



### TEST REPORT

1.0	Service Request / Job No:	SRF No	
2.0	Test Requested By: (Organization Name & Address)	M/S Sparco Batteries Pvt.Ltd. Killa No:22, Khashra No: 23/1/2 Village Nathupur. Sonipat.	
3.0	Description of Unit Under test (UUT):	Description:	TUBULAR
		Rating:	12V/220AH
		Model No:	AL-220
		Serial No:	
4.0	Date of Receipt of Sample: (start date)		
	Date of Completion of test		
5.0	Condition of UUT on receipt:	Dry Charge Battery	
	No. Of sample Tested:	4	
6.0	Test Site:	On site	
	Environment Conditions:	39°C	
	Temperature: 25°C±5% Humidity 40 to 95% RH	82%	
7.0	Applicable Standards / Specifications:	Test Method:	IEC 60896

Major Measuring Instrument and Traceability:

S.No	Description	Make/Model	S.No. of Instrument	Calibration validity	Calibration Agency
1	Discharger	ADOS/12V-35Amp	131014-1		
2	Charger	ADOS/12/24V-20Amp	D600202K-1		
3	Digital Multi Meter	Mastech/MS2 101	994995570		
4	Digital Clamp Meter	Mastech/MS2 101	994995570		
5	High rate discharge unit	ADOS/12V-1500Amp	160117		



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Test Report No:	Description: 12V/220AH TUBULAR Battery	Serial No: Model: AL 220
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Test Result:

S.no		Specification Requirement	Serial Number																	
Test Description			8	9	10	11	12	13												
01	(a)  (b)	<b>Content and of required markings</b> Cell or battery shall be clearly and permanently marked with required information. / Information shall remain readable after exposure to chemicals and remain in place.	Readable	Readable	Readable	Readable	Readable	Readabl e												
02	(a)	<b>Material Identification</b> The plastic materials used for the units are clearly identified with the ISO 1043-1 material symbol and legible throughout the service life.	Ok	Ok	OK	OK	OK	OK												
03	(a)	<b>Discharge capacity</b> The actual capacity C shall be greater than or equal to 95% of the rated capacity. C of the 6 units tested with the following rates to the following end voltage. <table border="1" data-bbox="406 1310 742 1467"> <thead> <tr> <th>Capacity</th> <th>Rate</th> <th>End voltage</th> </tr> </thead> <tbody> <tr> <td>C10</td> <td>10 h</td> <td>1.80 Vpc</td> </tr> <tr> <td>C8</td> <td>8 h</td> <td>1.75 Vpc</td> </tr> <tr> <td>C3</td> <td>3 h</td> <td>1.70 Vpc</td> </tr> </tbody> </table>	Capacity	Rate	End voltage	C10	10 h	1.80 Vpc	C8	8 h	1.75 Vpc	C3	3 h	1.70 Vpc						
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C10	10 h	1.80 Vpc																		
C8	8 h	1.75 Vpc																		
C3	3 h	1.70 Vpc																		
04	(a)	<b>Charge retention during storage.</b> The charge retention factor, C of the 6 units tested, shall be greater than or equal to 70%.	72%	71%	74%	72%	71%	73%												

Tested By:  
(Quality Engineer)

Authorized By:  
(Technical Head)



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	TUBULAR Battery	Model:AL 220

Test Result:

S.no	Specification Requirement	Serial Number					
	Test Description	8	9	10	11	12	13

05	<b>Recharge Behaviour</b> The recharge behaviour factor <b>Rbf</b> , after 24h of charge shall be greater than or equal to 90%. The recharge behaviour factor, <b>Rbf</b> , after 168h of charge shall be greater than or equal to 98%.	97%	96%	98%	98%	97%	95%
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