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Theatre Products
Simplicity in Motion



PILEWINDWINCH

Affordable winches

PileWindWinches provide an affordable alternative for situations where accurate positioning and speed matter less, like non-performance situations or maintenance bars. The PileWindWinch wraps its steel wire in a multi-layer fashion on the winch drum. The wire runs through a narrow gap that is barely wider than the steel wire itself.

Modular design

The drums are modular and can be easily adapted to the thickness of the wire and the number of steel wires. The winches can be equipped with several control options. PileWindWinches are standard available for loads up to 750kg at speeds of 4 to 16m/min. Standard lifting heights are 5-27m.

Principle of PileWind: Speed, Power and Position will vary

Based on the principle of a pile wind, the speed will decline when the wire is unrolled and the pile gets smaller. As a result the speed difference can be up to 50% for a 20m pile wind winch with a 10mm steel cable. The change in diameter of the pile also influences the available torque and the accuracy of the winch. Therefore, the mentioned speed always refers to the maximum speed.

SPECIFICATIONS PILE WIND WINCH

Available versions:

- Standard lifting capacity 70-750kg.
- Fixed speed 4m/min, variable speed 0-4, 0-8, 0-16m/min.
- Lifting height 5 or 27 m.
- Drum for 2 to 10 steel wires, 4 – 10mm diameter.
- Drum for rope or bungee on request.

Specifications:

- Minimum safety factor on the steel wires: 10.
- 3 phase a-synchronous motors, 400V.
- Double brake, or single brake with self-braking gearbox (depending on type).
- Vario speed based on closed-loop invertors
- Vario speed types are standard equipped with over speed protection
- Safety factor on gearbox: 2.
- Limit switches. All winches according to BGV-D8+ and SIL2.

Options:

- Optional low noise (theatre) brakes.
- Overload and underload protection.
- SIL3/BGV-C1 E-stop.
- Incremental encoders with battery backup.
- Absolute encoders.
- Load visualization.

Operator panels

- Manual up/down/speed
- Local (single axe) control; up/down/e-stop/speed adjust, key switch/reset.
- Central (multi axe) control; winch selection switchboard with an attached single axe controller to execute the moves.

Position control

- Local (single axe); able to teach-in and select 5 positions with an attached single axe controller to execute the moves. Central (multi axe); LCD screen control with teach-in and select of 5 positions per winch. To be combined in 20 cues. Positioning can be speed or time synchronized. Moves are executed with an attached single axe controller.



SELECTION TABLE (more options available)

front/motorplate	sideplate	lifting height***			WLL (kg)					
max. Pile diameter(mm)	pile diameter (mm)	4mm	5mm	6mm	m1 - 0,25KW	m2 - 0,25 KW	m3 - 0,35 KW	m4 - 1,1 KW	m5 - 2.2 KW	m6 - 2,2 KW
					4 m/min fixed/ variable	4 m/min fixed/ variable	4 m/min fixed/ variable	16 m/min variable	16 m/min variable	16 m/min variable
300	250	8	6	5	110	244	522	278	456	1240
300	300	13	10	8	81	178	382	204	333	907
400	350	20	15	12	78	173	371	198	323	881
400	400	27	21	18	68	151	324	173	283	769

*** no less than 2 cables per winch must be used to ensure a safety factor of 10



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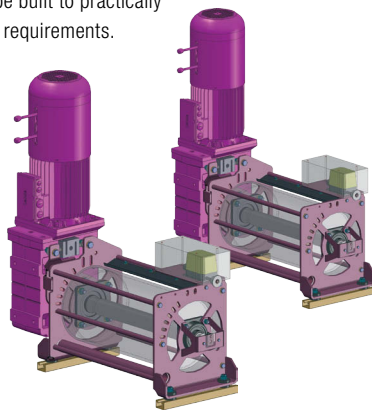
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POWERFLY WINCH

The modular PowerFly winches can be built to practically any specification to meet application requirements.

Based on a standard concept, all components can be selected and assembled to fit the needs of the customer. This modularity not only offers application-specific winches, it also minimizes end cost as no unnecessary or oversized components are used. All winches can be equipped with a fleet angle correction unit when needed.



AVAILABLE VERSIONS ARE:

- Lifting capacity of 100 - 2000 kg
- Fixed or variable speed up to 4 m/s
- Drums for 1-7 wires, from 2-14 mm wire diameter
- Drum can accommodate either wire rope, fibre rope or bungee cord
- Lifting height variable depending on application

The winches are standard supplied with an asynchronous motor; specific outside dimensions or dynamic behaviour may require a servo motor.

Based on the safety regulations and standards applicable in the specific use, each winch can be equipped with the following features:

- limit switches
- absolute or incremental encoders
- single or double brakes
- slack-wire detection
- cross-wire detection
- load cells

SPECIFICATION POWERFLY WINCH AS SHOWN

PFW75-12-5000:

- Lifting capacity: 500 kg net
- 4 wires
- Lifting speed: 0-2 m/second
- Maximum acceleration: 2 m/second²
- Lifting height: 15 m
- Cross-wire detection and cross wire prevention rollers
- Slack-wire detection
- Hard-wired double safety end switches LL, L, H, HH
- SIL 3 double encoder
- Accuracy within 1 mm
- Static weight measurement by load cells

PERFORMERFLY MULTIPURPOSE WINCH

PerformerFly is a multi-functional truss winch (PPFW 5540) that can be fully integrated in any H40V truss configuration to provide a flexible solution for rental companies or touring sets. With its speed of 4 m/second and acceleration of 4 m/second², this winch offers the full scope of movement possibilities. In addition, the smooth start and stop control affords precise travel positioning and safe operation. In combination with a railing system (also available as an integral component in an H40 truss), the options for flexible fly solutions are almost endless.

This type of winch is specially developed to be used for performer flying. Integral safety and control systems, including location of the second brake and spindle end switches in addition to the regular SIL3 requirements, ensure safe operation for performer and technician.

The PPFW 5540 can be delivered with different types of drums to accommodate 4, 5 or 6 mm steel wire using one or two cables. Depending on the application, the drum has a capacity of 20-75 m length. As an option, the PPFW 5540 can be mounted with a fleet angle correction unit.

SPECIFICATION PERFORMERFLY WINCH

PPFW 5540 - as standard integrated in H40 truss frame:

- Lifting capacity: 125/250 kg
- Self-weight: 275 kg
- Local control/connection box
- Motor: 7,5 kW servo drive
- Method: double wire PowerFly with zero fleet compensation
- Wire: 4, 5 or 6 mm 7x19 KSR
- Lifting speed: 4 m/second (SWL 125 kg)
- Lifting speed: 3 m/second (SWL 250 kg)
- Maximum acceleration: 4 m/second²
- Travel length: 20 - 75 m
- Drum diameter: 180 mm
- Cross-wire detection and cross-wire prevention rollers
- SIL 3 double encoder
- Hard wired double safety end switches LL, L, H, HH
- Double brakes on the drum including manual release
- Static weight measurement by load cells



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