



## 3 phase AC Induction Driving System

This 3 phase AC induction driving system (motor and controller) for electric vehicles, specially strong on: free of maintenance, higher efficiency, higher power density, wider speed adapting, bigger torque, repower-supply, more capable of over-loading, and possible to get infinite variable speed. It is getting instead of DC motor system depending on these strong points.

### System features:

- ✧ DSP wholly digital control
- ✧ IGBT power module
- ✧ Space vector control
- ✧ Infinite variable speed
- ✧ Power feedback and re-braking
- ✧ Automatically distinguish of motor parameters
- ✧ Processing by hand-holding units
- ✧ CAN bus communication
- ✧ Self-adapting rotor control

### Protection functions:



- ✧ Over/low voltage protection for battery
- ✧ Dual-over current protection
- ✧ Over-heat power attenuation protection for controller
- ✧ High speed limiting of over-powered

### Main Specification


Rated Power	Rated Voltage	Rated Speed	Rated Torque	Peak Power
1KW	24V/48V/60V/72V/96V	1500/3000rpm	6.4/3.2NM	2.5KW
1.5KW	24V/48V/60V/72V/96V	1500/3000rpm	9.6/4.8NM	5KW
2KW	24V/48V/60V/72V/96V	1500/3000rpm	12.7/6.4NM	5KW
2.5KW	24V/48V/60V/72V/96V	1500/3000rpm	15.9/8.0NM	6KW
3KW	24V/48V/60V/72V/96V	1500/3000rpm	19.1/9.5NM	7KW
3.5KW	48V/60V/72V/96V	1500/3000rpm	22.3/11.2NM	6KW
4KW	48V/60V/72V/96V/115V	1500/3000rpm	25.5/12.8NM	10KW
5KW	48V/60V/72V/96V/115V	1500/3000rpm	31.8/15.9NM	12KW
6KW	60V/72V/96V/115V	1500/3000rpm	38.2/19.1/NM	13KW
6.3KW	60V/72V/96V/115V	1500/3000rpm	40.1/20.5NM	14KW
7KW	60V/72V/96V/115V	1500/3000rpm	44.6/22.3NM	15KW
7.5KW	60V/72V/96V/115V	1500/3000rpm	47.8/23.9NM	16KW
8KW	72V/96V/115V	1500/3000rpm	50.9/25.9NM	20KW
10KW	96V/115V	1500/3000rpm	63.6/31.8NM	25KW
12KW	144VV	1500/3000rpm	76.4/38.2NM	30KW
15KW	144V	1500/3000rpm	95.5/47.8NM	40KW

\*\*\*Rated Speed and Rated Voltage at different Rated Power can be customized. \*\*\*



## AC Driving System 1.5KW24Vdc

AC Motor 1.5KW	Model No	HJ-YB1-1.5KW	
	Rated Voltage	24VDC	
	Rated Power	1.5KW	
	Rated Current	66A	
	Rated Speed	3000RPM	
	Rated Torque	4.8Nm	
	Insulation Grade	H	
	Working Method	S2-30min	
	Cooling Method	IC00	
	Protection Grade	IP55	
	Encoder	64bit	
	Encoder Connectors	DJ7041-1.5-11	
	Weight	18kg	
AC Motor Controller (including controller, accelerator, cables)	Model No	EM0X40XX	
	Rated Voltage	48V	
	Input Voltage Range (DC/V)	40~60V	
	Rated Current Output (AC/A)	100A	
	Max Current Output (AC/A)	250A	
	Matching Motor Power	1.5KW	
	Max Power Output	3KW	
	Efficiency	≥98%	
	Dimension	194*126*79.5mm	
	Weight	3kg	
	Working Temp.	-30~85℃	
	Protection Class	IP66	
	Cooling Method	Air Cooling	
	Vibration Standard	GB/ T2423	
	Communication Standard	CAN	

