iWMC Integrated Servo Wheel



Maintenance Friendly



Integrated system reduces supply chain complexity and lowers service costs

Precision Mounting



Rack-mounted design enables simple, accurate installation and high control precision

Compact Integration



All-in-one design with stator, encoder, shaft, and tire for space-saving installations

Efficient Power Control



Supports fast start/stop with external braking resistor and built-in brake circuit.

Robust & Reliable



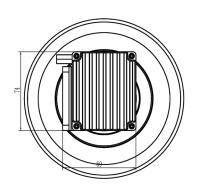
Only power and communication cables externally connected

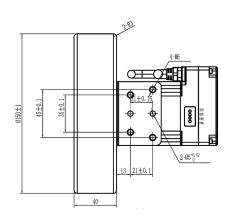
Tailored for Mobile Robots

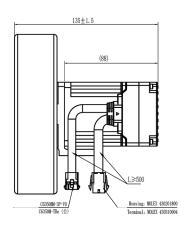


Specifically designed for AGVs and AMRs under 1000kg—high performance, easy to maintain.

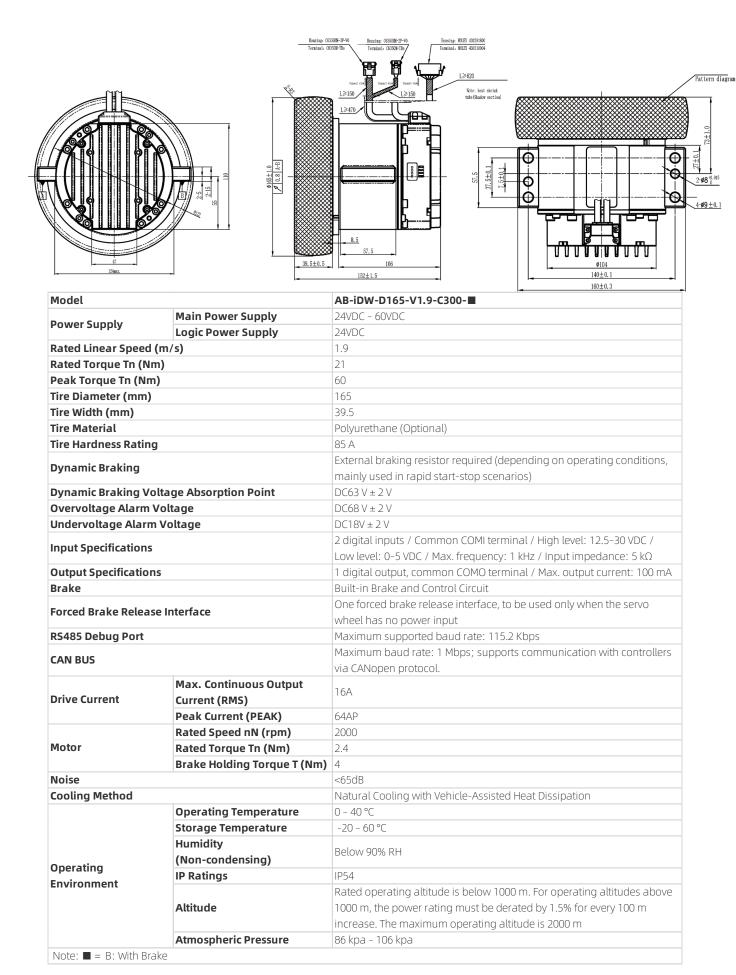
Model		AB-iDW-D150-	AB-iDW-D165-	AB-iDW-D180-	AB-iDW-D180-	AB-iDW-D180-	AB-iDW-D180-		
		V3.9-C100-■	V1.9-C300-■	V2.14-C500-■	V1.57-C700-■	V1.57-C750-■	V1.18-C·1000-■		
Power Supply	Main Power Supply	24VDC - 60VDC							
	Logic Power Supply	/	24VDC						
Rated Linear Spee	· ,	3.9	1.9	2.14	1.57	1.57	1.18		
Rated Torque Tn (I	Nm)	3.6	21	40	54	60	80		
Peak Torque Tn (N	m)	10.9	60	99	150	150	200		
ire Diameter (mm	1)	150	165	180	180	180	180		
ire Width (mm)		40	39.5	50	50	50	50		
ire Material		Polyurethane (Opt	ional)						
ire Hardness Rati	ng	73 A	85 A	90 A	93 A ± 2				
Name a maio Bura laim au		External braking re	External braking resistor required (depending on operating conditions, mainly used in rapid						
Dynamic Braking		start-stop scenarios)							
Dynamic Braking Voltage Absorption Point		None	1						
Overvoltage Alarn		DC68 V ± 2 V							
