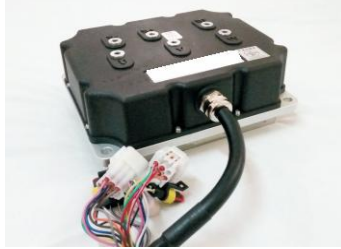
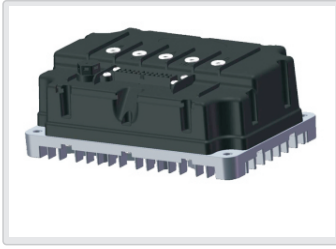


ASPP Controllers 48-110V



Application areas



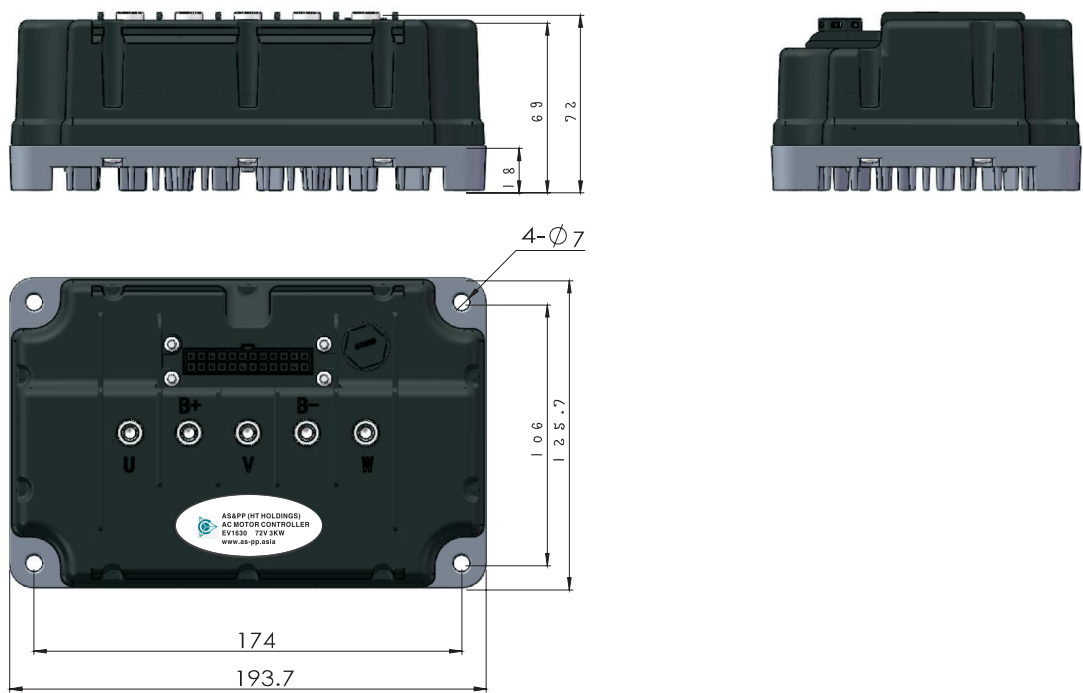
Features

- The advanced vector control algorithm smoothes the output torque of the motor, suppresses the low-frequency noise caused by the motor torque fluctuation, and realizes precise control of the motor torque and speed.
- Imported high-power MOSFETs are used as power devices to achieve low noise and high efficiency energy conversion.
- Power-on self-test, provide the host computer to realize the function of on-site configuration parameters, and realize the parameters that can be flexibly adjusted to adjust the handling performance of the vehicle to meet the requirements of different road conditions and various use environments.
- Brake or reverse energy feedback control, improve the driving range of the vehicle, realize the auxiliary function of electronic brake, and effectively ensure the safety of the vehicle.
- High engine management, high torque。
- Different anti-slipping mechanism effectively solves the problem of difficult starting on slopes, and at the same time protects the electronic control from overheating failure caused by anti-slipping for a long time.
- The buzzer prompts various faults for easy maintenance.
- Perfect protection functions such as accelerator failure, undervoltage, overvoltage, overcurrent, and overheating improve the reliability of the system.

