



EVENT SOLUTIONS
POWERED FLYING WINCHES

E40 Winch

Performances and safety without compromises, in a compact size

A versatile winch, packing high performances and a very safe drive configuration in a compact frame size.

Suitable for large travel applications and well matching with aerial track mountings, the E40 winch squeezes together all the best features desirable for an heavy-duty touring winch: zero fleet-angle design, drum side braking, pivoting head block, high speed, large travel and a very precise dynamic load measurement system.



ALFA SYSTEM

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Quality Management System
ISO 9001 Certified

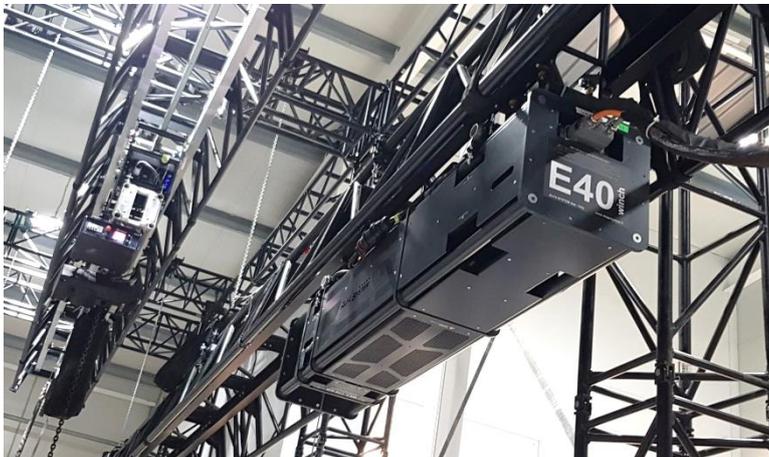


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E40 Winch

The E40 winch is a point hoist solution designed to fit all the high demands of the event and touring market in a compact section.

Built within a sturdy aluminum frame matching with a standard **truss size 40**, it allows to **fly loads at high speeds and with variable angles**, while featuring an **extremely safe drive system configuration**.



KEY FEATURES

Compact and easy to install The incorporated zero fleet angle technology makes possible to mount the winch in any orientation and position. Combined use of two E40 winches installed head to head, allows to lift a double load with two lifting lines at only 22 cm one from the other.

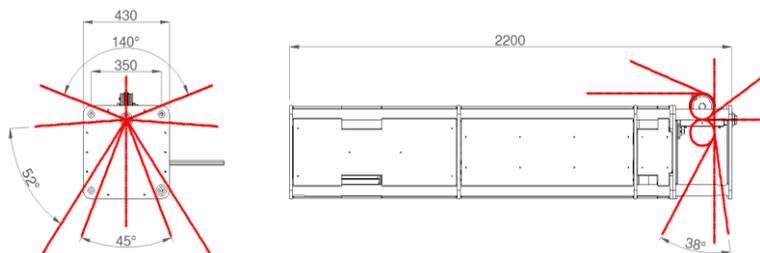
Pivoting head block During installation, the most practical line direction can be used by simply adjusting the head block orientation. E40 winch allows also for an exceptional swinging of the load, making it ideal for 3D flying and other sensational effects.

Large travel The frame size allows to accommodate a large travel while saving a good length/section ratio. This can allow to keep the E40 winch at stage level and have an easy and quick access to the winch in case of an emergency situation.

Powerful E40 winch can accommodate asynchronous motors up to 11 kW, allowing to fly a load of 225 kg up to 4 m/s or to reach even higher speeds with a lower load. Further motor solutions are available and are proposed on request.

Integrating a safe design Safety of the movements is achieved by integrating two excellent configurations for both the braking system and the position/speed detection devices. Any failure can be immediately detected and the load is stopped whatever the failure, even a drum shaft fracture.

Roll on / Roll off and dual line use E40 winch integrates a double keeper roller allowing to use the winch in a roll on / roll off configuration without the need of extra devices. Use with two lines is possible with an optional keeper roller. For those two modalities, external load measurement devices are also offered as an option.



Configuration example:

Winch E40 - 9,2 kW power - FEM / ISO class: 2m / M5
WLL 175 kg at 3,75 m/s - 60 m total travel
1xØ6 mm, non-rotating steel wire rope
Dimensions: 2200 x 430 x 430 mm - 410 kg dead load

NOTE: customized configurations can be provided on request

DESIGNED TO SAFELY PERFORM SENSATIONAL MOVEMENTS

The E40 winch is developed and manufactured according to the European standards and the international guidelines for stage engineering and machinery (DIN 56950, FEM 9.756, CWA15902, etc...).

High safety factors and reliability Faults are excluded by applying large safety factors as a standard rule. Moreover, each single component is chosen and designed to perform a working life of 1600 hours at full load and full speed.

Redundant braking in the best positions The winch features two independent braking units – the first installed in the motor side, the other in the drum side – which are located in opposite positions of the drive system. This configuration gives the maximum level of safety achievable.

Position and speed detection Two separate, high resolution incremental and absolute encoders are installed so that the cross-checking of the two signals allows to monitor the integrity of the whole drive system and of any other component without the need of further specific sensors.

Overload/Underload detection The E40 winch is provided with a precise load measurement system allowing to continuously detect the load acting on the lifting line, whatever the installation position and the line direction. Load measurement is absolutely free from any noise being the load cell installed in a position not influenced by the drive operation.

Cross-groove detection The rope is kept in its intended groove in the drum by means of two spring-loaded, polyurethane coated, keeper rollers. Microswitches, triggered by the keeper rollers, allow to stop the winch should the wire rope come out of its groove.

Double limit switches The E40 winch is provided with an easy accessible set of 4 switches, for integration in separate and redundant travel limit circuits.

Low maintenance Almost all components are lubricated for life or are self-lubricating, with the only exception of the ball screw and guides which require minimal oiling. The high reliability of the components ensures low-maintenance and no need for replacements.

Cover The E40 winch is provided with cover elements preventing direct access to the winch devices.

CONTROL OPTIONS

The E40 winch can be used with any control system suitable for high speed applications.

SIL3 / PLe ready All devices provided with the winch are suited for use in safety-related applications up to SIL3 according to EN 61508 or PLe to EN ISO 13849.

