JQE-103
EPIRB

Complies with latest IMO regulations according to MSC.152 (78).

– JRC's highly reliable EPIRB enhances search and rescue within the 'golden day'

Compact float-free release bracket
Lightweight, watertight design
Long-term, low-power operation
Easy and flexible mounting
Manual activation of EPIRB possible

JQE-103
– performance features

Unique features

- The JQE-103, a highly reliable life-saving compact float-free satellite EPIRB incorporates new advancements in technology, enhancing search and rescue within 'the golden day'.

Satellite EPIRB

The satellite EPIRB will be automatically released from its float-free bracket when subjected to water pressure at less than 4 meter depth, and will float up to the surface. Upon contact with sea water, it will activate itself and transmit emergency signals for at least 48 hours, coinciding with a repeated flashing light. The emergency transmission includes a digitally encoded message, containing ship's position, identity and nationality. The COSPAS/SARSAT satellite forwards this signal to a Local User Terminal (LUT), where the information will be deciphered and transferred to the closest Rescue Coordination Centre (RCC), thereby enabling an immediate response for search and rescue (SAR) efforts.

Emergency transmissions

To comply with GMDSS regulations vessels must carry a satellite EPIRB. During critical situations the EPIRB will be released and activated, either automatically or manually. Once activated the EPIRB will transmit vessel specific information on 406MHz that is passed, via satellite, to the RCC. This information is used to commence SAR operations and with search aircraft monitoring the 121.5MHz transmissions enables the EPIRB to be located.

StarNetwork™

JRC has been providing sales and support of products since 1915! Today, JRC offers comprehensive support through its organisation, in partnership with a world-wide StarNetwork™ of over 270 fully qualified agents, giving support 24 hours a day, 7 days a week, and 365 days a year!

JQE-103
– dimensions and weights

Automatic-manual operation

Safety measures are taken to prevent faulty signal transmissions. The self-deploying JQE-103 automatically activates in floating state of the beacon! In the event of distress the beacon can also be activated manually by a simple switch operation. JRC distinguishes itself in having the automatic release bracket included as standard.

Space saving, robust design

The JQE-103 is a brightly-coloured, lightweight, watertight and rugged EPIRB, allowing it to be easily mounted on a bulkhead. Additionally, if a situation occurs where it is required to throw the EPIRB overboard, the hardened outer shell will remain intact after a drop onto the water surface from a maximum 20 meter height.

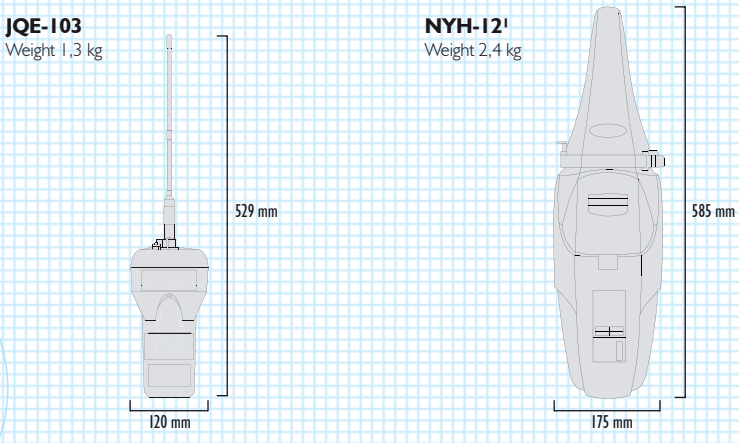
Low maintenance, high durability

The reliable satellite EPIRB is an immense improvement in safety and has a useful life of 7-10 years, operating across a range of harsh climatically conditions. Improved battery life of the JQE-103 extends the first replacement up to 5 years. JRC's advanced water pressure sensor has a replacement period of up to 2 years.

IMO compliant

The JQE-103 complies with IMO MSC.152 (78) carriage requirements. In addition, JRC is continuously developing and evaluating new products based upon future IMO requirements that will contribute for your future safety and navigation at sea.

Dimension drawings - Satellite EPIRB, Automatic release bracket



[1]standard supply

JQE-103
– specifications

Model		JQE-103
IMO/GMDSS compliant		√
Main unit		
	Model	JQE-103
	Vibration	0 - 12Hz : 3.2mm
		12.5 - 25Hz : 0.76mm
		25 - 50Hz : 0.2mm
	Waterproof	no abnormality at 10m for 5min
	Impact	remains intact after drop of (maximum) 20m onto water surface
	Transmission	48hrs or more
	Indicator lamp	luminous intensity 0.75cd or more
	Ambient condition	temperature: -20°C +55°C
Automatic release bracket		
	Model	NYH-12
	Release method	water pressure detection
	Release depth	before reaching 4m
	Ambient condition	temperature: -20°C +55°C
406MHz		
	Long time stability	406.028MHz (+2 kHz -5 kHz)
	Frequency stability	short term : $\leq 2 \times 10^{-9}$/100ms
		mean slope : $\leq \pm 1 \times 10^{-9}$/min
		residual varation : $\leq 3 \times 10^{-9}$
	Output power	≤5W ±2dB
	Data encoding	Bi-phase L
	Modulation method	phase modulation (PSK : G1B)
	Phase deviation	±1.1 ±0.1 radian (peak value)
	Rise in modulation	50μs to 250μs
	Antenna polarisation	linear
	Antenna gain	-3dBi to 4dBi, elevation angle : $5° \leq \Theta \leq 60°$
	VSWR	1.5 or less
	Impedance	50Ω
Digital message		
	Transmission time cycle	47.5 - 52.5sec (random)
	Transmission time	440ms ±1% (short message)
	Digital message	as setting
	Bit rate	400bps ±1%
	Bit synchronisation	all 15 bits are '1'
	Synchronisation frame	000101111
Homing signal		
	Transmitting frequency	121.5MHz ± 6.075kHz
	Peak radiation power	50mW ±3dB
	Modulation	AM
	Modulation frequency	300Hz - 1600Hz
	Modulation cycle	2Hz - 4Hz
Battery		
	Model	P-35
	Voltage	nominal 8.4V

All specifications are subject to change without notification.

For further information please contact:

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