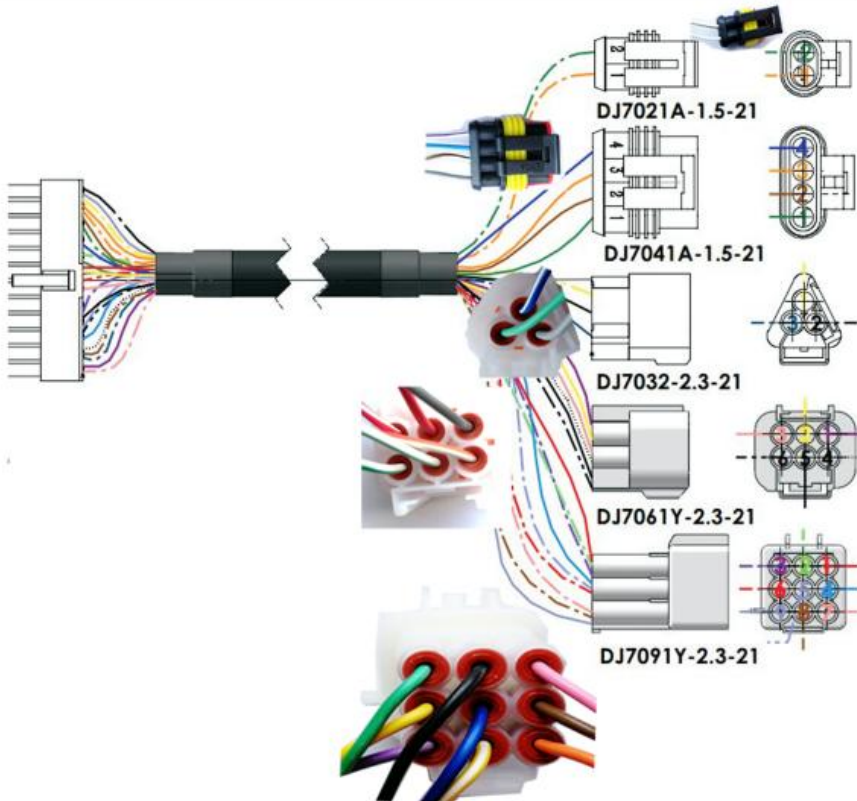
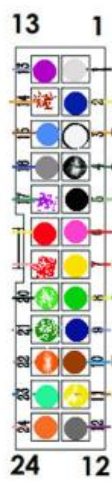
Product selection and specifications

model	Max Current (A)	Nom Current (A)	Voltage (V)	Power(KW)
ASPP1630	180	60	48 (30 ~ 78)	6KW
			60 (40 ~ 78)	6.75KW
			72 (50 ~ 96)	7.5KW
ASPP 2230	220	70	48 (30 ~ 78)	10KW
			60 (40 ~ 78)	11.5KW
			72 (50 ~ 96)	12.5KW
ASPP2730	275	85	48 (30 ~ 78)	12KW
			60 (40 ~ 78)	13.5KW
			72 (50 ~ 96)	15KW
ASPP2750	275	85	48 (30 ~ 78)	12KW
			60 (40 ~ 78)	13.5KW
			72 (50 ~ 96)	15KW
ASPP 3150	312	102	48 (30 ~ 78)	13KW
			60 (40 ~ 78)	15.5KW
			72 (50 ~ 96)	17KW
ASPP 3550	350	120	48 (30 ~ 78)	15KW
			60 (40 ~ 78)	18KW
			72 (50 ~ 96)	21KW
ASPP 4075	400	120	48 (30 ~ 78)	20KW
			60 (40 ~ 78)	25KW
			72 (50 ~ 96)	30KW
ASPP5013	500	120	72 (60 ~ 96)	36KW
			96 (80 ~ 120)	50KW
			110 (80 ~ 125)	55KW
ASPP 7013	550	150	72 (60 ~ 96)	40KW
			96 (80 ~ 120)	55KW
			110 (80 ~ 135)	60KW
ASPP 8013	550	200	72 (60 ~ 96)	45KW
			96 (80 ~ 120)	60KW
			110 (80 ~ 135)	65KW
Drive functions	1. Highly efficient driver assist system in ascending start; 2. Regenerative braking; 3. Limited reverse movement speed; 4. Mode selection: Sport/Eco			
Functional interface	1. Movement control: forward, reverse, neutral; 2. Mode selection: Sport / Eco; 3. Brake control;4. Accelerator position signal; 5. Accelerator switch signal;6. Power consumption control; 7. Motor temperature;8. Serial debugging interface; 9. Controller local network (CAN)10. Tachometer output signal sensor			
Working temperature	-30℃~+55℃			
Protection class	IP65			
Insulation	Input-output for frame DC1000 V; Leak current 0.05MA;Isolation resistance 20MOhm			
Efficiency	98%			

