

SEAWARD ECHOBELM COMPACT MBES

Model: SWT-MB-400C



A portable shallow-water multibeam echosounder designed for rapid bathymetric surveying across waterways, reservoirs, dredging sites, docks, and nearshore projects.

Operating Frequency

400 kHz

Beam

512 / 1024 beams; 1° × 1.6°

Swath Coverage

150°

Applications

- * Waterway Survey & Regulation
- * Reservoir Capacity Survey
- * Dredging Survey
- * Dock Wall & Port Survey
- * Wind Farm Monitoring

Key Features

- * Compact & Portable Design
- * All-in-One Integrated System
- * Built-in High-Precision INS
- * Built-in Surface Sound Velocity Probe
- * Automatic Intelligent Bathymetry Algorithm

SEAWARD ECHOBEAM COMPACT MBES



Max Ping Rate

50 Hz

Depth Resolution

1 cm

Sonar Depth Rating

50 m

Roll Stabilization

±10°

Category	Parameter	Specification
Sonar	Frequency	400 kHz
	Beam width	1° × 1.6°
	Number of beams	512 / 1024
	Max. swath coverage	150°
	Typical depth	0.2–200 m
	Depth resolution	1 cm
	Sounding patterns	EA / ED / HD
	Max. ping rate	50 Hz
	Pulse type	CW / LFM
	Depth rating (sonar head)	50 m
	Roll stabilization	±10°
	INS	Position (RTK)
Heading (GNSS)		0.05° (2 m baseline)
Roll & Pitch (GNSS)		0.015°
Real-time heave		5 cm / 5%
Sound Velocity Probe	SV range	1375–1900 m/s
	Accuracy	±0.02 m/s
	Resolution	0.001 m/s
Electrical	Power supply	DC 20–52 V (typical: 48 V) / AC 110–240 V
	Average power	60–70 W
	Cable length	15 m standard (customizable)
Physical	Transport box size	627 × 500 × 316 mm
	Deck unit size	190 × 135 × 70 mm
	Deck unit weight	1.5 kg
	Sonar head size	Φ230 × 174 mm (with connector)
	Sonar head weight	6.9 kg (titanium)
Environmental	Operating / storage temperature	–5°C to 40°C / –20°C to 60°C

Note: Parameters have been reformatted for product–page readability; units and values are retained from the provided table.