SEATEC SUBSEA SYSTEMS BV

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LIER 101

CT winch system

Highlights

- Constant tension load 75kg
- Speed 60m/min @ (bottom layer)
- All stainless steel construction
- Including umbilical and slipring
- Stainless steel control cabinet (AISI 316L)
- 230Vac 50-60Hz supply
- Integrated PLC control
- Incl switch to enable winch mode and constant tension mode

Specifications

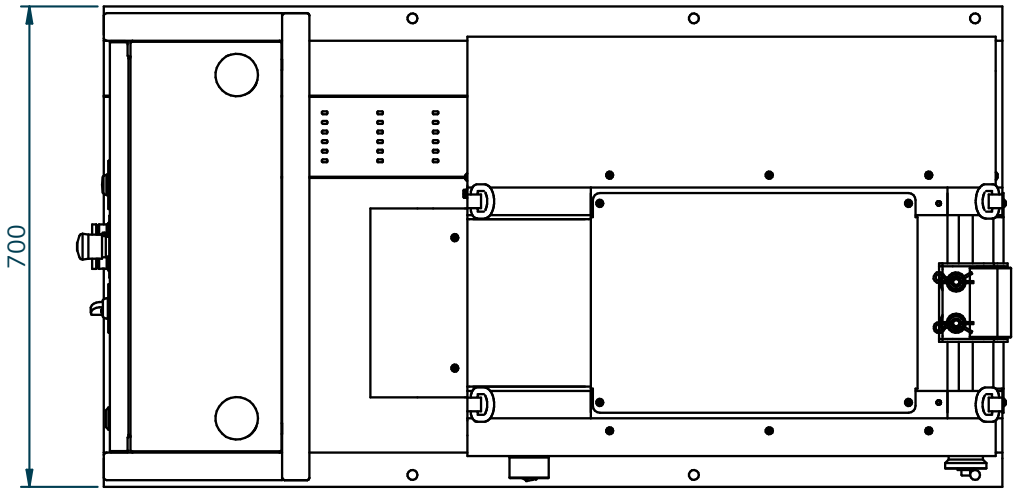
Mechanical		Environmental	
- Frame dimensions	See next page	Temperature range	-10 ..+40 °C
- Drum dimensions	∅260 x ∅425 x 150 dxDxl		
- Drum capacity	65 m		
- Cable/wire ∅	11 mm		
- Layers	5		
- Weight	236 kg (winch, frame, control cabinet and 65 m umbilical)		

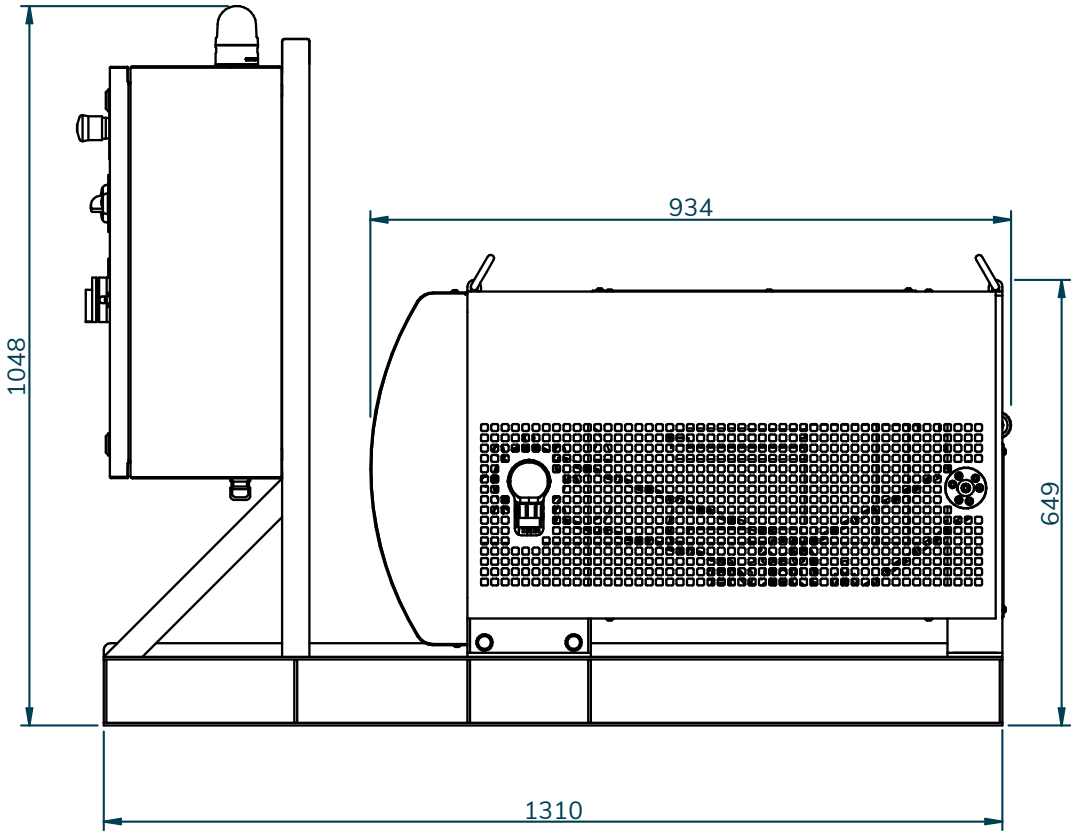
Electrical	
- Voltage	230Vac (1 phase), double input w. change-over
- Power of inverter	2,2 kW
- Frequency	50-60Hz +/- 5%
- Slipring	Yes, see below
- PLC unit integrated	Yes, to control and interface winch

