

Steering control wire antenna

Units ensuring the « pusher » and « winch » motor ignition of wire antenna onboard a submarine supplied by the direct voltage source and receiving orders from the steering unit controls.

In « winch » mode, the variable speed drive controls the motor in constant torque. The regulation is performed on the motor intensity. The rotary direction required is always the one of the winding but rotary direction and speed are imposed by the push motor.

The speed parameter is limited to the maximum value allowed and the ignition ramp is based on the intensity until the specified value is obtained.

In « pushing » mode, the variable speed drive controls the motor in constant speed. The regulation is performed on the motor speed. The rotary direction required depends on the command sent: spinning or winching.

The intensity parameter (torque) is limited to the maximum value allowed and ignition ramp is completed on the speed until the specified value is obtained.

Depending on the status (winching or pushing mode), the control is based on a constant torque reference or a constant speed reference.

SPECIFICATIONS OF THE VARIABLE SPEED DRIVE

Reference	YEXo118/01 cabinet type
Dimensions	H=400mm; W=420mm; D=210mm
Weight	23kg
Temperature	-10°C/ +55°C
Shock	15g
Protection degree	IP54
Total nominal Power	3kW
Input voltage	$U_{EN}=360V_{DC}$ (from 240V _{DC} to 504V _{DC})
Efficiency	85%
Chopping frequency	16kHz
Output voltage	$U_s=115V$ variable three-phase
Nominal output frequency	60Hz +/-5%
Nominal output current	18A eff.
Operating cycle	12min at nominal speed and voltage



SPECIFICATIONS OF THE ASSOCIATED MOTOR

Reference	MNRHS A100L asynchronous motor
Nominal power	2.2kVA (service S3 : 40 %)
Efficiency	85,3%
Frequency	60Hz
Speed	1 735rpm
Voltage between phases	115V
Nominal current	16A
Protection degree	IP55
Shock	120g
Speed sensor	Gray code



Data are given by way of illustration and are liable to be modified without notice