## AC Driving System 2.5KW48Vdc

AC Motor 2.5KW	Model No	HJ-YB1-2.5KW	
	Rated Voltage	48VDC	
	Rated Power	2.5KW	
	Rated Current	65A	
	Rated Speed	3000RPM	
	Rated Torque	8.0Nm	
	Insulation Grade	H	
	Working Method	S2-30min	
	Cooling Method	IC00	
	Protection Grade	IP55	
	Encoder	64bit	
	Encoder Connectors	DJ7041-1.5-11	
	Weight	23kg	
AC Motor Controller (including controller, accelerator, cables)	Model No	EM0X40XX	
	Rated Voltage	48V	
	Input Voltage Range (DC/V)	40~60V	
	Rated Current Output (AC/A)	100A	
	Max Current Output (AC/A)	300A	
	Matching Motor Power	2.5KW	
	Max Power Output	5KW	
	Efficiency	≥98%	
	Dimension	194*126*79.5mm	
	Weight	3kg	
	Working Temp.	-30~85℃	
	Protection Class	IP66	
	Cooling Method	Air Cooling	
	Vibration Standard	GB/ T2423	
	Communication Standard	CAN	

## AC Driving System 3KW48Vdc

AC Motor 3KW	Model No	HJ-YB1-3KW	
	Rated Voltage	48VDC	
	Rated Power	3KW	
	Rated Current	74A	
	Rated Speed	3000RPM	
	Rated Torque	9.5Nm	
	Insulation Grade	H	
	Working Method	S2-30min	
	Cooling Method	IC00	
	Protection Grade	IP55	
	Encoder	64bit	
	Encoder Connectors	DJ7041-1.5-11	
	Weight	25kg	
AC Motor Controller (including controller, accelerator, cables)	Model No	EM0X40XX	
	Rated Voltage	48V	
	Input Voltage Range (DC/V)	40~60V	
	Rated Current Output (AC/A)	100A	
	Max Current Output (AC/A)	300A	
	Matching Motor Power	3KW	
	Max Power Output	7KW	
	Efficiency	≥98%	
	Dimension	194*126*79.5mm	
	Weight	3kg	
	Working Temp.	-30~85℃	
	Protection Class	IP66	
	Cooling Method	Air Cooling	
	Vibration Standard	GB/ T2423	
	Communication Standard	CAN	

## AC Driving System 5KW48Vdc

AC Motor 5KW	Model No	HJ-YB1-5KW	
	Rated Voltage	48VDC	
	Rated Power	5KW	
	Rated Current	130A	
	Rated Speed	3000RPM	
	Rated Torque	15.9Nm	
	Insulation Grade	H	
	Working Method	S2-30min	
	Cooling Method	IC00	
	Protection Grade	IP65	
	Encoder	64bit	
	Encoder Connectors	DJ7041-1.5-11	
	Weight	32kg	
AC Motor Controller (including controller, accelerator, cables)	Model No	EM0X40XX	
	Rated Voltage	48V	
	Input Voltage Range (DC/V)	40~60V	
	Rated Current Output (AC/A)	150A	
	Max Current Output (AC/A)	300A	
	Matching Motor Power	5KW	
	Max Power Output	10KW	
	Efficiency	≥98%	
	Dimension	194*148*108mm	
	Weight	3kg	
	Working Temp.	-30~85℃	
	Protection Class	IP66	
	Cooling Method	Air Cooling	
	Vibration Standard	GB/ T2423	
	Communication Standard	CAN	



## AC Driving System 5KW72Vdc

AC Motor 5KW	Model No	HJ-YB1-5KW	
	Rated Voltage	72VDC	
	Rated Power	5KW	
	Rated Current	87A	
	Rated Speed	3000RPM	
	Rated Torque	15.9Nm	
	Insulation Grade	H	
	Working Method	S2-30min	
	Cooling Method	IC00	
	Protection Grade	IP65	
	Encoder	64bit	
	Encoder Connectors	DJ7041-1.5-11	
	Weight	32kg	
AC Motor Controller (including controller, accelerator, cables)	Model No	EM0X40XX	
	Rated Voltage	72V	
	Input Voltage Range (DC/V)	60~96V	
	Rated Current Output (AC/A)	100A	
	Max Current Output (AC/A)	300A	
	Matching Motor Power	5KW	
	Max Power Output	10KW	
	Efficiency	≥98%	
	Dimension	194*148*108mm	
	Weight	3kg	
	Working Temp.	-30~85℃	
	Protection Class	IP66	
	Cooling Method	Air Cooling	
	Vibration Standard	GB/ T2423	
	Communication Standard	CAN	