1.8kW-5kW Controller installation and wiring definition

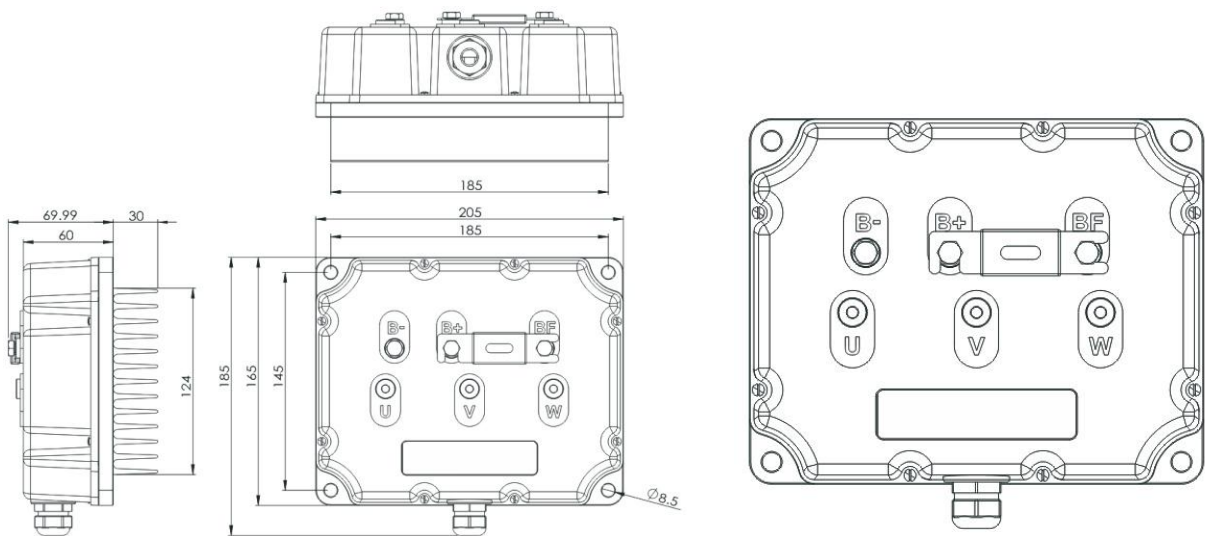


1. Signal programmer RX
2. Signal programmer TX
3. temperature sensor +
4. temperature sensor -
5. Accelerator 5/12 V minus -
6. Accelerator 5/12 V plus +
7. Furious accelerator
8. Accelerator signal
9. Forward
10. Revers
11. Battery + output
12. Brake signal
13. key switch
14. Encoder A
15. Encoder B
16. Encoder minus -
17. Encoder plus +
18. CAN H
19. CAN L
20. Minus GRN Instrument
21. Speedometer
22. Instrument +12V
23. Reserved
24 ECO Modus

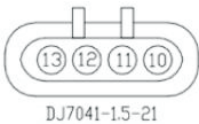
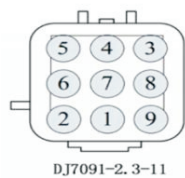
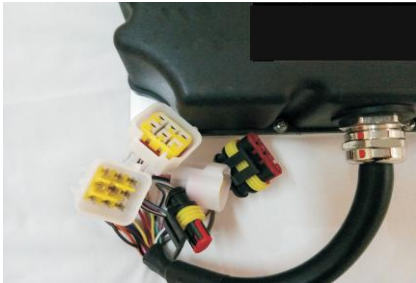


