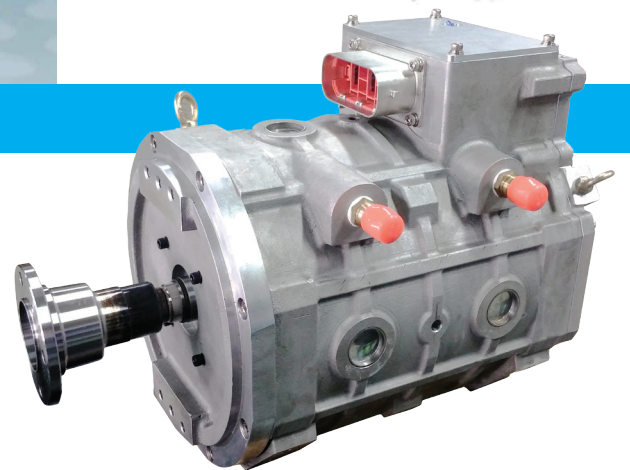




Challenge to the World, Challenge to the Future!

Electric Vehicle Motor



EV Traction Motors / Inverters

Golf Cart, NEV

- Realization of miniaturization and weight reduction with high output density
- High-speed operation possible
- Simple structure and air cooling structure
- Equipment of temperature sensor and speed sensor

Output(kW)	Rated 4.5 / Peak 9	Rated 7.5 / Peak 17
Torque(N.m)	19.4/80	26/110
Voltage(V)	48, 72	48, 72
Max. Speed(r/min)	4000	6000

Passenger Car

- Realization of miniaturization and weight reduction with high output density
 - Maximizing cooling effect with optimal water cooling design
 - Use of high-grade electrical steel sheet with low loss
- Use in high speed area by securing structural strength safety
- Spline or Round Shaft
- Use of high-temperature insulation and designed for inverter surge
- NTC temperature sensor speed sensor(Resolver or hall effect sensor)






Output(kW)	Rated30/Peak60	Rated40/Peak80	Rated50/Peak100
Torque(N.m)	89/190	115/240	160/300
Voltage(V)	330, 650	330, 650	330, 650
Max. Speed (r/min)	9,000~12,000	9,000~12,000	9,000~12,000






Bus, Truck, Yacht etc

- Optimized design for SERIES HEV buses and trucks
- Realization of miniaturization and weight reduction with high output density
 - Maximizing cooling effect with optimal water cooling design
 - Use of high-grade electrical steel sheet with low loss
- Use in high speed area by securing structural strength safety
- Spline or Round Shaft
- Use of high-temperature insulation and designed for inverter surge
- NTC temperature sensor speed sensor(Resolver or hall effect sensor)

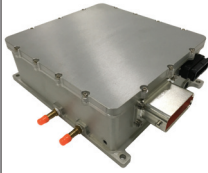




Motor Output(kW)	Rated 60/Peak 110	Rated 55/Peak90
Torque(N.m)	160/330	240/660
Voltage(V)	360, 650	360, 650
Max. Speed(r/min)	11,000	4,500
Inverter Output(kW)	Rated 90/Peak 180, water cooling	
Interface	2 CAN channel	
Control Mode	Torque mode, Speed mode, Power mode	

EV Motor Design Types

ITEM					
Max. Output(kW)	4.5	7.5	100	120	80
Max. Speed	6,000	8000 r/min	12,500 r/min	9,000 r/min	10,000
Torque(N.m)	90	190	300	600	250
Type	IM	IM	IM	IM	Pma_SynRM
Cooling	Self Cooled	Self Cooled	Water	Water	Water
Application	Golf Car	Micro Mobility	SUV(FCEV)	Delivery Truck	Compact Car

ITEM					
Max. Output(kW)	25	110	100	120	150
Max. Speed	10,000 r/min	10,000 r/min	5,000 r/min	9,000 r/min	3,500
Torque(N.m)	40	330	660	600	600
Type	IPMSM	IPMSM	IPMSM	IPMSM	PMSM
Cooling	Water	Water	Water	Water	Water
Application	HEV Generator	Truck	Truck	Small Bus	Motor Car