Jndervoltage Alar	_	DC18V ± 2 V							
		2 digital inputs / Common COMI terminal / High level: 12.5–30 VDC / Low level: 0–5 VDC / Max. frequency:							
nput Specification	is		2 digital inputs / Common Commental / Align level. 12:3-30 VDC / Low level. 0-3 VDC / Max. frequency. 1 kHz / Input impedance: $5 \text{ k}\Omega$						
Output Specification	nns	1 digital output, common COMO terminal / Max. output current: 100 mA							
Brake	,,,,	Built-in Brake and Control Circuit							
	aso Interface			a usad anly when the	convo whool has no r	nowor input			
Forced Brake Release Interface RS485 Debug Port		One forced brake release interface, to be used only when the servo wheel has no power input Maximum supported baud rate: 115.2 Kbps							
CAN BUS					controllers via CANon	an protocol			
AN BO2		MdXIIIIuIII Dduu I c	ite: 1 Mbps; supports	communication with	Controllers via CANOD	en protocot.			
Orive Current	Max. Continuous Output Current (RMS)	7A	16A	26A	25A	27A	27A		
	Peak Current (PEAK)	26Ap	64AP	100Ap(<2s)	100Ap(<2s)	100Ap(<2s)	100Ap(<2s)		
Motor	Rated Speed nN (rpm)	3000	2000	2500	2500	2500	2500		
	Rated Torque Tn (Nm)	0.64	2.4	4	4	4.4	4.4		
	Brake Holding Torque T (Nm)	2	4	4	4	4	4		
Noise		/	<65dB				'		
Cooling Method		/ Natural Cooling with Vehicle-Assisted Heat Dissipation							
	Operating Temperature	0 - 40 °C							
	Storage Temperature	-20 −60 °C							
Operating Environment	Humidity (Non-condensing)	Below 90% RH							
	IP Ratings	IP54							
	Altitude	Rated operating altitude is below 1000 m. For operating altitudes above 1000 m, the power rating must be derated by 1.5% for 100 m increase. The maximum operating altitude is 2000 m							
	Atmospheric Pressure	86 kpa - 106 kpa							

