ATEX Intrinsically Safe Type Approval

The IC-M87 ATEX and designated options are certified to the ATEX Directive. It is suitable for use in hazardous areas where flammable gases or liquids are used such as petroleum tankers and bulk cargo carrier.

The approved rating is II2G Ex ib IIA T3 Gb.

Special conditions for use: Must be used with BP-227AX

When the transceiver is used in hazardous areas, either the jack cover or HM-138 must be attached to the connector. Ambient operating temperature: –20°C to +55°C


IPX7, Waterproof Construction

The IC-M87 ATEX is built tough to withstand hazardous and hostile environments at sea and on land. Even if the IC-M87 ATEX is dropped into water, the IPX7 waterproof construction will protect it from harm (1 m depth for 30 minutes). The compact and durable body also has been tested to US. military specifications (MIL-STD 810).

Li-ion Battery for Extra Long Battery Life

With the standard 1950 mAh (typ.) rechargeable Li-ion battery pack, BP-227AX, the IC-M87 ATEX allows you up to 19 hours of operating time.*

* Typical operation; Tx: Rx: Stand-by duty ratio = 5: 5: 90

22 Programmable Channels for PMR Use

The IC-M87 ATEX has 22 programmable channels for PMR use (146–174 MHz). Wide/narrow channel spacing is programmable for each channel, and CTCSS and DTCS signaling is built-in.

*Appropriate license will be required.

Built-in Voice Scrambler

The IC-M87 ATEX has a built-in 32 code voice scrambler. The voice scramble is compatible with the UT-112 which is adopted to some Icom marine radios.

Optional Waterproof Speaker-Microphone, HM-138

An optional waterproof speaker-microphone, HM-138, provides reliable operation, allowing you to wear the IC-M87 ATEX on your belt for added portable convenience.
VHF MARINE TRANSCEIVER

IC-M87 ATEX

Additional Features
• Simple Up/Down buttons for operating channel selection
• Instant access to Ch. 16 and call channel
• Simple add/delete TAG scanning operation • Automatic scan function
• 4 level battery indicator • Desktop charger, BC-152N supplied
• Key lock and monitor function • Programmable beep sound
• 2 step power saver • The self check functions

SPECIFICATIONS

IC-M87 ATEX

GENERAL
Marine channels PMR channels
Frequency coverage Tx Rx 156.000–161.450 MHz 156.000–163.425 MHz
161.450–162.500 MHz 163.425–165.000 MHz
Usable channel groups, Number of channels
INT, USA* channels 22 PMR channels
(*Varies according to version)
Type of emission 16K0G3E 16K0F3E/8K50F3E
14K0G3E 14K0F3E/8K50F3E
Channel spacing 25 kHz 12.5/25 kHz, 25/25 kHz
Power supply requirement 7.4 V DC (nominal)
Current drain (approx.)
Tx (all W) 0.7 A typ.
Rx 200 mA typ.
Antenna impedance 50 Ω (ISMA type)
Operating temperature range
−15°C to +55°C −25°C to +55°C
Dimensions (W x H x D)
(Projections not included) 62 x 97 x 39 mm (With BP-227AX)
Weight (approx.) 280 g (With BP-227AX)

TRANSMITTER
Output power (at 12 V DC) 1/0.5 W 1 W
Max. frequency deviation ±5.0 kHz ±5.0/(5.0±2.5) kHz (WMN)
Frequency stability ±1.5 kHz
Spurious emissions 0.25 μV (≤ 2 GHz), 1.0 μV (> 2 GHz)
Residual modulation 40 dB 40/34 dB (W/N)
Audio harmonic distortion Less than 10% (at 60% deviation)
Modulation limiting 60–100% of Max. deviation

RECEIVER
Sensitivity (at 20 dB SINAD) −2 dBμ typ. (emf)
Adjacent channel selectivity 70 dB 70/60 dB (W/N)
Spurious response 70 dB
Intermodulation 68 dB 65 dB
Hum and noise 40 dB 40/34 dB (W/N)
Audio output power 200 mW
(at 10% distortion with 8 Ω load) 350 mW

Applicable U.S. Military Specifications & IP Rating

Examples of Applicable Gas and Vapor Types*

<table>
<thead>
<tr>
<th>I</th>
<th>IIA</th>
<th>Int</th>
<th>I</th>
<th>II</th>
<th>III</th>
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<tbody>
<tr>
<td>T1: 450°C</td>
<td>T2: 300°C</td>
<td>T3: 200°C</td>
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<tr>
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<td>Acetone</td>
<td>Ethyl alcohol</td>
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<tr>
<td>Acetone</td>
<td>Ethylene</td>
<td>Benzine</td>
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<td>Ethylene</td>
<td>Ethyl acetate</td>
<td>Diesel fuel</td>
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<tr>
<td>Ethyl acetate</td>
<td>Ammonia</td>
<td>n-Toluene</td>
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<tr>
<td>Ammonia</td>
<td>n-Butyl alcohol</td>
<td>Aircraft fuel</td>
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<tr>
<td>n-Butyl alcohol</td>
<td>Heating oil</td>
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<tr>
<td>Benzene (pure)</td>
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<td>Propane</td>
<td>Toluene</td>
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</tbody>
</table>

Examples of Applicable Gas and Vapor Types*

* Please ensure the IC-M87 ATEX rating is acceptable for intended place of use.

BC-121N+AD-100 (6 pcs.) Rapidly charges up to 6 battery packs in 2–2.5 hours.

BC-145S/BC-147S for 120 V AC. SE for 230 V AC. SV for 240 V AC. BC-145SUK for 230 V AC.

Some options may not be available in some countries. Please ask your dealer for details.

OPTIONS

Some options may not be available in some countries. Please ask your dealer for details.

BATTERY PACK

DESKTOP CHARGER

RAPID CHARGER

MULTI-CHARGER

BELT CLIPS

LEATHER BELT HANGER

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