

TEV SERIES BATTERY

TEV series is designed for electrical vehicles to deliver long cycle life with high power output & super fast charge performance. It has double cycle life, and its energy density is 10%+ higher. TEV series can be fast charged even better than a Li-on battery. It has excellent high rate output up to 20C constant. TEV also has good shock resistance & explosion proof. It is recommended to be used as starting & motive power for Military, Heavy duty vehicles, golf carts, AGV or other electric vehicles & tools, etc.

TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	12 (6 cells per unit)	
Nominal Capacity (25°C)	100Ah @ C ₃ (to 1.75Vpc)	
Cycle Life (25°C)	500cycles(100%DoD)	
Dimensions	L759mm×W128mm×H152mm(155)	
CCA,RC	CCA	RC
	1250A	245min
Approx. Weight	35.5 kg	
Terminal Type	M8 Copper Insert(torque: 12-13N.m)	
Internal Resistance	Approx . 1.35 mΩ (fully charged @ 25°C)	
Ambient Temperature	Discharge: -50~60°C	
	Charge: -40~60°C	
	Storage: -25~40°C	
Self Discharge	Approx. 3% per month @ 20°C	
Float Charge Voltage (20~25°C)	13.5~13.6V	
Cyclic Charge Voltage (20~25 °C)	14.2~14.4V	
Container Material	ABS(UL94-V0 is optional)	

Long Cycle Life

500 Cycles @100% DOD

Fast Charge Capability

80% Recharged in 20min.

High Rate Discharge

Up to 20C Discharge

12 V
Voltage

100 Ah
3Hr Capacity

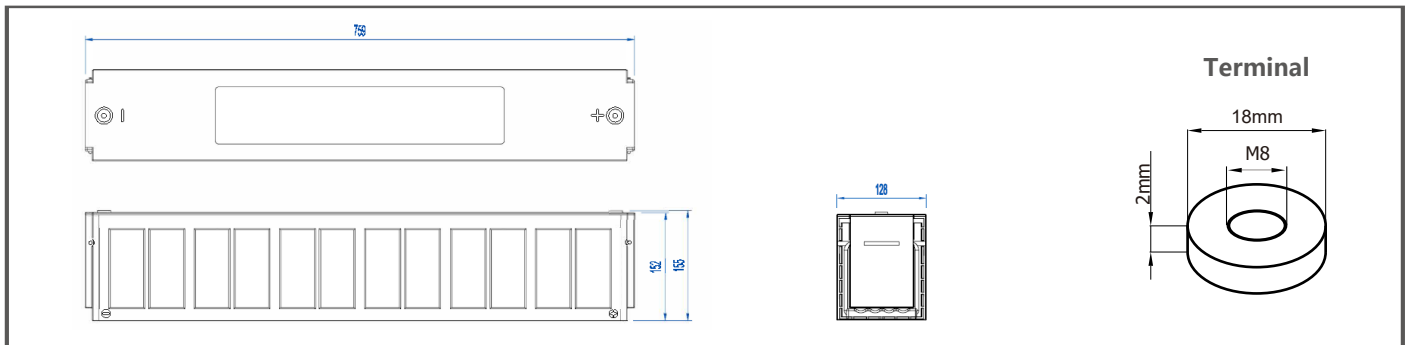
Bi-polar Pure Lead
Technology



Standards

- IEC 61982-3
- GB/T 32620.1
- UL1989

BATTERY DIMENSIONS



BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)

F. V/Time	10min	30min	1h	2h	3h	5h	10h
10.2V	334	147.0	83.7	47.0	33.9	20.8	10.8
10.5V	327	144.0	82.0	46.0	33.3	20.4	10.6
10.8V	319	141.0	81.0	45.0	32.6	20.0	10.4
11.1V	299	131.0	76.0	42.0	30.2	18.8	9.7

Constant Power Discharge Characteristics: W/cell (25°C)

