ENOV (HUIZHOU) NEW ENERGY TECHNOLOGY CO., LTD

LITHIUM MOTORCYCLE STARTER BATTERY

PRODUCT SPECIFICATION

STANDARD SERIES
REBOOT SERIES
BLUETOOTH SERIES

STANDARD SERIES

PRODUCT CHARACTERISTICS

- Ultra high rate 100C discharge
- Intelligent Battery Management System (BMS)
- Wide temperature range adaptive system (-30℃ to 65℃)
- Long-term circulation and low self-consumption
- Multi-scenario adaptability
- Lightweight structure design

SPECIFICATIONS

Model	Voltage (V)	Capacity (Ah)	Size (L*W*H)mm	Extended size (L*W*H)mm	Weight (Kg)	CA (Amps)	CCA (Amps)	Polarity	Alternative lead-acid battery model
EN12-ST010B	12.8	1.0	98*56*85	/	0.3	80	40	-+	YB3L-B
EN12-ST016B	12.8	1.6	98*56*85	/	0.4	128	64	-+	YB3L-B
EN12-ST025B	12.8	2.5	113 x 70 x85	113*70*105 113*70*125	0.6	150	75	-+	YTX14-BS、ETX14-BS CTX14-BS、YTX12-BS YTX16-BS、YTX20-BS
EN12-ST035B	12.8	3.5	113 x 70 x85	113*70*105 113*70*125	0.8	210	105	-+	YTX4L-BS、YTX5L-BS YTZ5S-BS、YTZ6-BS YTZ7S-BS、YTX7L
EN12-ST040B	12.8	4.0	150*65*93	150*65*105 150*70*105 150*69*130 150*70*145	0.9	240	120	+-	YT7B-BS、YT9B-BS、 YT12B-BS、YT14B-BS
EN12-ST040B-A	12.8	4	150*87*93	150*87*105 150*87*120 150*87*130	0.9	240	120	+-	YTX7A-BS、YTX9-BS YTZ10S-BS、YT12A-B2 YTZ12S-BS、YTZ14S-BS
EN12-ST040B-N	12.8	4.0	134*75*133	134*89*163	0.9	240	120	+-	YT14AH-BS、12N7-3B、 12N7-4A、12N7-4B、 6MF7-BS、6MF9-BS
EN12-ST050B	12.8	5.0	150 x 87 x93	150*87*105 150*87*120 150*87*130	1.1	300	150	+-	YTX7A-BS、YTX9-BS YTZ10S-BS、YT12A-B2 YTZ12S-BS、YTZ14S-BS
EN12-ST060B	12.8	6.0	150 x 87 x93	150*87*105 150*87*120 150*87*130	1.2	360	180	+-	YTX7A-BS、YTX9-BS YTZ10S-BS、YT12A-B2 YTX12-BS、YTZ12S-BS YTZ14S-BS
EN12-ST070B	12.8	7.0	134*75*133	134*89*163	1.3	420	210	+-	YT14AH-BS、12N7-3B、 12N7-4A、12N7-4B、 6MF7-BS、6MF9-BS
EN12-ST080B	12.8	8.0	150 x 87 x130	150*87*145 150*87*155 175*87*155	1.4	480	240	+-	YTX14-BS、ETX14-BS CTX14-BS、YTX12-BS YTX16-BS、YTX20-BS
EN12-ST120B	12.8	12.0	175 x 87 x155	205*87*162	2.0	720	360	-+	YTX20-BS、YTX24HL-BS
EN12-ST180B	12.8	18.0	165 x 125 x175	/	3.0	1080	540	-+	YTX30L-BS

——OEM or ODM is available

REBOOT SERIES

PRODUCT CHARACTERISTICS

- Both ST series functions
- Intelligent backup power, travel worry-free
- Quick wake up, easy to use
- Low temperature heating technology

