# **PROTOS**



## VOYAGER ELECTRICAL CHAIN HØISTS

Electrical chain hoists have a leading role in the modern entertainment and exhibition industry and hold a predominant position in current and future rigging.

Following the AEGIS Load Measuring Systems and ADJUTOR Rigging Gear, PROTOS introduces the VOYAGER electrical chain hoist family. A versatile, state of the art hoist range based on the market's rigging needs.

Ranging from the 250 kg S model to the 2500 kg XXL model, single fall and various speeds and voltages are available as standard features. All models are rated at IP65 ensuring worry free outdoor use.

VOYAGER hoists can be controlled by any universal controllers with either direct, (DC) or low voltage (LV) control. Innovative design, small dimensions and unique low self-weight for easy handling, this is what our hoists are known for.

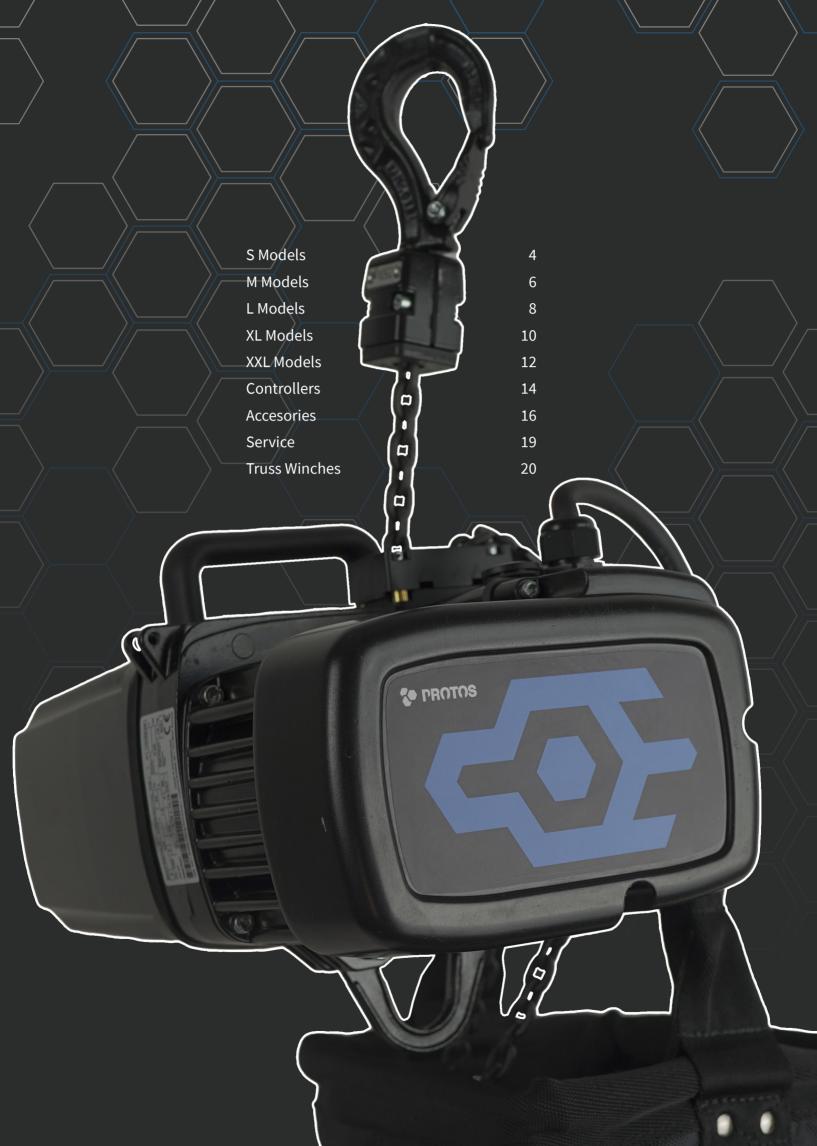
The Voyager hoist range is available in D8, D8+ or BGV-C1 composition and can be fitted with limit switches, load measuring capabilities and encoders. All models come with a 3 year warranty period.

The entire PROTOS VOYAGER hoist range has its slip clutch installed in front of the braking system and is therefore positioned outside the "drive train". This protects the chain hoist from overloading.

### **PROTOS VOYAGER**

Safe and uncompromised lifting made in Europe and prepared for the future







The model S is the smallest hoist in the VOYAGER range. Weighing only 12 kg, this little powerhouse lifts up to 400 kg in D8 and 250 kg in D8+ configuration. VOYAGER hoists feature a modular design and, even with a second brake, remain compact. The small size of this hoist makes it ideal for transportation, saving space and costs.

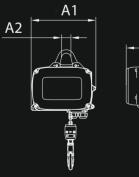
The model S is equipped with a 3-stage self-contained gear, while the helical gearing with geometric optimisation and the 5-pocket load wheel ensure silent running. The case hardened and manganese phosphate profile steel chain provides about 15% more capacity at an identical nominal diameter when compared to the traditional round steel chain. This increases the life span due to better protection against corrosion and decreasing wear when running dry. The larger cross-sectional area reduces wear and increases the lifetime of the chain.

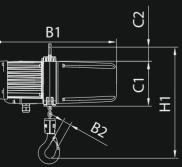
All S models are single fall. The load hook with its stable, guided hook latch and safety rubber buffer provides maximum safety. The hoist body and components are treated with KTL dip paint coating for protection against environmental influences and abuse. Textile chain bags for various lifting heights available. A unique feature of the hoist is the IP65 protection class making it dust and water proof. The Voyager S is perfectly suitable for outdoor use, even under the most difficult and rainy conditions.



