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Bedieningshandleiding

Manual de manejo

Bruksanvisning

Operation manual

Manuale per l'uso

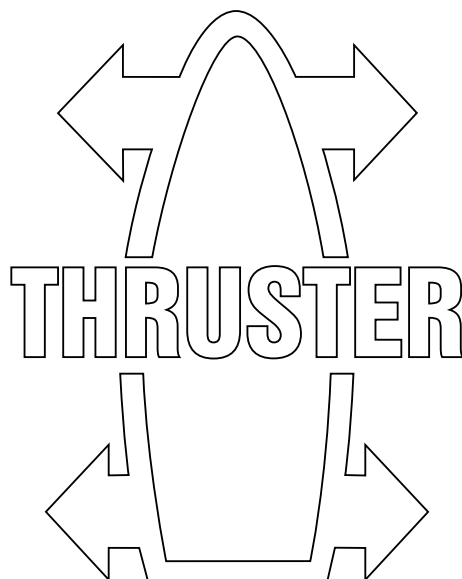
Bruksanvisning

Bedienungshandbuch

Betjeningsvejledning

Käyttöohje

Manuel d'utilisation



RimDrive RD125 / RD160

125 kgf / 160 kgf - ø 250 mm

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1 Safety measures

Warning indications

The following warning indications are used in this manual in the context of safety:



DANGER

Indicates that great potential danger exists that can lead to serious injury or death.



WARNING

Indicates that a potential danger that can lead to injury exists.



CAUTION

Indicates that the usage procedures, actions etc. concerned can result in serious damage to or destruction of the engine. Some CAUTION indications also advise that a potential danger exists that can lead to serious injury or death.



NOTE

Emphasises important procedures, circumstances etc.

Symbols



Indicates that the relevant procedure must be carried out.



Indicates that a particular action is forbidden.

Pass the safety precautions on to other people who will use the thruster.

General rules and laws concerning safety and accident prevention must always be observed.



WARNING!

When using the bow thruster watch out for swimmers or light boats which could be in the near vicinity of the bow thruster tunnel jet openings.

Pass on the safety instructions to others using the bow thruster.

General rules and laws with regard to safety and accident-prevention also need to be applied.

- Never touch the moving ends of the bow thruster whilst in operation.
- Always detach the battery poles during maintenance work.
- Ensure maintenance work is safe by only using tools suitable for the purpose.
- Always deactivate the main switch when the bow thruster is not in use for long periods.

2 Introduction

These installation instructions give guidelines for using the Vetus bow and/or stern thruster 'RIMDRIVE'.

The thrust given by the bow and/or stern thruster will vary from vessel to vessel depending on the effect of the wind, the water displacement and the shape of the underwater hull.

The nominal thrust quoted can only be achieved under the most favourable conditions:

- Make sure that the batteries are supplying the correct voltage during use.
- Carry out the recommended maintenance regularly.



Make sure that the user of the vessel is supplied with the owner's manual.

3 Operation

3.1 General

- Switch on the main switch.

After switching on the power a beep will sound at the (or each) control panel(s).

The system is now 'stand-by'. The panel or both the panels are **not** activated.

The Status LED on the interface will be lit GREEN.

3.2 Switching on a panel

- Press the 'ON/OFF' switch twice.

After the switch is pressed once the LED will flash green and the buzzer will sound continuously dididididi..... (.) The 'ON/OFF' switch must be pressed a second time within 6 seconds. The LED (green) will remain on and the buzzer will confirm that the panel is ready for use by giving the signal dahdidah (- . -).

If a second panel is connected the LED on the panel 'which not switched ON' will flash (every 2 seconds a green flash).

3.3 Switching on the other panel (in case of 2 panels)

To take over from one panel to the other the same procedure as switching on the first panel must be carried out.

Once the second panel is switched on the first one will be switched off.

The buzzer on the just switched off panel will reply with the signal didididahdidah (. . . - . -).

Use

Move the joystick in the direction in which thrust is desired. The thrust starts at about 25% and increases to the maximum value as the joystick is moved further to its outermost position.

