

# TS/M048V0165FAA



## APPLICATIONS

- New Energy Vehicle
- Engineering Machinery
- Rail transit
- UPS and Telecom Systems
- Industrial Equipment

## FEATURES AND ADVANTAGES

- One Million Cycles Lifetime
- High Power Density
- Active Voltage Equilibrium
- Wide Range of Operation Temperature
- Temperature and Voltage Control

### Electrical Performance

Capacity	Rated Capacity	165F
	Capacity Tolerance	0/+20%
Voltage	Rated voltage	48V DC
	Surge Voltage	51V DC
Internal resistance	ESR(initial )	6mΩ
Electric current	Maximum leakage current ( 25°C , after 72h )	6mA
	Maximum continuous current	150A
Energy	Maximum peak current	2000A
	Stored energy E <sub>stored</sub>	52.8Wh
Power density	Energy density E <sub>max</sub>	3.7wh/Kg
	Power density P <sub>max</sub>	6760W/Kg

### Temperature Features

Temperature features	Operating Temperature Range	-40 ~ +65°C
	Storage Temperature Range	-40 ~ +70°C

### Monitor and Control

Alarm Monitor	Over voltage alarm	The voltage of single module ≥ 2.7V
	Temperature monitor	NTC10K

### Service Lifetime

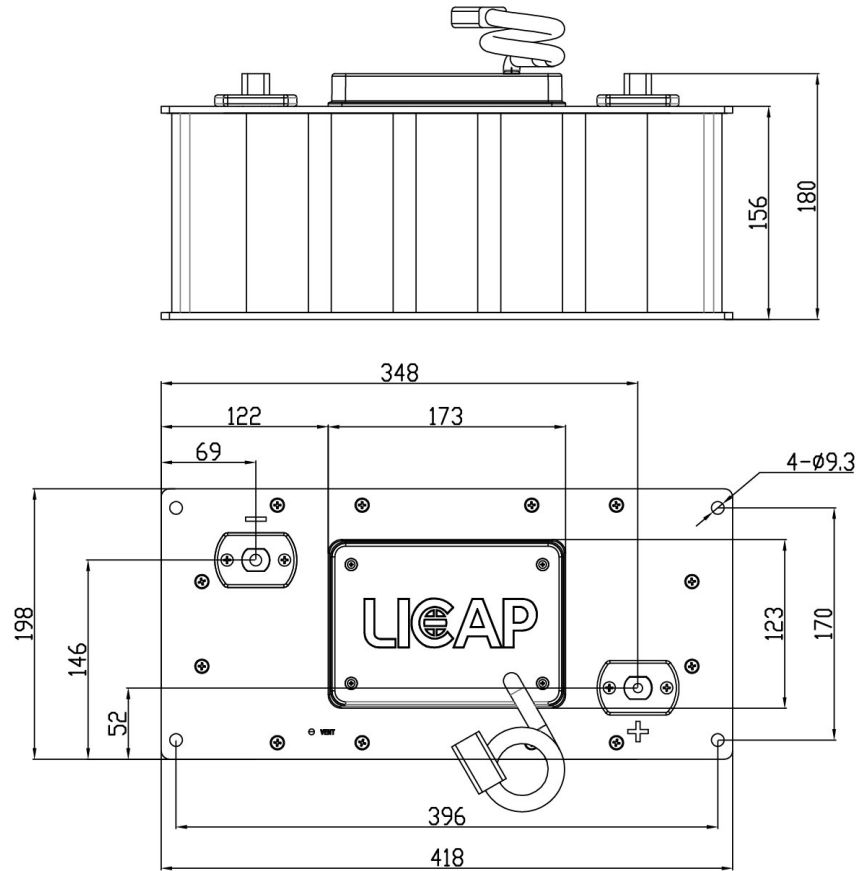
Lifetime Under Normal Temperature	Operated over 10 years under 25°C at rated voltage	
	Change in capacity	≤ 20%
Lifetime Under High Temperature	After operated for 1500h under 65°C at rated voltage	
	Change in internal resistance	≤ 100%
Storage Lifetime	4 years (under the highest storage temperature, uncharged)	
Cycling Test	1 million cycles between rated voltage and half rated voltage at 25°C with constant current	
	Change in capacity	≤ 20%
	Change in internal resistance	≤ 100%

### Safety Specification and Mechanical Features

Safety	Insulation resistance	500V DC Insulation resistance ≥ 100MΩ
	Insulation intensity	2500V DC Leakage current ≤ 10mA
	Protection level	IP65
Mechanical Vibration	Operation vibration	GB/T 11287-2000
	Transportation vibration	GB/T 4798.2-2008
	Impact	GB/T 14537-1993

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## Outline Drawing (For Reference)



### External Dimension

Weight	Unit: kg	≤14.2
Size	Unit: mm	418*198*180 ( L*W*H)
Shell	Aluminum	

### Module Fastener (For Reference Only)

Position	Name	Specification	Material	Quantity	Torque
Module installation	Screw bolt	M8×30	Stainless steel 10.9 level	4	20N*m
	Flat gasket	Φ8		4	
	Spring gasket	Φ8		4	
	Nut	M8		4	
Module Output	Screw bolt	M8×12		1	20N*m
	Flat gasket	Φ8		1	
	Spring gasket	Φ8		1	
Terminal Installation	Screw bolt	M10×12		1	30N*m
	Flat gasket	Φ10	1		
	Spring gasket	Φ10	1		