F. V/Time	10min	30min	1h	2h	3h	5h	10h
10.2V	612	280	162	91.9	66.8	41.3	21.9
10.5V	606	278	161	91.0	66.4	41.0	21.7
10.8V	591	272	158	88.9	64.9	40.2	21.3
11.1V	580	264	156	87.2	63.2	39.7	20.9

Excellent Discharge Characteristics

92Ah @2hr (to 1.75V)

High Capacity at Low Temperature

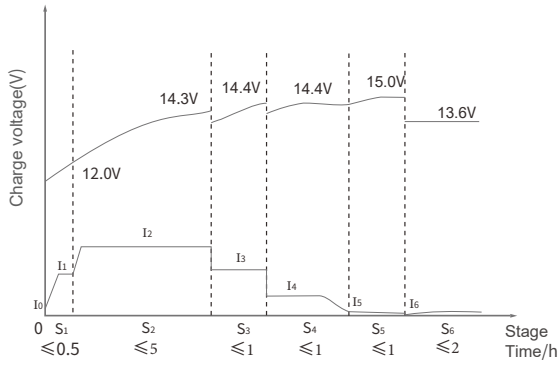
75% Capacity at -18°C

Strong Shock Resistance

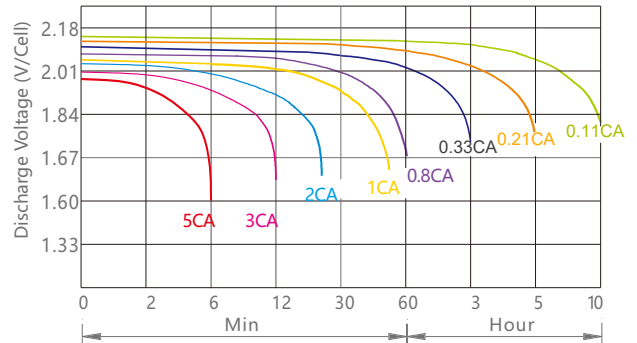
Safe and Maintenance Free

Characteristics

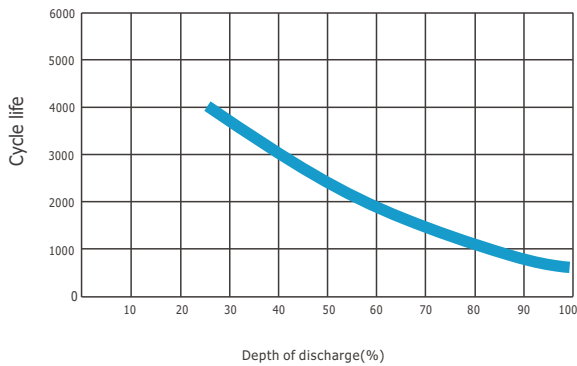
Recommended Charge Control (25°C)



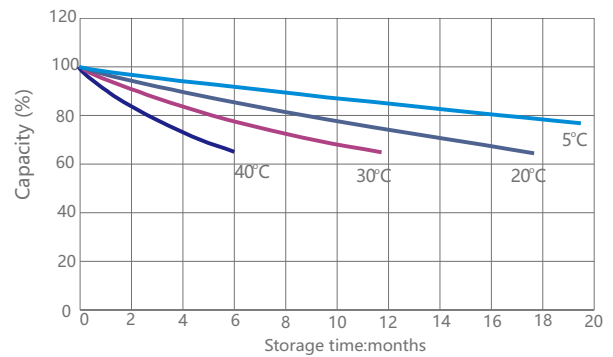
Discharge Characteristic (25°C)



