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From: Matt Bridge
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Subj: ACCUCHARGER vs BATTERY MATE 100

The purpose of this memo is to provide some comparative information on two of our proven ferroresonant products. Both product families have had several decades in the field and display typical AMETEK rugged and reliable performance. In both the Battery Mate 100 and the AccuCharger, this performance is backed by a 10 year warranty. Below are a few categories of comparison to help better describe the differences.

The input and output power are designed to be the same. A close look at the datasheet will show a 20A/100AH start rate and a 5A/100AH finish rate. The input AC connections can be configured for 208/240/480 three phase power or single phase options. The input current draws are both balanced and have similar amplitudes. Both product families have multiple "taps" on the resonant windings to dial in the curve when small charger curve adjustments are required.

The control features are the exact same between the two charger families because they use the same controls. The controls are available in two levels. The AC1000 is for basic applications and the AC2000 for more ability to fine tune the applications. The AC2000 can collect and report on facility performance of the batteries and chargers. It is important to remember that the AC2000 control has been upgraded recently to include advanced equalize and no gassing features. These new features position our ferroresonant chargers well in a tough application where battery longevity and uptime are important.

Both charger families offer the same credentials for safety. They are both UL and cUL listed. Both chargers offer the same input and output fuse systems. Both offer the same overload and short circuit protection as well as numerous control driven backup systems to keep your battery safe.

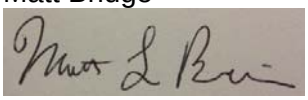
Internal to the charger you will find the most difference. The ACCUCHARGER uses three separate transformers, output diode pairs, and capacitors to do the power conversion. This causes the enclosure to become larger to accommodate the transformers. In comparison the BATTERY MATE 100 uses a "Scott T" design that uses two transformers to do the power conversion. The ACCUCHARGER individual transformers are smaller than the transformers found in the BATTERY MATE. This is because the "Scott T" design requires us to oversize the transformers to manage the same level of power handling as the three transformer design. As proof of this situation the chargers overall weight can be inspected to understand the amount of steel and copper materials required to create the charger. The BATTERY MATE uses oversized output diodes and has only two output diode pairs and capacitors. The BATTERY MATE has fewer internal power connections and has fewer parts to replace in the rare occurrence of a problem.

The BATTERY MATE 100 product original design goal was to create an easier to manufacture product with the same performance characteristics as the ACCUCHARGER product. The BATTERY MATE 100 product has achieved its design goal and has proven itself over and over in many applications. Both product families have very similar, and incredibly low warranty rates that reflect the decades long, rugged design and are the standard in ferroresonant industrial battery chargers.

Please feel free to contact me for any further questions or comments on this topic.

Regards,

Matt Bridge



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