SPECIFICATIONS

Model	Voltage (V)	Capacity (Ah)	Size (L*W*H) mm	Extended size (L*W*H) mm	Weight (kg)	CA (Amps)	CCA (Amps)	Polarity	Alternative lead-acid battery model
EN12-RT010B	12.8	1.0	98*56*85	/	0.3	80	40	-+	YB3L-B
EN12-RT016B	12.8	1.6	98*56*85	/	0.4	128	64	-+	YB3L-B
EN12-RT025B	12.8	2.5	113 x 70 x85	113*70*105 113*70*125	0.6	150	75	-+	YTX4L-BS、YTZ5S-BS YTX5L-BS、YTZ6-BS
EN12-RT035B	12.8	3.5	113 x 70 x85	113*70*105 113*70*125	0.8	210	105	-+	YTX4L-BS、YTZ5S-BS YTX5L-BS、YTZ6-BS YTZ7S-BS、YTX7L
EN12-RT040B	12.8	4.0	150*65*93	150*65*105 150*70*105 150*69*130 150*70*145	0.9	240	120	+-	YT7B-BS、YT9B-BS YT12B-BS、YT14B-BS
EN12-RT040B-A	12.8	4	150*87*93	150*87*105 150*87*120 150*87*130	0.9	240	120	+-	YTX7A-BS、YTX9-BS YTZ10S-BS、YT12A-B2 YTZ12S-BS、YTZ14S-BS
EN12-RT040B-N	12.8	4.0	134*75*133	134*89*163	0.9	240	120	+-	YT14AH-BS、12N7-3B 12N7-4A、12N7-4B 6MF7-BS、6MF9-BS
EN12-RT050B	12.8	5.0	150 x 87 x93	150*87*105 150*87*120 150*87*130	1.1	300	150	+-	YTX7A-BS、YTX9-BS YTZ10S-BS、YT12A-B2 YTZ12S-BS、YTZ14S-BS
EN12-RT060B	12.8	6.0	150 x 87 x93	150*87*105 150*87*120 150*87*130	1.2	360	180	+-	YTX7A-BS、YTX9-BS YTZ10S-BS、YT12A-B2 YTX12-BS、YTZ12S-BS YTZ14S-BS
EN12-RT070B	12.8	7.0	134*75*133	134*89*163	1.3	420	210	+-	YT14AH-BS、12N7-3B 12N7-4A、12N7-4B 6MF7-BS、6MF9-BS
EN12-RT080B	12.8	8.0	150 x 87 x130	150*87*145 150*87*155 175*87*155	1.4	480	240	+-	YTX12-BS、YTX14-BS YTX16-BS、YTX20-BS
EN12-RT120B	12.8	12.0	175 x 87 x155	205*87*162	2.0	720	360	-+	YTX20-BS、YTX24HL-BS
EN12-RT180B	12.8	18.0	165 x 125 x175	/	3.0	1080	540	-+	YTX30L-BS

——OEM or ODM is available

BLUETOOTH SERIES

PRODUCT CHARACTERISTICS

- Both ST and RT series functions
- The mode is switched to sleep periodically
- Log function, use history can be checked
- APP remote operation, remote upgrade
- SOC,SOH management view

SPECIFICATIONS

Model	Voltage (V)	Capacity (Ah)	Size (L*W*H) mm	Extended size (L*W*H) mm	Weight (kg)	CA (Amps)	CCA (Amps)	Polarity	Alternative lead-acid battery model
EN12-BT010B	12.8	1.0	98*56*85	/	0.3	80	40	-+	YB3L-B
EN12-BT016B	12.8	1.6	98*56*85	/	0.4	128	64	-+	YB3L-B
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EN12-BT040B-N	12.8	4.0	134*75*133	134*89*163	0.9	240	120	+-	YT14AH-BS、12N7-3B 12N7-4A、12N7-4B 6MF7-BS、6MF9-BS
EN12-BT050B	12.8	5.0	150 x 87 x93	150*87*105 150*87*120 150*87*130	1.1	300	150	+-	YTX7A-BS、YTX9-BS YTZ10S-BS、YT12A-B2 YTZ12S-BS、YTZ14S-BS
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EN12-BT120B	12.8	12.0	175 x 87 x155	205*87*162	2.0	720	360	-+	YTX20-BS、YTX24HL-BS
EN12-BT180B	12.8	18.0	165 x 125 x175	/	3.0	1080	540	-+	YTX30L-BS

——OEM or ODM is available

APPLICATION SCENARIO

		
SUITABLE FOR SCOOTER	ROAD MOTORCYCLE	ATV
		
SNOWMOBILE	JET SKI	UTV

STORAGE AND SHIPMENT REQUIREMENT

Item	Requirement	Remark
Storage temperature	≤1 month:-20℃~45℃ ≤3 month:-20℃~30℃ ≤1 year:23±2℃	The recommended storage Temperature is 23±2° C.
Humidity	45%~85%RH	/
State of charge	50%-100%	Voltage: 3.20-3.65V

1.The storage temperature should be controlled at -20℃~40℃, away from open flame, corrosive substances and humid environment.

