

A GREEN
INNOVATION FROM
EASTMAN GROUP



ADDOE[®]
THE KING.

The Energy King



**TUBULAR
BATTERIES**

MADE IN INDIA

Eastman Introduction

Founded in 2006

Established in 2006, Eastman Auto & Power Limited is a well-known name in the field of solar energy, energy storage, and power electronics, boasting a USD 420 million revenue and a dedicated workforce of over 3,000 professionals. Building on the group's decades-long success and maintaining the trust of our partners, Mr. Jagdish Rai Singal ventured into the future of energy with Eastman Auto & Power Limited.

Today, the business spans over 50 countries across Asia, the Middle East, Europe, Africa, the Caribbean, Central America, North America, and South America, providing the world with cutting-edge products that have set new benchmarks in their respective segments. With products reaching more than 100 countries, we are driven by innovation to continually set industry standards, ensuring uninterrupted power supply for residential, commercial, and industrial applications.



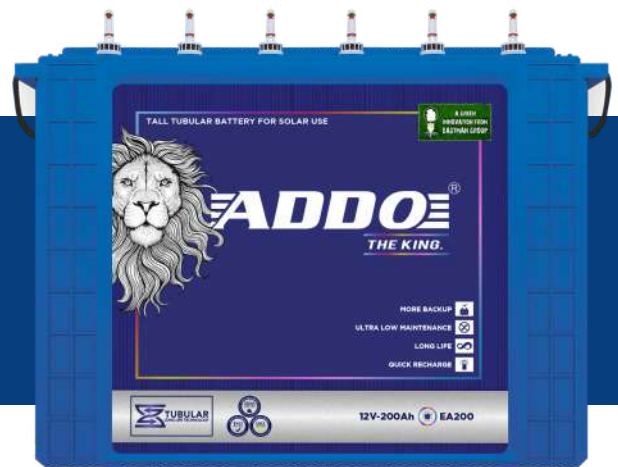
TALL TUBULAR BATTERY

100Ah to 240Ah

MADE IN INDIA

For Markets: ME, CIS, AF (Including Nigeria)

REGULAR SERIES



Introduction

Our Regular Series tall tubular batteries, designed for durability and performance. With robust tubular construction and high-pressure die-cast spines, they offer minimal corrosion. Spill-proof vent plugs ensure a clean environment with low acid fumes.

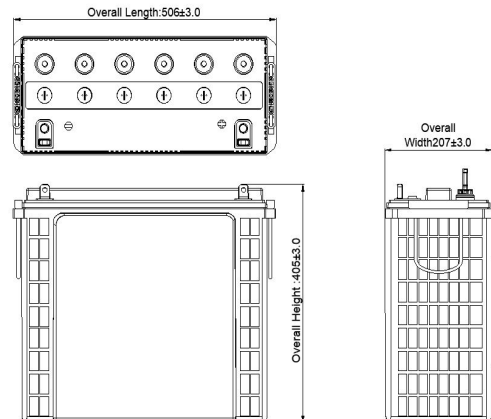
Optimized negative paste allows fast charge acceptance, ensuring reliable power. Consistent backup, excellent PSOC performance and low self-discharge. Trust our batteries for resilient and efficient power solutions.

Product Features

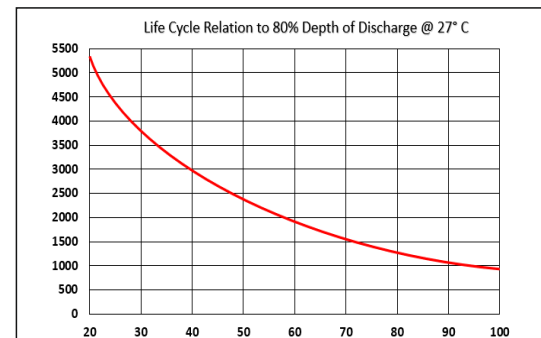
- Robust Tubular with High Pressure diecasted spine- resulting low rate of spine corrosion.
- Spill Proof Vent plug - resulting in no spillage on top and low controlled acid fumes.
- Optimized Negative paste receipt for fast charge acceptance
- Consistent backup throughout life
- Excellent behavior in PSOC condition as compare
- Low Self Discharge
- Excellent performance on deep cyclic application as compare to AGM VRLA
- Very High Design & Service Life
- Low Water Loss