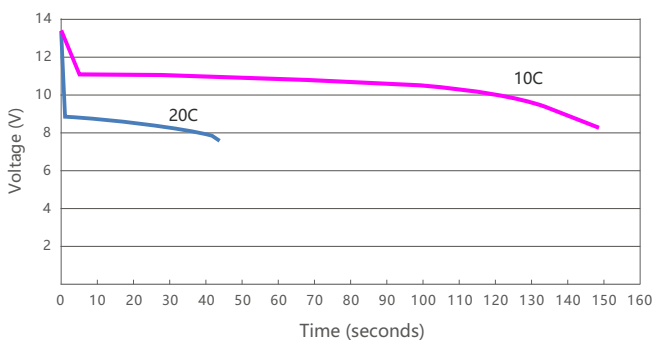
Cycle Life vs Depth of Discharge



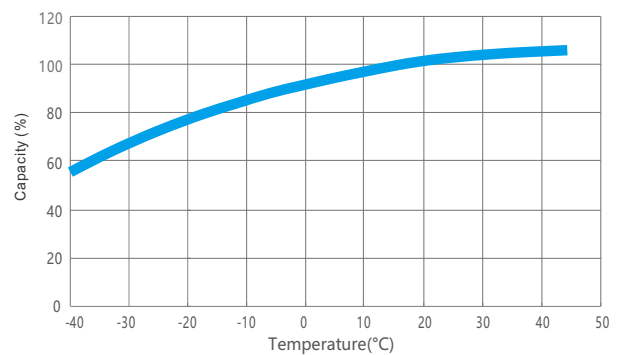
Self Discharge Characteristics



High Rate Discharge Characteristic @25°C



Capacity vs Temperature



Final Voltage Settings Recommend According to Discharge Current:

Discharge Current I(A)	$I < 0.08C$	$0.08C \leq I < 0.2C$	$0.2C \leq I < 0.6C$	$0.6C \leq I < 1.0C$	$1.0C \leq I < 3.0C$	$I \geq 3.0C$
Final of Voltage	$\geq 1.85V_{pc}$	$\geq 1.80V_{pc}$	$\geq 1.75V_{pc}$	$\geq 1.70V_{pc}$	$\geq 1.60V_{pc}$	$\geq 1.20V_{pc}$

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TEV series is designed for electrical vehicles to deliver long cycle life with high power output & super fast charge performance. It has double cycle life, and its energy density is 10%+ higher. TEV series can be fast charged even better than a Li-ion battery. It has excellent high rate output up to 10C constant. TEV also has good shock resistance & explosion proof. It is recommended to be lifting & motive power for Military, Heavy duty vehicles, golf carts, AGV or other electric vehicles & tools, etc.

TECHNICAL SPECIFICATIONS

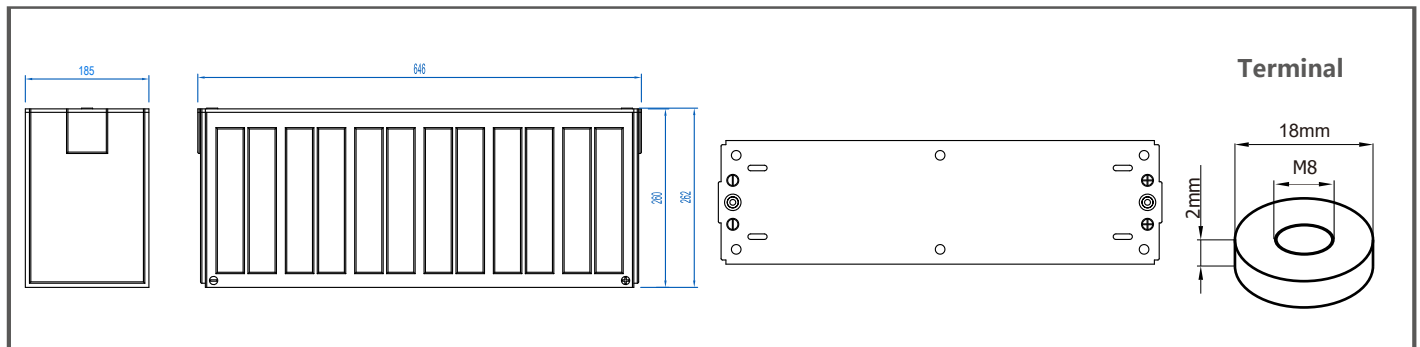
Nominal Voltage (V)	12 (6 cells per unit)
Nominal Capacity (25°C)	230Ah @ C ₃ (to 10.5Vpc) 280Ah @ C ₂₀ (to 10.5Vpc)
Cycle Life (25°C)	600 cycles (100% DoD)
Dimensions	L646mm × W185mm × H260mm (262)
Approx. Weight	79.0 kg
Terminal Type	M8 Copper Insert (torque: 12-13N.m)
Internal Resistance	Approx. 0.85 mΩ (fully charged @ 25°C)
Temperature	Discharge: -50~60°C Charge: -40~60°C Storage: -25~40°C
Self Discharge	Approx. 3% per month @ 20°C
Float Charge Voltage (20~25°C)	13.5~13.6V
Cyclic Charge Voltage (20~25 °C)	14.1~14.3V
Container Material	ABS (UL94-V0 is optional)



