

sMRT V100 Technical Data Sheet

SECTION 1: IDENTIFICATION

Product Name	sMRT V100
Manufacturers Name	Marine Rescue Technologies Ltd
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Description	<p>The sMRT V100 is a Man Overboard Locating device. Once armed the device is designed to activate automatically in the event of a man overboard incident.</p> <p>Following activation the sMRT V100 transmits GMDSS VHF DSC distress alerts and continuously updates AIS position information.</p>



Battery Shipping Information: UN3091 Lithium Metal Batteries contained in equipment in compliance with IATA PI: 970 Section II.

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GENERAL

Battery Type	9.0V 1500mAh Lithium Manganese Dioxide (LiMnO ₂)
Battery Life	Minimum of 12 hours at -20°C.
Battery Shelf Life at +20°C	5 years
Operating Temperature	-20° to +55°C (-4° to +131°F) as per IEC 60945
Storage Temperature	-30° to +70°C (-22° to +158°F) as per IEC 60945
Dimensions	51mm W x 137mm H x 26mm D
Weight	168g
Durability	IEC Standard 60945
Strobe Light	20 candela, 170 degree dispersion, flash rate once-per-sec
Environmental Resistance	IP67
Mounting Options	Designed to integrate with a SOLAS approved life jacket
Self ID	ITU-R M.585 Compliant factory programmed freeform Maritime Identity with 972 prefix
Compass Safe Distance	0.5m (1.5ft)
Alerting Radius	Up to 75 mile range (from fixed wing aircraft)*

AIS/VHF TRANSMITTER PACKAGES

Antenna type	Vertically polarised
AIS Tx Power Output	Nominal 1W EIRP
VHF Transmission Frequencies	VHF DSC Channel 70: 156.525MHz AIS Channel 1: 161.975MHz AIS Channel 2: 162.025MHz
VHF DSC Tx Power Output	Nominal radiated power 500mW
Signalling Type	AIS and VHF-DSC

CONTROLS AND OPERATION

Automatic Activation	On PFD inflation
Automatic Water Activation	After 2 seconds of water sensor immersion
Manual Activation	Immediately following removal of activation tab

GPS RECEIVER

GPS Receiver Type	56 channel
TTFF (Time to First Fix)	45 seconds (typical) with nominal GPS signal levels -130dBm
Subsequent GPS fixes	Minimum of 6 per minute

VHF DSC AND AIS ALERTS

AIS	Within 30 seconds of GPS position acquisition
Initial Open Loop DSC Alert	10 seconds after activation
Subsequent Open Loop DSC Alerts	Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires.
First DSC GPS data alert sent	Immediately after GPS position acquired

APPROVALS

European Approvals	CE approved EN 303 098 V1.2.1 & draft EN 303 132
US Approvals	FCC 2ABF7SMRTV100 RTCM STANDARD 11901.1

* Expected range derived from sea trials. Actual alerting range dependent on sea state, atmospheric conditions and height/altitude of receiving antenna.