## AC Driving System 7.5KW48Vdc



AC Motor 7.5KW	Model No	HJ-YB1-7.5KW	
	Rated Voltage	48VDC	
	Rated Power	7.5KW	
	Rated Current	156A	
	Rated Speed	3000RPM	
	Rated Torque	23.9Nm	
	Insulation Grade	H	
	Working Method	S2-30min	
	Cooling Method	IC00	
	Protection Grade	IP55	
	Encoder	64bit	
	Encoder Connectors	DJ7041-1.5-11	
	Weight	40kg	
AC Motor Controller (including controller, accelerator, cables)	Model No	EM0X40XX	
	Rated Voltage	48V	
	Input Voltage Range (DC/V)	40~60V	
	Rated Current Output (AC/A)	150A	
	Max Current Output (AC/A)	500A	
	Matching Motor Power	7.5KW	
	Max Power Output	15KW	
	Efficiency	≥98%	
	Dimension	290*185*109.5mm	
	Weight	5kg	
	Working Temp.	-30~85 °C	
	Protection Class	IP66	
	Cooling Method	Air Cooling	
	Vibration Standard	GB/ T2423	
	Communication Standard	CAN	

AC Driving System 7.5KW60Vdc

AC Motor 7.5KW	Model No	HJ-YB1-7.5KW	
	Rated Voltage	60VDC	
	Rated Power	7.5KW	
	Rated Current	125A	
	Rated Speed	3000RPM	
	Rated Torque	23.9Nm	
	Insulation Grade	H	
	Working Method	S2-30min	
	Cooling Method	IC00	
	Protection Grade	IP55	
	Encoder	64bit	
	Encoder Connectors	DJ7041-1.5-11	
	Weight	40kg	
AC Motor Controller (including controller, accelerator, cables)	Model No	EM0X40XX	
	Rated Voltage	60V	
	Input Voltage Range (DC/V)	40~75V	
	Rated Current Output (AC/A)	150A	
	Max Current Output (AC/A)	500A	
	Matching Motor Power	7.5KW	
	Max Power Output	15KW	
	Efficiency	≥98%	
	Dimension	290*185*109.5mm	
	Weight	5kg	
	Working Temp.	-30~85 °C	
	Protection Class	IP66	
	Cooling Method	Air Cooling	
	Vibration Standard	GB/ T2423	
	Communication Standard	CAN	



AC Driving System 7.5KW72Vdc

AC Motor 7.5KW	Model No	HJ-YB1-7.5KW	
	Rated Voltage	72VDC	
	Rated Power	7.5KW	
	Rated Current	130A	
	Rated Speed	3000RPM	
	Rated Torque	23.9Nm	
	Insulation Grade	H	
	Working Method	S2-30min	
	Cooling Method	IC00	
	Protection Grade	IP55	
	Encoder	64bit	
	Encoder Connectors	DJ7041-1.5-11	
	Weight	40kg	
AC Motor Controller (including controller, accelerator, cables)	Model No	EM0X40XX	
	Rated Voltage	72V	
	Input Voltage Range (DC/V)	60~96V	
	Rated Current Output (AC/A)	150A	
	Max Current Output (AC/A)	500A	
	Matching Motor Power	7.5KW	
	Max Power Output	15KW	
	Efficiency	≥98%	
	Dimension	290*185*109.5mm	
	Weight	5kg	
	Working Temp.	-30~85 °C	
	Protection Class	IP66	
	Cooling Method	Air Cooling	
	Vibration Standard	GB/ T2423	
	Communication Standard	CAN	

AC Driving System 10KW96Vdc

AC Motor 10KW	Model No	HJ-YB1-10KW	
	Rated Voltage	96VDC	
	Rated Power	10KW	
	Rated Current	96A	
	Rated Speed	3000RPM	
	Rated Torque	31.8Nm	
	Insulation Grade	H	
	Working Method	S2-30min	
	Cooling Method	IC00	
	Protection Grade	IP55	
	Encoder	64bit	
	Encoder Connectors	DJ7041-1.5-11	
	Weight	43kg	
AC Motor Controller (including controller, accelerator, cables)	Model No	EM0X40XX	
	Rated Voltage	96V	
	Input Voltage Range (DC/V)	75~110V	
	Rated Current Output (AC/A)	130A	
	Max Current Output (AC/A)	500A	
	Matching Motor Power	10KW	
	Max Power Output	20KW	
	Efficiency	≥98%	
	Dimension	290*185*109.5mm	
	Weight	5kg	
	Working Temp.	-30~85 °C	
	Protection Class	IP66	
	Cooling Method	Air Cooling	
	Vibration Standard	GB/ T2423	
	Communication Standard	CAN	