

Application Manual & Product Information for NSB Series Valve-Regulated Lead Acid Batteries

Temp /°C	Minimum Float Voltage /VPC	Nominal Float Voltage /VPC	Maximum Float Voltage /VPC	Minimum Cyclic Voltage /VPC	Nominal Cyclic Voltage /VPC	Maximum Cyclic Voltage /VPC
0	2.35	2.37	2.39	2.52	2.55	2.58
5	2.33	2.35	2.37	2.50	2.53	2.56
10	2.31	2.33	2.35	2.49	2.51	2.54
15	2.29	2.31	2.33	2.47	2.49	2.51
20	2.27	2.29	2.31	2.45	2.47	2.49
25	2.25	2.27	2.29	2.43	2.45	2.47
30	2.23	2.25	2.27	2.41	2.43	2.45
35	2.21	2.23	2.25	2.39	2.41	2.43
40	2.19	2.21	2.23	2.37	2.39	2.41
42	2.18	2.20	2.22	2.36	2.38	2.41
45	2.17	2.19	2.21	2.35	2.37	2.39
50	2.17	2.17	2.19	2.33	2.35	2.37

Figure 3: Charge voltage compensation for NSB batteries

The low internal resistance of the NSB battery allows for very high charge acceptance. These batteries also do not require the charge current to be artificially limited, as long as constant voltage (CV) charging is used. This characteristic helps the battery reach a very high (>85%) state of charge (SOC) in less than one hour with a charge current of the order of 1C amps, where C is the rated capacity of the battery. Thus, 1C for a 100Ah battery would be 100 amps.