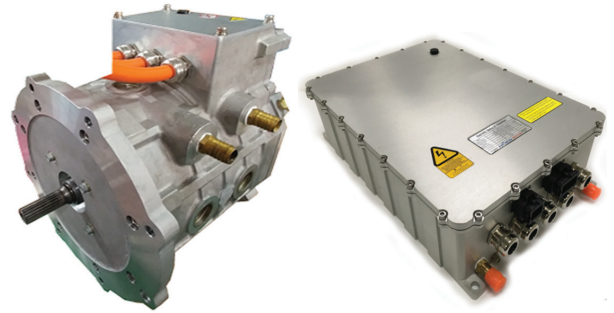
EV Motor Drive Types

ITEM					
Model	eVi1P08-V35	eVi2P10-V65	eVi3P15-V65	eVi4P20-V65	PHEVP20-V65
Output [kW]	40/80	50/100	75/150	100/200	100/200
Rated Voltage [Vdc]	350	650	650	650	650
Operation Voltage [Vdc]	12~24	12~24	12~24	12~24	12~24
Output Current [Arms]	150/300	150/300	200/400	300/600	300/600
Cooling	Water	Water	Water	Water	Water
Protection Level	IP67	IP67	IP67	IP67	IP67
Dimension [mm]	267*284*107	301*362*112	301*420*120	498*374*129	499*315*174
Weight [kg]	9.4	12	16	25	28

330 N.m High-speed Motor

Characteristic

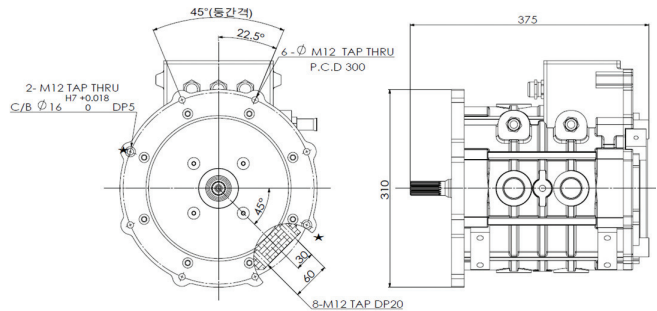
Water-cooled high-speed, high-output density motor suitable for driving passenger cars.
Used for driving 3.5t GVW truck when used with reducer
Voltage : 350Vdc, 700Vdc