2.Do not charge in a sealed, high temperature (> 40℃) or low temperature (< -5℃) environment to avoid abnormal reaction of the electrolyte.

3.Do not reverse connect the positive and negative terminals; otherwise, short circuit or device damage may occur.

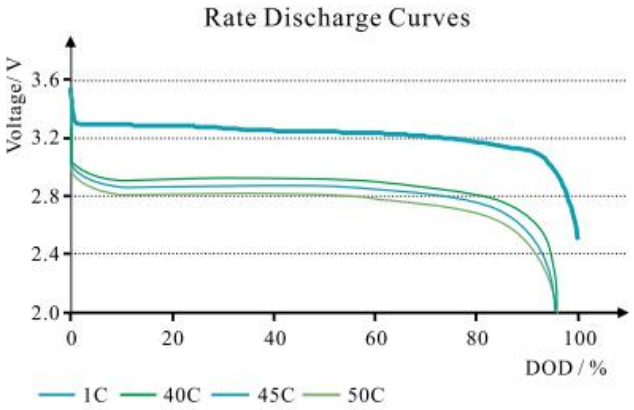
4.If the volume of the lithium battery is smaller than that of the original battery, secure the battery using the provided base or foam to ensure stable installation.

5.When storing, it is important to avoid external vibrations and colisions as much as possible toavoid short circuits inside the battery or damage to the metal casing.

BATTERY CELL PERFORMANCE TEST(LFP)

ROOM TEMPERATURE RATE PERFORMANCE

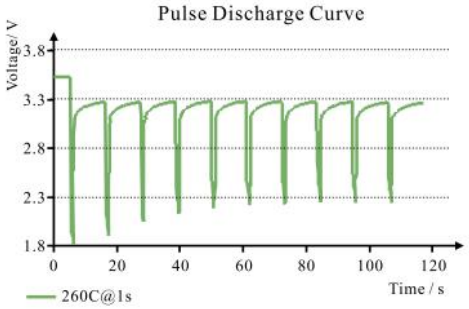
Test method: At normal temperature, 0.5C constant current constant voltage charge to 3.68V, cut-off current 0.05C: 1C(up to 2.5V), 40C, 45C, 50C constant discharge to 2.0V.

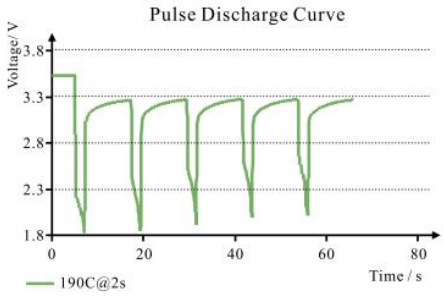


Magnification	1C	40C	45C	50C
Median voltage /V	3.244	2.886	2.852	2.807
Capacity retention rate /%	100.0	94.9	95.9	94.8

PULSE DISCHARGE PERFORMANCE AT ROOM TEMPERATURE

Test method: Under normal temperature, 0.5C constant current constant voltage charge to 3.68V, cut-off current 0.05C; Discharge at 260C pulse for 1s, 190C pulse for 2s.