Conector	Contact number on conector	Wire color	Contact number on the general connector	Description
DJ7021A-1.5-21 (2*2)	1	White	3	Temperature Sensor ++
	2	Black-White	4	Temperature Sensor -
DJ7041A-1.5-21 (4*4)	1	light-blue	17	Encoder PLUS ++
	2	white-grey	15	Encoder B
	3	white-brown	14	Encoder A
	4	white-black	16	Encoder MINUS --
DJ7032-2.3-21 (3*3)	1	Blue-white	2	Signal Parameter TX
	2	light-grey	1	Signal Parameter RX
	3	light-green	23	Ground
DJ7061Y-2.3-21 (6*6)	1	Purple / Grey	12	Brake signal
	2	Red	18	CAN H
	3	Red-white	19	CAN L
	4	Orange-white	22	Instrument +12V
	5	light green-white	20	Minus GRN Instrument
	6	Green-white	21	Speedometer
DJ7091Y-2.3-11 (9*9)	1	Pink	6	Accelerator 5/12V PLUS +
	2	Black	5	Accelerator 5/12V MINUS --
	3	Green	8	Accelerator signal
	4	Brown	10	Revers
	5	Blue	9	Forward
	6	Yellow	7	Furious accelerator
	7	Orange	24	ECO Mode
	8	Yellow-White	11	Battery + Output
	9	Purple	13	Key Switch

3.5kW-6kW Controller installation and wiring definition



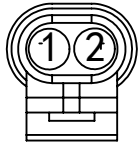
Conector	Contact number on conector	Wire color	Contact number on the general connector	Description
DJ7021A-1.5-21 (2*2)	1	White	3	Temperature Sensor ++
	2	Black-White	4	Temperature Sensor -
DJ7041A-1.5-21 (4*4)	1	light-blue	17	Encoder PLUS ++
	2	white-grey	15	Encoder B
	3	white-broun	14	Encoder A
	4	white-black	16	Encoder MINUS --
DJ7032-2.3-21 (3*3)	1	Blue-white	2	Signal Parameter TX
	2	light-grey	1	Signal Parameter RX
	3	light-green	23	Ground
DJ7061Y-2.3-21 (6*6)	1	Purple	12	Brake signal
	2	Red	18	CAN H
	3	Red-white	19	CAN L
	4	Orange-white	22	Instrument +12V
	5	light green-white	20	Minus GRN Instrument
	6	Green-white	21	Speedometer
DJ7091Y-2.3-11 (9*9)	1	Pink	6	Accelerator 5/12V PLUS +
	2	Black	5	Accelerator 5/12V MINUS --
	3	Green	8	Accelerator signal
	4	Broun	10	Revers
	5	Blue	9	Forward
	6	Yellow	7	Furious accelerator
	7	Orange	24	ECO Mode
	8	Yellow-White	11	Battery + Output
	9	Purple	13	Key Swich



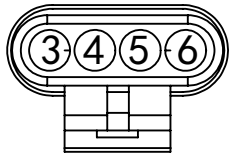
Electrical parameters:
Input voltage range (DC / V): 35 ~ 120
Maximum output current (AC / A): 500
Rated output current (AC / A): 130
Controller pneumatic voltage (DC / V): 45
Protection level: IP66
Insulation performance: input and output to the chassis

DC1000V leakage current 0.05mA, insulated
Resistance 20MΩ
Storage temperature: -40℃ ~ 70 ℃
Efficiency: 98%

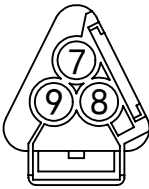
- Note:**
- The directions of the terminals shown in the figure are the incoming directions
 - B + grounded battery positive pole, B - grounded battery negative pole, U, V, W are connected to the motor U, V, W three-phase
 - U, V, W motor wire and battery link wire diameter 25mm²
 - The terminal is fixed with M8 * 20 bolts, M8 bolts Torque 8 ~ 11Nm
 - Unmarked items are implemented according to industry standards



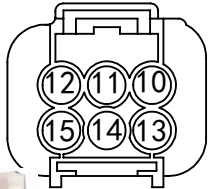
2 -pin



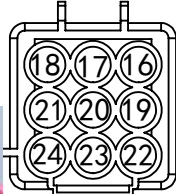
4-pin



3-pin



6-pin



9-pin

Temperature Sensor		
N°	meaning	color
1	plus+	white
2	minus -	Black-white

Encoder		
N°	meaning	color
3	Encoder 5V+	Purple white
4	Signal B	Light blue
5	Signal A	Brown
6	Encoder 5V-	gray

PC- connector		
N°	meaning	color
7	Serial (TX)	blue White
8	Serial (RX)	Light gray
9	Serial minus -	Light green

CAN - and display		
N°	meaning	color
10	-----	---
11	CANH	red
12	CANL	red white
13	-----	---
14	display 12V-	light green white
15	Speed	green white

