

SHANGHAI OE INDUSTRIAL CO.,LTD.

EV PARTS

目 CONTENTS

- 1 Electric vacuum pump
- 2 Electric power steering pump (EHPS)
- 3 Electric air brake compressor
- 4 Electric air condition compressor

目 CONTENTS

- 5 Electric water pump
- 6 Controller for EHPS & Air Brake
- 7 Electric power steering rack
- 8 DCDC, OBC,PDU



01

Electric vacuum pump



Electric vacuum pump

OE-V001





Electric vacuum pump OE-V001
Rated voltage 13.5V
Current ≤15A
Working temperature -40 °C ~ + 120 °C
Vacuum degree Protection class IP56
Noise pressure level within 65dB (A)
Weight 1.7kg



Performance characteristics:

Oil-free lubrication, maintenance-free
Compact structure, flexible and convenient installation, reliable performance
Low power consumption, high efficiency and long life
Anti-reverse protection
Over-current and over-temperature protection



Electric vacuum pump

OE-V002





Electric vacuum pump OE-V002
Rated voltage DC24V
Current ≤12A
Working temperature -40 °C ~ + 110 °C
Vacuum degree ≥88%
Protection grade IP65

Noise within 70dB (A)

Weight 1.9Kg



Product features:

(1)Dual-cavity opposed (2)Diaphragm structure

(3)Integrated check valve (4)High reliability

(5)Independent, single vacuum source (6)Low noise

(7)Long life



02

Electric power steering pump (EHPS)



Electric power steering pump (EHPS)

OE-P001



Performance parameters of permanent magnet synchronous motor				
Rated Power	1.5 KW	Peak Power	3 KW	
Rated Voltage	AC380V/220V	Back EMF (Rated Speed)	334V	
Rated Current	3.5A	Peak current	7A	
Rated torque	9.55 N.m	Peak torque	19.1 N.m	
Rated Speed	1500r/min	Working speed	1500 r/min	
Pressure	13Мра	Flow	12L/min	
Rated frequency	125Hz	Working frequency	125 Hz	
Insulation class	Н	Protection class	IP67	
Rated efficiency	92%	Pole pairs	5	



OE-P002



Performance parameters of permanent magnet synchronous motor Rated Power 2.2 KW Peak Power 4.4 KW

Rated Power	2.2 KW	Peak Power	4.4 KW
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Rated Voltage	AC380V/220V	Back EMF (Rated Speed)	323V
Rated Current	4.5A	Peak current	9A
Rated torque	14 N.m	Peak torque	28 N.m
Rated Speed	1500r/min	Working speed	1000 r/min
Pressure	13Мра	Flow	2±1.5L/min
Max pressure	13 Mpa	Working frequency	84 Hz



OE-P003



Performance parameters of permanent magnet synchronous motor				
Rated Power	3 KW	Peak Power	6 KW	
Rated Voltage	AC380V/220V	Back EMF (Rated Speed)	217V	
Rated Current	7.5A	Peak current	15A	
Rated torque	19 N.m	Peak torque	38 N.m	
Rated Speed	1500r/min	Working speed	1200 r/min	
Pressure	15Мра	Flow	17L/min± 1.5L/min	
Displacement	14ml/r	Working frequency	80 Hz	



OE-P004



Performance parameters of permanent magnet synchronous motor				
Rated Power	4 KW	Peak Power	10.75 KW	
Rated Voltage	AC380V/220V	Back EMF (Rated Speed)	275V	
Rated Current	7.5A	Peak current	15A	
Rated torque	19 N.m	Peak torque	38 N.m	
Rated Speed	1500r/min	Working speed	1200 r/min	
Pressure	17Mpa± 0.5	Flow	18L/min± 2L/min	
Displacement	14ml/r	Working frequency	80 Hz	



OE-P005



Performance parameters of permanent magnet synchronous motor			
Rated Power	3 KW	Peak Power	9 KW
Rated Voltage	AC247V		
Rated Current	10A	Peak current	22A
Rated torque	30 N.m	Peak torque	86 N.m
Rated Speed	1000r/min	Working speed	880-1000r/min
Pressure	17Mpa± 0.5	Flow	18L/min± 2L/min
Displacement	14ml/r	Working frequency	80 Hz



