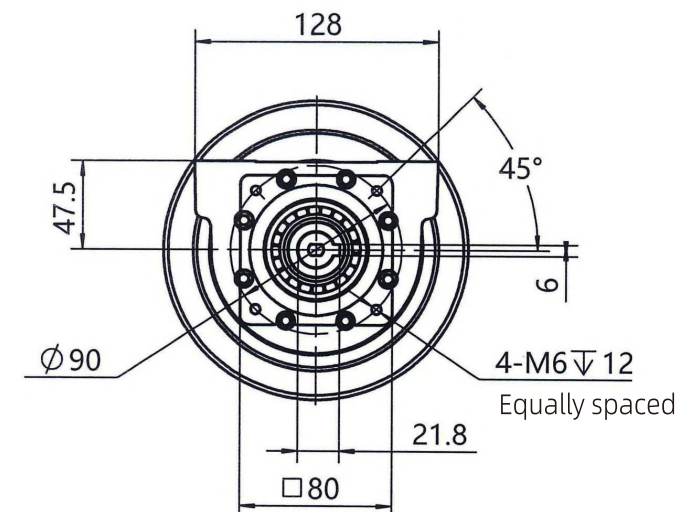


Basic Information								
Wheel Diameter(mm)	150							
Wheel Hub Diameter(mm)	125							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	300				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	45				/			
Flange Type	Square flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Vertical Center Distance(mm)	105							
Diameter of Fixing Holes (mm)	M8							
Number of Fixing Holes (pcs)	4							
Horizontal Center Distance(mm)	18							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	96	96	105	96	105	96	105	71.5

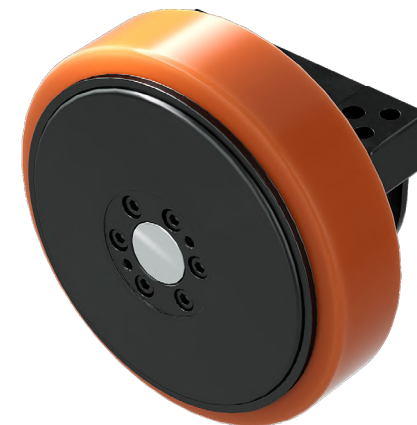
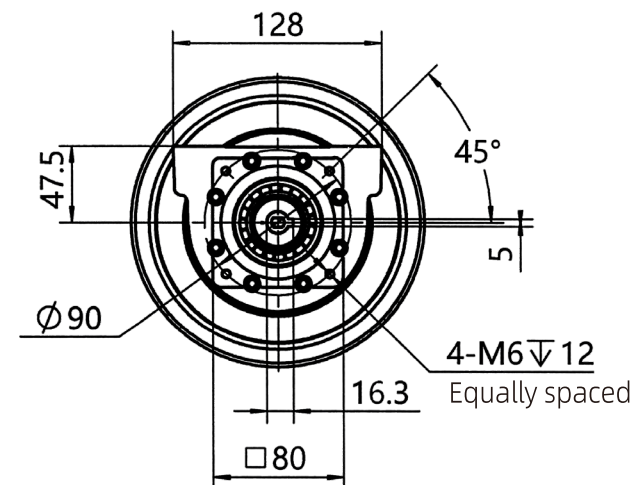
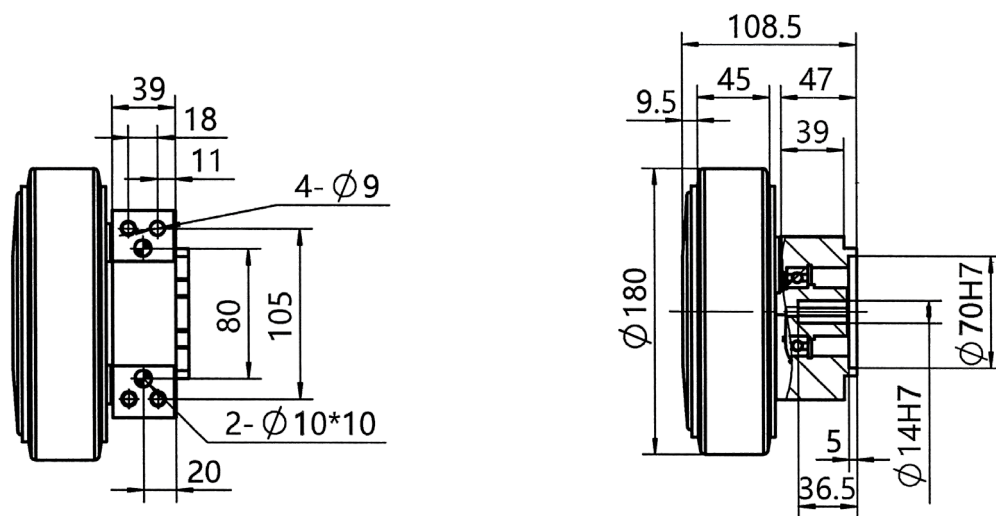