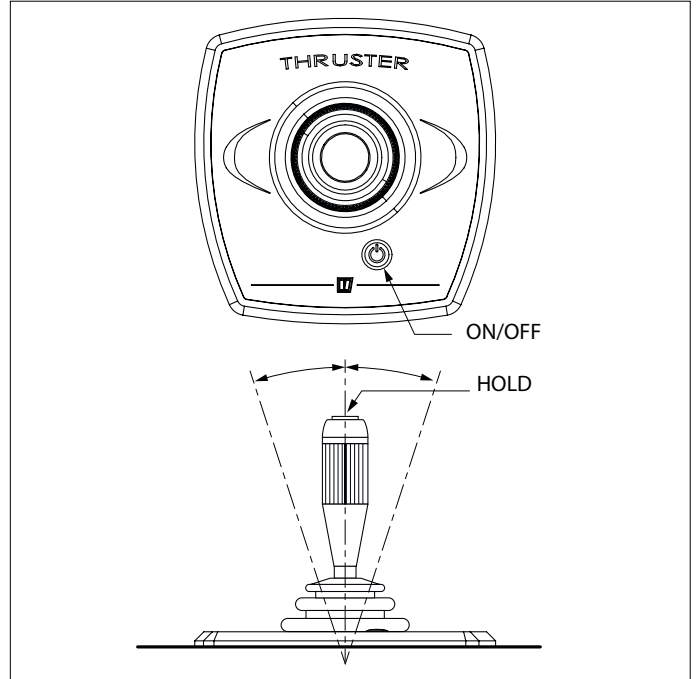
Hold function

Use the hold function when a given thrust must be maintained for a longer period of time.

To engage the hold function

Move the joystick to the position to get the required thrust. Now press once and release the HOLD switch (the button on top of the control lever). To confirm this the buzzer will sound a beep and the portside or starboard LED (yellow), next to the 'HOLD' text, will be on.

With the joystick in the center position, the hold function will not be engaged by pressing the hold button, then a warning signal will sound.



To disengage the hold function:

- On the panel where the hold function is engaged:
 - Press the HOLD switch or,
 - Press the ON/OFF switch or,
 - Move the joy-stick to the opposite direction as the engaged hold function.
- Or press the ON/OFF switch on the other panel.

3.4 Switching OFF a panel

Press once the 'ON/OFF' switch, the buzzer will reply with the sign didididahdidah (. . . - . -).

Automatic switching off will take place 30 minutes after the last operation of the joystick.

Note: When the hold function is engaged automatic switching off will not take place.

Here too, the buzzer will reply with the sign didididahdidah (. . . - . -) This 'automatic switching-off' can be selected or deselected.

- Switch off the main switch when leaving the ship.

3.5 Selecting or deselecting 'automatic switching-off' function

- Switch on the power supply to the thruster (Battery main switch).
- **Do not switch on a panel. Switch off the panel if already switched on.**
- Press the HOLD switch on either of the panels and keep it pressed for 5 seconds until a beep sounds. Keep the joystick in neutral position!
- Release the HOLD switch.

The ON/OFF led will be on, either RED or GREEN.

Ignore the flashing Portside and Starboard LED's!

To change the setting:

- Use the ON/OFF switch to let the ON/OFF LED toggle between RED and GREEN.
GREEN: 'Automatic switching off' selected.
RED: 'Automatic switching off' deselected.

To exit the settings procedure:

- Press the HOLD switch, with the joystick in neutral position, and keep it pressed for 2 seconds until a beep sounds. (Or switch the power off and on again.)

The setting for 'Automatic switching off' will be kept in memory even if the power supply is switched off for a very long time.

3.6 Remote control

When using a remote control, the bow thruster can only be engaged at maximum thrust to either port or starboard.



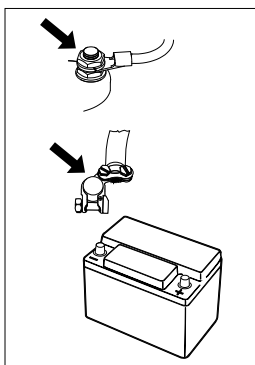
The panel to which the (wireless) remote control is connected must be switched on to enable the use of the remote control.