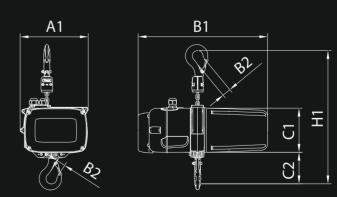
Model S D8		Model S+ D8+	
Lifting Capacity	400 kg	Lifting Capacity	250 kg
Chain Safety Factor	5:1	Chain Safety Factor	8:1
Lifting Speed	4/8 m/min	Lifting Speed	4/8 m/min
Operating Voltages	3Ph-400V-50Hz	Operating Voltages	3Ph-400V-50Hz
	3Ph-230V-50Hz		3Ph-230V-50Hz
	1Ph-230V-50Hz		1Ph-230V-50Hz
	1Ph-115V-50Hz		1Ph-115V-50Hz
	3Ph-200v-50Hz		3Ph-200v-50Hz
	3Ph-200v-60Hz		3Ph-200v-60Hz
Protection Class	IP65	Protection Class	IP65
Motor Power	0,25kW	Motor Power	0,25kW
Current At Full Load	1,8A	Current At Full Load	1,8A
Classification DIN EN 14492 (FEM)	A3(M3)	Classification DIN EN 14492 (FEM)	A5(M5)
Duty Factor	40%	Duty Factor	40%
Noise Level	65dBA	Noise Level	65dBA
Load Wheel	5 Pocket Wheel	Load Wheel	5 Pocket Wheel
Load Chain acc. EN 818-7	3.75mm x 10.75mm	Load Chain acc. EN 818-7	3.75mm x 10.75mm
Number of Chain Falls	1	Number of Chain Falls	1
Chain Weight Per Meter	0.34 kg	Chain Weight Per Meter	0.34 kg
Self Weight Hoist Body	12 kg	Self Weight Hoist Body	12 kg
Hoist Control Type	DC/LV	Hoist Control Type	DC/LV
Limit Switch Types	Rotary/External Switch*	Limit Switch Types	Rotary/External Switch*
Power Connector Type	CEE Red 16A 4P	Power Connector Type	CEE Red 16A 4P
Control Connector Type	CEE Yellow 16A 4P	Control Connector Type	CEE Yellow 16A 4P
Low Voltage Control Voltage	24V/42V	Low Voltage Control Voltage	24V/42V
Double Brake	Optional	Double Brake	Standard
*Only available for LV hoists			

Suspension	Falls	A1 mm	A2 mm	B1 mm	B2 mm	C1 mm	C2 mm	H1 mm	
Eyebolt	1	206	30	368	20	134	39	346	
Hook	4	206	30	368	20	134	90	397	





Eyebolt Suspension



Rotatable Hook Suspension



The model M is available in 2 body sizes, the D8 version has a lifting capacity of 500 kg and weighs a mere 12 kg, making it the lightest weighing hoist in this range. The D8+ and C1 versions have a larger body and a self weight of 23 kg. Lifting capacity at D8+ level is 500 kg and 400 kg in C1 configuration.

The entire Voyager range comes equipped with self contained helical gears and 5 pocket load wheels, ensuring silent running. All configurations of in the model M range are rated with the unique IP65 protection class. The case hardened and manganese phosphate treatment of the chain increases the hoists lifespan due to better protection against corrosion and decreases wear when running dry.

In its D8 configurations the model M is available with 4m/min lifting speed, while the D8+ and C1 variants are available as both 4 and 8m/min speeds and can be ordered with either direct or low voltage control. All model M hoists are single fall. The hoist body and components are treated with KTL dip paint coating for protection against environmental influences and abuse. PROTOS offers Textile chain bags for various lifting heights for this hoist.

The Voyager M is perfectly suitable for outside use, even under the most difficult and rainy conditions.



Model M	D8	Model M+	D8+
Lifting Capacity	500 kg	Lifting Capacity	500 kg
Chain Safety Factor	5:1	Chain Safety Factor	8:1
Lifting Speed	4 m/min	Lifting Speed	4/8 m/min
Operating Voltages	3Ph-400V-50Hz	<b>Operating Voltages</b>	3Ph-400V-50Hz
	3Ph-230V-50Hz		3Ph-230V-50Hz
	3Ph-200v-50Hz		1Ph-230V-50Hz
	3Ph-200v-60Hz		1Ph-115V-50Hz
			3Ph-200v-50Hz
			3Ph-200v-60Hz
Protection Class	IP65	Protection Class	IP65
Motor Power	0,38kW	Motor Power	0,55kW
Current At Full Load	2,4A	Current At Full Load	1,8A

Protection Glass	IP65	
Motor Power	0,38kW	
Current At Full Load	2,4A	
Classification DIN EN 14492	(FEM) A3(M3)	
Duty Factor	25%	
Noise Level	65dBA	
Load Wheel	5 Pocket Wheel	
Load Chain acc. EN 818-7	4.1mm x 11.5mm	
Number of Chain Falls	1	
Chain Weight Per Meter	0.43 kg	
Self Weight Hoist Body	12 kg	
Hoist Control Type	DC/LV	
Limit Switch Types Rota	ary/External Switch*	
Power Connector Type	CEE Red 16A 4P	
Control Connector Type	CEE Yellow 16A 4P	
Low Voltage Control Voltage	24V/42V	
Double Brake	Optional	

	3Ph-200v-50Hz
	3Ph-200v-60Hz
Protection Class	IP65
Motor Power	0,55kW
Current At Full Load	1,8A
<b>Classification DIN EN 1449</b>	2 (FEM) A5(M5)
Duty Factor	40%
Noise Level	60dBA
Load Wheel	5 Pocket Wheel
Load Chain acc. EN 818-7	5.25mm x 15mm
Number of Chain Falls	1
Chain Weight Per Meter	0.69 kg
Self Weight Hoist Body	23 kg
Hoist Control Type	DC/LV
Limit Switch Types R	otary/External Switch*
Power Connector Type	CEE Red 16A 4P
Control Connector Type	CEE Yellow 16A 4P
Low Voltage Control Voltag	<b>je</b> 24V/42V
Double Brake	Standard