Standards

- IEC 61982-3
- GB/T 32620.1
- UL 1989

BATTERY DIMENSIONS



BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)

F. V/Time	10min	30min	1h	2h	3h	5h	10h
10.2V	334	351.0	196.0	107.0	77.7	53.2	27.8
10.5V	720	345.0	192.0	105.0	76.7	52.4	27.4
10.8V	319	339.0	188.0	103.0	75.2	52.0	27.0
11.1V	299	320.0	176.0	97.0	70.3	49.2	25.6

Constant Power Discharge Characteristics: W/Cell (25°C)

F. V/Time	10min	30min	1h	2h	3h	5h	10h
10.2V	612	670	380	209.3	153.2	105.7	56.4
10.5V	1335	665	376	207.6	152.9	105.3	56.2
10.8V	591	653	368	203.5	149.8	104.4	55.3
11.1V	580	645	362	201.5	147.2	103.8	55.1

Long Cycle Life

≥600 Cycles @100% DOD

Faster than Lithium Battery

80% Recharged in 48min.

High Rate Discharge

Up to 10C Discharge

12 V
Voltage

230 Ah
3Hr Capacity

Horizontal BI-polar
Technology

Excellent Discharge Characteristics

210Ah @2hr (to 10.5V)

High Capacity at Low Temperature

