



### Multi-purpose research vessel:

**Flag:** Germany  
**Call sign:** DBKR  
**IMO-Nr** 8521438  
**MMSI** 218 601 000  
**Classification:** GL 100 A5 M E (Dry Cargo Ship)  
**Owner:** Land Mecklenburg-Vorpommern  
**History:** 1987 built as research vessel for German Navy by Kröger-Werft Rendsburg  
 2010 purchased by Land Mecklenburg-Vorpommern, and converted in 2011 to a multi purpose research vessel at Peene-Werft in Wolgast

**Management:** Technical management: BRIESE Schifffahrt GmbH & Co KG, Abt. Forschungsschifffahrt, Scientific coordination: Leibniz- Institut for Baltic Sea Research Warnemünde (IOW)

**Personnel:** Crew: 11  
 Scientists: 12

### Basic dimensions:

BRZ: 899  
 Length o.a.: 56,50 m  
 Length p.p.: 50,00 m  
 Beam: 10,80 m  
 Draught: 3,80 m  
 Free board: 1,70 m  
 Service Speed: 11 kn

**Main engine:** 3 diesel generators (532 kW each)  
 Typ SCANIA D116-55M

**Propulsion:** diesel-electric;  
 Asynchronous-motor/ double twisted single propeller

### Manoeuvring propulsion devices:

transverse thrusters (147 kW each),  
 at bow and stern

**Voltage:** 660 V, 60 Hz rotary main power  
 440 V, 60 Hz rotary power supply  
 220 V 50 Hz in labs as UPS  
 220 V/380 V 50 Hz for containers  
 24 V DC

**Bunker cap.:** 82 m<sup>2</sup> marine gas oil  
 26 t drinking water

**Consumption:** 3,5 t gas oil/day

**Cruising range:** 4000 nm

### Navigation Equipment:

2 radars, gyrocompass,  
 ECDIS and auto-pilot,  
 echo sounders, DOLOG, 3 GPS-Systems

### Scientific Equipment:

DWD-weather-station,  
 Data system D-SHIP® by WERUM  
 Surface water thermosalinograph,  
 Clean seawater system,  
 ADCP VM Ocean Surveyor OSII 150 kHz,  
 SES2000 medium, sediment echo sounder by INNOMAR, 100kHz  
 R2Sonic 2024, Broadband multibeam echosounder 200-400 kHz  
 Motion Reference Unit (MRU) IXSEA Phins  
 Hydrographic well  
 CTD-system with vessel swell moving compensation  
 Utility and fast rescue boat

**Communication:** GSM- Tel.& Fax, IRIDIUM,  
 V-SAT- (digital data-transmission),  
 Wireless station with GMDSS for area A3

**Lifting gear:** Hydraulic crane SWL 4,5 t/ up to 8 m with own winch 400 m  
 Hydraulic crane 1,5 t/ up to 6 m with own winch 300 m  
 A- frame 4 t  
 Provisions Crane on forecastle 0,9 t

**Special winches:** CTD-winch up to 1500 m with cable Ø12,7 mm,  
 Double drum hydraulic winch (mobile) 1 t with 600 m coaxial tross cable Ø8,1mm/  
 1000 m steel rope 6 mm

**Container:** 2 places for 20 ft. à 15 t incl. infrastructure  
 also possible 4x 10 ft. container

**Laboratories:** all labs with LAN, PC, miscellaneous media,  
 universal lab 16 m<sup>2</sup>  
 cold storage lab (adjustable 4- 23 °C) 11 m<sup>2</sup>  
 wet lab 17 m<sup>2</sup>  
 CTD room (with gate to outboard) 11 m<sup>2</sup>  
 measuring room 8 m<sup>2</sup>  
 hydro acoustics control 14 m<sup>2</sup>  
 surface registration room 9 m<sup>2</sup>

**Accommodation:** 11 x one bed cabins, air conditioned  
 7 x two bed cabins, air conditioned

# r/v ELISABETH MANN BORGESSE General Arrangement Plan