#### Model MC1

Lifting Capacity	400 kg
Chain Safety Factor	10:1
Lifting Speed	4/8 m/min
Operating Voltages	3Ph-400V-50Hz
	3Ph-230V-50Hz
	1Ph-230V-50Hz
	1Ph-115V-50Hz
	3Ph-200v-50Hz
	3Ph-200v-60Hz

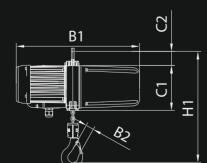
C1

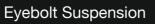
Protection Class	IP65
Motor Power	0,55kW
Current At Full Load	1,8A
Classification DIN EN 14492 (	FEM)A5(M5)
Duty Factor	40%
Noise Level	60dBA
Load Wheel	5 Pocket Wheel
Load Chain acc. EN 818-7	5.25mm x 15mm
Number of Chain Falls	2
Chain Weight Per Meter	0.69 kg
Self Weight Hoist Body	24 kg
Hoist Control Type	DC/LV
Limit Switch Types Rota	ary/External Switch*
Power Connector Type	CEE Red 16A 4P
Control Connector Type	CEE Yellow 16A 4P
Low Voltage Control Voltage	24V/42V
Double Brake	Standard

\*Only available for LV hoists

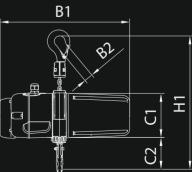
	Suspension	Falls	A1 mm	A2 mm	B1 mm	B2 mm	C1 mm	C2 mm	H1 mm
8	Eyebolt	1	206	30	368	20	134	39	346
8	Hook	1	206	30	368	20	134	90	397
8+	Eyebolt	1	272	40	414	24	162	49	447
8+	Hook	1	272	40	414	24	162	127	525
1	Eyebolt	1	272	40	414	24	162	100	498
1	Hook	1/	272	40	414	24	162	180	578











#### Rotatable Hook Suspension

VOYAGER ELECTRICAL CHAIN HOISTS



The VOYAGER model L, similar to the S, and M comes in 2 different body sizes. The D8 version, weighing in at merely 23 kg combined with its 1000 kg lifting capacity makes this model one of the most versatile hoists currently on the market. The model L also boosts a 1 ton lifting capacity in its D8+ configuration, while as a C1 hoist it still manages a respectable 800 kg. Both the D8+ and C1 variants clock in at 47 kg self weight due to the safety factors of respectively 8:1 for D8+ and 10:1 for C1.

All models are rated at an IP65 protection class making them ideal for in and outdoor use in both temporarily or fixed installations. The case hardened and manganese phosphate treatment of the chain increases the hoist's life span due to better protection against corrosion while decreasing wear when running dry.

In its D8 configurations the model L is available with 4m/min lifting speed, while the D8+ and C1 variants are available as both 4 and 8m/min speeds and can be ordered with either direct or low voltage control. All model L hoists are single fall. The hoist body and components are treated with KTL dip paint coating for protection against environmental influences and abuse. PROTOS offers textile chain bags for various lifting heights for this hoist.

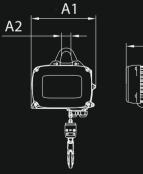
The Voyager L is perfectly suitable for outside use, even under the most difficult and rainy conditions.

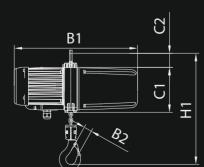
The Voyager "L" is undeniably the ultimate workhorse in many rental fleets due to it's unique features such as the IP65 rating, low self weight versus high lifting capacity while remaining single fall even in C1 configuration.



			\//\		
Model L D8		Model L+ D8+	•	Model LC1 C1	
Lifting Capacity	1000 kg	Lifting Capacity	1000 kg	Lifting Capacity	800 kg
Chain Safety Factor	5:1	Chain Safety Factor	8:1	Chain Safety Factor	10:1
Lifting Speed	4 m/min	Lifting Speed	4/8 m/min	Lifting Speed	4/8 m/min
Operating Voltages	3Ph-400V-50Hz	Operating Voltages	3Ph-400V-50Hz	Operating Voltages	3Ph-400V-50Hz
	3Ph-230V-50Hz		3Ph-230V-50Hz		3Ph-230V-50Hz
	3Ph-200v-50Hz		1Ph-230V-50Hz		1Ph-230V-50Hz
	3Ph-200v-60Hz		1Ph-115V-50Hz		1Ph-115V-50Hz
			3Ph-200v-50Hz		3Ph-200v-50Hz
			3Ph-200v-60Hz		3Ph-200v-60Hz
Protection Class	IP65	Protection Class	IP65	Protection Class	IP65
Motor Power	0,76kW	Motor Power	1,5kW	Motor Power	1,5kW
Current At Full Load	2,6A	Current At Full Load	3,6A	Current At Full Load	3,6A
<b>Classification DIN EN 14492</b>	(FEM) A3(M3)	Classification DIN EN 14492	<b>(FEM)</b> A5(M5)	Classification DIN EN 14492	2 (FEM) A5(M5)
Duty Factor	25%	Duty Factor	40%	Duty Factor	40%
Noise Level	60dBA	Noise Level	75dBA	Noise Level	75dBA
Load Wheel	5 Pocket Wheel	Load Wheel	5 Pocket Wheel	Load Wheel	5 Pocket Wheel
Load Chain acc. EN 818-7	5.7mm x 16mm	Load Chain acc. EN 818-7	7.45mm x 23mm	Load Chain acc. EN 818-7	7.45mm x 23mm
Number of Chain Falls	1	Number of Chain Falls	1	Number of Chain Falls	1
Chain Weight Per Meter	0.84 kg	Chain Weight Per Meter	1.37 kg	Chain Weight Per Meter	1.37 kg
Self Weight Hoist Body	23 kg	Self Weight Hoist Body	47 kg	Self Weight Hoist Body	48 kg
Hoist Control Type	DC/LV	Hoist Control Type	DC/LV	Hoist Control Type	DC/LV
Limit Switch Types Rot	tary/External Switch	Limit Switch Types Ro	otary/External Switch	Limit Switch Types R	otary/External Switch
Power Connector Type	CEE Red 16A 4P	Power Connector Type	CEE Red 16A 4P	Power Connector Type	CEE Red 16A 4P
Control Connector Type	CEE Yellow 16A 4P	Control Connector Type	CEE Yellow 16A 4P	Control Connector Type	CEE Yellow 16A 4P
Low Voltage Control Voltage	e 24V/42V	Low Voltage Control Voltage	e 24V/42V	Low Voltage Control Voltag	e 24V/42V
Double Brake	Optional	Double Brake	Standard	Double Brake	Standard