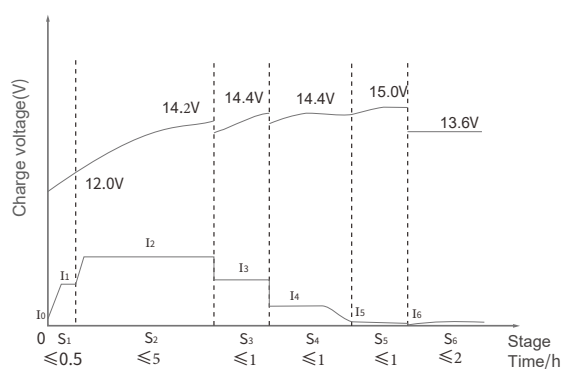
75% Capacity at -18°C

Strong Shock Resistance

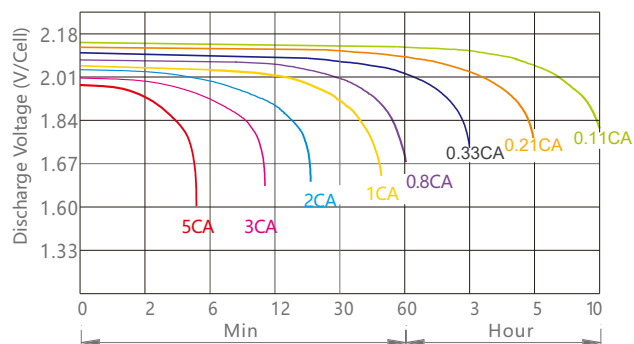
Safe and Maintenance Free

Characteristics

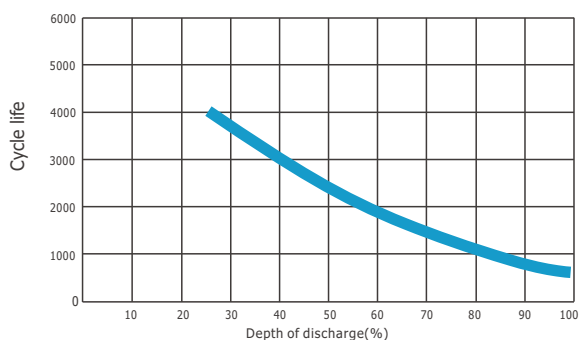
Recommended Charge Control (25°C)



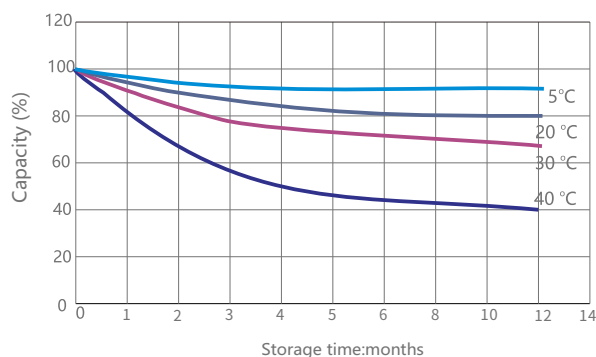
Discharge Characteristic (25°C)



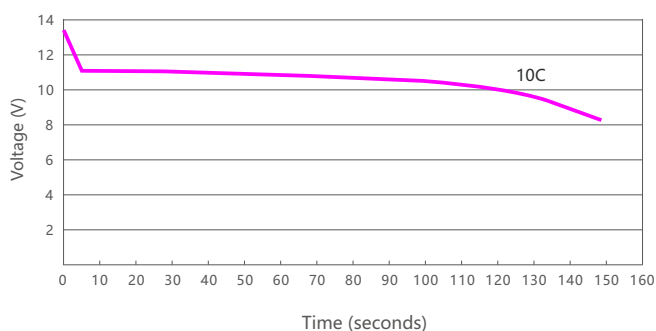
Cycle Life vs Depth of Discharge



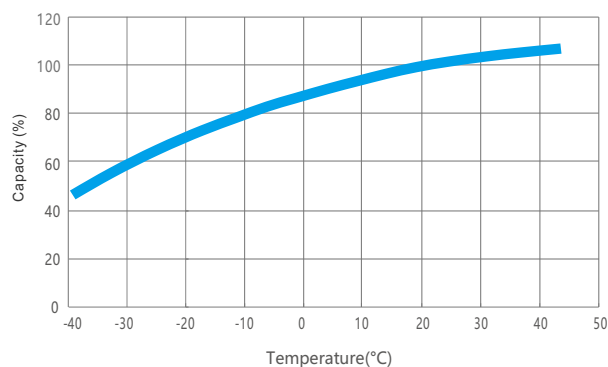
Self Discharge Characteristics



High Rate Discharge Characteristic@25°C



Capacity vs Temperature



Final Voltage Settings Recommend According to Discharge Current:

Discharge Current I(A)	$I < 0.08C$	$0.08C \leq I < 0.2C$	$0.2C \leq I < 0.6C$	$0.6C \leq I < 1.0C$	$1.0C \leq I < 3.0C$	$I \geq 3.0C$
Final of Voltage	$\geq 1.85V_{pc}$	$\geq 1.80V_{pc}$	$\geq 1.75V_{pc}$	$\geq 1.70V_{pc}$	$\geq 1.60V_{pc}$	$\geq 1.20V_{pc}$