4 Maintenance

Check the bow thruster 6 weeks after installation and subsequently check the following at least once a year:

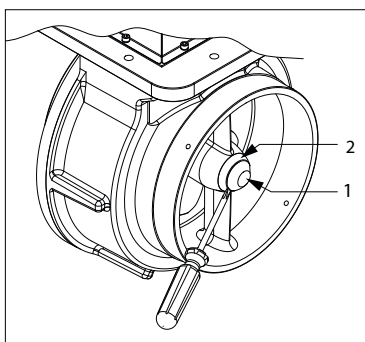
- all electric connections between the battery/batteries and the bow thruster.
- the lashing straps and the bolts of the lashing straps; apply the indicated torque to the lashing strap bolts.

The instructions of the manufacturer should be followed for the maintenance of the batteries. Vetus batteries are maintenance free.



The following maintenance should be carried out during a slipway service:

- Check the cathodic Protection and if necessary renew the anode; art. code for the anode: RD100.
- Use a screwdriver to remove the plastic cover (1).
- Remove the 3 Allen screws to replace the anode (2).
- Reinstall the plastic cover (1).



4.1 Bow thruster corrosion protection

To prevent corrosion, never use anti-fouling containing copper oxide. Cathodic protection is absolutely necessary for the preservation of all metal components below water level. The 'RimDrive' housing has been fitted with a anode to protect it against corrosion.

4.2 Changing the propeller (only necessary if the propeller is damaged)

Changing the propeller is only necessary if the propeller has been damaged!

- With the boat out of the water, remove the 'RimDrive' from the tunnel.
- Remove the bolts used for mounting the round flange and remove the round flange.
- Now the propeller can be removed.



The rim of the propeller contains very strong (neodymium) magnets, so be very careful when mounting or dismantling the propeller. Pay attention when using (steel) tools. The magnets can also adversely affect bankcards.

5 Trouble shooting

Thruster does nothing

- Check that the battery main switch is 'ON'.
- Check if the battery voltage is correct (33.6 - 57.6 Volt).
- The battery capacity is reduced because of very low temperatures.
- Check whether the control panel fuse has burnt out.
- Check if one of the main fuses has burnt out.

In all the above cases, the 'POWER' indicator LED is not lit.

- There is an overload condition.

The panel gives a warning signal three times (. . .) and the LED will glow red.

As soon as the controller has cooled down enough, the LED will resume glowing green and the bow thruster can be put back in service.

Check if it is possible to turn the propeller. A piece of wood or similar could have been caught between the propeller and the tunnel.

