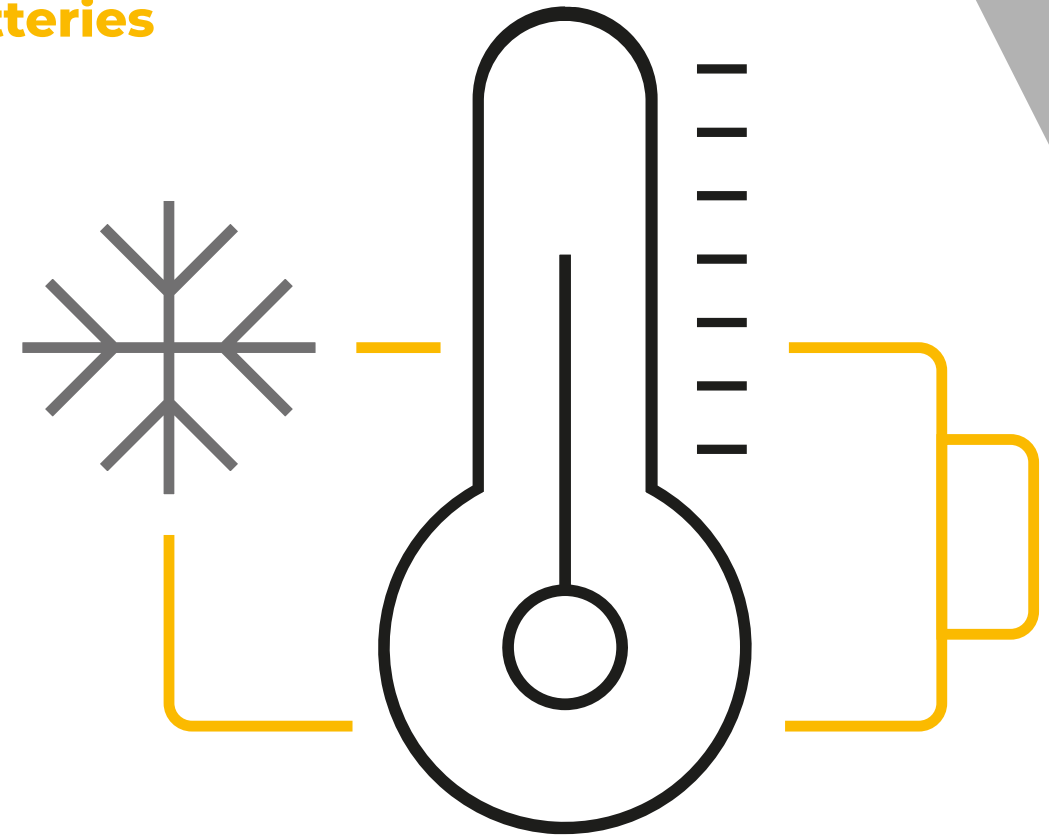
Important Product Technical Announcement - Temperature affects on Lithium Batteries

At Alpha ESS UK, we continually strive to ensure our partners and installers are knowledgeable on all aspects of our products. The following Temperature effects on Lithium Batteries information are critical for you to understand and communicate wherever necessary.

- **The charging power of LiFePo batteries reduces as cell temperature drops towards Zero.**
- **Charging will stop at Zero degrees to protect and prolong the life of the battery.**
- **The battery can still discharge at Low temperatures, and Hybrid inverters will still output PV generation.**



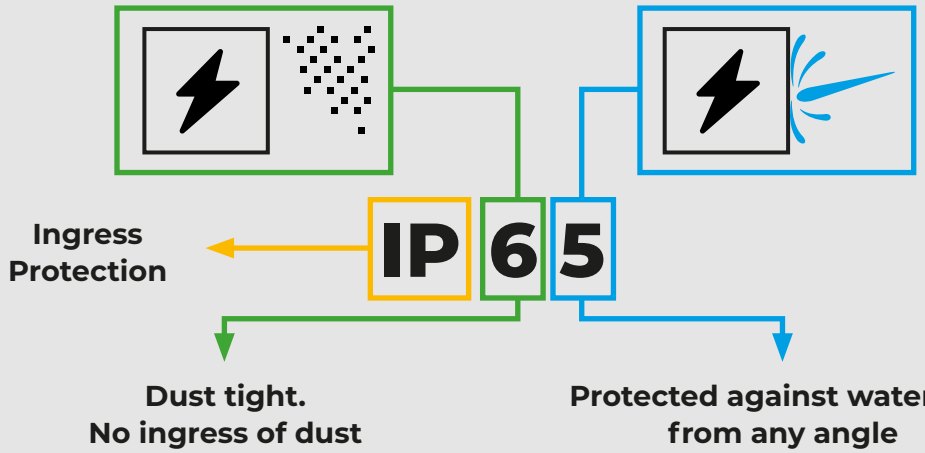
Please ensure you read and understand all information within this document, and share the product knowledge information with your current team and any new employees working and managing Alpha ESS battery storage products.

If you do have any questions, contact Alpha ESS UK office at ukservice@alpha-ess.com

Now, please explore the Ingress Protection (IP RATING) guidance on the next page. →

AlphaESS

Ingress Protection (IP RATING)



1st DIGIT - SOLID Degree of protection against solid objects

0	No protection
1	Protected against a solid object greater than **50mm**, such as a hand
2	Protected against a solid object greater than **12.5mm**, such as a finger
3	Protected against a solid object greater than **2.5mm**, such as a small tool
4	Protected against a solid object greater than **1.0mm**, such as a wire
5	Dust protected. Prevents ingress of dust sufficient to cause harm
6	Dust tights. No ingress of dust

2nd DIGIT - WATER Degree of protection against water

0	No protection
1	Protected against water drops
2	Protected against water drops at a 15-degree angle
3	Protected against water spray at a 60-degree angle
4	Protected against water splashing from any angle
5	Protected against water jets from any angle
6	Protected against powerful jets from and temporary flooding
7	Protected against the effects of temporary submersion in water (30 minutes at 0.15 to 1 meter)
8	Protected against the effects of permanent submersion in water (up to 3 meters). Depth specified by manfacturer