Applications

Energy Storage, Backup Purpose & Home Appliances



Expected Life



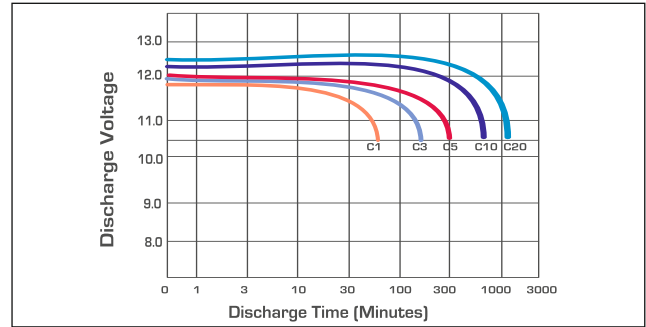
PRODUCT SPECIFICATIONS

Model	EA-100	EA-150	EA-200	EA-220	EA-230	EA-240
Nominal Voltage	12	12	12	12	12	12
Rated Capacity	100	150	200	220	230	240
Length(±3mm)	506	506	506	506	506	506
Width(±3mm)	192	192	207	207	207	207
Height(±3mm)	405	405	405	405	405	405
Gross Battery Weight	50.3	56.6	67.6	68.5	68.5	72.5
Terminal Type	L	L	L	L	L	L
AH Efficiency	>90%	>90%	>90%	>90%	>90%	>90%

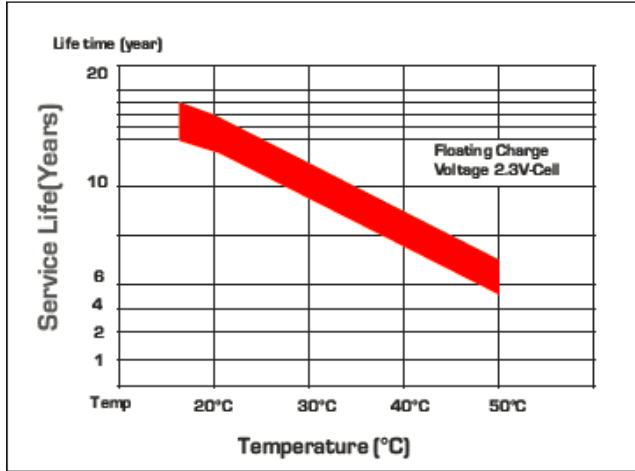
State of Charge Measure of Open-circuit Voltage @ 27°C

State of Charge	Specific Gravity	Voltage
100%	1.245-1.275	12.55V-12.70V
75%	≤ 1.225	≤ 12.4V
50%	≤ 1.190	≤ 12.1V
25%	≤ 1.155	≤ 12.0V
0%	1.120	11.8V

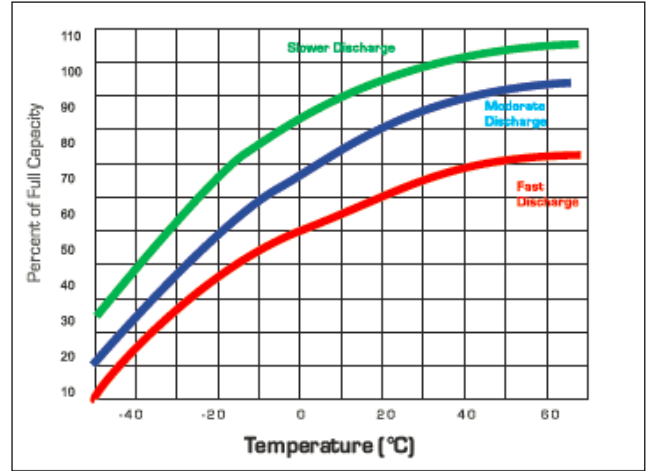
Discharging Characteristics at various rates @ 27°C



Service (Float) Life and Temperature



Expected Capacity vs Temperature



IMS Integrated Management System Certified with TUV & APAVE India for Design & Manufacturing of Lead Acid Battery



Comparison in Between Addo TTC & AGM VRLA

S.No	Parameter	Addo Tall Tubular Conventional	AGM VRLA
1	Plate technology	Tall Tubular Plate	Flat Pasted Plate
2	Life W.R.T. Application	Excellent performance on cyclic application	Not good for deep cycle application
3	Application	Power Backup solution-solar/Inverter/UPS suitable for float application above 1 Hours discharge rate	Power Backup Inverter/UPS suitable for float application and Stand by application
4	Electrolyte	Free Flow Electrolyte	Electrolyte in Between AGM
5	Water Loss	Low	Negligible
6	Water Top up	Low Water Top	No water Top up required
7	Life Extension	Long life with regular water top up	Not Applicable
8	Self Discharge	Low < 3.0%	Very Low < 2.0%
9	Life Cycle w.r.t. 80% DOD@27°C	1300 cycles	450 Cycles
10	Recovery in PSOC	Excellent	Low
11	Charger Setting	Generic set point for charger	Required special set point for chargers
12	Operating Temperature Range	- 20 Degrees to + 55 Degree	- 15 Degrees to + 40 Degree
13	Terminal type	L- Type Terminal	Stud Type Terminal

Terminal Configuration:-
Terminal Type:- L
Terminal Height :- 24mm
Torque Value :- 8-10 N.m
Bolt Type:-M8