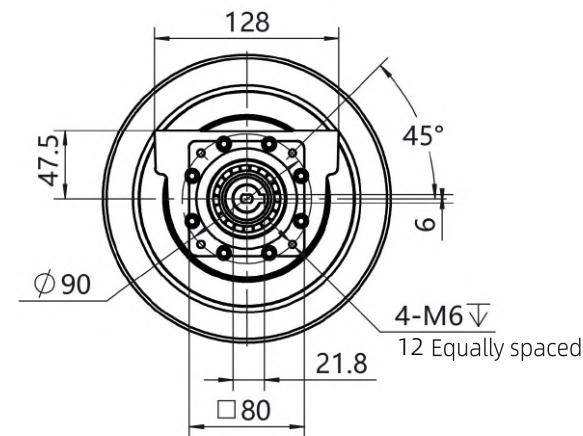
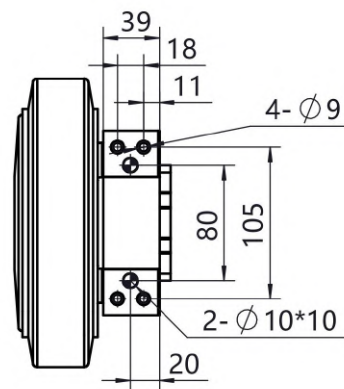
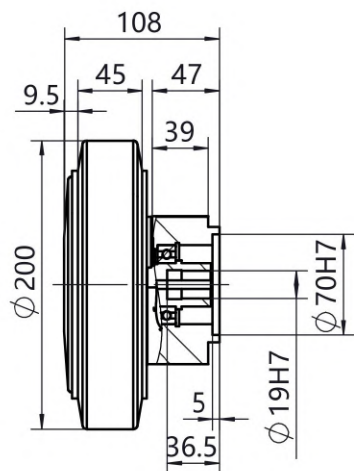
AB-DW-D160-C350-S	NO. 4
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Basic Information								
Wheel Diameter(mm)	180							
Wheel Hub Diameter(mm)	150							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	450				/			
Wheel Hardness (A)	90±5				/			
Wheel Width (mm)	45				/			
Flange Type	Square flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Vertical Center Distance(mm)	105							
Diameter of Fixing Holes (mm)	9							
Number of Fixing Holes (pcs)	4							
Horizontal Center Distance(mm)	18							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	96	96	105	96	105	96	105	71.5

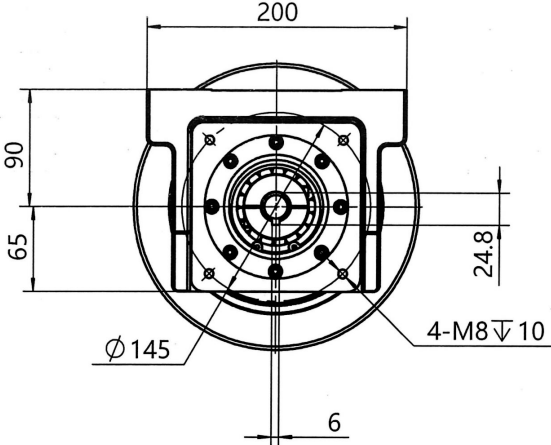
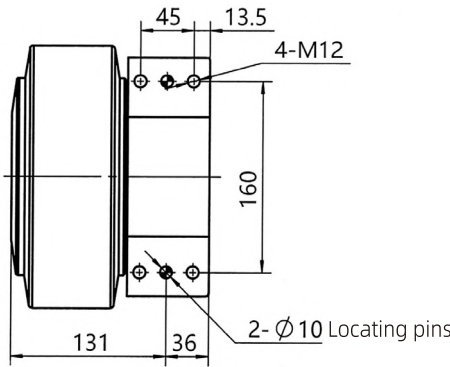
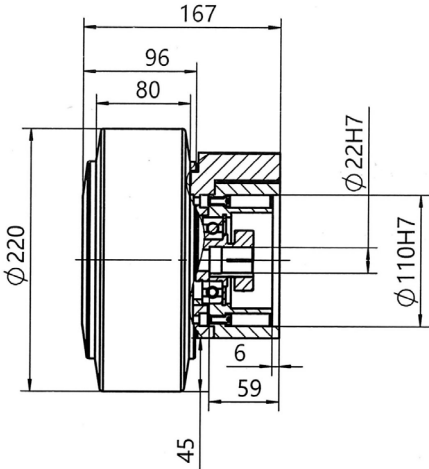

AB-DW-D180-C450-S
NO. 5

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Basic Information								
Wheel Diameter(mm)	200							
Wheel Hub Diameter(mm)	150							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	450				/			
Wheel Hardness (A)	90±5				/			
Wheel Width (mm)	45				/			
Flange Type	Square flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Vertical Center Distance(mm)	105							
Diameter of Fixing Holes (mm)	9							
Number of Fixing Holes (pcs)	4							
Horizontal Center Distance(mm)	18							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	96	96	105	96	105	96	105	71.5



Basic Information								
Wheel Diameter(mm)	220							
Wheel Hub Diameter(mm)	165							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	1120				700			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	80				/			
Flange Type	Square flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Vertical Center Distance(mm)	160							
Diameter of Fixing Holes (mm)	M12							
Number of Fixing Holes (pcs)	4							
Horizontal Center Distance(mm)	45							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	250	250	264	250	264	250	264	177