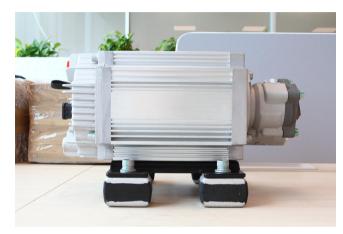
OE-P006



Performance parameters of permanent magnet synchronous motor				
Rated Power	5.5 KW	Peak Power	11 KW	
Rated Voltage	AC380V			
Rated Current	12A	Peak current	24A	
Rated torque	35 N.m	Peak torque	70 N.m	
Rated Speed	1500r/min	Working speed	1200r/min	
Pressure	17Mpa± 0.5	Flow	28L/min	



OE-P010





DUAL POWER ELECTRIC POWER STEERING PUMP

Dual power electric steering pump assembly, powered by high—voltage power battery pack (DC540V) and low-voltage (DC24V) battery at the same time. In case of high-voltage sudden disconnection, the low-voltage power supply system works to achieve seamless switching and ensure that high-voltage suddenly occurs during driving. When disconnected, the electric power steering system for new energy vehicles works normally.

We have 2.2kw and 3kw Dual power electric steering pump



OE-P011





Lowe voltage 12V&24V Three in one			
Rated Power	0.5 KW	Peak Power	1.5 KW
Rated Voltage	12VDC/24VDC	Pressure	12Мра



03

Electric air brake compressor



OE-B001



oil-free piston type				
Rated exhaust	120L/min	Motor Power	1.5 KW	
Rated exhaust pressure	1Мра	Weight	26 Kg	
Exhaust pressure	1.2Mpa	Operating temperature	-40°C ~ +60°C	
Dimensions	340x275x275 mm	Protection class	IP67	

Oil-free two-stage electric air compressor

The air brake system for hybrid, pure electric commercial vehicles provides air. Suitable for buses, light trucks, logistics and other vehicles below 6 meters



OE-B002



oil-free piston type				
Rated exhaust	240L/min	Motor Power	3KW	
Rated exhaust pressure	1Мра	Weight	48Kg	
Exhaust pressure	1.2Mpa	Operating temperature	-40°C ~ +60°C	
Dimensions	500x285x320 mm	Protection class	IP67	

Oil-free two-stage electric air compressor

The air brake system for hybrid, pure electric commercial vehicles provides air. Suitable for buses, light trucks, logistics and other vehicles below 9 meters



OE-B003



oil-free piston type				
Rated exhaust	380L/min	Motor Power	4KW	
Rated exhaust pressure	1Мра	Weight	65Kg	
Exhaust pressure	1.2Mpa	Operating temperature	-40°C ~ +60°C	
Dimensions	560x335x370 mm	Protection class	IP67	

Oil-free two-stage electric air compressor

The air brake system for hybrid, pure electric commercial vehicles provides air. Suitable for buses, light trucks, logistics and other vehicles above 9 meters



OE-B004



oil-free piston type				
Rated exhaust	160L/min	Motor Power	1.6 KW	
Rated exhaust pressure	1Мра	Weight	65Kg	
Exhaust pressure	1.2Mpa	Operating temperature	-40°C ~ +60°C	
Dimensions	560x335x370 mm	Protection class	IP67	

Oil-free two-stage electric air compressor

The air brake system for hybrid, pure electric commercial vehicles provides air. Suitable for buses, light trucks, logistics and other vehicles less than 6 meters



OE-B005



oil-free piston type				
Rated exhaust	200L/min	Motor Power	2.2 KW	
Rated exhaust pressure	1Мра	Weight	45Kg	
Exhaust pressure	1.2Mpa	Operating temperature	-40°C ~ +60°C	
Dimensions	495x385x355 mm	Protection class	IP67	

Oil-free two-stage electric air compressor

The air brake system for hybrid, pure electric commercial vehicles provides air. Suitable for buses, light trucks, logistics and other vehicles 6-9 meters



OE-B006



oil-free piston type						
Rated exhaust	Rated exhaust 240L/min Motor Power 3.0 KW					
Rated exhaust pressure	Rated exhaust pressure 1Mpa Weight					
Exhaust pressure 1.2Mpa Operating temperature -40°C ~ +60°C						
Dimensions 495x385x355 mm Protection class IP67						

Oil-free two-stage electric air compressor

The air brake system for hybrid, pure electric commercial vehicles provides air. Suitable for buses, light trucks, logistics and other vehicles 6–9 meters



OE-B007



oil-free piston type				
Rated exhaust 300L/min Motor Power 3.0 KW				
Rated exhaust pressure	Rated exhaust pressure 1Mpa \			
Exhaust pressure 1.2Mpa Operating temperature -40°C ~ +60°C				
Dimensions 495x385x355 mm Protection class IP67				