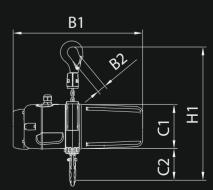
	Suspension	Falls	A1 mm	A2 mm	B1 mm	B2 mm	C1 mm	C2 mm	H1 mm	
D8	Eyebolt	1	272	40	414	24	162	49	447	
D8	Hook	-{{1	272	40	414	24	162	127	525	
D8+	Eyebolt	1	337	52	514	24	212	58	558	
D8+	Hook	1	337	52	514	24	212	123	623	
C1	Eyebolt	1	337	52	514	24	212	120	621	
C1	Hook	1/	337	52	514	24	212	192	693	





Eyebolt Suspension





Rotatable Hook Suspension

VOYAGER ELECTRICAL CHAIN HOISTS



The VOYAGER model XL comes in one body size. The D8 version, weighing in at 46 kg with a significant lifting capacity of 2000 kg.

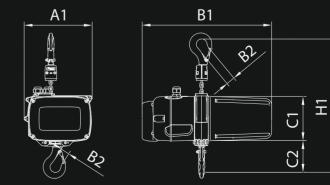
Similar to the rest of the VOYAGER range, the model XL operates using a single fall lifting chain which makes this hoist unique within this lifting class due to half the chain length dramatically decreasing self weight. Single fall also reduces the risk of tangled lifting chain, a problem usually associated with hoists within this category.

The model XL is available with 4m/min lifting speed and can be ordered with direct or low voltage control (42V standard). The helical gearing with geometric optimisation and the 5 pocket load wheel ensure quiet operation. The case hardened and manganese phosphate treatment of the chain increases life span due to better protection against corrosion while decreasing wear when running dry. Textile chain bags for various lifting heights are available.



Model XL	D8	
Lifting Capacity	2000kg	
Chain Safety Factor	5:1	
Lifting Speed	4 m/min	
Operating Voltages	3Ph-400V-50Hz	
	3Ph-230V-50Hz	
	3Ph-200V-50Hz	
	3Ph-200V-60Hz	
Protection Class	IP65	
Motor Power	1.5kW	
Current At Full Load	4.4A	
Classification DIN EN 14492 (FEM)	A3(M3)	
Duty Factor	25%	
Noise Level	75dBA	
Load Wheel	5 Pocket Wheel	
Load Chain acc. EN 818-7	9.4mm x 27.4mm	
Number of Chain Falls	1	
Chain Weight Per Meter	1.64 kg	
Self Weight Hoist Body	46 kg	
Hoist Control Type	DC/LV	
Limit Switch Types	Rotary/External Switch	
Power Connector Type	CEE Red 16A 4P	
Control Connector Type	CEE Yellow 16A 4P	
Low Voltage Control Voltage	24V/42V	
Double brake	Optional	

	Suspension	Falls	A1	A2	B1	B2	C1	C2	H1
			mm	mm	mm	mm	mm	mm	mm
3	Eyebolt	1	272	40	414	24	162	49	447
;	Hook	1//	272	40	414	24	162	127	525



**Eyebolt Suspension** 

Rotatable Hook Suspension

VOYAGER ELECTRICAL CHAIN HOISTS

H1



The VOYAGER model XXL, similar to the S, M and L comes in 2 different body sizes. The D8 version, weighing in at 72 kg with an impressive lifting capacity of 2500 kg. The model XXL also boosts a 2.5 ton lifting capacity in its D8+ configuration, while as a C1 hoist it still manages an incredible 2000 kg. Both the D8+ and C1 variants clock in at 74 kg self weight due to the safety factors of respectively 8:1 for D8+ and 10:1 for C1.

Similar as the rest of the VOYAGER range, the model XXL operates using a single fall lifting chain which making this hoist unique within this lifting class due to half the chain length dramatically decreasing self weight. Single fall also reduces the risk of tangled lifting chain, a problem usually associated with hoists within this category.

All 3 variants of the model XXL are available with 4 and 8m/min lifting speed and can be ordered with direct or low voltage control (42V standard). The helical gearing with geometric optimisation and the 5 pocket load wheel ensure quiet operation. The case hardened and manganese phosphate treatment of the chain increases life span due to better protection against corrosion while decreasing wear when running dry. Textile chain bags for various lifting heights are available.

The Voyager XXL is the ultimate heavy weight lifting champion and offers unmatched advantages over any other chain hoist available.