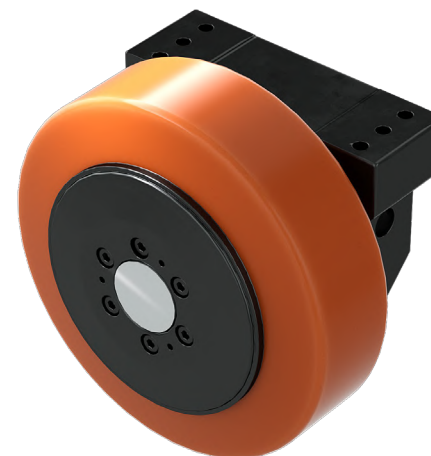
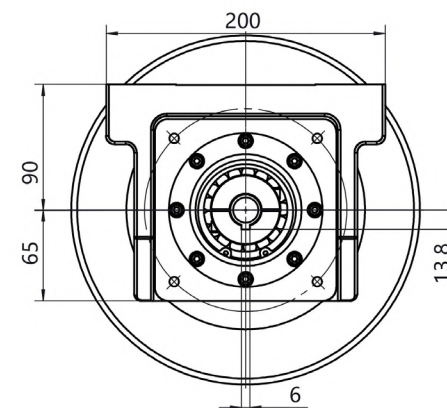
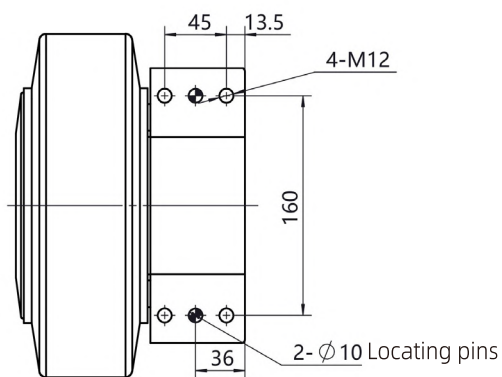
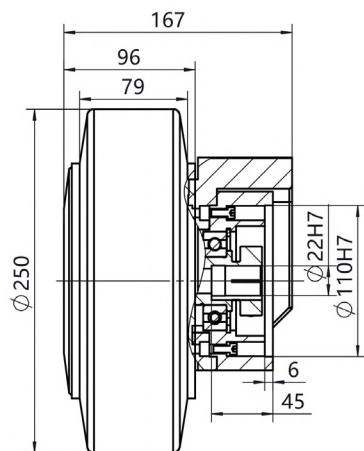
* Wheel material: Polyurethane (PU) standard, Rubber (RB) optional



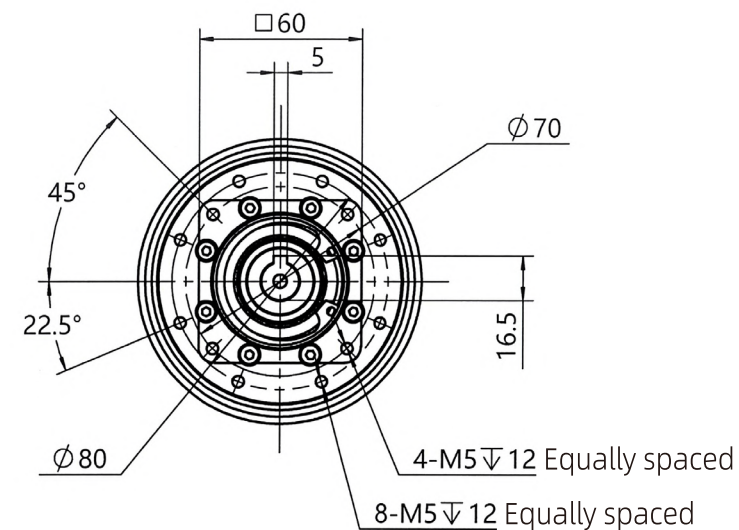
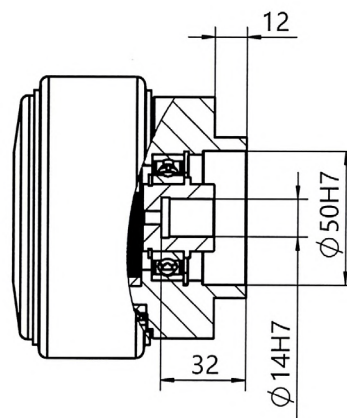
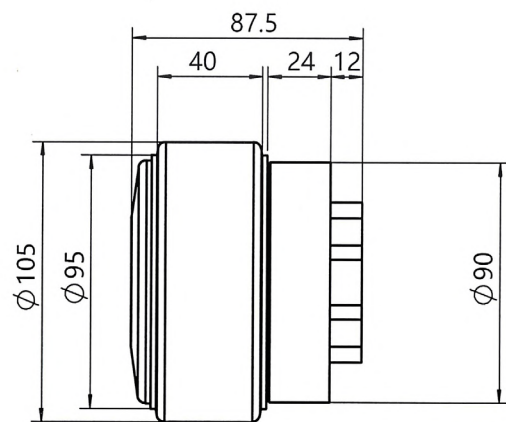
AB-DW-D220-C1120-S NO. 7



Basic Information								
Wheel Diameter(mm)	250							
Wheel Hub Diameter(mm)	165							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	1120				/			
Wheel Hardness (A)	90±5				/			
Wheel Width (mm)	79				/			
Flange Type	Square flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Vertical Center Distance(mm)	160							
Diameter of Fixing Holes (mm)	M12							
Number of Fixing Holes (pcs)	4							
Horizontal Center Distance(mm)	45							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	250	250	264	250	264	250	264	177