Oil-free two-stage electric air compressor

The air brake system for hybrid, pure electric commercial vehicles provides air. Suitable for buses, light trucks, logistics and other vehicles 6-9 meters



OE-B008



Applicable models:
Engineering vehicles: 4*2, 6*4, 8*4, 10*8, etc.,
Including sanitation trucks,
tractors, muck trucks,
dump trucks, mining trucks
Bus: more than 6 meters

NO.	Item	Parameter	
1	Model	EAC-25-22	EAC-38-22
2	Displacement	250L/min	380L/min
3	Power	3KW	4KW
4	Noise	72db	72db
5	Exhaust pressure	1MPa	1MPa
6	Exhaust gas temperature	150℃	150℃
7	size	580*352*362	600*355*368
8	ambient temperature	-40°C -+60°C	-40°C -+60°C
9	weight	48KG	52KG
10	Air tank volume	90 L to 140 L	120 L to 240 L
11	Starting air pressure time (0-0.65MPa)	within 3 minutes (140L air storage tank)	within 3 minutes (200L air storage tank)
12	Inflated full time (0-1MPa)	within 5 minutes (140L air storage tank)	within 5 minutes (200L air storage tank)
13	degree of protection	IP68	IP68
14	Vibration resistance	3G	3G



OE-B009



Applicable models:

Engineering vehicles: 4*2, 6*4, etc.,

including light trucks,

Sanitation vehicles, logistics vehicles, etc.

Bus: 6 meters

NO.	Item	Parameter	
1	Model	EAC-12-63	EAC-16-63
2	Displacement	120L/min	160L/min
3	Power	1.5KW	1.8KW
4	Noise	72db	72db
5	Exhaust pressure	1MPa	1MPa
6	Exhaust gas temperature	150℃	150℃
7	size	343*274*274	363*274*281
8	ambient temperature	-40°C-+60°C	-40°C -+60°C
9	weight	25KG	25.5KG
10	Air tank volume	30L to 70L	40L to 90L
11	starting pressure time (0-0.65MPa)	within 3 minutes (70L air tank)	within 3 minutes (90L air tank)
12	Inflated full time (0- 1MPa)	within 5 minutes (70L air tank)	within 5 minutes (90L air tank)
13	degree of protection	IP68	IP68
14	Vibration resistance	3G	3G



OE-B010



Applicable models:

Engineering vehicles: 6*4, 8*4, 10*8, etc.,

Including tractors, muck trucks, etc.

Bus: more than 6 meters

NO.	Item	Parameter	
1	Model	EAC-25-63 (Q)	EAC-40-63 (Q)
2	Displacement	250L/min	400L/min
3	Power	3KW	4KW
4	Noise	72db	72db
5	Exhaust pressure	1MPa	1MPa
6	Exhaust gas temperature	150℃	≤150°C
7	size	435*314*353	446*314*353
8	ambient temperature	-40℃-+60℃	-40°C-+60°C
9	weight	37.8KG	42.2KG
10	Air tank volume	90 L to 140 L	120 L to 240 L
11	Starting air pressure time (0- 0.65MPa)	within 3 minutes (140L air storage tank)	within 3 minutes (200L air storage tank)
12	Inflated full time (0- 1MPa)	within 5 minutes (140L air storage tank)	within 5 minutes (200L air storage tank)
13	degree of protection	IP68	IP68
14	Vibration resistance	3G	3G



OE-B011



Applicable models (water-cooled Model): Engineering vehicles: 6*4, 8*4, 10*8, etc., Including tractors, muck trucks, etc. Bus: more than 6 meters

NO.	Item	Parameter
1	Model	EAC-40-63
2	Displacement	400L/min
3	Power	4KW
4	Noise	72db
5	Exhaust pressure	1.25MPa
6	Exhaust gas temperature	≤150°C
7	size	443*304*337
8	ambient temperature	-40°C -+60°C
9	weight	42.2KG
11	Air tank volume	120 L to 240 L
12	Starting air pressure time (0-	within 3 minutes
12	0.65MPa)	(200L air storage tank)
13	Inflated full time (0-1MPa)	within 5 minutes
13	ililiated full tillle (0-fivir a)	(200L air storage tank)
14	degree of protection	IP68
15	Vibration resistance	3G



04

Electric air condition compressor



D series product specification (1)