Chain Safety Factor5:1Lifting Speed4/8 m/minOperating Voltages3Ph-400V-50Hz3Ph-230V-50Hz3Ph-230V-50Hz1Ph-230V-50Hz1Ph-230V-50Hz1Ph-115V-50Hz3Ph-200v-60Hz3Ph-200v-60Hz3Ph-200v-60HzProtection ClassIP65Motor Power2,2kWCurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Model XXL	D8
Chain Safety Factor5:1Lifting Speed4/8 m/minOperating Voltages3Ph-400V-50Hz3Ph-230V-50Hz3Ph-230V-50Hz1Ph-230V-50Hz1Ph-215V-50Hz3Ph-200v-60Hz3Ph-200v-60HzProtection ClassIP65Motor Power2,2kWCurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level5 Pocket WheelLoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V		
Lifting Speed4/8 m/minOperating Voltages3Ph-400V-50Hz3Ph-230V-50Hz3Ph-230V-50Hz1Ph-15V-50Hz3Ph-200V-50Hz3Ph-200V-50Hz3Ph-200V-60Hz3Ph-200V-60Hz3Ph-200V-60HzProtection ClassIP65Motor Power2,2kWCurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LWLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24//42V	Lifting Capacity	2500 kg
Operating Voltages3Ph-400V-50Hz3Ph-230V-50Hz3Ph-230V-50Hz1Ph-115V-50Hz3Ph-200v-50Hz3Ph-200v-50Hz3Ph-200v-60Hz3Ph-200v-60Hz3Ph-200v-60HzProtection ClassIP65Motor Power2,2kWCurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Chain Safety Factor	5:1
3Ph-230V-50Hz1Ph-230V-50Hz1Ph-230V-50Hz1Ph-115V-50Hz3Ph-200v-50Hz3Ph-200v-60Hz3Ph-200v-60HzProtection ClassIP65Motor Power2,2kWCurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level5 Pocket WheelLoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Lifting Speed	4/8 m/min
1Ph-230V-50Hz1Ph-115V-50Hz3Ph-200v-50Hz3Ph-200v-60Hz3Ph-200v-60Hz3Ph-200v-60Hz3Ph-200v-60HzQurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Operating Voltages	3Ph-400V-50Hz
1Ph-115V-50Hz 3Ph-200v-50Hz 3Ph-200v-60HzProtection ClassIP65Motor Power2,2kWCurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V		3Ph-230V-50Hz
3Ph-200v-50Hz 3Ph-200v-60HzProtection ClassIP65Motor Power2,2kWCurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LWLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V		1Ph-230V-50Hz
SPh-200v-60Hz     Protection Class   IP65     Motor Power   2,2kW     Current At Full Load   6,1A     Classification DIN EN 14492 (FEM)   A3(M3)     Duty Factor   25%     Noise Level   75dBA     Load Wheel   5 Pocket Wheel     Load Chain acc. EN 818-7   9.4mm x 27.4mm     Number of Chain Falls   1     Chain Weight Per Meter   2.22 kg     Self Weight Hoist Body   72 kg     Hoist Control Type   DC/LV     Limit Switch Types   Rotary/External Switch     Power Connector Type   CEE Red 16A 4P     Control Connector Type   CEE Yellow 16A 4P     Low Voltage Control Voltage   24V/42V		1Ph-115V-50Hz
Protection ClassIP65Motor Power2,2kWCurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V		3Ph-200v-50Hz
Motor Power2,2kWCurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V		3Ph-200v-60Hz
Motor Power2,2kWCurrent At Full Load6,1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V		
Current At Full Load6.1AClassification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Protection Class	IP65
Classification DIN EN 14492 (FEM)A3(M3)Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Motor Power	2,2kW
Duty Factor25%Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Current At Full Load	6,1A
Noise Level75dBALoad Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Classification DIN EN 14	492 (FEM) A3(M3)
Load Wheel5 Pocket WheelLoad Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Duty Factor	25%
Load Chain acc. EN 818-79.4mm x 27.4mmNumber of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Noise Level	75dBA
Number of Chain Falls1Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Load Wheel	5 Pocket Wheel
Chain Weight Per Meter2.22 kgSelf Weight Hoist Body72 kgHoist Control TypeDC/LVLimit Switch TypesRotary/External SwitchPower Connector TypeCEE Red 16A 4PControl Connector TypeCEE Yellow 16A 4PLow Voltage Control Voltage24V/42V	Load Chain acc. EN 818	-7 9.4mm x 27.4mm
Self Weight Hoist Body   72 kg     Hoist Control Type   DC/LV     Limit Switch Types   Rotary/External Switch     Power Connector Type   CEE Red 16A 4P     Control Connector Type   CEE Yellow 16A 4P     Low Voltage Control Voltage   24V/42V	Number of Chain Falls	1
Hoist Control Type   DC/LV     Limit Switch Types   Rotary/External Switch     Power Connector Type   CEE Red 16A 4P     Control Connector Type   CEE Yellow 16A 4P     Low Voltage Control Voltage   24V/42V	Chain Weight Per Meter	2.22 kg
Limit Switch Types Rotary/External Switch   Power Connector Type CEE Red 16A 4P   Control Connector Type CEE Yellow 16A 4P   Low Voltage Control Voltage 24V/42V	Self Weight Hoist Body	72 kg
Power Connector Type CEE Red 16A 4P   Control Connector Type CEE Yellow 16A 4P   Low Voltage Control Voltage 24V/42V	Hoist Control Type	DC/LV
Control Connector Type     CEE Yellow 16A 4P       Low Voltage Control Voltage     24V/42V	Limit Switch Types	Rotary/External Switch
Low Voltage Control Voltage 24V/42V	Power Connector Type	CEE Red 16A 4P
	<b>Control Connector Type</b>	CEE Yellow 16A 4P
Double Brake Optional	Low Voltage Control Vol	ltage 24V/42V
	Double Brake	Optional