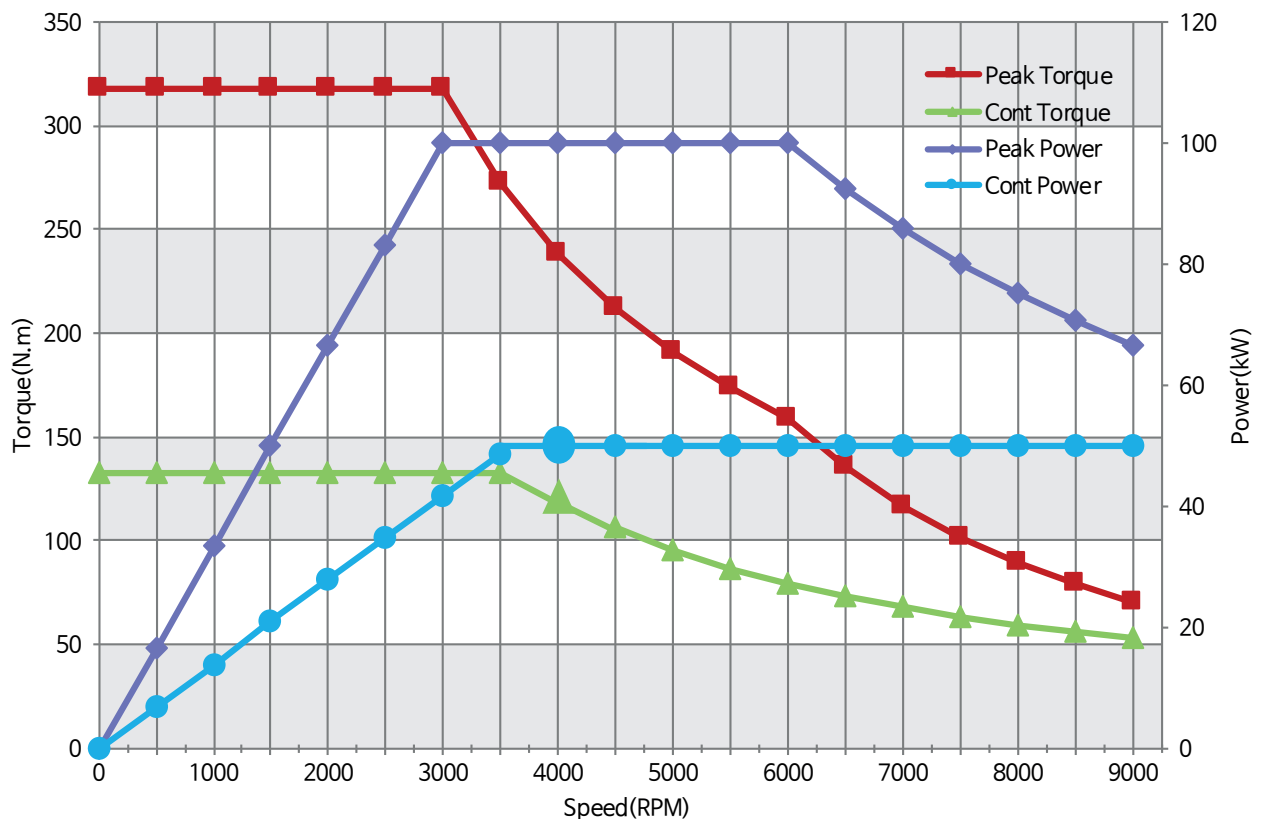
Specifications

Item	Spec.	Remarks
Power Output	100 / 50 kW	
Torque	330 / 136 N.m	
Speed	2,900 / 3,500 rpm	
Max. Speed	10,000	
Motor Type	IPM Motor	
Weight(Motor/Inverter)	62kg / 16kg	

Outline Dimension



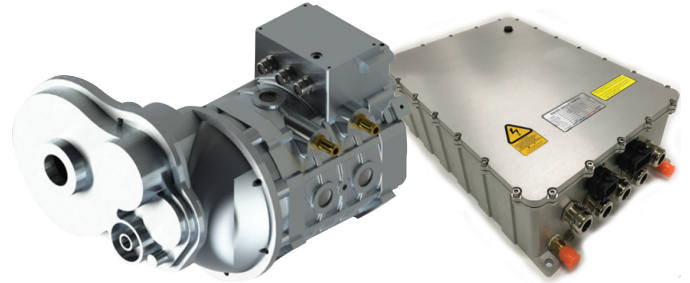
Specifications



1,000 N.m High Speed Motor + Gear Reducer

Characteristic

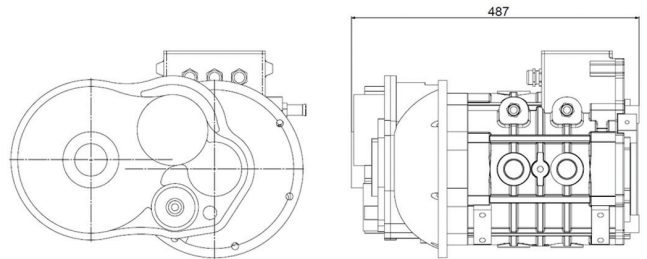
High torque High output through integration of high speed motor and reducer
 Used for high-performance cars, trucks
 Voltage : 350Vdc, 700Vdc