Model	DM18A
Displacement	18 cc / rev
Speed range	2000-7200 RPM
Voltage	DC 10 v DC 430 v



D series product specification (2)



Model	DM24A
Displacement	24 cc / rev
Speed range	2000-6000 RPM
Voltage	DC 20 v DC 31 v



B series product specification (4)



Model	BM80C3
Displacement	80 cc / rev
Speed range	1000-6000 RPM
Voltage	DC 300 v DC 720 v







05

Electric water pump



OE-W002



Features: small size, light weight, compact structure, wide range of applicable environments, platform development and design. Under the same shape, different speed, power and lift requirements of different vehicles can be met by PWM speed regulation. The pump has functions such as constant power, overvoltage protection, stall protection, dry running protection, reverse connection protection, and soft start.

Product Name	02.03.15X.XXXX (OE-W002)			
Rated Power	DC12V	DC 24V		
Voltage range	DC9-16V	DC18-28V		
Water inlet and outlet diameter	Ф20m	m out diameter)		
Service life	20000 hours			
Use ambient temperature	-40℃-100℃			
Storage temperature	-40℃-100℃			
Protection class	IP67			
Circulating medium	antifreeze			
noise	≤50db			
Weight	0.9KG(include bracket)			



Electric water pump

OE-W003



Features: small size, light weight, compact structure, wide range of applicable environments, platform development and design. Under the same shape, different speed, power and lift requirements of different vehicles can be met by PWM speed regulation. The pump has functions such as constant power, over—voltage protection, stall protection, dry running protection, reverse connection protection, and soft start.

Product Name	02.03.2X.XXXX (OE-W003)				
Rated Power	DC	12V		DC 24V	
Voltage range	DC9-16V		DC18-28V		
Water inlet and outlet diameter	. 0/5000 (0)161		Ф20mm (outer diameter)	Ф25mm (outer diameter)	Ф38mm (outer diameter)
Service life	20000 hours				
Use ambient temperature		-40°C -100°C			
Storage temperature	-40°C -100°C				
Protection class	IP67				
Circulating medium	antifreeze				



Electric water pump

OE-W004



Features: small size, light weight, compact structure, wide range of applicable environments, platform development and design. Under the same shape, different speed, power and lift requirements of different vehicles can be met by PWM speed regulation. The pump has functions such as constant power, over— voltage protection, stall protection, dry running protection, reverse connection protection, and soft start.

Product number	02.06.502.1XXX	02.06.502.2XXX	02.06.502.3XXX		
Rated voltage		DC 24V			
voltage range		DC18-28V			
Water inlet and outlet diameter	4	Ф38mm (outer diameter)			
Service life		20000 hours			
Use ambient temperature	-40°C-85°C -40°C-85°C -40°C-85°C				
Storage temperature	-40°C-80°C	-40°C-80°C -40°C-85°C -40°C-85°C			
Protection class	IP56	IP67	IP67		
Circulating medium	antifreeze				
noise	≤65db				
Pump weight	2.29Kg				



Electric water pump

OE-W005



Features: small size, light weight, compact structure, wide range of applicable environments, platform development and design. Under the same shape, different speed, power and lift requirements of different vehicles can be met by PWM speed regulation. The pump has functions such as constant power, overvoltage protection, stall protection, dry running protection, reverse connection protection, and soft start.

Product number	02.03.602.XXXX
Rated voltage	DC 24V
voltage range	DC18~32V
Water inlet and outlet diameter	Ф38mm (outer diameter)
Service life	20000 H
Use ambient temperature	-50°C ~125°C
Storage temperature	-50°C ~125°C
Protection class	IP68
Circulating medium	antifreeze
noise	≤60 dB (measured at a distance of 1 meter)
Pump weight	1.74 \ 2.10 Kg (without bracket \ with standard bracket)









Main technical parameters		
Rated power:	2.2KW/3.7KW/5.5KW	
Input voltage range:	220V~750V DC	
Output voltage:	220VAC/380VAC	
Level of protection:	IP 67	
Control mode:	CAN	





Forced water cooling

Plug and play self – identification technology is adopted Output voltage ripple coefficient small volume, high protection level

Power on buffer, temperature detection, input anti – reverse connection, input and output over – voltage Undervoltage protection, overcurrent protection, current limiting protection, overload protection and other functions