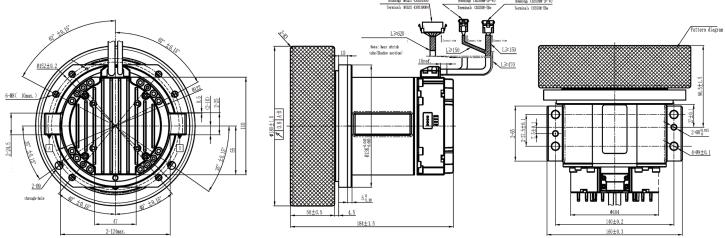




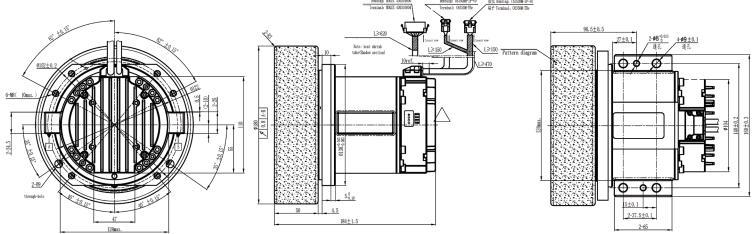


Model		AB-iDW-D150-V3.9-C100-■
Power Supply	Main Power Supply	24VDC - 60VDC
Power Supply	Logic Power Supply	/
Rated Linear Speed	i (m/s)	3.9
Rated Torque Tn (N	lm)	3.6
Peak Torque Tn (Ni	n)	10.9
Tire Diameter (mm))	150
Tire Width (mm)		40
Tire Material		Polyurethane (Optional)
Tire Hardness Ratin	ıg	73 A
Dynamic Braking		External braking resistor required (depending on operating conditions, mainly used in rapid start-stop scenarios)
Dynamic Braking V	oltage Absorption Point	None
		DC68 V ± 2 V
Overvoltage Alarm	-	DC18V ± 2 V
Undervoltage Aları	iii vollage	
Input Specifications	s	2 digital inputs / Common COMI terminal / High level: 12.5–30 VDC /
Output Considertie		Low level: 0-5 VDC / Max. frequency: 1 kHz / Input impedance: 5 kΩ
Output Specificatio Brake	ns	1 digital output, common COMO terminal / Max. output current: 100 mA
вгаке		Built-in Brake and Control Circuit
Forced Brake Relea	se Interface	One forced brake release interface, to be used only when the servo
DC 405 Dalam Dant		wheel has no power input
RS485 Debug Port		Maximum supported baud rate: 115.2 Kbps
CAN BUS		Maximum baud rate: 1 Mbps; supports communication with controllers
		via CANopen protocol.
Duite Comment	Max. Continuous Output	7A
Drive Current	Current (RMS)	264
	Peak Current (PEAK)	26Ap
Barton	Rated Speed nN (rpm)	3000
Motor	Rated Torque Tn (Nm)	0.64
B1 - !	Brake Holding Torque T (Nm)	2
Noise		<i>I</i>
Cooling Method	O	0 40.05
	Operating Temperature	0 - 40 °C
Operating Environment	Storage Temperature	-20 - 60 °C
	Humidity	Below 90% RH
	(Non-condensing)	line 4
	IP Ratings	IP54
		Rated operating altitude is below 1000 m. For operating altitudes above
	Altitude	1000 m, the power rating must be derated by 1.5% for every 100 m
		increase. The maximum operating altitude is 2000 m
	Atmospheric Pressure	86 kpa - 106 kpa