N°	meaning	color
16	Accelerator5/ 12V+	pink
17	Accelerator5/ 12V-	black
18	Accelerator signal	green
19	Revers	Brown
20	Forward	blue
21	Accelerator switch signal	yellow
22	ECO	Orange
23	12V+/power supply	Yellow white
24	Key/KSI	purple

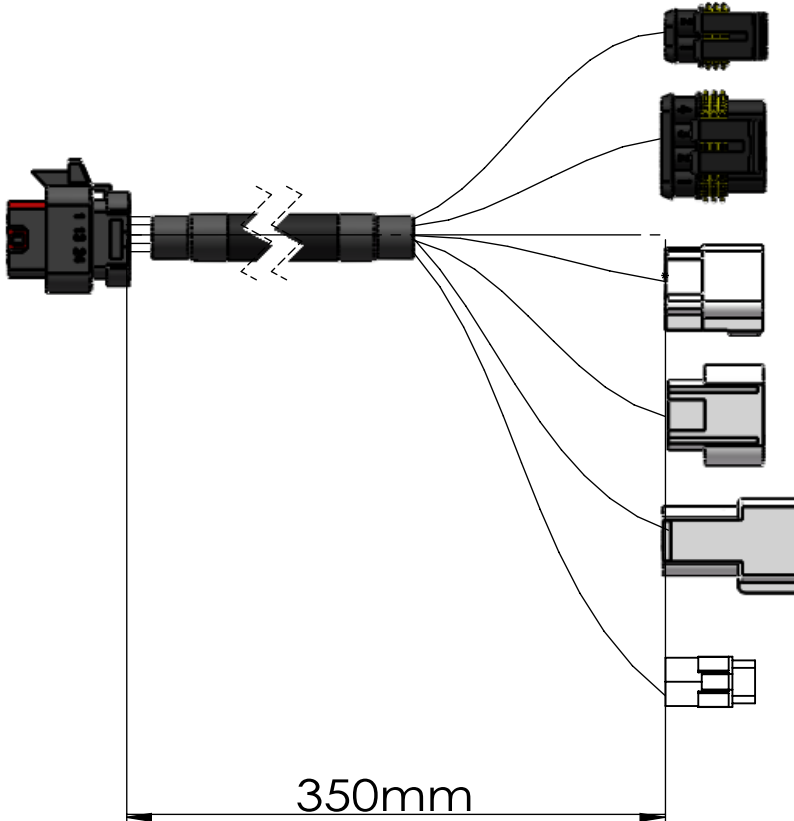
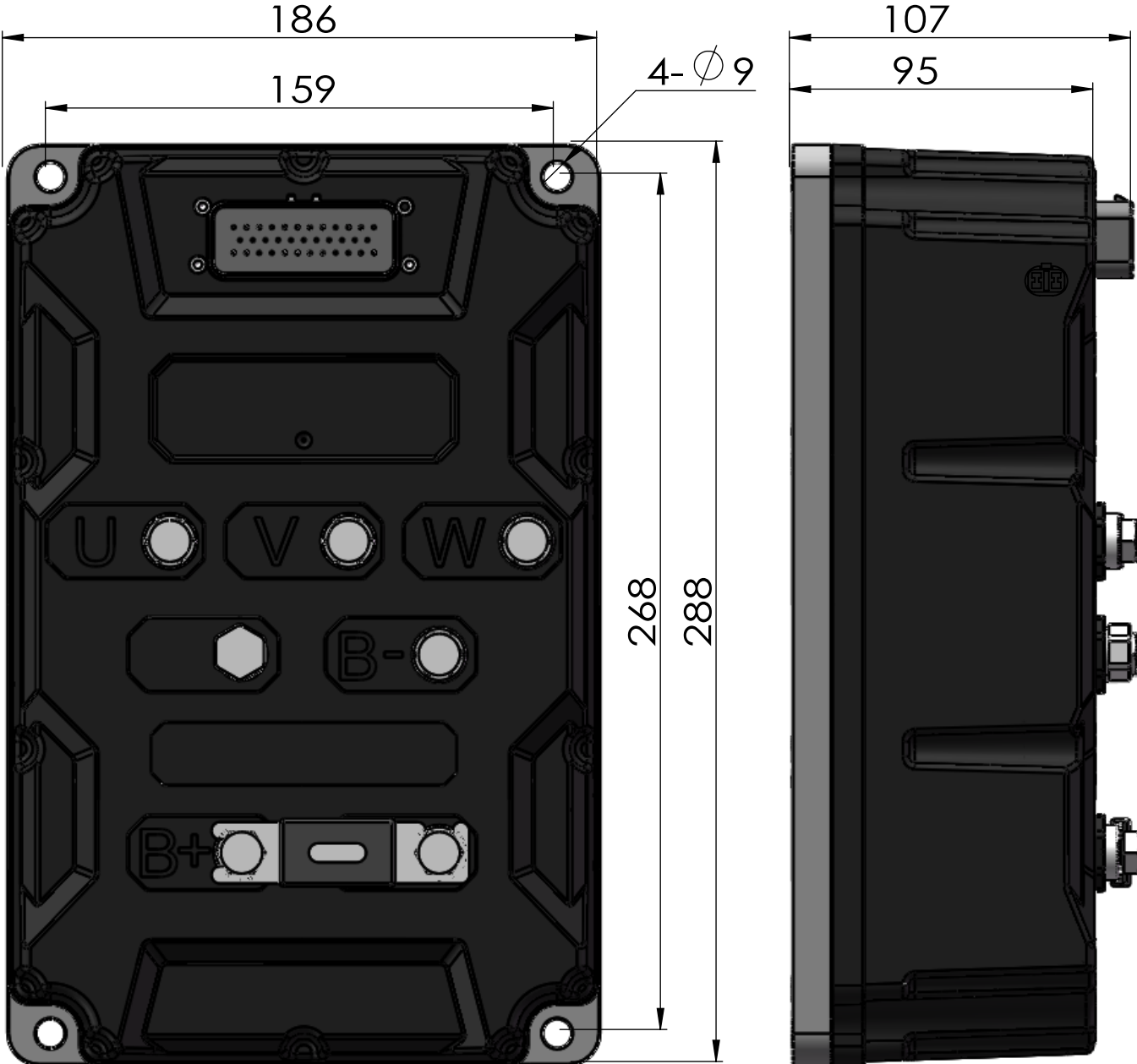