Model XXL+	D8+	
		0500 1
Lifting Capacity		2500 kg
Chain Safety Factor		8:
Lifting Speed		4/8 m/mii
Operating Voltages		3Ph-400V-50H
		3Ph-230V-50H
		1Ph-230V-50H
		1Ph-115V-50H
		3Ph-200v-50H
		3Ph-200v-60H
Protection Class		IP6

Protection Class		IP65
Motor Power		2,2kW
Current At Full Load		6,1A
<b>Classification DIN EN 144</b>	92 (FEM)	A5(M5)
Duty Factor		40%
Noise Level		75dBA
Load Wheel	5 Pocke	t Wheel
Load Chain acc. EN 818-7	11.75mm x 3	32.9mm
Number of Chain Falls		1
Chain Weight Per Meter		3.53 kg
Self Weight Hoist Body		72 kg
Hoist Control Type		DC/LV
Limit Switch Types	Rotary/External	Switch
Power Connector Type	CEE Red	16A 4P
Control Connector Type	CEE Yellow	16A 4P
Low Voltage Control Volta	ige 2	24V/42V
Double Brake	S	tandard

#### Model XXL

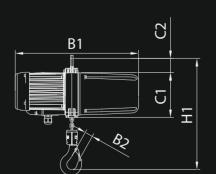
Lifting Capacity	2000 kg
Chain Safety Factor	10:1
Lifting Speed	4/8 m/min
Operating Voltages	3Ph-400V-50Hz
	3Ph-230V-50Hz
	1Ph-230V-50Hz
	1Ph-115V-50Hz
	3Ph-200v-50Hz
	3Ph-200v-60Hz

C1

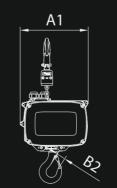
Protection Class	IP65
Motor Power	2,2kW
Current At Full Load	6,1A
Classification DIN EN 14492 (	(FEM) A5(M5)
Duty Factor	40%
Noise Level	75dBA
Load Wheel	5 Pocket Wheel
Load Chain acc. EN 818-7	11.75mm x 32.9mm
Number of Chain Falls	1
Chain Weight Per Meter	3.53 kg
Self Weight Hoist Body	75 kg
Hoist Control Type	DC/LV
Limit Switch Types Rot	tary/External Switch
Power Connector Type	CEE Red 16A 4P
Control Connector Type	CEE Yellow 16A 4P
Low Voltage Control Voltage	24V/42V
Double Brake	Standard

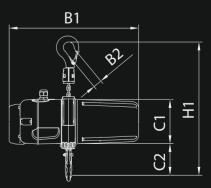
	Suspension	Falls	A1 mm	A2 mm	B1 mm	B2 mm	C1 mm	C2 mm	H1 mm	
D8	Eyebolt	1	382	75	614	35	237	118	698	
D8	Hook	1	382	75	614	35	237	147	727	
D8+	Eyebolt	1	382	62	614	41	237	111	732	
D8+	Hook	1	382	62	614	41	237	204	825	
C1	Eyebolt	1	382	70	614	41	237	221	842	
C1	Hook	1	382	70	614	41	237	310	931	





**Eyebolt Suspension** 





Rotatable Hook Suspension

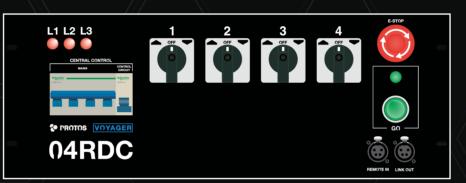
## VOYAGER CONTROLLERS

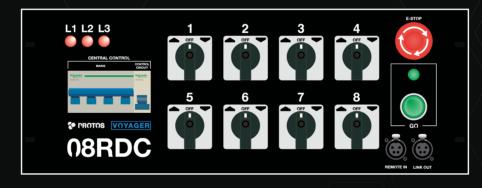
## PVC-04/08/12RDC

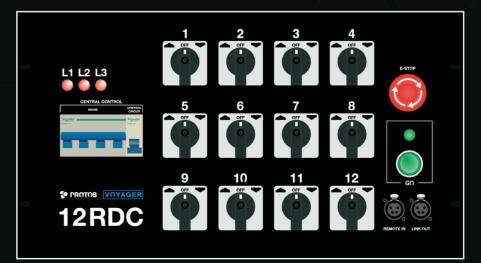
19"rackmount controllers, 4, 8 & 12 channel versions, Direct Control

- Individual channel selections.
- E-stop.
- Run button.
- Linkable.
- Optional remote control.
- Electric circuit control.
- Operating voltage; 3Ph-400V-50Hz, 10A/Ph.
- Max current per switch; 1kW/1.5A at 400V.
- Max current all channels; 6.9kW/10A at 400V.

- Protection class; IP20 Power connector type; CEE-32A-5P.
- Control connection type; CEE-16A-4P/16P Harting/Socapex.
- Phase indication.
- Max ambient temp; 40° C.
- Dimensions 04; 482x178x255mm
- Dimensions 08; 482x178x255 Dimensions 12; 482x266x255mm
- Weight; 9.7Kg (04) 10.7Kg (08) 12.5Kg (12)









## PVC-01/02HDC

Hand held controller 1 & 2 channel versions, Direct Control

- Run button(s) up/down
- E-stop
- Operating voltage; 3Ph-400V-50/60Hz, 10A/Ph
- Max current;  $\leq$  1kW

Protection class; IP20 Power connector type; CEE 16A-5P male control connection type; CEE 16A-4P female







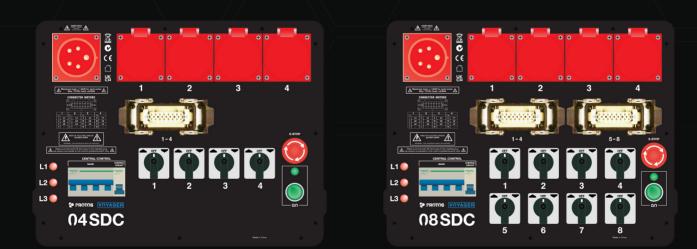


## PVC-04/08SDC

Suitcase controller, 4 & 8 channel versions, Direct Control

- Individual channel selections
- E-stop
- Run button
- Remote control and link options available
- Electric circuit control
- Operating voltage; 3Ph-400V-50Hz, 10A/Ph
- Max current per switch; 1kW/1.5A at 400V
- Protection class; IP20

Max current all channels; 6.9kW/10A at 400V
Power connector type; CEE-16A-5P Harting
Control connection type; CEE-16A-4P/16P
Phase indication
Max ambient temp; 40° C
Dimensions; 524x423x203mm
Weight: 12/13 5Kg



## STANDARD FEATURES

Each of our hoists is shipped with the following features.