Vent Plug Type : M22 Coin Type



Vent Plug Type : M30 Dummy Plug





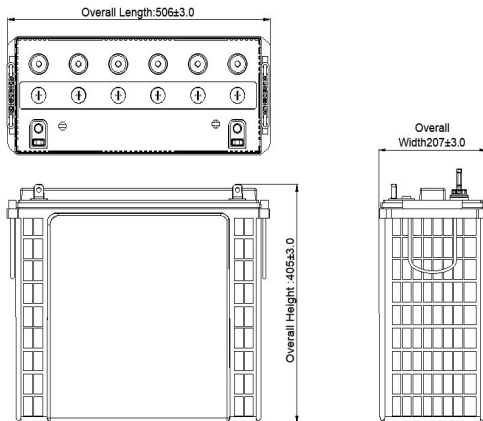
TALL TUBULAR BATTERY

DIAMOND SERIES

240Ah to 400Ah

MADE IN INDIA

For Markets: ME, CIS, AF (Including Nigeria)



Introduction

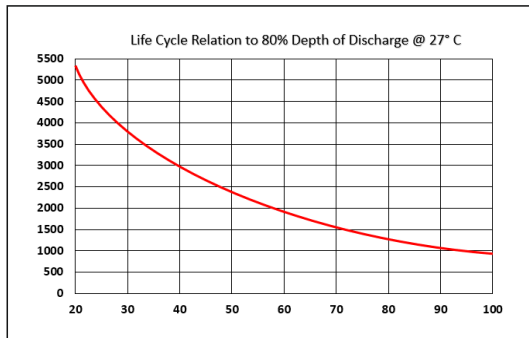
Our Diamond Series tall tubular batteries, engineered for unmatched reliability and performance. With robust tubular design and high-pressure die-cast spines, they ensure minimal corrosion. Spill-proof vent plugs prevent spillage and minimize acid fumes, maintaining a clean environment.

Optimized negative paste allows fast charge acceptance, ensuring consistent backup. These batteries excel in PSOC conditions, feature low self-discharge, and offer superior performance in deep cyclic applications. Trust the Diamond Series for reliable power solutions in every scenario.

Product Features

- Spill Proof Vent plug - resulting in no spillage on top and low controlled acid fumes.
- Optimized Negative paste receipt for fast charge acceptance
- Consistent backup throughout life
- Robust Tubular with High Pressure diecasted spine- resulting low rate of spine corrosion.
- Excellent behavior in PSOC condition as compare
- Low Self Discharge
- Excellent performance on deep cyclic application as compare to AGM VRLA
- Very High Design & Service Life
- Low Water Loss

Expected Life



Applications

Energy Storage, Backup Purpose & Home Appliances

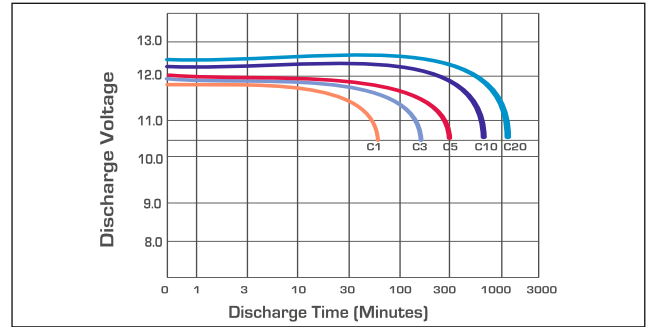
PRODUCT SPECIFICATIONS

Model	EA-240D	EA 270D	EA-300D	EA 400D
Nominal Voltage	12	12	12	12
Rated Capacity	240	270	300	400
Length(±3mm)	506	506	506	560
Width(±3mm)	207	207	207	228
Height(±3mm)	405	405	405	431
Gross Battery Weight	75.2	75.3	80.7	107.8
Terminal Type	L	L	L	L
AH Efficiency	>90%	>90%	>90%	>90%

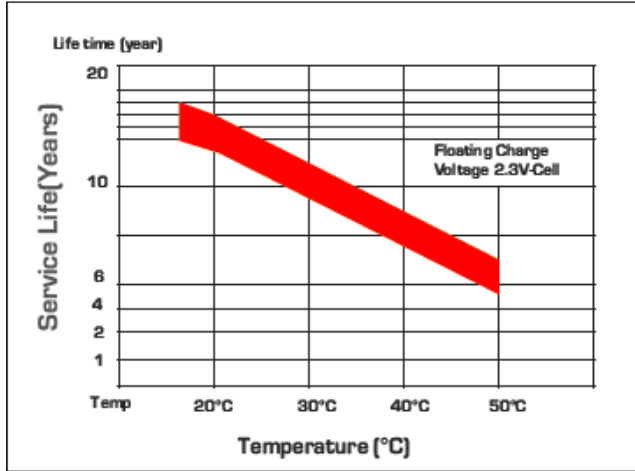
State of Charge Measure of Open-circuit Voltage @ 27°C

State of Charge	Specific Gravity	Voltage
100%	1.245-1.275	12.55V-12.70V
75%	≤ 1.225	≤ 12.4V
50%	≤ 1.190	≤ 12.1V
25%	≤ 1.155	≤ 12.0V
0%	1.120	11.8V