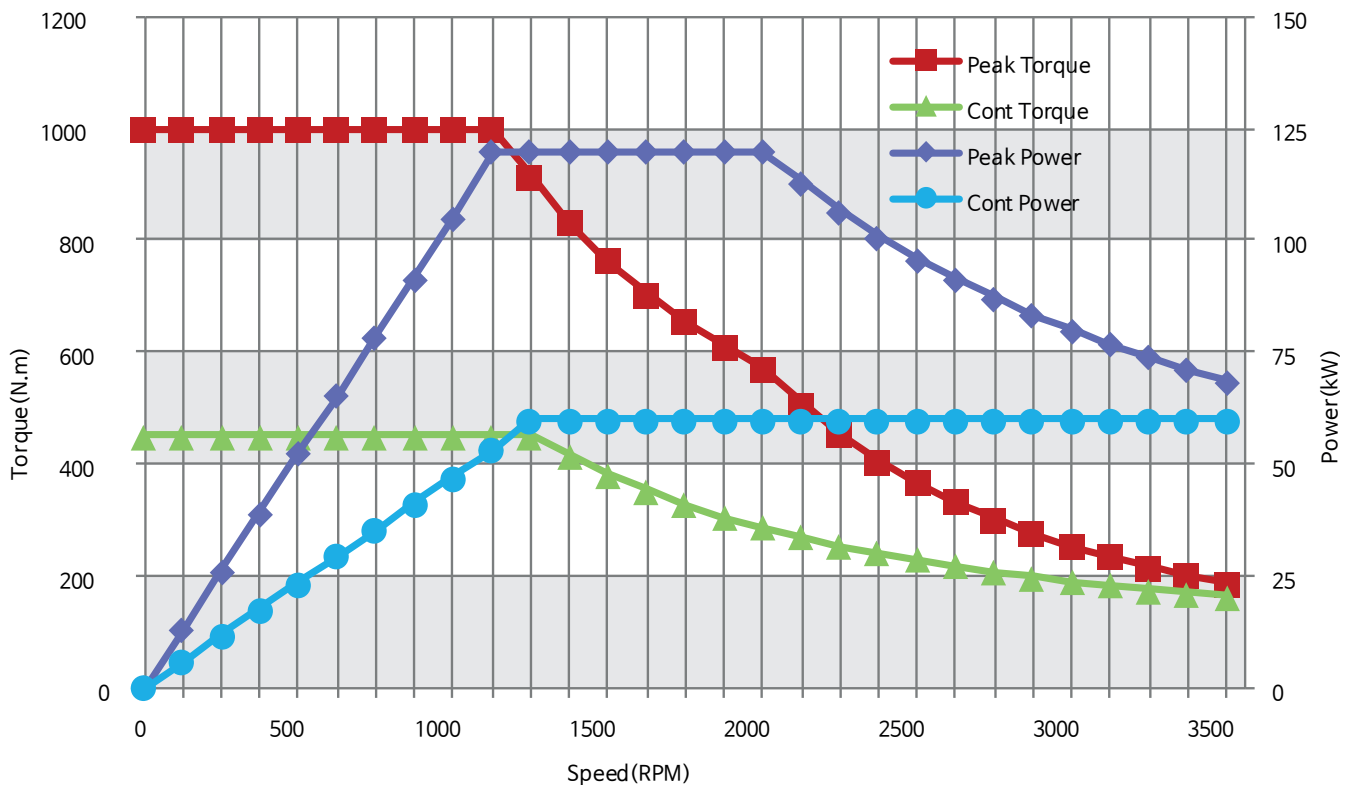
Specifications

Item	Spec.	Remarks
Power Output	120 / 60 kW	
Torque	1,000 / 460 N.m	
Speed	1,145/ 1,240 rpm	
Max. Speed	4,000	
Motor Type	IPM Motor	
Weight (Motor / Gear Reducer / Inverter)	62kg / 28kg / 16kg	

Outline Dimension



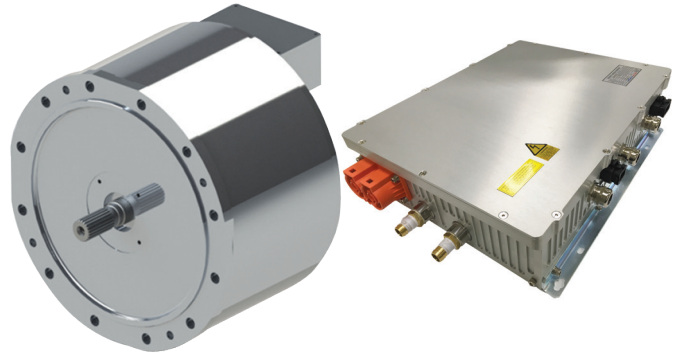
Specifications



1,000 N.m Pure electric Motor

Characteristic

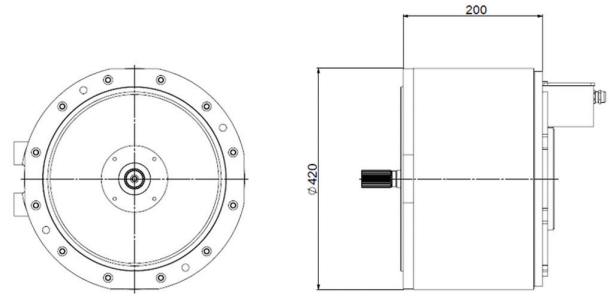
High Torque PM motor drives the axle directly without reducer
 Used for driving small buses and trucks
 Voltage : 400 ~ 700Vdc