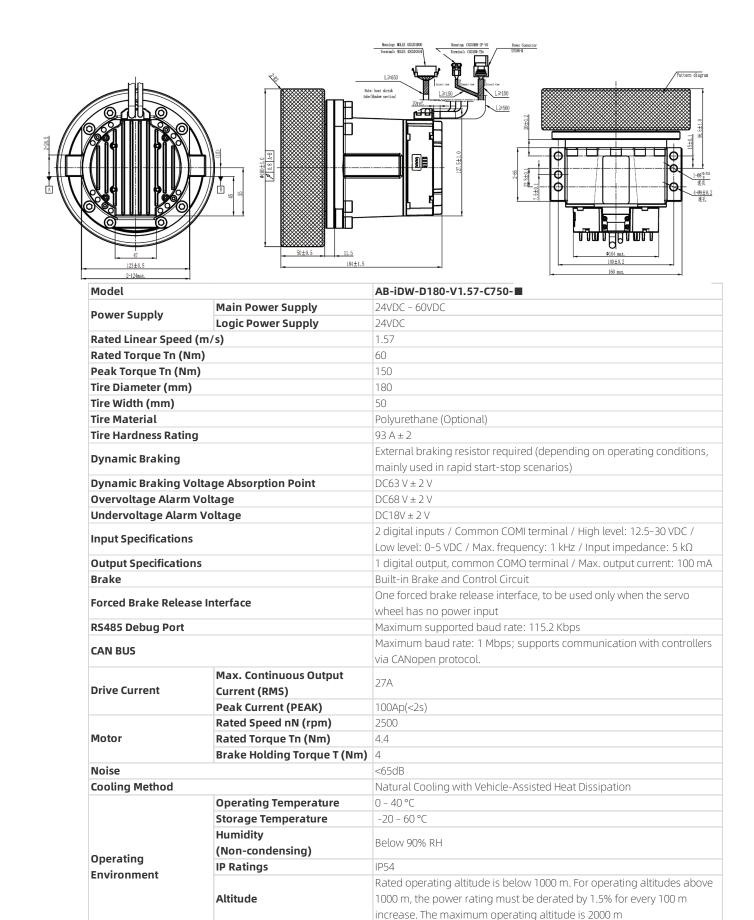




2-124пах.		160±0.3		
Model		AB-iDW-D180-V2.14-C500-■		
Danier Cumple	Main Power Supply	24VDC - 60VDC		
Power Supply	Logic Power Supply	24VDC		
Rated Linear Speed	(m/s)	2.14		
Rated Torque Tn (Nr	n)	40		
Peak Torque Tn (Nm	1)	99		
Tire Diameter (mm)		180		
Tire Width (mm)		50		
Tire Material		Polyurethane (Optional)		
Tire Hardness Rating]	90 A		
Dynamic Braking		External braking resistor required (depending on operating conditions, mainly used in rapid start-stop scenarios)		
Dvnamic Braking Vo	oltage Absorption Point	DC63 V ± 2 V		
Overvoltage Alarm	<u> </u>	DC68 V ± 2 V		
Undervoltage Alarm		DC18V ± 2 V		
Input Specifications		2 digital inputs / Common COMI terminal / High level: 12.5–30 VDC / Low level: 0–5 VDC / Max. frequency: 1 kHz / Input impedance: 5 kΩ		
Output Specification	IS	1 digital output, common COMO terminal / Max. output current: 100 mA		
		Built-in Brake and Control Circuit		
Forced Brake Release Interface		One forced brake release interface, to be used only when the servo wheel has no power input		
RS485 Debug Port		Maximum supported baud rate: 115.2 Kbps		
CAN BUS		Maximum baud rate: 1 Mbps; supports communication with controllers		
		via CANopen protocol.		
Drive Current	Max. Continuous Output Current (RMS)	26A		
	Peak Current (PEAK)	100Ap(<2s)		
	Rated Speed nN (rpm)	2500		
Motor	Rated Torque Tn (Nm)	4		
	Brake Holding Torque T (Nm)	4		
Noise		<65dB		
Cooling Method		Natural Cooling with Vehicle-Assisted Heat Dissipation		
	Operating Temperature	0 - 40 °C		
	Storage Temperature	-20 - 60 °C		
	Humidity	Below 90% RH		
Operating	(Non-condensing)	DELUW 9070 KT		
Speraung Environment	IP Ratings	IP54		
E II VII OIIIII EII L		Rated operating altitude is below 1000 m. For operating altitudes above		
	Altitude	1000 m, the power rating must be derated by 1.5% for every 100 m		
		increase. The maximum operating altitude is 2000 m		
	Atmospheric Pressure	86 kpa - 106 kpa		