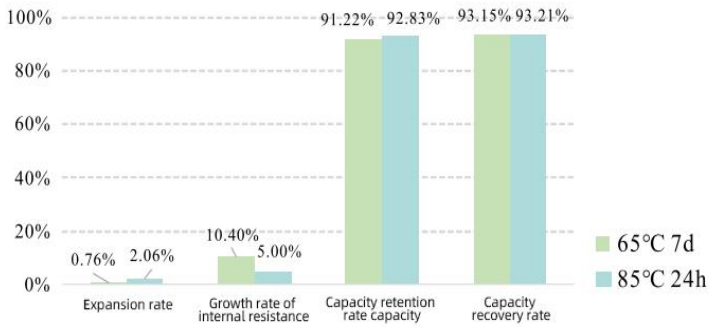




Pulse magnification @ time	Low head voltage /V
260C@1S	1.811
190C@2S	1.879

HIGH TEMPERATURE STORAGE

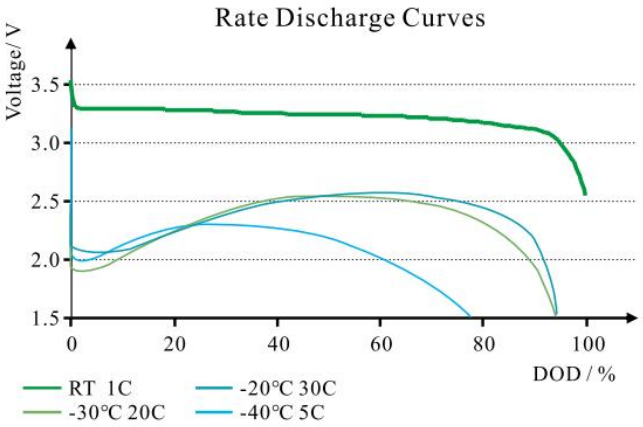
Test method: At room temperature, 0.5C constant current constant voltage charge to 3.68V, cut-off current 0.05C; After being stored at 65℃ for 7d and 85℃ for 24h, the current was discharged to 2.5V at 1C. Then charge 1C at 0.5C, cycle 3 times, record the internal resistance, thickness and capacity of the battery before and after storage.



BATTERY CELL PERFORMANCE TEST (LFP)

◆ LOW TEMPERATURE PERFORMANCE

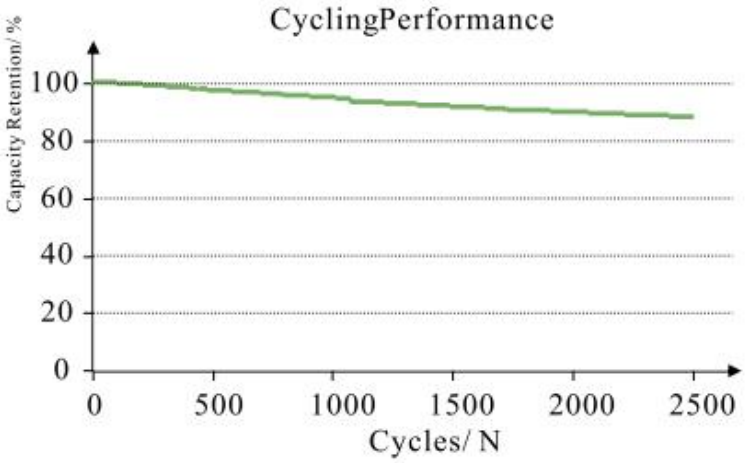
Test method: Unde.r normal temperature, 0.5C constant current constant voltage charge to 3.68V, cut-off current 0.05C; Set aside at the test temperature for 4~8h, and discharge to 1.5V at the corresponding magnification respectively.



Temperature / ℃	RT	-20℃	-30℃	-40℃
Magnification	1C	30C	20C	5C
Median voltage /V	3.244	2.637	2.591	2.276
The inflection point /V	—	2.105	1.856	1.931
Capacity retention rate /%	100.0	95.4	94.1	76.5

◆ NORMAL TEMPERATURE CYCLE

Test method: At room temperature, charge to 3.68V at 1C constant current and constant pressure, cut-off current is 0.05C; Let stand for 10min; 2C constant current discharge to 2.5V; Do a loop test.