2-pin

Brake signal		
N°	meaning	color
25	Brake signal-	Orange white
26	Brake signal+	gray

Controller alarm code

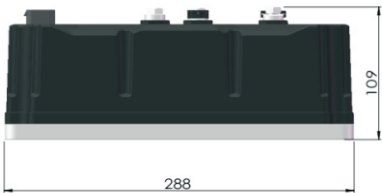
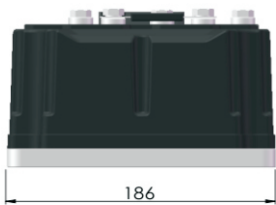
N°	Alarm code	meaning	action
1	Long sound	High pedal failure ACC high failure	Do not run
2	1 long 2 short	Precharge failure	Do not run
3	1 long 3 short	Overcurrent	Shutdown
4	1 long 4 short	Controller overheating	Shutdown
5	1 long 6 short	Current sampling failure	Shutdown
6	1 long 9 short	Battery undervoltage	Shutdown
7	1 long 10 short	Battery overvoltage	Shutdown
8	1 long 11 short	Motor overheating	Shutdown
9	1 long 13 short	Accelerator failure	Shutdown
10	1 long 14 short	Internal current detection failure	Shutdown
11	1 long 15 short	Encoder failure	Shutdown



Parts code
registration
Tracing
描校
Basemap
total number

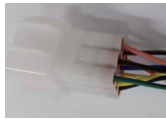
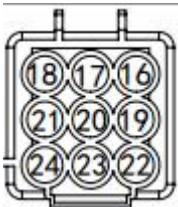
						Model : ASPP 5013		version number : V1.0	
								JS. 231. 1620. 02. 001	
								weight	

7.5kW-15kW Controller installation and wiring definition



Encoder		
N°	meaning	color
3	Encoder 5V+	Purple white
4	Signal B	Light blue
5	Signal A	Brown
6	Encoder 5V-	gray

2-pin		
Brake signal		
N°	meaning	color
25	Brake signal-	Orange white
26	Brake signal+	gray



