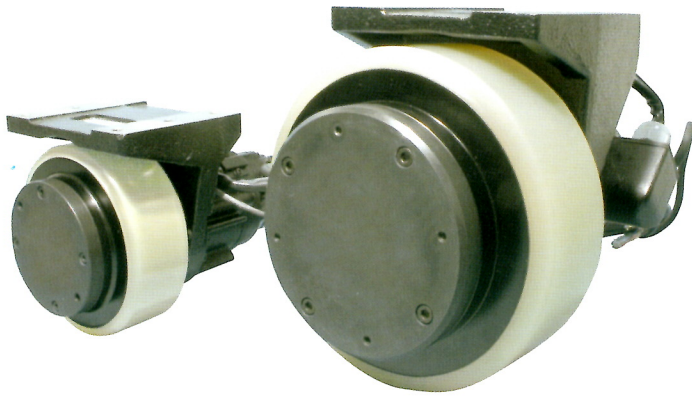


Compact and Strong

AC Servo Motor with Wheels for Driving Batteries

AWR II Series



1. AWR II Series have developed an excellent reputation for providing battery driven power in AGVs (automatic guided vehicles), electric carts and transfer robots.
2. The in-wheel motor design, which integrates the AC servo motor with the wheel and gear assembly, can be mounted onto the base frame of an automatic guided vehicle as is and be used right away.
3. This motor can be also used with our special full digital driver, which features dual axis integration and steering control function. (ABH3)
4. Feel free to consult with us about supporting special specifications such as wheel hardness, gear ratios or driving speeds.

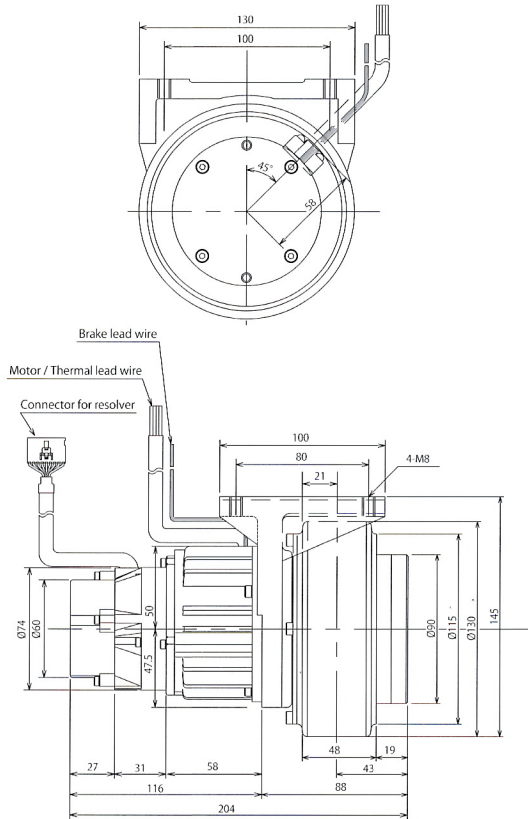
AC servo
Battery OK
Resolver
With wheels

