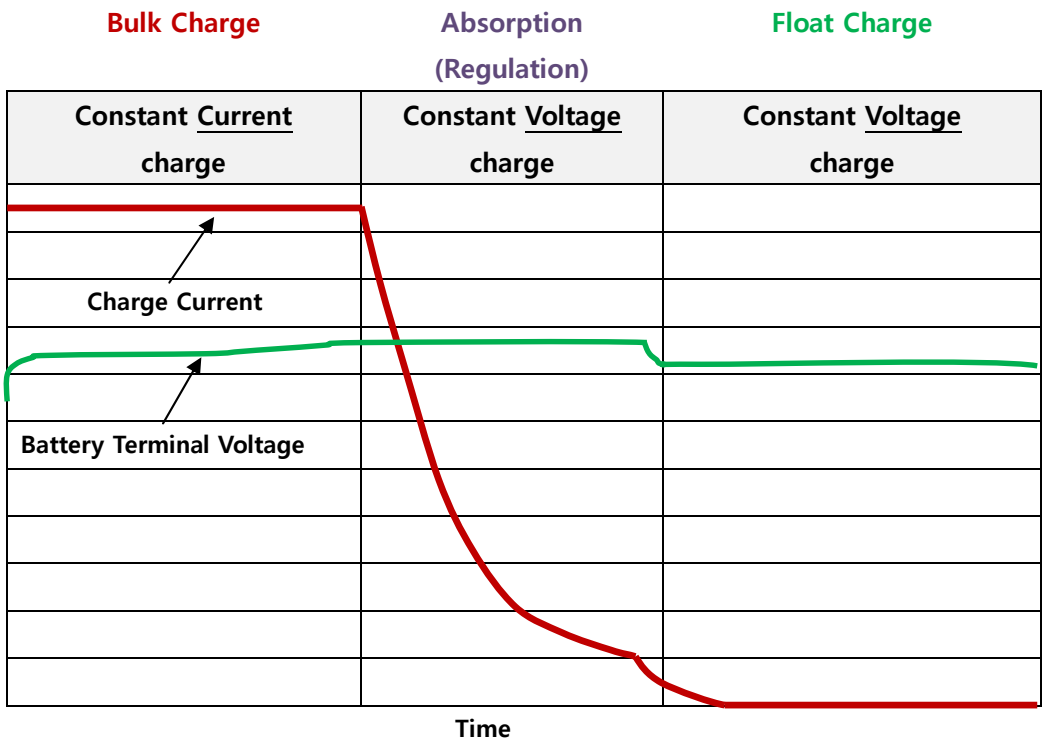
BATTERY TYPICAL 3 STAGE CHARGER



Bulk charge Stage - Current is applied to the batteries at the maximum safe rate they will accept until rises to near (80~90%) full charge level. The battery rises because the charging current that is provided by the battery charger is replenishing its internal charge capacity. The charger current is flat (constant) and the battery voltage is rising.

Bulk Charge Stage Time Calculation:

Max Time (Hr) = (Ah_r x 1.2) / Avg. Current (A)

Ah_r = Amp hours remoned during discharge.
1.2 = Recharge multiplier
Avg. Current = Average current available to battery from charger.
Note: Avg. Current should be ≤ limits expressed in above chart
Max Time (Hr) - Maximum charge time for battery to reach 80% - 90% stage of charge

Absorption (Regulation) Stage - The charger will attempt to hold its output voltage constant while the battery continues to absorb charge (draw charging current) from the charger. The rate at which the battery current gradually decreasing. The charge current is falling and the battery voltage is flat (constant)

Float Charge - The optimum voltage level at which a battery string gives maximum life and full capacity.

Equalize Charge - A charge, at a level higher than the normal float voltage, applied for a limited period of time, to correct inequalities of voltage, specific gravity, or state of charge that may developed between the cells during service.