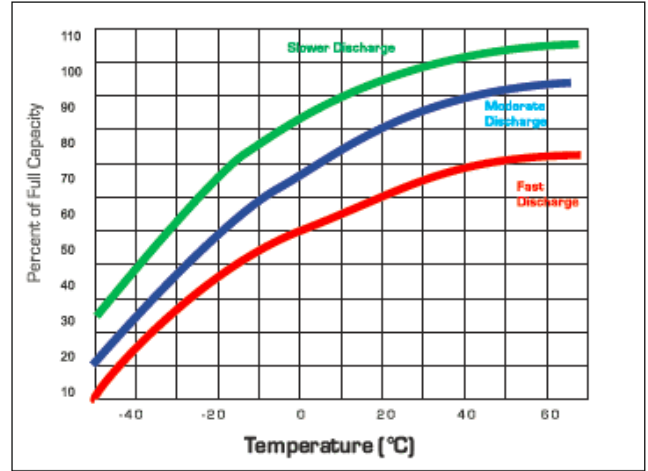
Discharging Characteristics at various rates @ 27°C



Service (Float) Life and Temperature



Expected Capacity vs Temperature



IMS Integrated Management System Certified with TUV & APAVE India for Design & Manufacturing of Lead Acid Battery



Comparison in Between Addo TTC & AGM VRLA

S.No	Parameter	Addo Tall Tubular Conventional	AGM VRLA
1	Plate technology	Tall Tubular Plate	Flat Pasted Plate
2	Life W.R.T. Application	Excellent performance on cyclic application	Not good for deep cycle application
3	Application	Power Backup solution-solar/Inverter/UPS suitable for float application above 1 Hours discharge rate	Power Backup Inverter/UPS suitable for float application and Stand by application
4	Electrolyte	Free Flow Electrolyte	Electrolyte in Between AGM
5	Water Loss	Low	Negligible
6	Water Top up	Low Water Top	No water Top up required
7	Life Extension	Long life with regular water top up	Not Applicable
8	Self Discharge	Low < 3.0%	Very Low < 2.0%
9	Life Cycle w.r.t. 80% DOD@27°C	1800 cycles	1200 Cycles
10	Recovery in PSOC	Excellent	Low
11	Charger Setting	Generic set point for charger	Required special set point for chargers
12	Operating Temperature Range	- 20 Degrees to + 55 Degree	- 15 Degrees to + 40 Degree
13	Terminal type	L- Type Terminal	Stud Type Terminal

Terminal Configuration:-

Terminal Type:- L
Terminal Height :- 24mm
Torque Value :- 8-10 N.m
Bolt Type:-M8



Vent Plug Type : M55 Coin Type



Vent Plug Type : M30 Dummy Plug



TALL TUBULAR BATTERY

200Ah

MADE IN INDIA

For Markets: ME, CIS, AF (Including Nigeria)

SMART SERIES



Introduction

Our Smart Series tall tubular batteries, engineered for reliability and efficiency. With a robust tubular design and spill-proof vent plugs, they ensure durability and safety. Their optimized negative paste allows fast charge acceptance, providing consistent backup throughout their long service life.

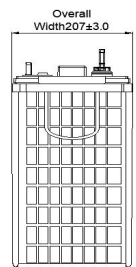
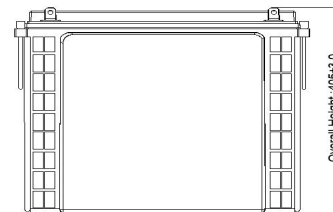
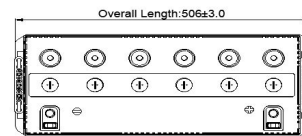
With minimal water loss and low self-discharge rates, the Smart Series offers reliable power for critical applications. Trust the Smart Series for superior performance and longevity.

Product Features

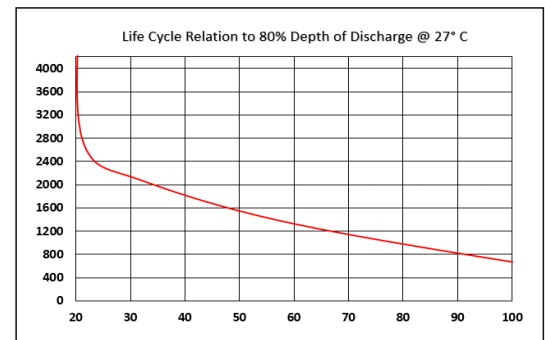
- Delivers best quality of power equivalent to the grid power.
- PDC plates: Worry free superior performance with least battery maintenance.
- Tower type TT container, ensuring more than 20% extra electrolyte, ensuring lesser topping up frequency & better thermal management.
- More active surface area for better utilization of material, result in more backup.
- Excellent behavior in PSOC condition as compare.
- Ability to withstand long and frequent power outages.
- Excellent performance on deep cyclic application.
- Provided with 6 nos. free float indicators for ease of battery maintenance.
- Low water loss.