Specification

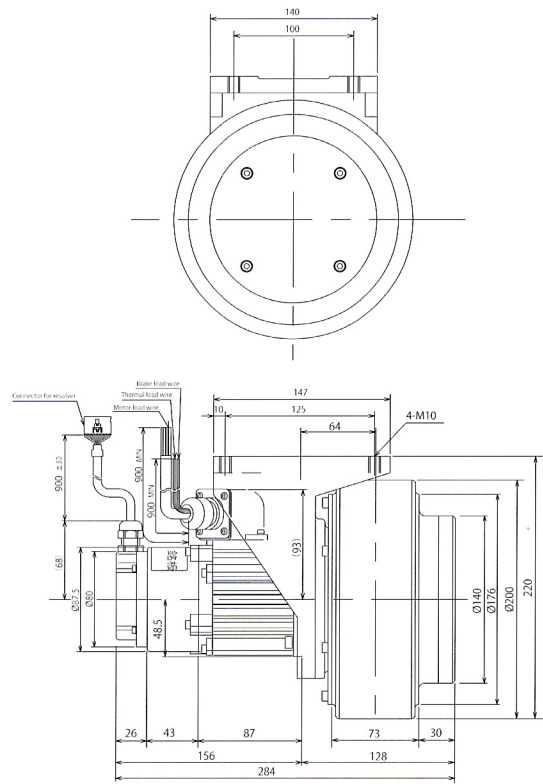
Model		AWR II 010B	AWR II 030B-P	AWR II 075B-P	AWR II 220B
Wheel	Wheel diameter [mm]	φ 130	φ 200	φ 230	φ 300
	Gear ratio	1/20	1/18	1/30	1/30
	Traveling speed[m/min]	56	69	48	60.7
	Output torque[N · m]	9.66	20.85	86.9	283
	Max. torque[N · m]	19.3	41.7	173.8	507
	Tire material	Polyether urethane			
Tire hardness	JIS K6301 A (90)	JIS K6301 A (95)	JIS K6301 A (90)	JIS K6301 A (90)	
Motor	Rated output[W]	165	300	750	2.2K
	Rated speed[min^{-1}]	2750	2000	2000	2000
	Max. speed[min^{-1}]	2750	2000	2000	2500
	Rated torque[N · m]	0.57	1.43	3.58	10.49
	Max. torque[N · m]	1.13	2.94	7.2	18.81
	Torque constant[N · m/A]	0.068	0.084	0.19	0.18
	Rotor inertia[Kg · m^2]	0.62×10^{-4}	2.73×10^{-4}	8.7×10^{-4}	13.66×10^{-4}
	Power rate[kW/s]	5.2	7.5	14.7	80.5
	Rated current[Arms]	10	20	21	65
	Max. current[Arms]	20	40	42	116
	Battery voltage[V]	24		48	
Sensor	Brushless resolver : 1X-BRX , 4,096C/T				
Brake	Rated voltage[V]	24			
	Rated current[A]	0.3	0.67	0.65	0.7
	Standstill friction torque[N · m]	0.39	2.94	7.84	14.7
	Inertia[Kg · m^2]	0.015×10^{-4}	0.019×10^{-4}	0.6×10^{-4}	0.64×10^{-4}
Structure	Load capacity[N]	1470	4900	9800	13524
	Mass[kg]	10	30	45	78
	Structure, temperature and humidity	Totally enclosed, self-cooled Operating (Storage) temp. range : 0~+40°C (-20~60°C) Humid. range : 90%RH (without condensation)			
Insulation	Class F Insulation strength : AC1500V, 1min Insulation resistance : DC500V, 10MΩ over				
Servo Amplifier	Two axis control	ABH3-0404	ABH3-0606	ABH3-0606	ABH3-2424

Various documentation such as CAD data can be downloaded from our website.

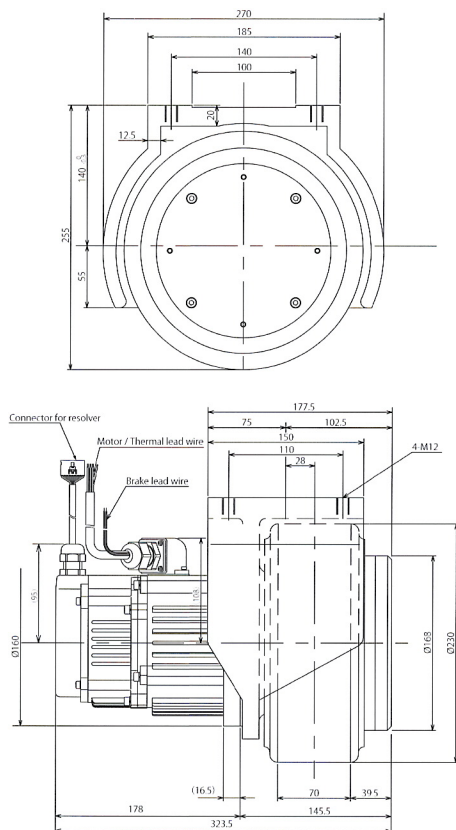
AWRI010B



AWRI030B-P



AWRI075B-P



AWRI220B