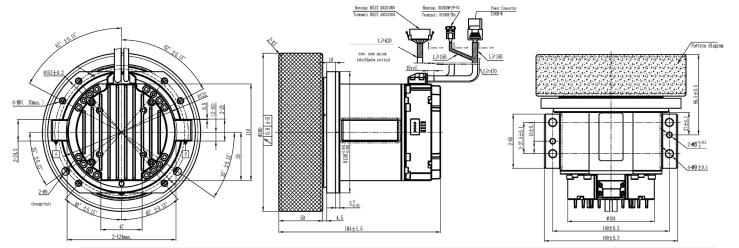
124max.		2-65		
Model		AB-iDW-D180-V1.57-C700-■		
	Main Power Supply	24VDC - 60VDC		
Power Supply	Logic Power Supply	24VDC		
Rated Linear Speed (n	n/s)	1.57		
Rated Torque Tn (Nm)		54		
Peak Torque Tn (Nm)		150		
Tire Diameter (mm)		180		
Tire Width (mm)		50		
Tire Material		Polyurethane (Optional)		
Tire Hardness Rating		93 A ± 2		
		External braking resistor required (depending on operating conditions,		
Dynamic Braking		mainly used in rapid start-stop scenarios)		
Dynamic Braking Volt	age Absorption Point	DC63 V ± 2 V		
Overvoltage Alarm Vo	· ·	DC68 V ± 2 V		
Undervoltage Alarm Voltage		DC18V ± 2 V		
		2 digital inputs / Common COMI terminal / High level: 12.5-30 VDC /		
Input Specifications		Low level: 0-5 VDC / Max. frequency: 1 kHz / Input impedance: 5 kΩ		
Output Specifications		1 digital output, common COMO terminal / Max. output current: 100 m/		
Brake		Built-in Brake and Control Circuit		
		One forced brake release interface, to be used only when the servo		
Forced Brake Release	Interface	wheel has no power input		
RS485 Debug Port		Maximum supported baud rate: 115.2 Kbps		
CAN BUS		Maximum supported baud rate: 115.2 Kbps		
	Max. Continuous Output			
Drive Current	Current (RMS)	25A		
	Peak Current (PEAK)	100Ap(<2s)		
	Rated Speed nN (rpm)	2500		
Motor	Rated Torque Tn (Nm)	4		
	Brake Holding Torque T (Nm)	4		
Noise		<65dB		
Cooling Method		Natural Cooling with Vehicle-Assisted Heat Dissipation		
	Operating Temperature	0 - 40 °C		
	Storage Temperature	-20 - 60 °C		
	Humidity	D 1 000/ DI		
- ··	(Non-condensing)	Below 90% RH		
Operating - ·	IP Ratings	IP54		
Environment	_	Rated operating altitude is below 1000 m. For operating altitudes above		
	Altitude	1000 m, the power rating must be derated by 1.5% for every 100 m		
		increase. The maximum operating altitude is 2000 m		
	Atmospheric Pressure	86 kpa - 106 kpa		
Note: ■ = B: With Brake	•			



86 kpa - 106 kpa

Atmospheric Pressure

Note: ■ = B: With Brake



Model		AB-iDW-D180-V1.18-C·1000-■	
Power Supply	Main Power Supply	24VDC - 60VDC	
rower supply	Logic Power Supply	24VDC	
Rated Linear Speed (m/s)		1.18	
Rated Torque Tn (Nn	1)	80	
Peak Torque Tn (Nm)	200	
Tire Diameter (mm)		180	
Tire Width (mm)		50	
Tire Material		Polyurethane (Optional)	
Tire Hardness Rating		93 A ± 2	
Dynamic Braking		External braking resistor required (depending on operating conditions mainly used in rapid start-stop scenarios)	
Dynamic Braking Vo	ltage Absorption Point	DC63 V ± 2 V	
Overvoltage Alarm \		DC68 V ± 2 V	
Undervoltage Alarm		DC18V ± 2 V	
Input Specifications		2 digital inputs / Common COMI terminal / High level: 12.5-30 VDC / Low level: 0-5 VDC / Max. frequency: 1 kHz / Input impedance: 5 kΩ	
Output Specification	S	1 digital output, common COMO terminal / Max. output current: 100 mA	
Brake		Built-in Brake and Control Circuit	
Forced Brake Release Interface		One forced brake release interface, to be used only when the servo wheel has no power input	
RS485 Debug Port		Maximum supported baud rate: 115.2 Kbps	
CAN BUS		Maximum baud rate: 1 Mbps; supports communication with controllers via CANopen protocol.	
Drive Current	Max. Continuous Output Current (RMS)	27A	
	Peak Current (PEAK)	100Ap(<2s)	
	Rated Speed nN (rpm)	2500	
Motor	Rated Torque Tn (Nm)	4.4	
	Brake Holding Torque T (Nm)	4	
Noise		<65dB	
Cooling Method		Natural Cooling with Vehicle-Assisted Heat Dissipation	
	Operating Temperature	0 - 40 °C	
	Storage Temperature	-20 - 60 °C	
Operating Environment	Humidity (Non-condensing)	Below 90% RH	
	IP Ratings	IP54	
	Altitude	Rated operating altitude is below 1000 m. For operating altitudes above 1000 m, the power rating must be derated by 1.5% for every 100 m increase. The maximum operating altitude is 2000 m	
		86 kpa – 106 kpa	