Applications

Energy Storage, Backup Purpose & Home Appliances



Expected Life



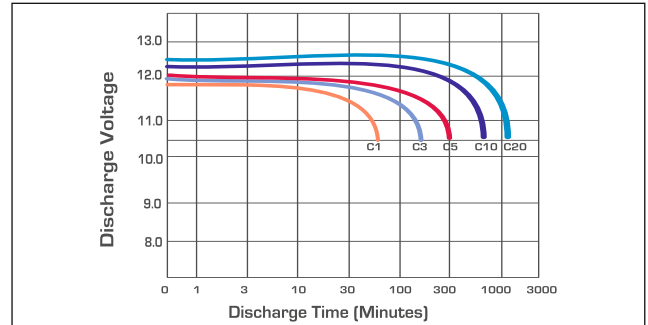
PRODUCT SPECIFICATIONS

Model	EA200SS
Nominal Voltage	12
Rated Capacity	200
Length(±3mm)	506
Width(±3mm)	207
Height(±3mm)	405
Gross Battery Weight	64
Terminal Type	L
AH Efficiency	>90%

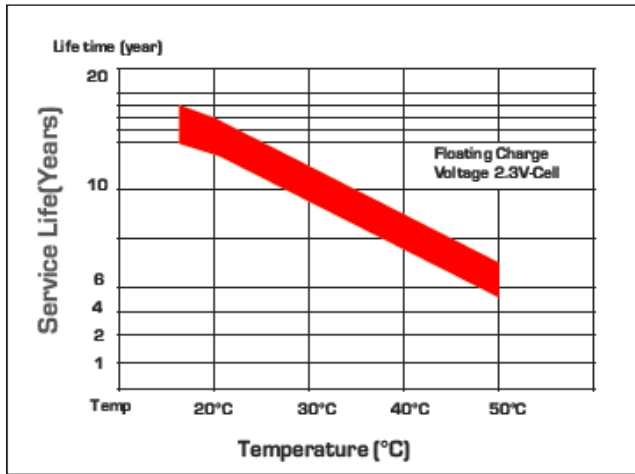
State of Charge Measure of Open-circuit Voltage @ 27°C

State of Charge	Specific Gravity	Voltage
100%	1.245-1.275	12.55V-12.70V
75%	≤ 1.225	≤ 12.4V
50%	≤ 1.190	≤ 12.1V
25%	≤ 1.155	≤ 12.0V
0%	1.120	11.8V

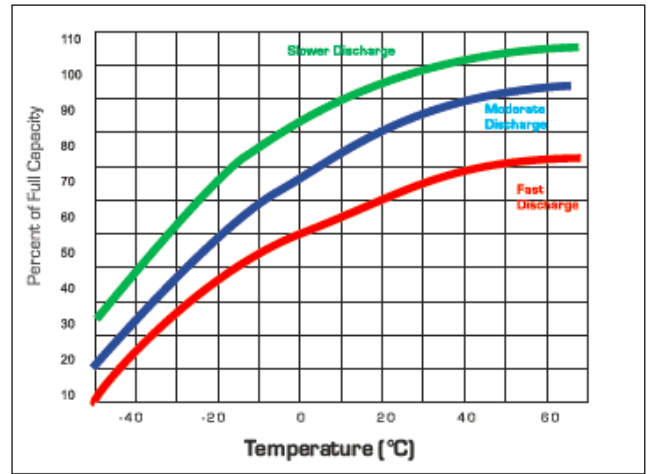
Discharging Characteristics at various rates @ 27°C



Service (Float) Life and Temperature



Expected Capacity vs Temperature



IMS Integrated Management System Certified with TUV & APAVE India for Design & Manufacturing of Lead Acid Battery



Comparison in Between Addo TTC & AGM VRLA

S.No.	Parameter	Addo Tall Tubular Conventional	AGM VRLA
1	Plate technology	Tall Tubular Plate	Flat Pasted Plate
2	Life W.R.T. Application	Excellent performance on cyclic application	Not good for deep cycle application
3	Application	"Power Backup solution-solar/Inverter/UPS suitable for float application above 1 Hours discharge rate"	"Power Backup Inverter/UPS suitable for float application and Stand by application"
4	Electrolyte	Free Flow Electrolyte	Electrolyte in Between AGM
5	Water Loss	Low	Negligible
6	Water Top up	Low Water Top	No water Top up required
7	Life Extension	Long life with regular water top up	Not Applicable
8	Self Discharge	Low < 3.0%	Very Low < 2.0%
9	Life Cycle w.r.t. 80% DOD@27 °C	800Cycle	400 Cycle
10	Recovery in PSOC	Excellent	Low
11	Charger Setting	Generic set point for cahrger	Required special set point for chargers
12	Operating Temperature Range	- 20 Degrees to + 55 Degree	- 15 Degrees to + 40 Degree
13	Terminal type	L- Type Terminal	Stud Type Terminal

Terminal Configuration:-
Terminal Type:- L
Terminal Height :- 24mm
Torque Value :- 8-10 N.m
Bolt Type:-M8