Main technical parameters		
Rated power:	1.5KW/2KW/3KW	
Input voltage range:	200V~750V DC	
Output voltage:	DC 14V (1.5KW/2KW, 10~16V) /DC 27V (3KW)	
Voltage stabilizing accuracy:	≤2%	
Level of protection:	IP 67	
Control mode:	CAN/Digital level enablement	
Cooling mode:	Water cooled	
External dimension:	225*125*55mm (1.5KW/2KWSingle mode /235*120*58.5mm (3KW Single mode)	





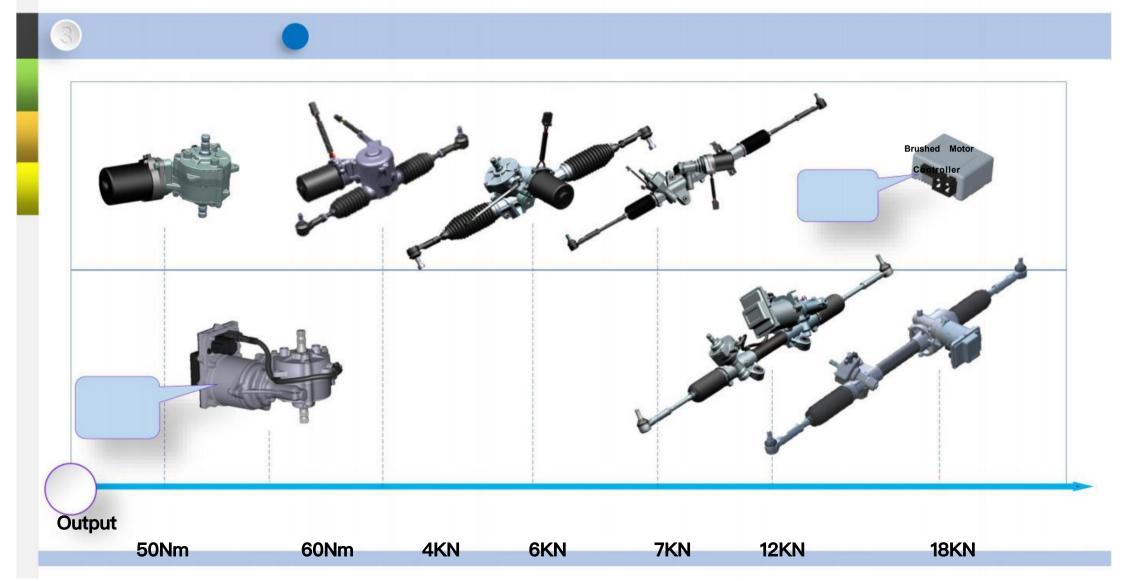
	Requirements	Specification
	DC rated voltage level	540V
-	DC supply voltage range	450-750V
	cooling method	Air-cooled
	communication method	CAN
	Protection level	IP67
	Cabinet material	Cast aluminum
	Control voltage	24V
Machine parameter	Working noise	<60dB
	Operating temperature	-40°C ~ +65°C
	CAN function	communication
	volume	465×375×167mm
	weight	17.5kg
	Grounding requirements	The two-in-one shell needs to be grounded separately, with a grounding wire diameter ≥6mm²
	Rated output power	5.5KW
DCAC	Rated power efficiency	≥95%
steering pump	Rated output voltage / current	380V/13A/220VAC
	control method	CAN
	Rated output power	5.5KW
DCAC	Rated power efficiency	≥95%
Air compressor	Rated output voltage / current	380VAC/13A/22VAC
	control method	CAN
DCDC		3kw , 12V /24V



07

Electric power steering rack







OE-S380&S220 — EPS for UTV&ATV





Waterproof EPS system is developed and mass produced to meet UTV&ATV manufacturers' requirements.

Waterproof and dust proof grade is IP67+.

Can work in high temperature and other harsh environment.

Compact structure allows an easy installation. Capable of designing according to customers' requirements.



OE-SC004A— CEPS



Steering System		
Туре	Column-assist type	
ECU control current	65A	
Operating voltage	DC 12V	
Maximum output torque	46Nm	
Steering shaft maximum load (reference)	700kgs	
Degree of protection	EPS: IP67 ECU: IP52	



OE-SC004— CEPS

- · Typical application
- Medium- sized unmanned sightseeing vehicle;
- · Driverless UTVs.







