



ICE & ICE LITE ESCs NOW SHIPPING
Aug. 6, 2009 for immediate release



Phoenix ICE Brushless ESCs
The Next Generation of COOL



ICE STANDARD: up to 8S input



ICE LITE: up to 6S input

Castle ICE ups the power, ups the volts to 8S, ups the BEC to the full input voltage, ups the heli programming to the best in the industry, and gives you a way to prove it with data logging. Available in Lite and Standard versions, the ICE is the next generation of ESC.



The latest technology and components set Castle products apart from the rest of the crowd. ICE brings the best components and the unique Castle no-compromises approach to performance together for you. Whether you fly helis, sport aircraft, scale aircraft, EDFs, electric sailplanes, or electric racers, there is an ICE controller tailored perfectly for your application.

ICE Standard (the green one) employs a custom designed heat sink to improve the performance of the electronics. ICE Standard are rated to a full 8S (33.6 volts) max input. These are recommended for all helis and sport aircraft where its slightly larger dimensions are not a critical factor.

ICE Lite skips the heat sink and is enclosed in the customary heat shrink wrapping. Ice Lite are rated to 6S (25.2 volts) and they are recommended for the tight fuselages and critical weight aspects of high performance sailplanes and racers where every gram is critical.



Both version of the ICE share the following great features:

Switching BEC

- 5 amp output
- Adjustable BEC output (anywhere from 5 to 7 volts in .1 volt increments)*
- Works all the way to the full 8S input for ICE and 6S for ICE LITE.

On Board Data Logging

ICE controllers are capable of recording any mix of the following:



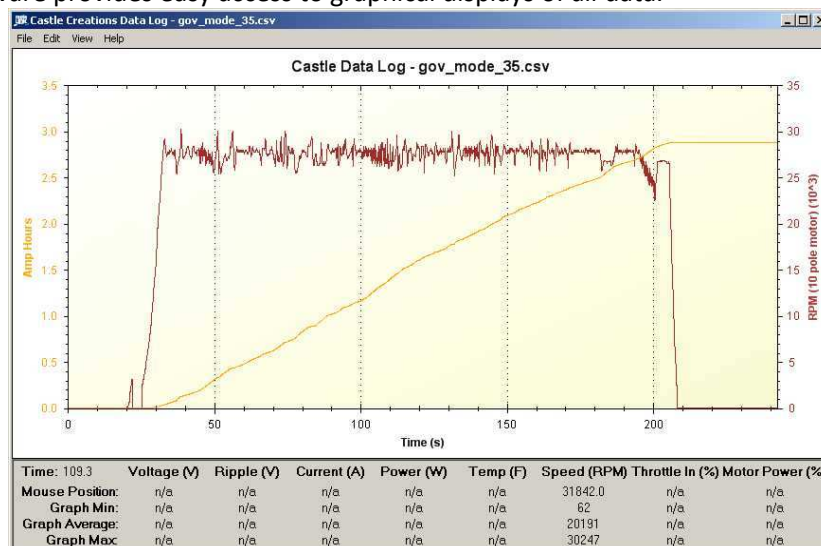
- Battery Voltage -
- Battery Ripple – Finally, a way to evaluate the true capabilities of battery packs! This function measures the voltage drop *between* the FET on/off cycles. These fluctuations occur at more than 10,000 hertz and are typically not seen with hobbyist metering equipment. Better packs will have a smaller battery ripple value under load. Higher ripple values indicate that the battery is under too large a load for its capabilities.
- Battery Current
- Controller Temperature
- Throttle % as Commanded by RX
- Throttle % as Commanded by ESC to Motor (Motor Power Output)
- Motor RPM – Users will have to enter the pole count of their motor.
- Logging Frequency Choices
 - 10 Samples / Sec
 - 5 Samples / Sec
 - 2 Samples / Sec
 - 1 Sample / Sec

Max Log Size is 21504 bytes, everything takes one byte except for motor rpm which takes two bytes. Logging 1 single byte parameter at 1 sample / second gives 358 minutes of logging time (almost 6 hrs!) Logging everything at only 1 sample / second gives 44 minutes of logging time. Logging everything at 10 samples / second gives 4 minutes and 28 seconds of data files.

Advanced software and data logging functionality is accessed via Castle Link USB adapter* and a Windows computer running Castle Link software. Users can choose what parameters they wish to log and what the sample rate should be.

Displaying Logged Data

Simply link the controller to your computer with Castle Link to download the stored data. The new Castle Link software provides easy access to graphical displays of all data.



*Castle Link USB adapter is sold separately and requires a PC operating a Windows OS.



Technical & Pricing Details

| ESC | Ice Lite 50 | Ice Lite 75 | Ice Lite 100 | Ice 50 | Ice 75 | Ice 100 |
|------------|--|--|--|--|--|--|
| Retail | \$99.95 | \$119.95 | \$139.95 | \$99.95 | \$119.95 | \$139.95 |
| Item # | 010-0069-00 | 010-0070-00 | 010-0071-00 | 010-0060-00 | 010-0067-00 | 010-0061-00 |
| Length | 1.6"(40.6mm) | 2.5"(63.5mm) | 2.5"(63.5mm) | 1.6"(40.6mm) | 2.6"(66mm) | 2.6"(66mm) |
| Width | 1.00"(26.4mm) | 1.0"(27.9mm) | 1.00"(26.4mm) | 1.3"(33mm) | 1.3"(33mm) | 1.3"(33mm) |
| Height | .5" (12.7mm) | .5" (12.7mm) | .5" (12.7mm) | .8"(20.6mm) | .80"(20.6mm) | 0.80"(20.6mm) |
| Weight | .8 oz*(22.7g)* | 1.02 oz* (28.9g*) | 1.12 oz* (31.7g*) | 1.22 oz* (34.6g*) | 2 oz* (56.7g*) | 2 oz*(56.7g*) |
| Max Amps | 50 amps** | 75 amps** | 100 amps** | 50 amps** | 75 amps* | 100 amps** |
| BEC OUTPUT | 5 amps | 5 amps | 5 amps | 5 amps | 5 amps | 5 amps |
| Max Volts | 25V 6s LiPo 20 cells NiCad/NiMh | 25V 6s LiPo 20 cells NiCad/NiMh | 25V 6s LiPo 20 cells NiCad/NiMh | 34V 8s LiPo 22 cells NiCad/NiMh | 34V 8s LiPo 22 cells NiCad/NiMh | 34V 8s LiPo 22 cells NiCad/NiMh |

Complete technical details, including operating manual and dimensional drawings available at the Castle website: http://www.castlecreations.com/products/phoenix_ice.html

Complete media library, including photos and logo graphics are available for download at this site: http://www.castlecreations.com/media/media_kits/images/phoenix_ice/phoenix_ice_media_kit.zip