#### Design

- Compact and light
- Robust aluminium casing and cover for mobile and outdoor use
- Powerful built-in motor
- Drain holes

#### Brake

- Reliable spring loaded DV-brake -
- Safe braking of the load - Optionally independent second brake on existing shaft (no cover extension required)





#### Transmission

- Smooth running (65 dB)
- 3-step drive with helical gearing
- Permanent lubrication
- Self-contained gearbox

#### Hooks

- Skeleton load and suspension hooks -
- Hook safety latch fastened into position when closed -
  - Dampening system -



#### **Polygonal connections**

- All shaft-hub connections are built in a self-centering polygonal design

ROTOS

- Optimal power transmission
- Quick assembly and disassembly

#### Easy maintenance

- Easy to maintain -
- Good accessibility of wearing parts -
  - Quick and simple replacement -
    - No special tools required -
    - Two part chain guiding plate -



Aside from the range of features each VOYAGER hoists comes with. PROTOS also offers many optional features.



#### **Geared limit switch**

- The upper and lower end position of the load hook can be set easily and precisely -
  - Optional 2 additional emergency stop contacts available -
    - Optional external limit switch -



#### Load Measurement

- Load sensor integrated in suspension -
- Simple installation in special eyebolt or hook suspension -
  - Optional mechanical protection -
  - Ouput signal hook load sensor 0-10 or V 4 20 mA -



#### Positioning

- Absolute or incremental encoder -
- Encoder on chain wheel (no housing extension required) -
- Optional encoder on drive shaft (housing extension required) -



## OPTIONAL ACCESORISS

A comprehensive range of accessories enables users to accommodate hoists for any fixed or mobile job imaginable. Availability of accessories are dependent on the model.

#### Flight case

Available for the entire VOYAGER range Heavy duty design

#### Cabling

Various lengths and types available such as power, motor and control cabling. Equipped with CEE connectors. Harting and Socapex are available for multicables, break-in and break-out adapters.



#### **Beam trolleys**

- Manual trolley for steel profiles
- For moving electrical and manual chain hoist manually
- Load wheels made of cast iron with ball bearings
- Side plates made of cast iron with fall and climbing protection
- Flange width infinitely variable









## VOYAGER SERVICE

Due to PROTOS's global sales and service network we can provide service to fit or refit your hoist with lengths of lifting chain tailored to meet your exact lifting height requirements. PROTOS is able to equip or upgrade your hoist with double brakes, limit switches and encoders, among other things, locally. Our network offers unique service for inspection, repairs and certification in your country or region guaranteeing fast handling and economic rates. Find your local dealer on protos-one.com.



## VOYAGER ELECTRICAL CHAIN HOISTS



## VOYAGER TW

The single span PROTOS VOYAGER Truss Winch is the perfect example of Dutch lifting engineering ingenuity. The winch systems in the TW range are integrated in a standard 30/40cm truss box frame of 1/1.3m (3/3.9ft) length that can be connected to standard SIXTY82, TPM 29S, 39S truss or equivalent.

The uniquely designed universal pulley plates can be mounted at any position along the truss span, guiding the 4/6 steel wire ropes.

The standard TW single truss span range consists of 250, 400, 600, and 800Kg WLL models. The maximum standard lifting height is 10m (30ft) and is capable of connecting truss spans ranging from 3 to 24m (10/72ft).

The TW is equipped with double limit switches as well as over and under load detection. The TW is available at a fixed speed of 5m/min (15ft/min) or with variable speeds rangring from 0 - 8 m/min (0 - 24ft/min). It is rated IP54, has a phase monitoring system and offers an economic power consumption of 0.85Kw at 400V/50Hz while complying with EN-17206 and CE.





The fixed speed TW model is controlled via the PVC-TW04R 4 channel or the PVC-TW 01R 1 channel controllers. These controller has up/down switches for each channel and an E-stop switch. Controllers can be linked with up to a maximum of 24 units (96 channels) and are equipped with Harting and CEE 16A connectors. They can also be equipped with a DMX 512 show control card.



Optionally a remote control is available in either handheld or wall mounted iterations and comes with a standard 20m cable. The variable speed TW is controlled through the PVC-TW01RVS a single channel, 19 inch rack mount which features speed control and an E-switch. It can be programmed with the use of a PC or tablet which can be connected with a TJ 45 LAN or DMX connection to the controller.

The PROTOS VOYAGER TW range offers a unique system which transforms a single truss span into a self-powered truss fly bar with integrated winch, providing a simple yet versatile, safe and quiet lifting solution. Minimal trim height requirements for multiple usage for limited budgets.... It's as simple as that! Besides the standard range, the TW range offers limitless posibilities tailored to your needs.