Vent Plug Type : M55 Coin Type



Vent Plug Type : M30 Dummy Plug



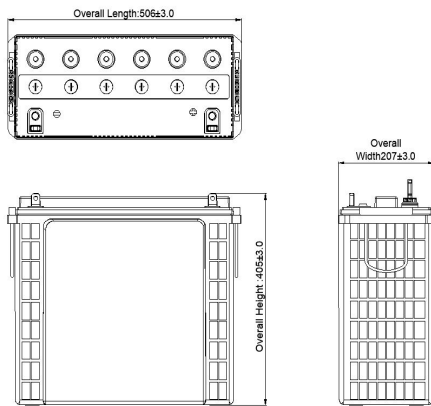


TALL TUBULAR BATTERY

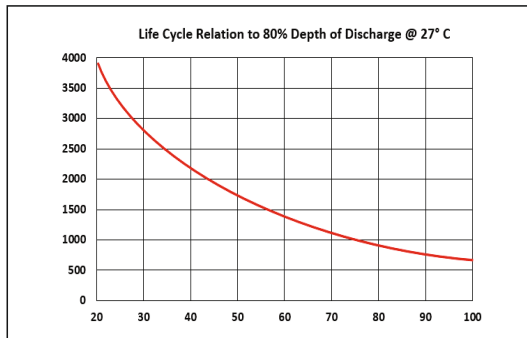
DAWN SERIES

220Ah

MADE IN INDIA
For Markets: Nigeria



Expected Life



Introduction

Our Dawn Series tall tubular batteries, with 5% extra capacity & backup, stunning performance, and new inbuilt terminal PDC, they ensure higher current carrying and low sulfation.

Featuring low water loss, extended service life, and the ability to withstand frequent outages, these batteries promise minimal maintenance costs and recovery from deep discharge. With superior thermal management and factory charging, they offer immediate use and long-lasting reliability.

Product Features

- 5% Extra Capacity & Backup w.r.t. Rated Capacity.
- Stunning performance, Stunning technology.
- New Inbuilt terminal PDC for higher current carrying & Low sulfation.
- Low Water Loss.
- Long battery service life with High back-up time.
- Ability to withstand long and frequent power outages.
- Big Size container design ensuring high acid level, ensuring minimum maintenance cost.
- Ability to recover from deep discharge.
- Have better thermal management.
- Factory charged - Ready to use.

Applications

Energy Storage, Backup Purpose & Home Appliances

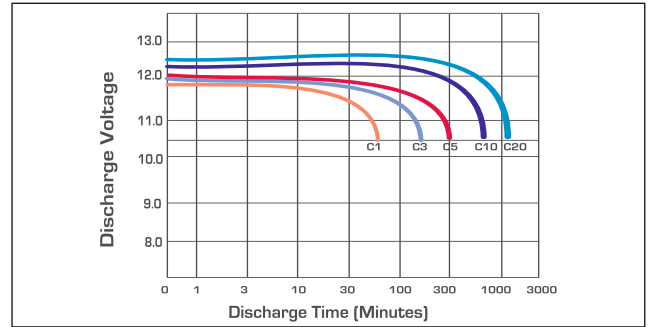
PRODUCT SPECIFICATIONS

Model	EADS220
Nominal Voltage	12
Rated Capacity	220
Length(±3mm)	506
Width(±3mm)	207
Height(±3mm)	405
Gross Battery Weight	64
Terminal Type	L
AH Efficiency	>90%

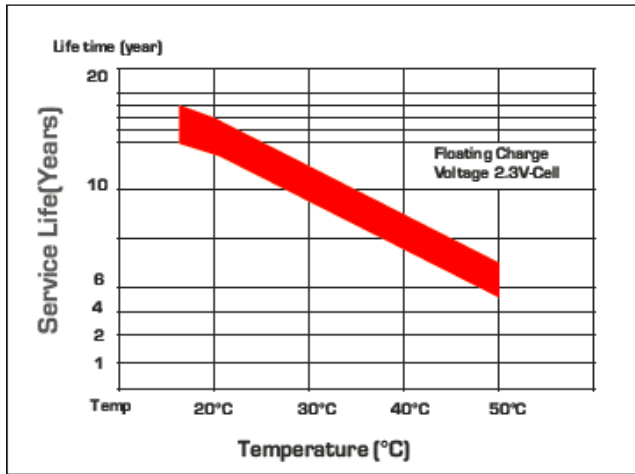
State of Charge Measure of Open-circuit Voltage @ 27°C

State of Charge	Specific Gravity	Voltage
100%	1.245-1.275	12.55V-12.70V
75%	≤ 1.225	≤ 12.4V
50%	≤ 1.190	≤ 12.1V
25%	≤ 1.155	≤ 12.0V
0%	1.120	11.8V