灰	刹车+
浅绿	刹车-



brake sensor
刹车灯



4-pin

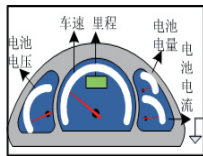


2-pin

Temperature Sensor		
N°	meaning	color
1	plus+	white
2	minus -	Black-white



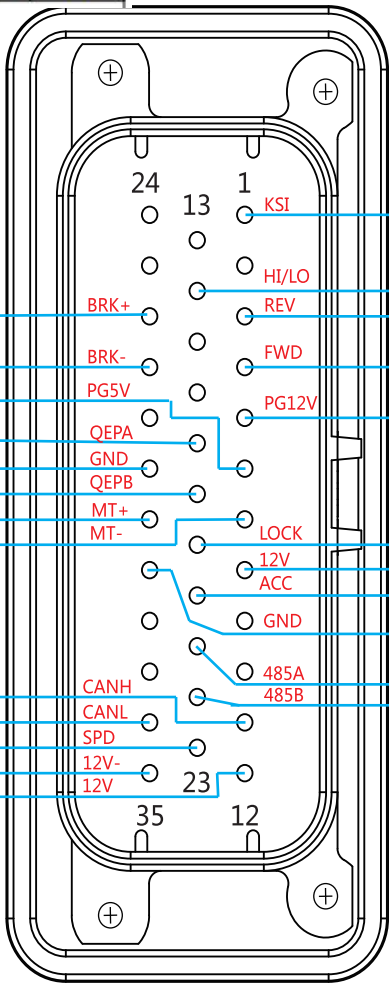
temperature sensor



CAN通讯高
CAN通讯低
转速脉冲
仪表负极
仪表正极



6-pin



power key

ECO

Revers

Forward

12V power

Switch accelerator

Accelerator + 12V

Signal accelerator

Accelerator - 12V



3-pin

N°	meaning	color
16	Accelerator5/12V+	pink
17	Accelerator5/12V-	black
18	Accelerator signal	green
19	Revers	Brown
20	Forward	blue
21	Accelerator switch signal	yellow
22	ECO	Orange
23	12V+/power supply	Yellow white
24	Key/KSI	purple

PC- connector		
N°	meaning	color
7	Serial (TX)	blue white
8	Serial (RX)	Light gray
9	Serial minus -	Light green

CAN - and display		
N°	meaning	color
10	-----	---
11	CANH	red
12	CANL	red white
13	-----	---
14	display 12V-	light green white
15	Speed	green white

Frequently Asked Questions

(1) The wiring of the controller is normal. What happens when I lightly step on the accelerator and find that the car does not go, or shakes at a very slow speed?

Answer: This situation shows that the controller starts to output, there are 2 possibilities:

1. The motor encoder is normal, but the phase sequence of the motor is not correct. You need to change the U V or V W phase of the motor.
2. The motor encoder is abnormal, such as abnormal power supply to the encoder, wire breakage, poor terminal contact, wrong terminal sequence, and encoder damage.

Bad.

Note: Only when the encoder is normal, the replacement of the motor phase sequence is effective.

(2) The wiring of the controller is normal. After stepping on the accelerator, I found that the car reversed in forward gear. What happened to forward in reverse gear?

Answer: There is a misunderstanding when this situation arises: Is it possible to adjust the forward / reverse of the gear shifter? The answer is no. Controller forward and reverse gear

The bit cannot be changed at will.

When the running direction is reversed, the following two items should be handled:

1. Adjust the phase sequence of the motor and exchange the U V or V W phase of the motor.
2. Change the position of the motor encoder A / B signal.

(3) Turn on the key switch and find that there is no response after stepping on the accelerator.

A: When this happens, you can analyze from the following aspects

Use the host computer software to check whether the communication is normal, and check whether the accelerator is properly connected. The prerequisite for the controller to output: yes Direction signal; no brake signal; accelerator has output. When the conditions for computer monitoring are not available, manual inspection is required.

(4) Alarm fault code:

Controller alarm code			
Nº	Alarm code	meaning	action
1	Long sound	High pedal failure ACC high failure	Do not run
2	1 long 2 short	Precharge failure	Do not run
3	1 long 3 short	Overcurrent	Shutdown
4	1 long 4 short	Controller overheating	Shutdown
5	1 long 6 short	Current sampling failure	Shutdown
6	1 long 9 short	Battery undervoltage	Shutdown
7	1 long 10 short	Battery overvoltage	Shutdown
8	1 long 11 short	Motor overheating	Shutdown
9	1 long 13 short	Accelerator failure	Shutdown
10	1 long 14 short	Internal current detection failure	Shutdown
11	1 long 15 short	Encoder failure	Shutdown



AS& PP Technology
德强电机