

SIMOTICS DP Application-Specific Motors

Marine motors

Orientation

Overview



Low-voltage motors in the marine version can be used below deck on ships and in the offshore industry. The thermal utilization of the motors is adapted to the generally higher ambient temperatures onboard ships. If the application demands compliance with additional regulations, such as explosion protection (Directive 94/9/EC (ATEX 95)), the appropriate motor series must be chosen.

The motors on board ships are generally subdivided into three classes of importance by the marine classification societies in cooperation with customers, depending on the field of application:

- **Essential Service for Propulsion** or also referred to as Primary Essential Service
- **Essential Service** or also referred to as Secondary Essential Service or Important Service
- **Non-Essential Service** or also referred to as Non-Important Service

The class of importance must be specified by the customer (ordering party). Retrospective certification by means of individual acceptance test or construction supervision cannot be issued.

The categories include the following requirements of the classification societies:

	Class of importance		
	Essential Service for Propulsion	Essential Service	Non-essential Service
Typical applications	Propeller drive, thruster	Thrusters, lateral thrust units, anchor winches, bilge and ballast pumps, fire-fighting pumps	Pumps for service water
Version	In accordance with the regulations of the classification society		In accordance with ambient conditions of the classification society
Acceptance test certificate	Acceptance test certificate 3.2 in accordance with EN 10204	Acceptance test certificate 3.1 in accordance with EN 10204	None
Individual acceptance by classification society	Necessary if no type test certificate exists or the rated power lies above the limit defined by the classification society		Not required
Type test	Not a requirement of the classification societies. For standard motors up to frame size 315 L, a type test certificate is supplied. These motors can only be ordered with options E11 to E54 in accordance with the classification society.		
Ordering several identical motors	Differentiation between the first motor and additional ones must be realized when ordering using an order code		No distinction
Rating plate data	Information about ambient conditions of the classification society		
Stamp of the classification society	Stamp on shaft and housing		No stamp

Classification authorities

Society	Abbreviation	Location
American Bureau of Shipping	ABS	USA
Bureau Veritas	BV	France
Det Norske Veritas	DNV	Norway
Germanischer Lloyd	GL	Germany
Korean Register	KR	Korea
Lloyds Register	LR	UK
Registro Italiano Navale	RINA	Italy
Russian Maritime Register of Shipping	RS	Russia

Overview

Type test (type approval)

All 1LE1, 1MB1, 1PC1, 1PC3 motors (with the exception of 1LA8, 1PQ8, 1LL8 and 1LH8) are manufactured and type tested in accordance with the regulations of the following international classification societies:

- ABS (American Bureau of Shipping)



- BV (Bureau Veritas, France)



- DNV (Det Norske Veritas, Norway)



- GL (Germanischer Lloyd, Germany)



- KR (Korean Register of Shipping)



- LR (Lloyds Register of Shipping)



- Registro Italiano Navale (RINA)



- Russian Maritime Register of Shipping (RS)



Special versions that differ from the range defined in the catalog are possible on request.

Benefits

The marine motors offer the user a number of advantages and benefits:

- Cast-iron versions can be supplied for corrosive atmospheres especially for high humidity levels and salty air
- Increased corrosion protection using specially designed paint finishes is available
- Certified marine motors can be supplied for use in areas to be protected against explosion (hazardous zones)

- Due to the existing type test, individual acceptance test in power ranges below the power limits defined by the classification societies is not required which means short delivery times
- In depth know-how regarding customer requirements
- Worldwide service network with 24 hour service hotline for motors and converters