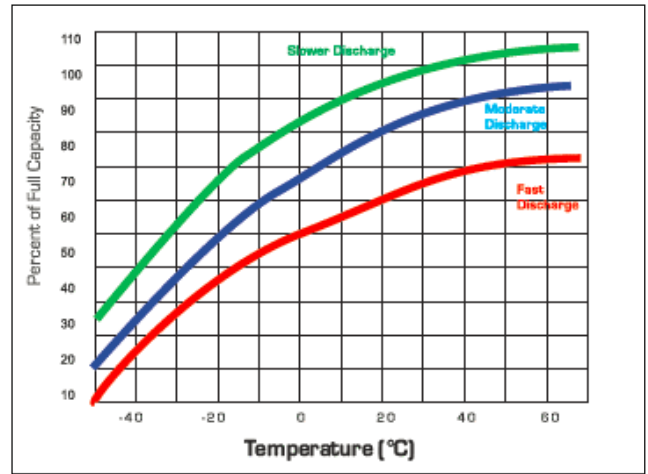
Discharging Characteristics at various rates @ 27°C



Service (Float) Life and Temperature



Expected Capacity vs Temperature



IMS Integrated Management System Certified with TUV & APAVE India for Design & Manufacturing of Lead Acid Battery



Comparison in Between Addo TTC & AGM VRLA

S.No	Parameter	Addo Tall Tubular Conventional	AGM VRLA
1	Plate technology	Tall Tubular Plate	Flat Pasted Plate
2	Life W.R.T. Application	Excellent performance on cyclic application	Not good for deep cycle application
3	Application	Power Backup solution-solar/Inverter/UPS suitable for float application above 1 Hours discharge rate	Power Backup Inverter/UPS suitable for float application and Stand by application
4	Electrolyte	Free Flow Electrolyte	Electrolyte in Between AGM
5	Water Loss	Low	Negligible
6	Water Top up	Low Water Top	No water Top up required
7	Life Extension	Long life with regular water top up	Not Applicable
8	Self Discharge	Low < 3.0%	Very Low < 2.0%
9	Life Cycle w.r.t. 80% DOD@27°C	950 cycles	450 Cycles
10	Recovery in PSOC	Excellent	Low
11	Charger Setting	Generic set point for charger	Required special set point for chargers
12	Operating Temperature Range	- 20 Degrees to + 55 Degree	- 15 Degrees to + 40 Degree
13	Terminal type	L- Type Terminal	Stud Type Terminal

Terminal Configuration:-
Terminal Type:- L
Terminal Height :- 24mm
Torque Value :- 8-10 N.m
Bolt Type:-M8



Vent Plug Type : M22 Coin Type



Vent Plug Type : M30 Dummy Plug



TALL TUBULAR BATTERY

220Ah

MADE IN INDIA

For Markets: Nigeria

DURO
SERIES



Introduction

Experience the ultimate power solution with our Duro Series tall tubular batteries. They are engineered to deliver more backup and efficiency, also provides the best quality of power equivalent to grid power.

With optimized negative paste and deep cyclic capabilities, these batteries offer long backup and longer service life. They can withstand long and frequent power outages, making them ideal for backup and critical applications.

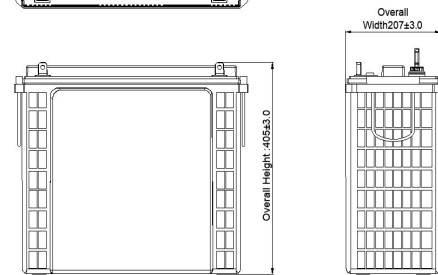
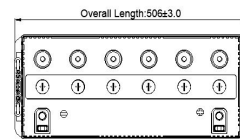
Unlock extra performance, extra power, and extra backup with the Duro Series.

Product Features

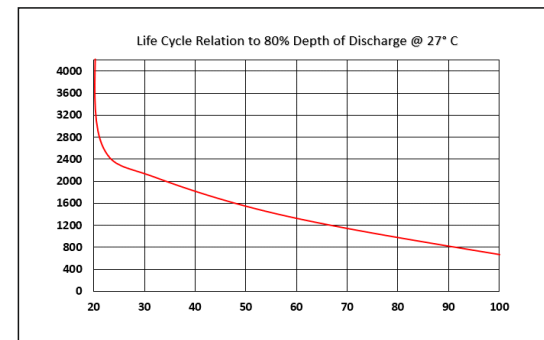
- Delivers best quality of power equivalent to the grid power.
- PDC plates: Worry free superior performance with least battery maintenance
- Tower type TT container, ensuring more than 20% extra electrolyte, ensuring lesser topping up frequency & better thermal management
- More active surface area for better utilization of material, result in more backup.
- Excellent behavior in PSOC condition as compare.
- Ability to withstand long and frequent power outages.
- Excellent performance on deep cyclic application.
- Provided with 6 nos. free float indicators for ease of battery maintenance

Applications

Energy Storage, Backup Purpose & Home Appliances



Expected Life



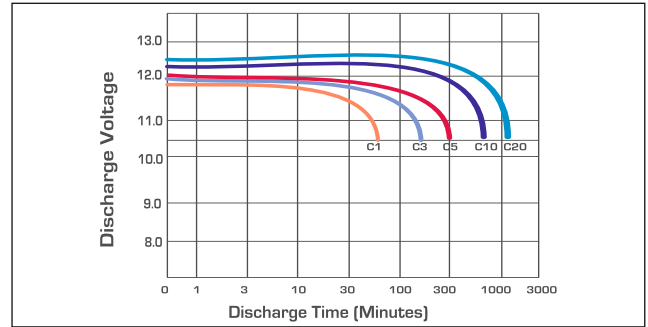
PRODUCT SPECIFICATIONS

Model	EA22000
Nominal Voltage	12
Rated Capacity	220
Length(±3mm)	506
Width(±3mm)	207
Height(±3mm)	405
Gross Battery Weight	62
Terminal Type	L
AH Efficiency	>90%