Control panel fuse is burnt out

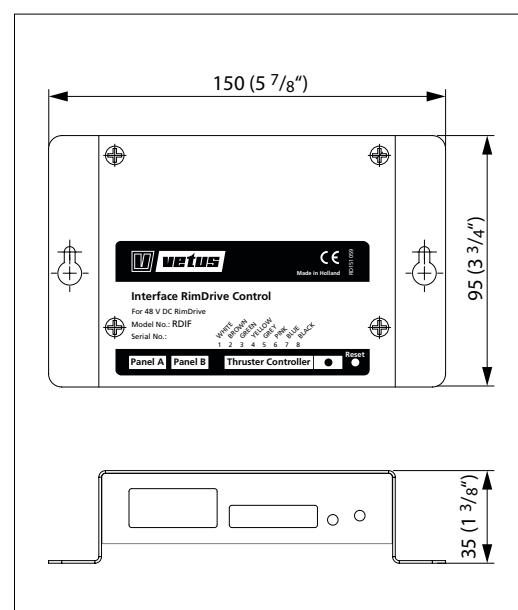
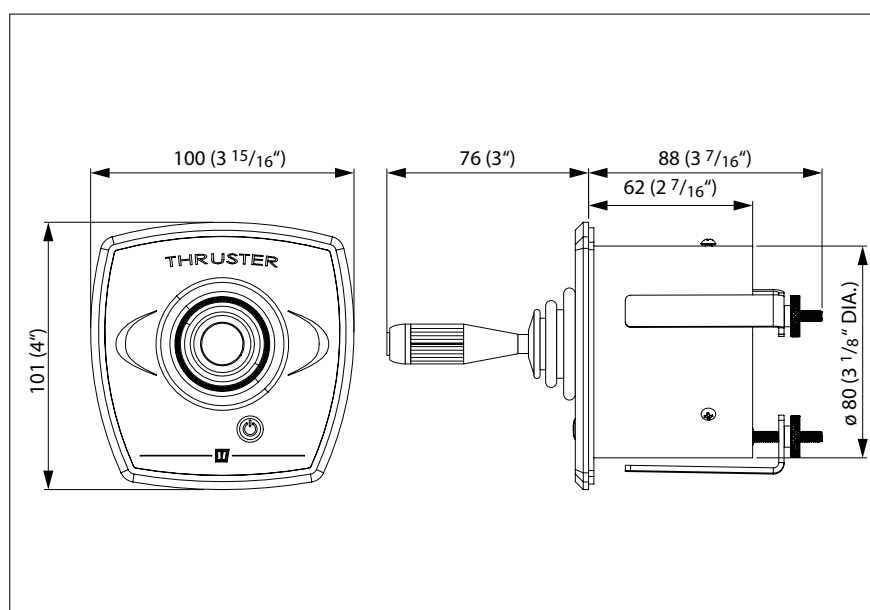
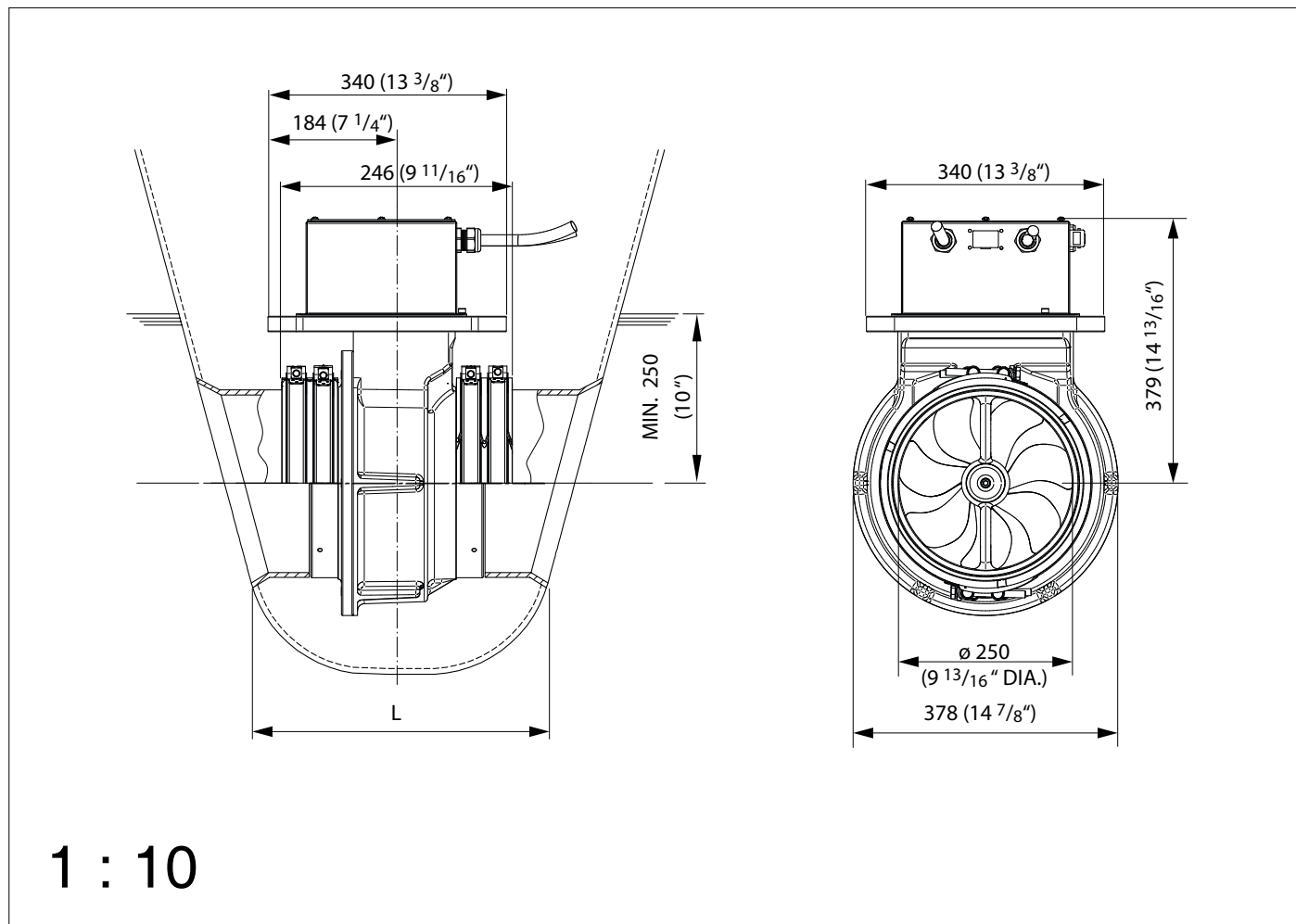
- Short circuit in the operating circuit; check the wiring.

