

DEVICE

ADVANCED

General technical features

- Power supply voltage from 6.5 to 12 V (allows the use of 6-cell NiMH batteries, 2S or 3S LiPo, LiFePO4 2S or 3S).
- LiPo or LiFe 2S-3S direct connection ready.
- Full digital control.
- Drum turns: 5 max.
- Advanced hardware monitoring functions, current consumption, stall current and motor temperature with automatic retry and safety stop after three failed attempts¹.
- Protection against reverse battery polarity.
- Advanced control voltages of battery operation, battery undervoltage shutdown with automatic safety stop¹.
- Integrated Power Switch as standard.
- Direct connection of the battery to the QuickWinch® electronics to avoid a voltage drop or overheating of connectors.
- Automatic transmitter recognition, input signal quality control for maximum reliability, reduced dead band 4µs.
- Rc transmitter frequency recognition from 0.9 to 2.1 ms, well within the range of the analog transmitters and 2.4 MHz transmitters.
- Logic Microcontroller RISC 8-bit 48MHz.
- Power motor control with dedicated power microcontroller VIPower M0™ technology that ensures high efficiency of the system with low power current consumption.
- Motor piloting with P.W.M. 10KHz controlled by the P.I.D. algorithm for maximum torque at low rpm.
- Motor position control algorithm with P.I.D. function and electronic integrated motor brake.
- Receiver power supply U.B.E.C. DC-DC switching converter on board with high efficiency (~85%) with operating frequency of 300KHz, radio control supply voltage of 5 V or 6.5 - 5 A selectable.
- U.S.B. port for connection to P.C. for free firmware update as standard via the dedicated page on the

website www.aa-parts.com².

- Adjustable parameters with P.C. link through the U.S.B. port and software fast and intuitive.
- High quality feedback potentiometer (1 million mechanical cycles guaranteed) and high precision.
- High-tech polymer CarbonHF™ gears, carbon fiber reinforced, on ball bearings - 9 sealed stainless steel bearings - 2RS.
- Large diameter drum bearing (Ø15mm) for maximum hold under load and maximum precision.
- High tech CarbonHS™ body reinforced in carbon fibre.
- Standard D.S.D.™ drum³ Ø 32 mm as standard. Standard drum and Self Tensioning Drum in a part.

Usable batteries

The system has been designed to use the following batteries:

Battery kind	V	Performance
NiCd-NiMH - 5 cells	6,0	+
NiCd-NiMH - 6 cells	7,2	++
LiPo - 2 cells - 2S	7,4	+++
LiPo - 3 cells - 3S	11,1	++++
LiFePO4 - 2 cells - 2S	6,6V	++
LiFePO4 - 3 cells - 3S	9,9V	++++

LIPo - Life 2S-3S

direct connection ready

Detailed technical engineering specifications

Specification	<i>pk</i>	<i>6X</i>	<i>pk</i>	unit
No load speed	4	5,5	3,2	n/sec
	0,76	0,54	0,93	sec/300mm
Stall torque	15,6	12,5	30,5	kg-cm
Precision	0,20	0,20	0,20	degree
Accuracy	±0,50	±0,50	±0,50	mm
Standard drum Ø	32 DSD™	32 DSD™	32 DSD™	mm
Dimensions (LxDxH)	51x46x78	51x46x78	53x46x85	mm
Weight	130	130	160	g
Idle current	0,85	0,85	2,20	A
Stand by current	0,02	0,02	0,02	A
No load current	0,25	0,25	0,56	A
Stall current	7,40	7,40	17,21	A
Maximum supply voltage	12	12	12	V
Minimum supply voltage	6,00	6,00	6,00	V
Maximum thickness mounting	1,50	1,50	1,50	mm

NOTE

n/sec: revolutions per second
sec/300mm: seconds to wrap 300 mm sheet

DSD™: Double System Drum™
LxPxH: Length x Depth x Height

² The firmware update must be done by the owner of the winch using the software provided free of charge and included in USB flash drive supplied

³ DSD™: Double System Drum™

¹ The stop safety system ensures the minimum operating voltage for the receiver and the rudder servo, for a time that varies according to the type of receiver, servo rudder mounted and operations performed by the rudder servo.