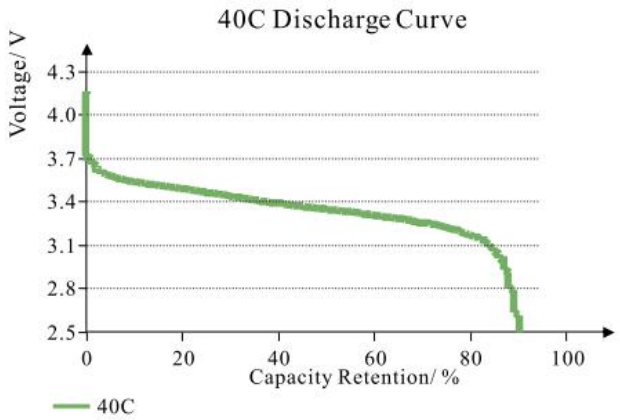


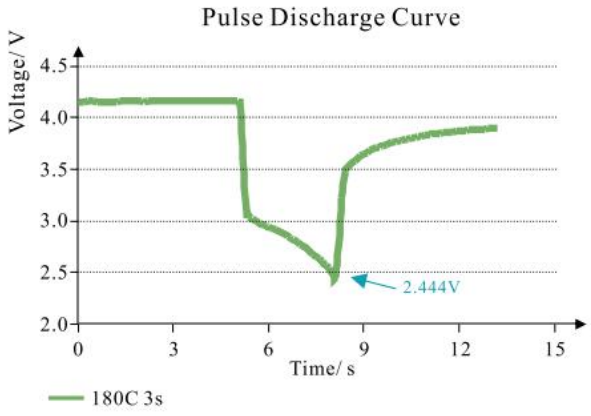
Cycle number	Capacity retention rate /%	Median voltage /V
1	100.00	3.192
100	100.46	3.207
300	99.32	3.214
500	98.03	3.212
700	96.94	3.211
1000	95.33	3.210
1300	93.18	3.204
1500	92.34	3.203
1700	91.55	3.202
2000	90.35	3.200
2300	89.27	3.198
2500	88.61	3.197

BATTERY CELL PERFORMANCE TEST (NCM)

◆ RATE DISCHARGE & PULSE DISCHARGE RT

Test method a: At room temperature, 0.5C constant current constant voltage charge to 4.2V, cut-off current 0.05C; Then 40C constant current to 2.5V;
Test method b: At room temperature, 0.5C constant current constant voltage charge to 4.2V, cut-off current 0.05C; Then discharge 3s at 180C pulse.



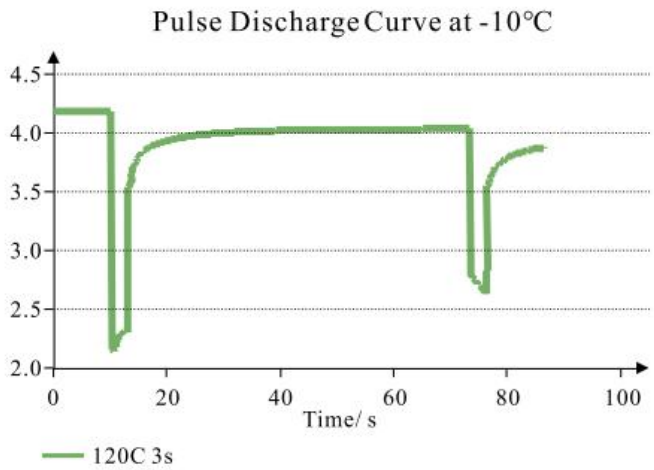


Item	Median voltage /V	Capacity retention rate /%
40C	3.370	90.09

Item	Low head voltage /V
180C 3S	2.444

◆ LOW TEMPERATURE PULSE DISCHARGE -10°C

Test method: At room temperature, 0.5C constant current constant voltage charge to 4.2V, cut-off current 0.05C:-10℃ for 4h, and then 120C pulse discharge 3s.

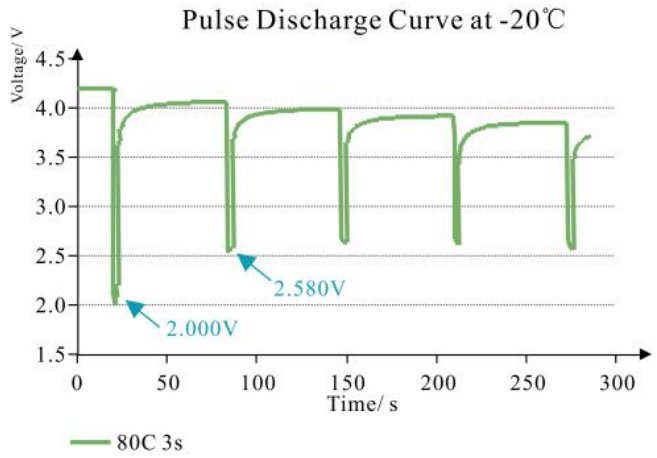


Item	Low head voltage /V(first)	Low head voltage /V(second)
120C 3S	2.155	2.639

BATTERY CELL PERFORMANCE TEST (NCM)