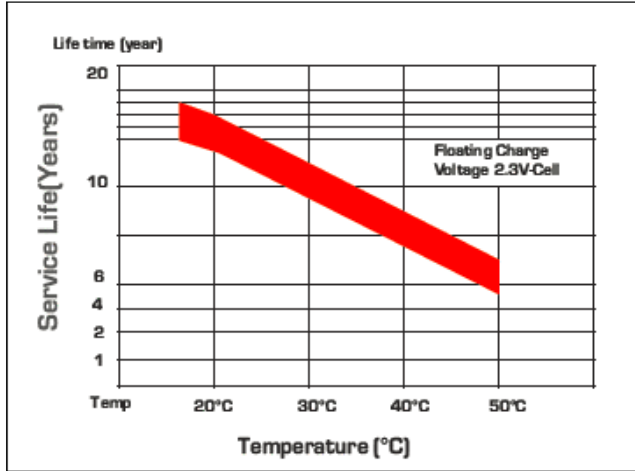
State of Charge Measure of Open-circuit Voltage @ 27°C

State of Charge	Specific Gravity	Voltage
100%	1.245-1.275	12.55V-12.70V
75%	≤ 1.225	≤ 12.4V
50%	≤ 1.190	≤ 12.1V
25%	≤ 1.155	≤ 12.0V
0%	1.120	11.8V

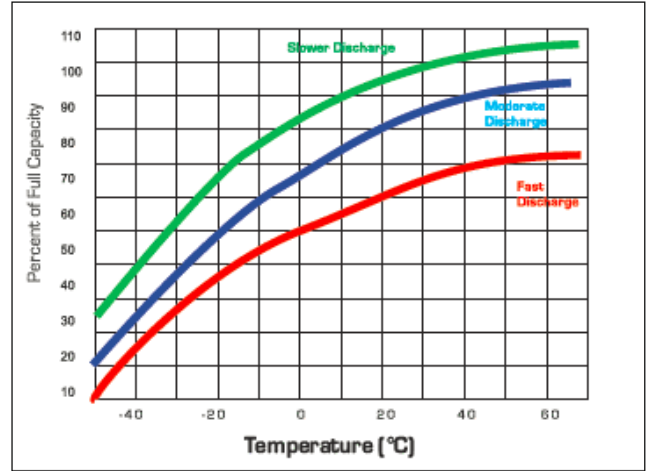
Discharging Characteristics at various rates @ 27°C



Service (Float) Life and Temperature



Expected Capacity vs Temperature



IMS Integrated Management System Certified with TUV & APAVE India for Design & Manufacturing of Lead Acid Battery



Comparison in Between TTC & AGM VRLA

S.No	Parameter	Addo Tall Tubular Conventional	AGM VRLA
1	Plate technology	Tall Tubular Plate	Flat Pasted Plate
2	Life W.R.T. Application	Excellent performance on cyclic application	Not good for deep cycle application
3	Application	Power Backup solution-solar/Inverter/UPS suitable for float application above 1 Hours discharge rate	Power Backup Inverter/UPS suitable for float application and Stand by application
4	Electrolyte	Free Flow Electrolyte	Electrolyte in Between AGM
5	Water Loss	Low	Negligible
6	Water Top up	Low Water Top	No water Top up required
7	Life Extension	Long life with regular water top up	Not Applicable
8	Self Discharge	Low < 3.0%	Very Low < 2.0%
9	Life Cycle w.r.t. 80% DOD@27°C	950 cycles	580 Cycles
10	Recovery in PSOC	Excellent	Low
11	Charger Setting	Generic set point for charger	Required special set point for chargers
12	Operating Temperature Range	- 20 Degrees to + 55 Degree	- 15 Degrees to + 40 Degree
13	Terminal type	L- Type Terminal	Stud Type Terminal

Terminal Configuration:-
Terminal Type:- L
Terminal Height :- 24mm
Torque Value :- 8-10 N.m
Bolt Type:-M8



Vent Plug Type : M22 Coin Type



Vent Plug Type : M30 Dummy Plug





www.eastmanworld.com
marketing@eastmanworld.com
+971 547337330

AMPS MIDDLE EAST FZ LLC
#703, 7TH Floor, Deira Twin Tower,
Baniyas Square, Deira, Dubai (UAE)

EASTMAN AUTO & POWER LTD.
572, Udyog Vihar, Phase-V, Gurugram,
Haryana - 122016, India

Follow us on »  @eastman_world  @EastmanWorld  @EastmanWorld