Steering System		
Туре	Column-assist type	
ECU control current	80A	
Operating voltage	DC 12V	
Maximum output torque	54Nm or 61Nm	
Steering shaft maximum load (reference)	850kgs	
degree of protection	EPS: IP67	



OE-S001— CEPS





Steering System		
Туре	Pinion-assist type	
ECU control current	65A	
Operating voltage	DC 12V	
Rack stroke & ratio	±50mm & 129mm/rev	
Maximum rack force	3000N	



OE-S002 — DP-EPS for Pick up, Cars



Application

Both fuel vehicles and new energy vehicles can be carried;

The maximum load of the front axle of the vehicle: 1350Kgf;

Practical application of electric logistics vehicles; Adaptable to ADAS and autonomous driving needs.

Steering System		
Туре	Pinion-assist type	
ECU control current	65A	
Operating voltage	DC 12V	
Rack stroke & ratio	±78mm & 50.27mm/rev	
Maximum rack force	6000N	



OE-S003 — DP-EPS for Pick up, Cars



- Typical application
- · Right rudder sea lion cub



Steering System		
Туре	Pinion-assist type	
ECU control current	65A	
Operating voltage	DC 12V	
Rack stroke & ratio	±79mm & 50.27mm/rev	
Maximum rack force	7000N	



OE-S004

Steering System	
型式	小齿轮助力式
Туре	Pinion-assist type
最大供电电流	65A
Power supply current	00, (
工作电压	DC 12V
Operating voltage	30 12 0
齿条行程及线角传动比	±50mm & 42.76mm/rev
Rack stroke & ratio	
最大输出齿条力	4KN
Maximum rack force	11/1/4







OE-S005

Typical application Right rudder narrow body sea lion;





Steering System		
Туре	Pinion-assist type	
ECU control current	80A	
Operating voltage	DC 12V	
Rack stroke & ratio	±78mm & 56.55mm/rev	
Maximum rack force	11000N	



OE-S005C



Typical application
Right rudder wide body sea lion;



Steering System		
Туре	Pinion-assist type	
ECU control current	126A	
Operating voltage	DC 12V	
Rack stroke & ratio	±67.5mm or ±78mm & 50.46mm/rev	
Maximum rack force	12000N	



OE-S005D



- Typical application
 Right rudder wide body sea lion;



Steering System		
Туре	Pinion-assist type	
ECU control current	80A	
Operating voltage	DC 12V	
Rack stroke & ratio	78mm & 50.46mm/rev	
Maximum rack force	12000N	



OE-S006A



Steering System		
Туре	Pinion-assist type	
ECU control current	80A	
Operating voltage	DC 12V	
Rack stroke & ratio	78mm & 50.46mm/rev	
Maximum rack force	12000N	



OE-S006B

- Typical application
- Left rudder narrow body sea
 lion:
- · Large Ride- by- Wire Chassis.





Steering System		
Туре	Pinion-assist type	
ECU control current	80A	
Operating voltage	DC 12V	
Rack stroke & ratio	78mm & 50.46mm/rev	
Maximum rack force	11000N	



OE-R003





- · Typical application
- · 8.5 m electric bus



Steering System		
Туре	R-EPS	
ECU control current	40A	
Operating voltage	DC 24V	
Rack stroke & ratio	137mm & 50.4mm/rev	
Maximum rack force	18000N	



08 DCDC, OBC,PDU



DCDC, OBC, PDU





3.3KW OBC Air cooling



3.3KW OBC Liquid cooling



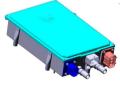
3.3KW OBC Air cooling



6.6KW OBC Liquid cooling



6.6KW Bi-OBC Liquid cooling



6.6KW OBC Liquid cooling



1.2KW DCDC Natural cooling



1.4KW DCDC Liquid cooling



1.2KW DCDC Liquid cooling



1.5KW DCDC Liquid cooling



2KW DCDC Liquid cooling





DCDC, OBC, PDU



2.5KW

DCDC Liquid cooling



2KW

DCDC Liquid cooling



6.6KW

OBC+2.5KW DCDC Liquid cooling



2.5KW

DCDC Liquid cooling



3.3KW

OBC+1.2KW DCDC Air cooling



6.6KW

OBC+2KW DCDC Liquid cooling



3.3KW

OBC+2KWDCDC+PDU Air cooling



6.6KW

OBC+PDU Liquid cooling



3.3KW

OBC+3KW DCDC Liquid cooling



6.6KW

Bi-OBC+PDU Liquid cooling



6.6KW

OBC+2KW DCDC Liquid cooling



6.6KW

OBC+1.5KW DCDC+PDU Liquid cooling





THANK YOU