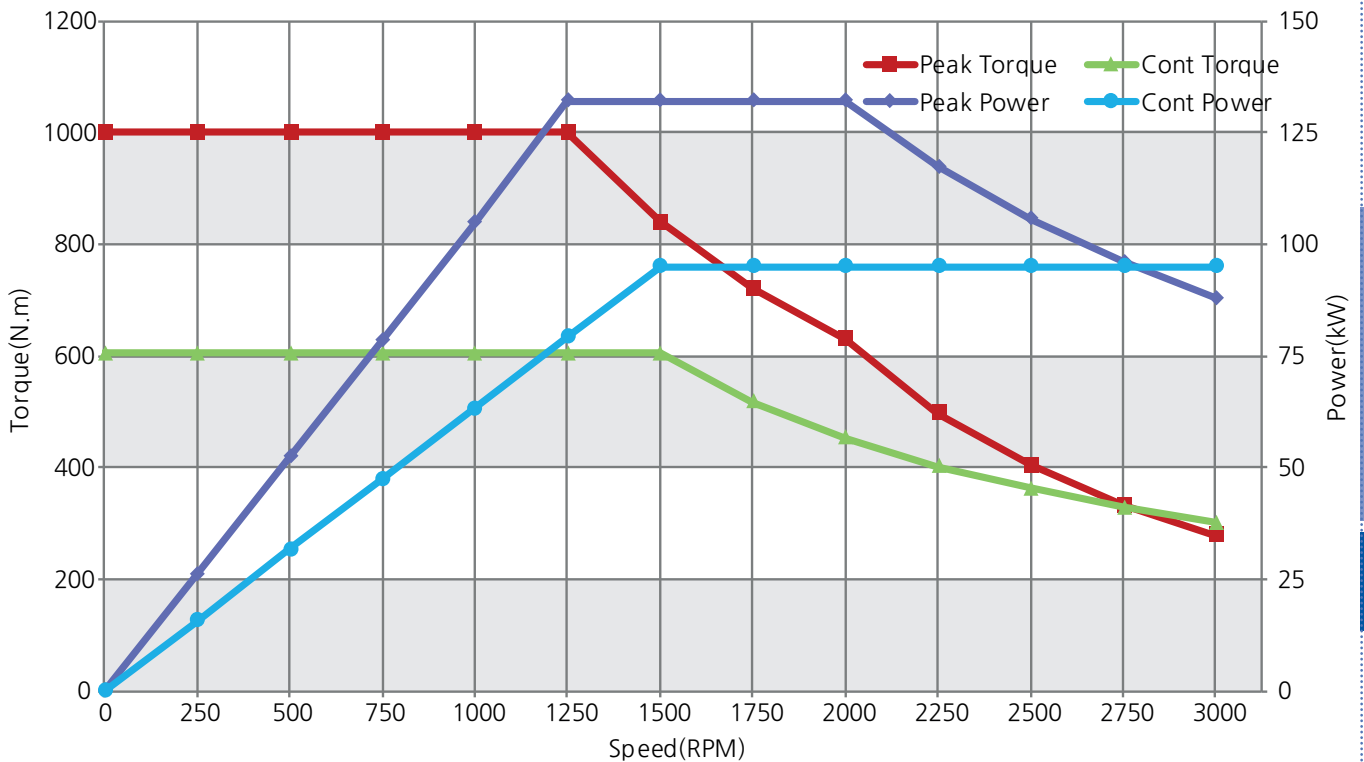
Specifications

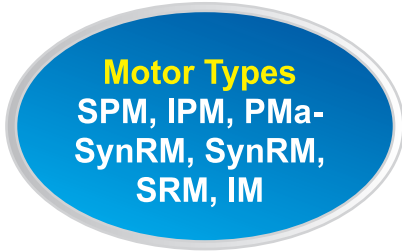
Item	Spec.	Remarks
Power Output	130 / 95 kW	
Torque	1,000 / 600 N.m	
Speed	1,250 / 1,500 rpm	
Peak Speed	3,000	
Motor Type	IPM Motor	
Weight(Motor/Inverter)	130kg / 25kg	

Outline Dimension



Specifications





Customize Your Driving Power!



ISO QUALITY CERTIFICATIONS
 - ISO 9001: Quality assurance in Design, Development, Production, Installation, Servicing



HYUNDAI SQ Certificate
 - Electric Vehicle Motors



International Automotive Task Force
 - ISO/ TS 16949 : 2009
 - Electric Vehicle Motors

● General Specification

ITEM	SPM	IPMSM	PMA-SynRM	Syn-RM	SRM	IM
Output (kW)	~140	~100	~ 80	~100	100	~ 240
Max Speed (r/min)	~ 2,800	~ 10,000	~ 10,000	~ 10,000	~15,000	~12,500
Peak. Torque	650N.m	~400N.m	~ 300N.m	~ 300N.m	~500	~ 650N.m
Voltage	330, 650Vdc	330, 650Vdc	330, 650Vdc	330, 650Vdc	-	48, 72, 330, 650Vdc
Application	Series Bus Generator	SUV Traction	Compact Car Traction			Golf Car, NEV Compact Car FCEV(SUV) Bus, Truck
Customer	D(Korea)	H(Korea)	H(Korea)			H (Korea) M(Korea) E(U.S.A) F(Germany) T(India) ETC



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* The information in this catalogue is subject to change for product improvement without prior notice.