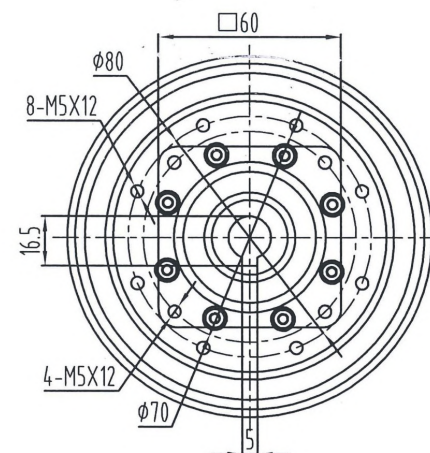
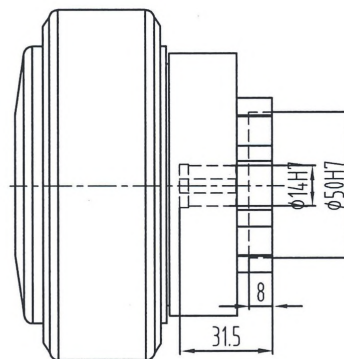
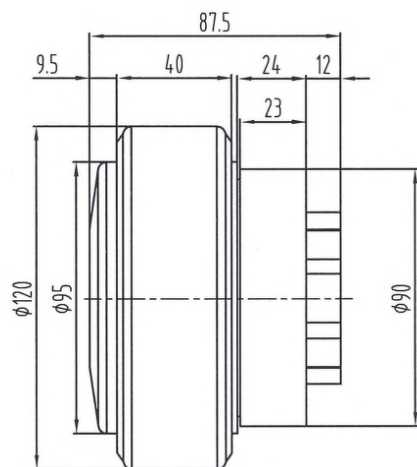

AB-DW-D250-C1120-S
NO. 8

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Basic Information								
Wheel Diameter(mm)	105							
Wheel Hub Diameter(mm)	95							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	150				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	40				/			
Flange Type	Square flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	80							
Diameter of Fixing Holes (mm)	M5							
Number of Fixing Holes (pcs)	8							
Depth of Fixing Holes (mm)	12							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	30	30	33	30	33	30	33	21.5


AB-DW-D105-C150-R
NO. 9


Basic Information								
Wheel Diameter(mm)	120							
Wheel Hub Diameter(mm)	95							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	400				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	40				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	80							
Diameter of Fixing Holes (mm)	M5							
Number of Fixing Holes (pcs)	8							
Depth of Fixing Holes (mm)	12							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	30	30	33	30	33	30	33	21.5

* Wheel material: Polyurethane (PU) standard, Rubber (RB) optional



AB-DW-D120-C400-R

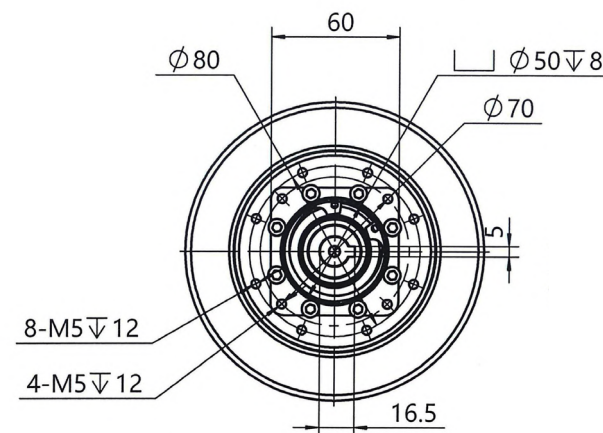
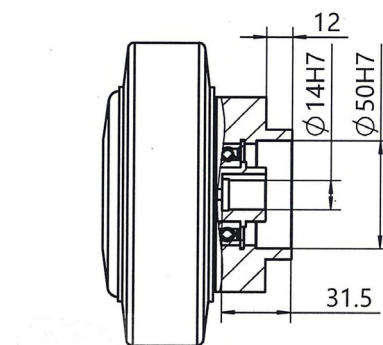
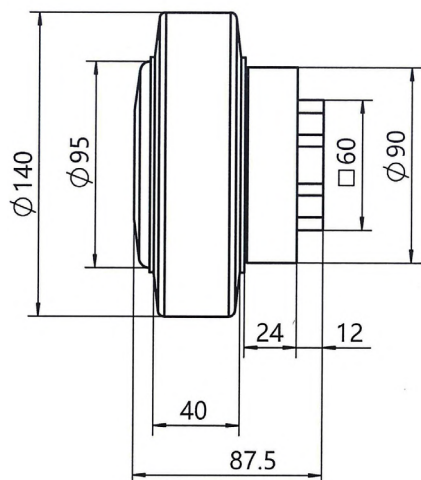
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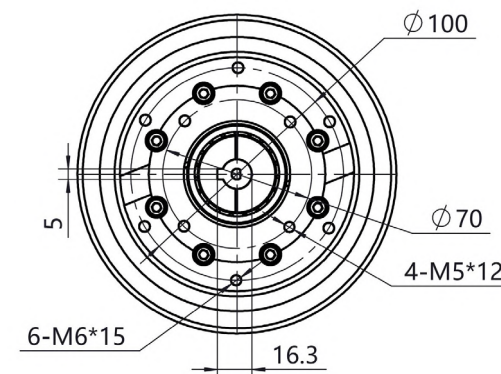
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Basic Information								
Wheel Diameter(mm)	140							
Wheel Hub Diameter(mm)	95							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	300				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	40				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	80							
Diameter of Fixing Holes (mm)	M5							
Number of Fixing Holes (pcs)	8							
Depth of Fixing Holes (mm)	12							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	30	30	33	30	33	30	33	21.5