6 Technical data

Type	:	RD125	RD160
Drive			
Type	:	Brushless Permanent Magnet DC Motor	
Voltage	:	48 V DC	
Current	:	130 A	200 A
Rated output	:	7 kW	11 kW
No. of revolutions	:	1100 rpm	1250 rpm
Rating	:	S1 (100% duty cycle)	
Protection	:	IP65	
Motors conform to CE (2014/30/EU, EMC - EN55011/EN61000)			
Housing	:	Aluminium	
Propeller			
Diameter	:	246 mm (9 11/16")	
No. of blades	:	6	
Profile	:	asymmetrical	
Material	:	polyacetal (Delrin ®)	
Rated thrust	:	1250 N (125 kgf, 281 lbf)	1600 N (160 kgf, 36 lbf)
Control circuit			
Fuse	:	5 A	
Thrust-tunnel			
Steel model			
dimensions	:	O.D. 267 mm, wall thickness 7.1 mm	
treatment	:	blasted, coated with: SikaCor Steel Protect. Suitable for all kinds of protection systems.	
Plastic model			
dimensions	:	O.D. 264 mm, wall thickness 7 mm	
material	:	glass fibre reinforced polyester	
Aluminium model			
dimensions	:	O.D. 264 mm, wall thickness 7 mm	
material	:	aluminium, 6061 or 6062 (AlMg1SiCu)	
Weight			
Excl. thrust-tunnel	:	36 kg (80 lbs)	

