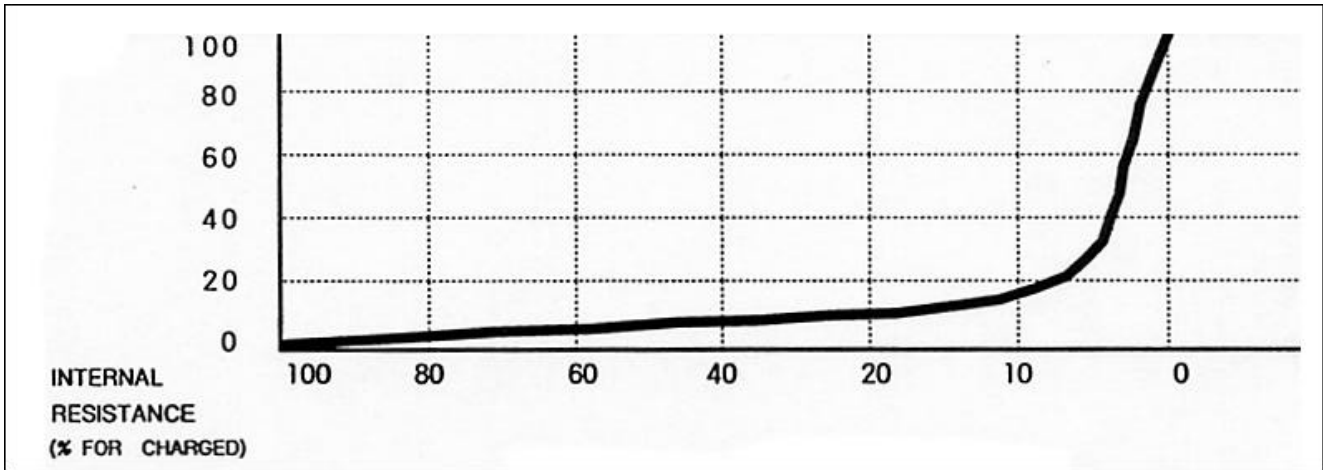


## 1-7 INTERNAL RESISTANCE

THE TERM GIVEN TO THE RESISTANCE INSIDE A BATTERY. CONSISTING OF THE SUM OF RESISTANCE OF ELECTROLYTE. POSITIVE AND NEGATIVE PLATES, SEPARATORS, ETC.

THE VALUE OF INTERNAL RESISTANCE IS IMPORTANT WHEN A BATTERY MUST PRODUCE A PEAK CURRENT (I.E FOR SWITCH TRIPPING) AT THE END OF THE DISCHARGE PERIOD. THE GRAPH OPPOSITE SHOWS RESISTANCE AS A PERCENTAGE OF FULLY CHARGED RESISTANCE VALUE, FOR VARIOUS CHARGE STATES.



THE UNION BATTERY HAS ITS INTERNAL RESISTANCE SMALLEST WHEN IT IS CHARGED COMPLETELY. THE INTERNAL RESISTANCE SLOWLY AS DISCHARGE PROGRESS, AND INCREASES RAPIDLY AT THE FINAL STAGE OF DISCHARGE. IT WILL BE OBSERVED THAT THE INTERNAL RESISTANCE DECREASES SLOWLY WHEN THE DISCHARGE IS TERMINATED AS IT HAS REACHED THE FINAL STAGE.

INTERNAL RESISTANCE OF THE UNION PRODUCT RANGE			
TYPE	INTERNAL RESISTANCE	TYPE	INTERNAL RESISTANCE
6V 1.2AH	60.0 mΩ	12V 24AH	11.0 mΩ
6V 4.0AH	20.0 mΩ	12V 31AH	10.0 mΩ
6V 7.0AH	12.0 mΩ	12V 40AH	8.0 mΩ
6V 10AH	9.0 mΩ	12V 60AH	5.0 mΩ
6V 12AH	8.0 mΩ	12V 70AH	4.5 mΩ
12V 1.2AH	120.0 mΩ	12V 100AH	3.5 mΩ
12V 2.0AH	61.0 mΩ	12V 200AH	2.5 mΩ
12V 4.0AH	40.0 mΩ		
12V 7.0AH	32.0 mΩ		
12V 12AH	16.0 mΩ		
12V 18AH	14.0 mΩ		