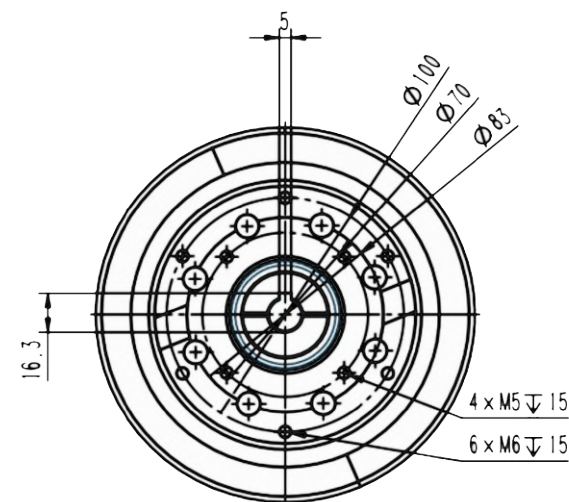
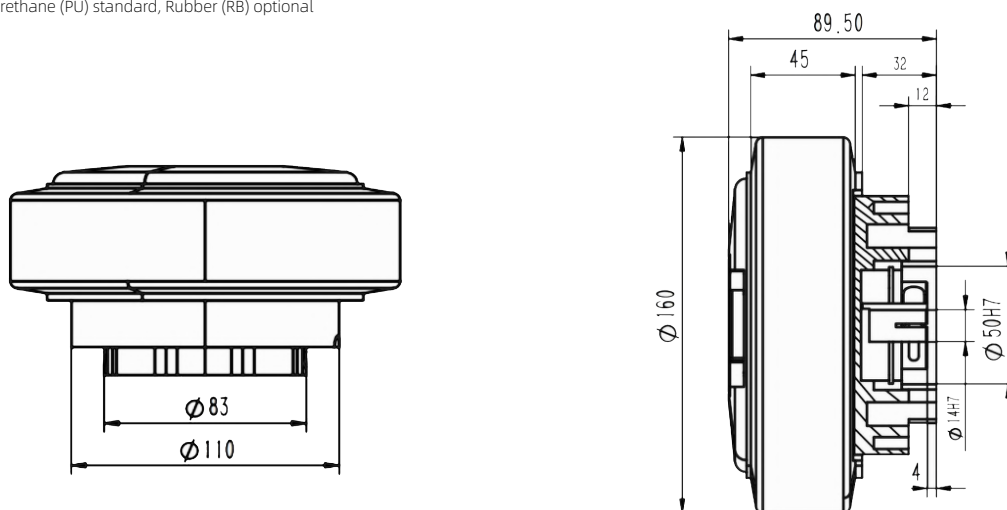


Basic Information								
Wheel Diameter(mm)	150							
Wheel Hub Diameter(mm)	125							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	300				/			
Wheel Hardness (A)	90±5				/			
Wheel Width (mm)	45				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	100							
Diameter of Fixing Holes (mm)	M6							
Number of Fixing Holes (pcs)	6							
Depth of Fixing Holes (mm)	15							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	30	30	33	30	33	30	33	21.5


AB-DW-D150-C300-R
NO. 12

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Basic Information								
Wheel Diameter(mm)	160							
Wheel Hub Diameter(mm)	125							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	300				250			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	45				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	100							
Diameter of Fixing Holes (mm)	M6							
Number of Fixing Holes (pcs)	6							
Depth of Fixing Holes (mm)	15							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	30	30	33	30	33	30	33	21.5

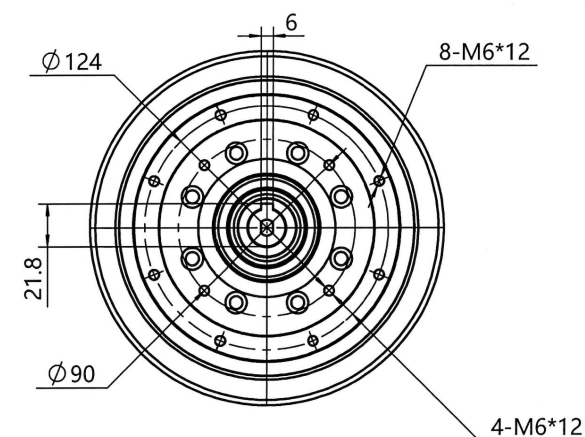
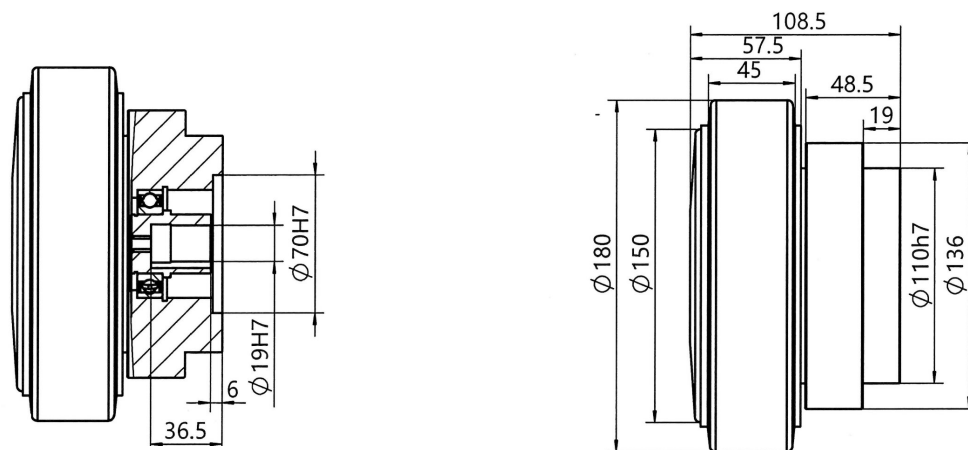
* Wheel material: Polyurethane (PU) standard, Rubber (RB) optional