7 Hoofdafmetingen
 Principal dimensions
 Hauptabmessungen
 Dimensions principales
 Dimensiones principales

Dimensioni principali
 Mål
 Huvudmått
 Viktigste mål
 Päämitat



8 Elektrisch schema

Wiring diagram

Schaltschema

Circuit électrique

Esquema eléctrico

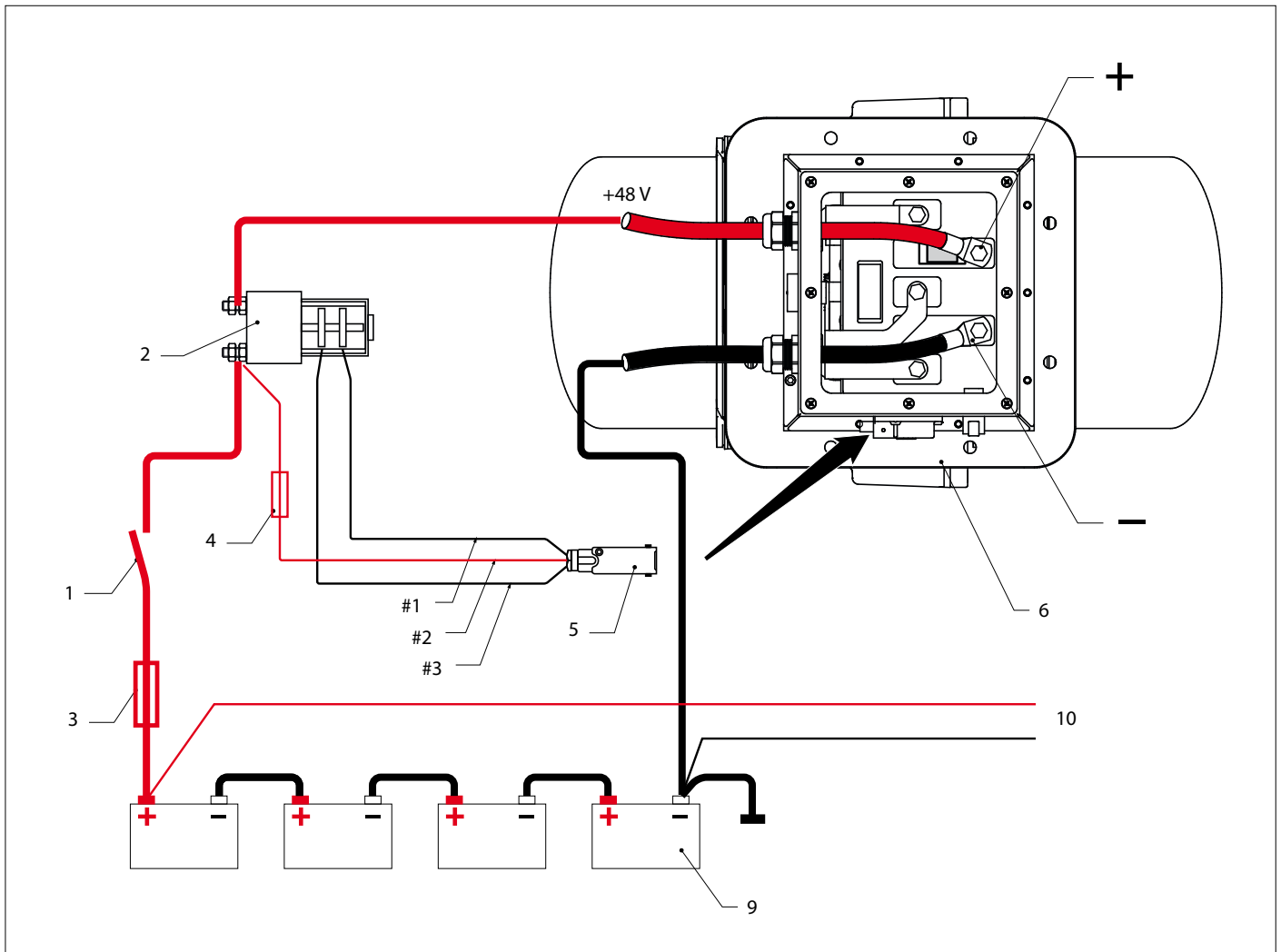
Schema elettrico

Elektrisk skema

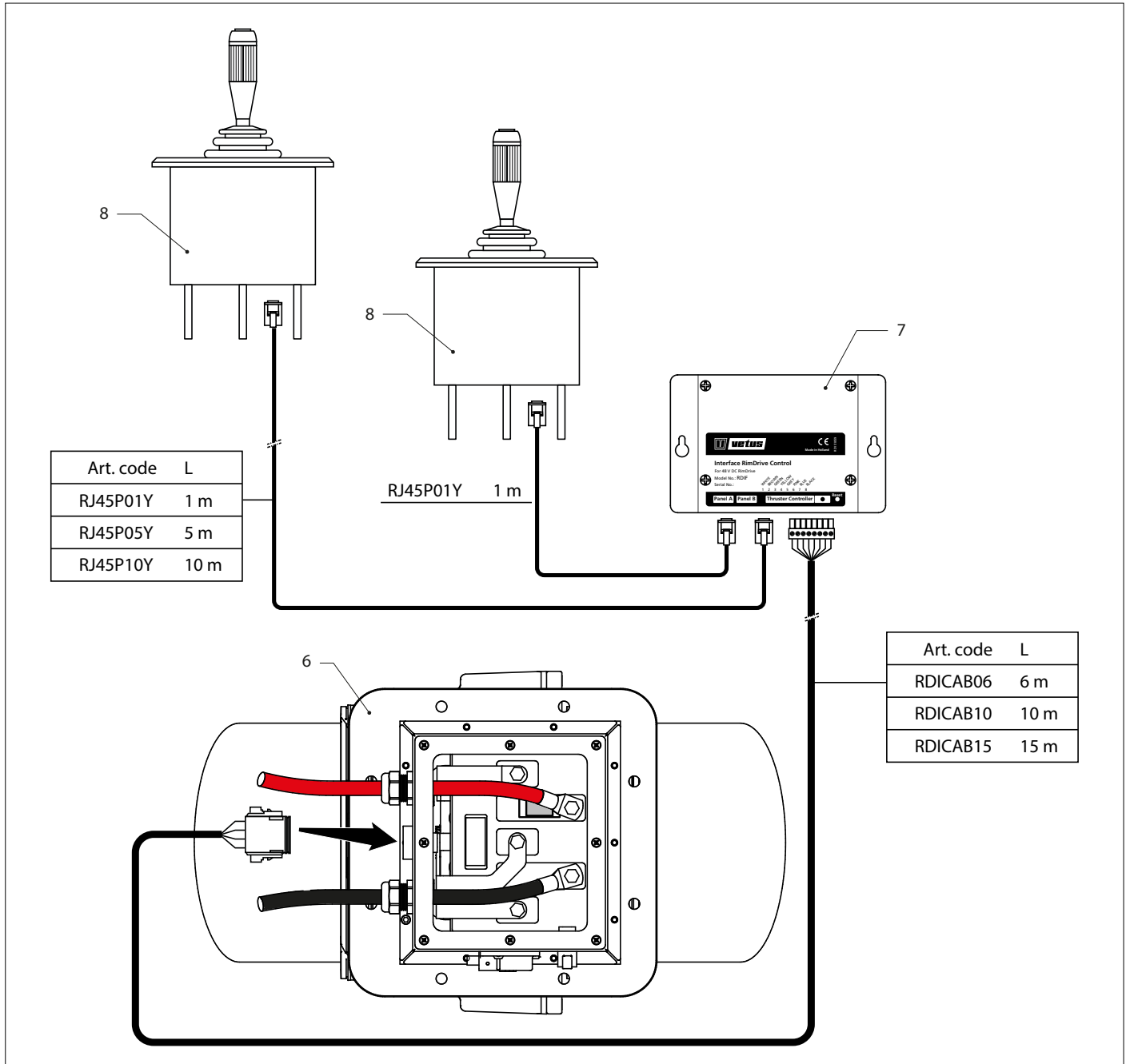
Kopplingschema

Elektrisk skjema

Sähkökaavio



1	Hoofdschakelaar	Main switch	Hauptschalter	Interrupteur principal	Interruptor principal
2	Hoofdrelais	Main relay	Hauptrelais	Relais principal	Relé principal
3	Hoofdzekering	Main fuse	Hauptsicherung	Fusible principal	Fusible principal
4	Stuurstroomzekering	Control current fuse	Steuerstromsicherung	Fusible de courant de commande	Fusible de controlde la corriente
5	Steker	Plug	Stecker	Prise de courant	Enchufe
6	Thruster	Thruster	Strahlruder	Propulseur	Propulsor
7	Interface	Interface	Schnittstelle	Interface	Interface
8	Bedieningspaneel	Control panel	Bedientafel	Panneau de contrôle	Panel de control
9	Accu	Battery	Batterie	Batterie	Batería
10	Laadaansluiting	Charge connection	Ladeanschluss	Raccordement de charge	Conexión de carga



1	Interruttore principale	Primære afbryder.	Huvudströmbrytare	Hovedbryter	Pääkytkin
2	Relè principale	Primære relæ	Huvudrelä	Hovedrelé	Päärele
3	Fusibile principale	Primære sikring	Huvudsäkring	Hovedsikring	Pääsulake
4	Fusibile corrente di controllo	Kontrollspænding sikring	Säkring för styrström	Kontroll nåværende sikring	Ohjausvirran sulake
5	Spina	Stik	Kontakt	Plugg	Pistoke
6	Elica	Propel	Styrpropeller	Thruster	Potkuri
7	Interfaccia	Stik	Gränssnitt	Grensesnitt	Liittymä
8	Pannello di controllo	Kontrolpanel	Kontrollpanelen	Kontrollpanel	Ohjauspaneeli
9	Batteria	Batteri	Batteri	Batteri	Akku
10	Connessione di carica	Ladestik	Laddningsanslutning	Ladetilkobling	Latausliitäntä

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