Performance	
- Max. speed (bottom layer)	0 - 60 m/min
- Constant tension load	+/- 75 kg

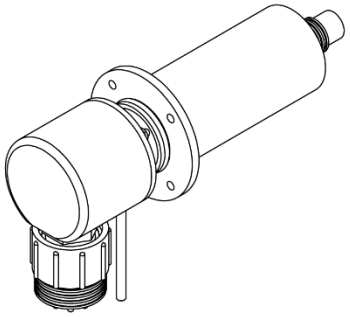
Notes	Options
Separate control box	Wireless remote control (details TBD)
Incl. standard stainless steel control box on 10 m cable	Interfacing to external hardware/software
Incl. connection cables 10mtr (from cabinet to winch)	
Incl. stainless steel spooling gear	
Incl. pressure roller	

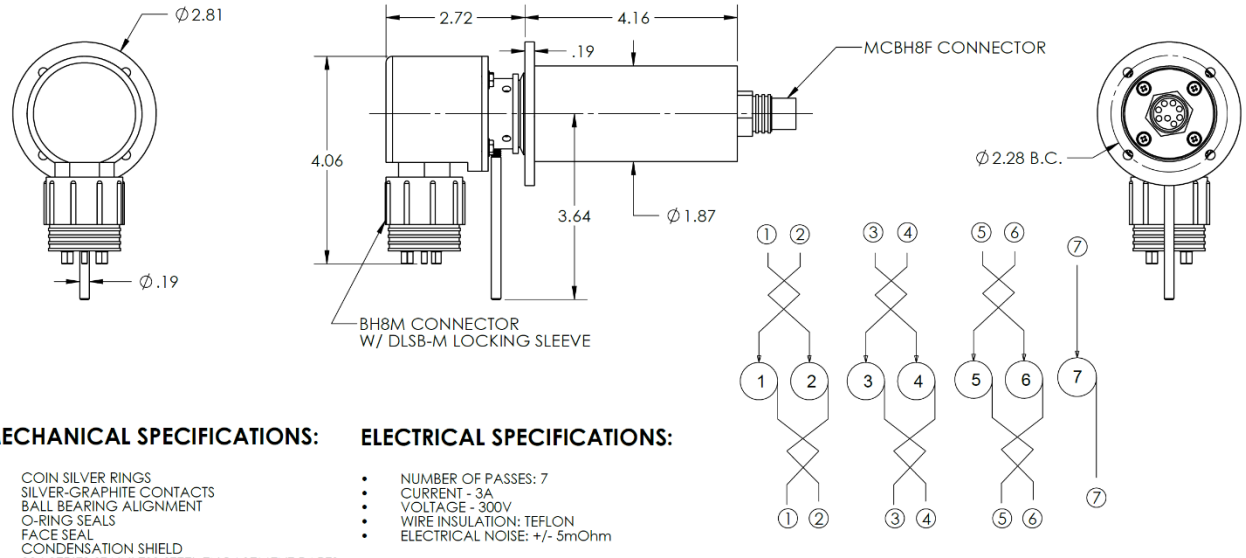
Dimensions





Slipring





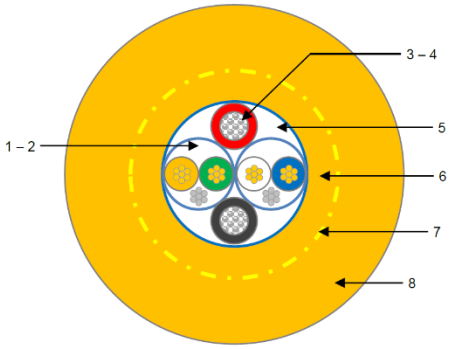
MECHANICAL SPECIFICATIONS:

- COIN SILVER RINGS
- SILVER-GRAPHITE CONTACTS
- BALL BEARING ALIGNMENT
- O-RING SEALS
- FACE SEAL
- CONDENSATION SHIELD
- 316 SERIES STAINLESS STEEL ENCASEMENT PARTS
- IP RATING: 67

ELECTRICAL SPECIFICATIONS:

- NUMBER OF PASSES: 7
- CURRENT - 3A
- VOLTAGE - 300V
- WIRE INSULATION: TEFLON
- ELECTRICAL NOISE: +/- 5mOhm

Umbilical



No	Description	Colr	Dia mm
1 2	**2 Position Screened Twisted Pairs** 0.22mm² (7/0.20mm) Plain Soft Copper Polyolefin Insulated to 1.10mm 2 no twisted together with tinned copper drain wire in interstice. Overall helical 12/23µm Al/PET foil screen, minimum overlap 50%	OR/GN WH/BU	2.30
3 4	**2 Position Conductors** 0.50mm² (16/0.20mm) Tinned Copper HDPE insulated, 0.29mm nom RTI	RD BK	1.50