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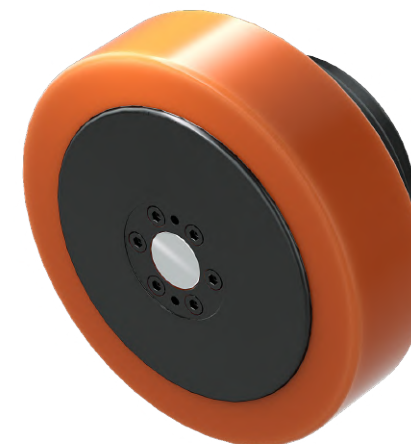
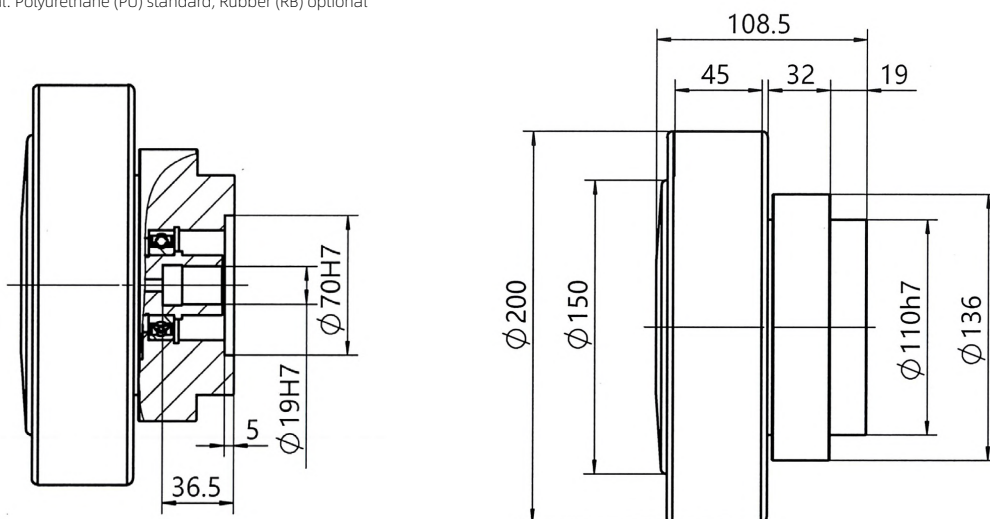
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Basic Information								
Wheel Diameter(mm)	180							
Wheel Hub Diameter(mm)	150							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	400				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	45				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	124							
Diameter of Fixing Holes (mm)	M6							
Number of Fixing Holes (pcs)	8							
Depth of Fixing Holes (mm)	12							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	96	96	105	96	105	96	105	71.5


AB-DW-D180-C400-R
NO. 14

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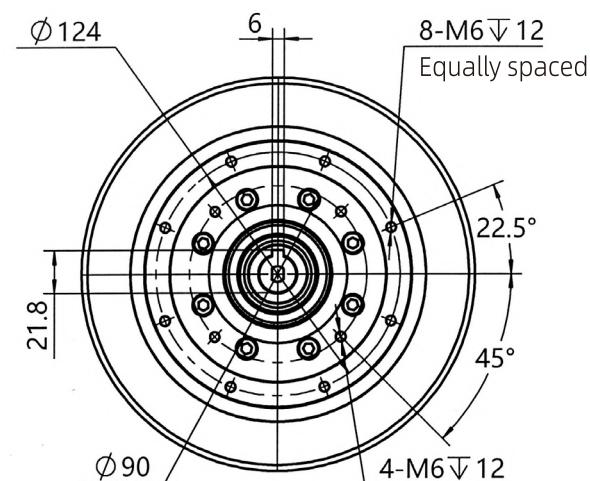
Basic Information								
Wheel Diameter(mm)	200							
Wheel Hub Diameter(mm)	150							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	450				350			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	45				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	124							
Diameter of Fixing Holes (mm)	M6							
Number of Fixing Holes (pcs)	8							
Depth of Fixing Holes (mm)	12							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	96	96	105	96	105	96	105	71.5