LOW TEMPERATURE PULSE DISCHARGE -20°C

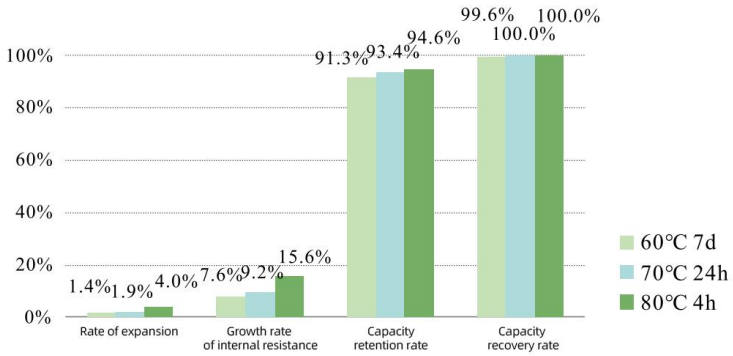
Test method: at room temperature, 0.5C constant current constant voltage charge to 4.2V, cut-off current 0.05C; It was shelved at -20 ° C for 4h, and then discharged at 80C pulse for 3s.



Item	80C 3S
Low head voltage/V(First)	2.000
Low head voltage/V(Second)	2.580
Low head voltage/V(Third)	2.638
Low head voltage/V(Quater)	2.613
Low head voltage/V(Fifth)	2.557

HIGH TEMPERATURE STORAGE

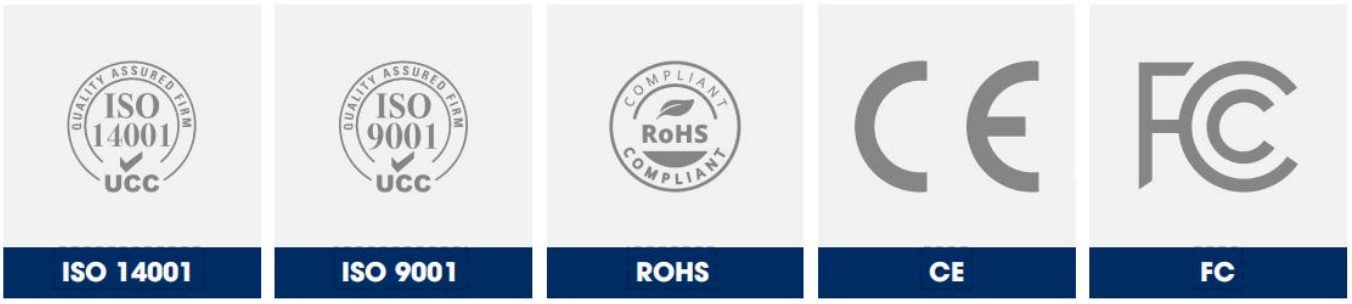
Test method: at room temperature, 0.5C constant current constant voltage charge to 4.2V, cut-off current 0.05C; Then, they were stored at 60 ° C for 7 days, at 70 ° C for 24 hours, and at 80 ° C for 4 hours, respectively. The thickness was measured by heat, and the capacity retention rate and recovery rate were tested after cold cutting at room temperature for 12 hours.



Item	prestorage		
	Cell thickness /mm	ACR/ mΩ	Capacity /mAh
60℃ 7d	5.17	1.31	2055
70℃24h	5.29	1.30	2046
80℃ 4h	5.20	1.28	2032

Item	After high-temperature storage				Rate of change			
	Cell thickness /mm	ACR/ mΩ	First release capacity /mAh	Cyclic capacity three times/mAh	Expansion rate	Growth rate of internal resistance	Capacity retention rate	Capacity recovery rate
60℃ 7d	5.24	1.41	1877	2046	1.35%	7.63%	91.34%	99.56%
70℃ 24h	5.39	1.42	1910	2046	1.89%	9.23%	93.35%	100.00%
80℃ 4h	5.41	1.48	1922	2031	4.04%	15.63%	94.59%	99.95%

CERTIFICATION



CONTACT US

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