5	**Lay Up** Items 1 – 2 twisted together with items 3 – 4 in interstices. Overall Helical PET binding tape, minimum overlap 30%	N/A	4.70
6	**Bedding** Polyether Polyurethane 4350 85 Shore A UL94 V-2 Flame Retardant Halogen Free 0.75mm nom RTI	OR	6.20
7	**Embedded Strength Member** Vectran® Fibre Braid, 24/1/2/1666 dTex 20° Pitch	N/A	7.65
8	**Jacket** Polyether Polyurethane 85 Shore A Halogen Free 1.68mm nom RTI (Low Friction)	OR	11.00 +/- 0.30

Notes	
Electrical Characteristics	
0.22mm² Screened Twisted Pairs	
Maximum Conductor Resistance	97.50 Ω/KM @ 20°C
Calculated Characteristic Impedance	85 Ω
Calculated Mutual Capacitance	82 pF/m
Max Recommended Voltage	100 V
0.50mm² Conductors	
Maximum Conductor Resistance	44.40 Ω/KM @ 20°C
Max Recommended Voltage	500 V
Max Recommended Current / Conductor	3 A
General	
Minimum Insulation Resistance	
Core – Core	>900 MΩ/KM @ 250V
Core – Screen	>500 MΩ/KM @ 250V
Mechanical Characteristics	
Maximum Operating Temp	
Static	+90°C
Dynamic	+80°C
Cold Flex Temp	-40°C
Minimum Break Load	1,500 KGF
Recommended Safe Workload	380 KGF
Min Recommended Bend Radius	
Static	66 mm
Dynamic	130 mm
Nominal Weight	
In Air	112 KG/KM
In Sea Water @ SG 1.025	15 KG/KM

Print Details
Text:

Colour: Black
Repeat: 1000mm