* Wheel material: Polyurethane (PU) standard, Rubber (RB) optional



AB-DW-D200-C450-R

NO. 15

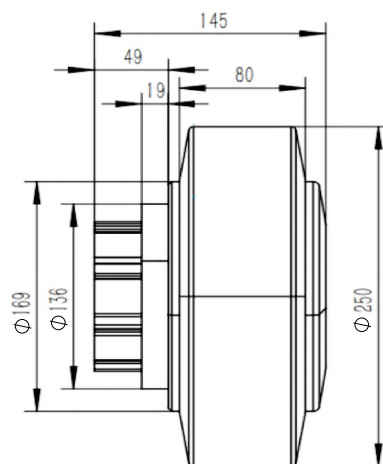
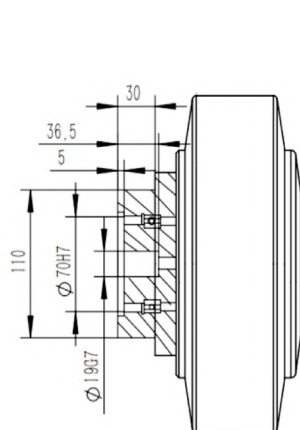


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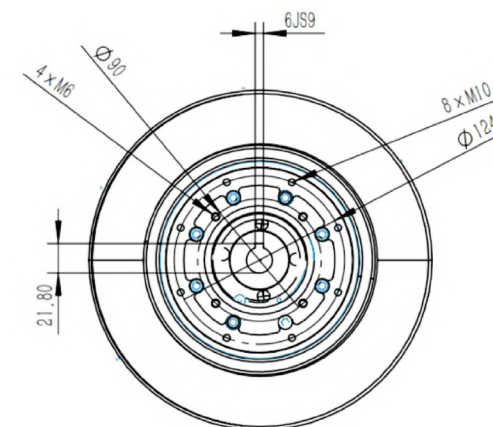
Basic Information								
Wheel Diameter(mm)	250							
Wheel Hub Diameter(mm)	165							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	1120				750			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	80				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	124							
Diameter of Fixing Holes (mm)	M10							
Number of Fixing Holes (pcs)	8							
Depth of Fixing Holes (mm)	/							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	250	250	264	250	264	250	264	177

* Wheel material: Polyurethane (PU) standard, Rubber (RB) optional



AB-DW-D250-C1120-R

NO. 16



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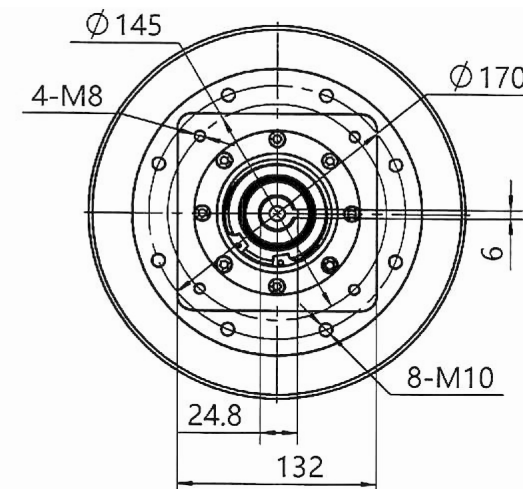
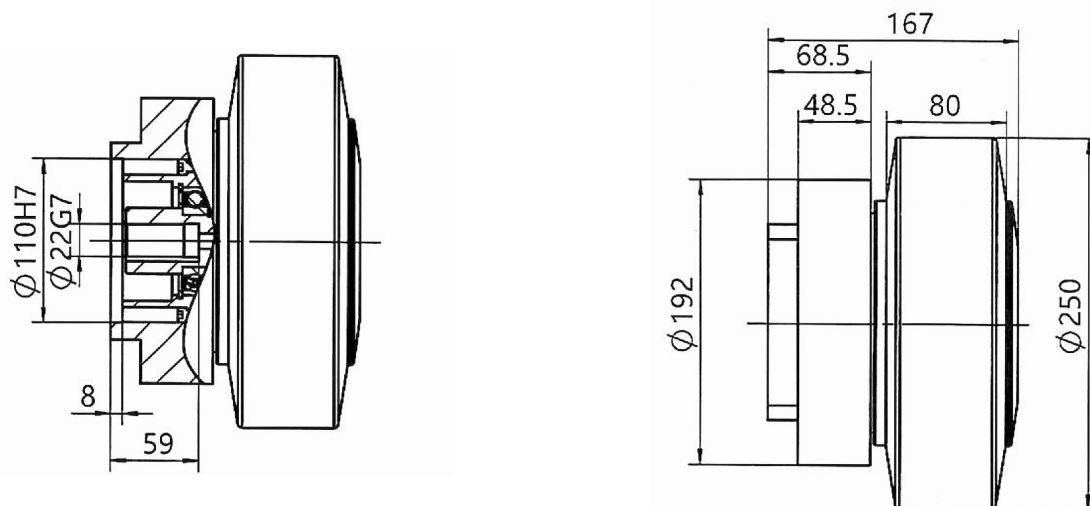
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Basic Information								
Wheel Diameter(mm)	250							
Wheel Hub Diameter(mm)	165							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	1150				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	80				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	170							
Diameter of Fixing Holes (mm)	M10							
Number of Fixing Holes (pcs)	8							
Depth of Fixing Holes (mm)	/							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	250	250	264	250	264	250	264	177