TW 250

	TW250-8	TW250-16	TW250-24	TW400	TW600	TW800
WLL	250 kg	250 kg	250 kg	400 kg	600 kg	800 kg
Safety Factor	10:1	10:1	10:1	10:1	10:1	10:1
Maximum Travel Range	10 m	12/14 m				
Lifting Speed Fixed	5 m/min	5 m/min				
Lifting Speed Variable	0-8 m/min	0-8 m/min				
Operating Voltage*	3Ph-400V-50Hz	3Ph-400V-50Hz	3Ph-400V-50Hz	3Ph-400V-50Hz	3Ph-400V-50Hz	3Ph-400V-50Hz
Control Voltage**	24V	24V	24V	24V	24V	24V
Connector type	Harting Eco B	Harting Eco B				
Protection Class	IP54	IP54	IP54	IP54	IP54	IP54
Motor Power	0.75kW	0.8kW	1.1kW	1.1kW	1.1kW	1.3kW
Current At Full Load	4.1A	4.4A	7.2A	7.2A	8.1A	11.2A
Classification - European Standar	rd EN-17206	EN-17206	EN-17206	EN-17206	EN-17206	EN-17206
Switches On Up	16	16	16	16	14	12
Noise Level at 1 meter	55 - 74dB	55 - 74dB				
Steel Cables and Pulley Plates	4x 5mm	4x 5mm	4x 6mm	4x 6mm	4x 8mm	4x 8mm
Steel Cables Weight Per Meter	0,1204 kg	0,1204 kg	0,1298 kg	0,1298 kg	0,2245 kg	0,2245 kg
Self Weight	72 kg	74 kg	80 kg	88 kg	98 kg	108 kg
Locking Torque	1100Nm	1100Nm	1100Nm	1100Nm	2800Nm	2800Nm
Compatible Trusss Type***	TPM29S	TPM29S	TPM29S	TPM29S	TPM29S/39S	TPM 29S/39S
Dimensions	1x0.293x0,293 m	1x0.293x0,293 m	1x0.293x0,293 m	1x0.293x0,293 m	1,3x0,393x0,393 m	1,3x0,393x0,393 m
Maximum Length of Truss span	8 m	16 m	24 m	24 m	24 m	24 m











TWG 300

## VOYAGER TWG

Based on the same principal of integrating a winch into a truss fly-bar, we offer the TWG grid winch. Similar to the TW, the TWG is a single winch, integrated into a standard 30/40cm box frame truss which can be connected to standard SIXTY82, TPM 29S or 39S truss or equivalent. The pulley plates can be mounted on each required position of the structure, guiding the 4/6 steel wire ropes throughout the grid.

The standard TWG truss grid range is available as a 300, 500 and 750 kg WLL model. The maximum standard lifting height is 10/14m (30/42ft). Standard available grid sizes range from2x2m (6x6ft) to 8x8m (24x24ft) depending on the model. The TWG is equipped with double limit switches, over and under load detection and is available as a fixed speed of 5m/min (15ft/min) or variable speed of 0 - 8 m/min (0 - 24ft/min) model. All winchies in the TW range are rated IP54, inlcude a phase monitoring system and offer an economic power consumption of 0.85Kw at 400V/50Hz, all while complying with EN-17206 and CE.

The fixed speed TWG model is controlled via the PVC-TW04R 4 channel or the PVC-TW 01R 1 channel controllers. The controller has up/down switches for each channel and an E-stop switch. The controllers can be linked with up to a maximum of 24 units (96 channels) and are equipped with Harting and CEE 16A connectors. The controller can also be equipped with a DMX 512 show control card. Optionally one can opt for the hand held or wall mounted remote, which comes with 20m of cable.

The variable speed TWG is controlled by the TW 01RVS single channel, 19 inch rack mounted controller, which features speed control, an E-switch and the ability to be be programmed by means of a laptop/desktop or tablet.

The PROTOS VOYAGER TWG range offers a unique truss grid lifting system powered by just one integrated winch. Allowing for savings on budget, space, cable and suspension equipment while being versatile and safe. Besides the standard range, the TWG range offers limitless custom options tailored to your needs.





	TWG300	TWG500	TWG750
WLL	300 kg	500 kg	750 kg
Safety Factor	10:1	10:1	10:1
Maximum Travel Range	10 m	12/14 m	12/14 m
Lifting Speed Fixed	5 m/min	5 m/min	5 m/min
Lifting Speed Variable	0-8 m/min	0-8 m/min	0-8 m/min
Operating Voltage*	3Ph-400V-50Hz	3Ph-400V-50Hz	3Ph-400V-50Hz
Control Voltage**	24V	24V	24V
onnector type	Harting Eco B	Harting Eco B	Harting Eco B
rotection Class	IP54	IP54	IP54
lotor Power	0.75kW	1.1kW	1.3kW
urrent At Full Load	7.2A	8.1A	11.3A
assification - European Standard	EN-17206	EN-17206	EN-17206
tches On Up	16	14	20
pise Level at 1 meter	55 - 74dB	55 - 74dB	55 - 74dB
eel Cables and Pulley Plates	4xØ6mm	4/6xØ8mm	4/6xØ8mm
eel Cables Weight Per Meter	0,198 kg	0,245 kg	1,245 kg
lf Weight	88 kg	98 kg	108 kg
cking Torque	1100Nm	1100Nm	1100Nm
mpatible Trusss Type***	TPM29S	TPM29S/39S	TPM 29S/39S
nensions	1x0.293x0,293 m	1,3x0,393x0,393 m	1,3x0,393x0,393 m
ximum truss grid size	6x6 m	8x8 m	8x8 m



## VOYAGER ELECTRICAL CHAIN HOISTS

Document Title	
Applies To	
Part Number	
//.	
Issue Number	
Dated	

PROTOS VOYAGER Electrical Chain Hoists PROTOS VOYAGER Electrical Chain Hoists 2024-002 03.09 09.03.24

In the interest of continued product development. PROTOS reserves the right to alter product specification without prior notice.

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