AB-DW-D250-C1150-R

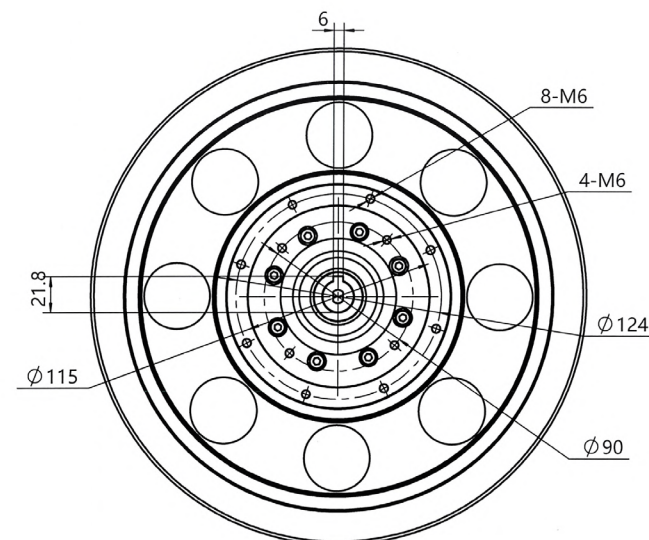
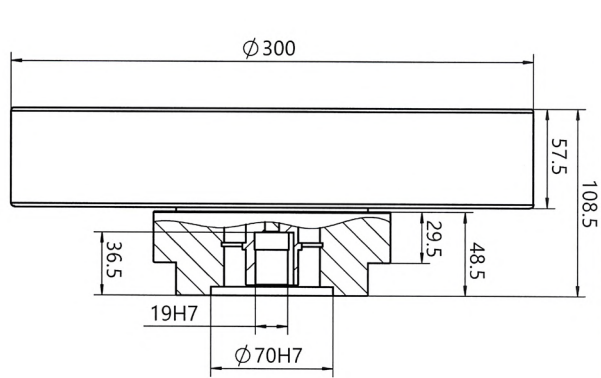
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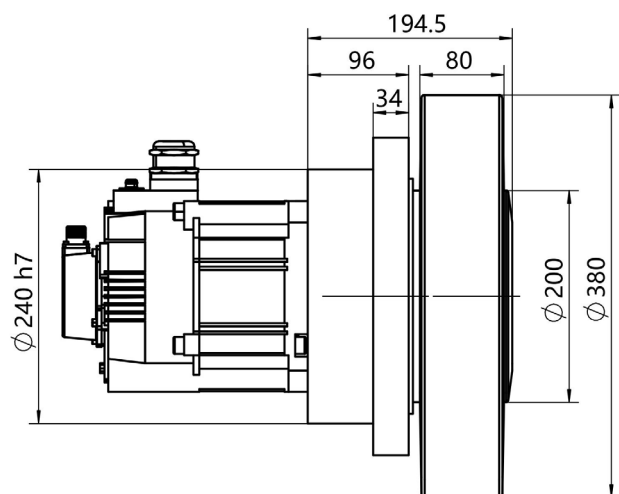
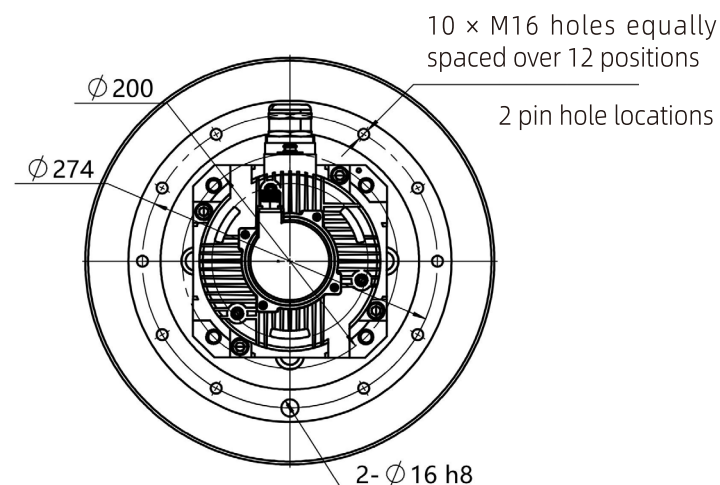
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Basic Information								
Wheel Diameter(mm)	300							
Wheel Hub Diameter(mm)	150							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	450				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	57.5				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	124							
Diameter of Fixing Holes (mm)	M6							
Number of Fixing Holes (pcs)	8							
Depth of Fixing Holes (mm)	/							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	96	96	105	96	105	96	105	71.5



Basic Information								
Wheel Diameter(mm)	380							
Wheel Hub Diameter(mm)	200							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	1120				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	80				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	274							
Diameter of Fixing Holes (mm)	M16							
Number of Fixing Holes (pcs)	10							
Depth of Fixing Holes (mm)	12							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	250	250	264	250	264	250	264	177


AB-DW-D380-C1120-R
NO. 19

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Basic Information								
Wheel Diameter(mm)	380							
Wheel Hub Diameter(mm)	300							
Wheel Material	Polyurethane				Rubber			
Load Capacity(kg)	2500				/			
Wheel Hardness (A)	90±2				/			
Wheel Width (mm)	140				/			
Flange Type	Round flange							
Maintenance Method	Refer to maintenance manual							
Maintenance Interval	Refer to maintenance manual							
Flange Information								
Pitch Circle Diameter of Fixing Holes (mm)	274							
Diameter of Fixing Holes (mm)	M16							
Number of Fixing Holes (pcs)	10							
Depth of Fixing Holes (mm)	12							
Gearbox Unit								
Gear Ratio	16	20	25	28	35	40	50	70
Gearbox Torque(Nm)	1300	1300	1100	1300	1100	1300	1100	800

