

• **අවසරය ලබාදීමේ ක්‍රියාමාර්ගය :**

1. අය : 80 රුපියල් (අයවීමේ දින / අයවීමේ දින $\times 80$)
2. දැනුම් : 10 රුපියල් (අයවීමේ දින / අයවීමේ දින $\times 10$)
3. ආවේණික : 10 රුපියල් (ආවේණික , ආවේණික කාර්ය සාධන සහතිකයක් ලබාදීමේදී අවම වශයෙන් 2 සතුවැනිකරුවන්ගේ සහතිකයක් ඉල්ලාගැනීමට හැකිවනු ඇත. ආවේණික කාර්ය සාධන සහතිකයක් ලබාදීමේදී අවම වශයෙන් 10 රුපියල් දැනුම් අයවීමක් ඉල්ලාගැනීමට හැකිවනු ඇත. (අවම වශයෙන් 10 රුපියල් දැනුම් අයවීමක් ඉල්ලාගැනීමට හැකිවනු ඇත.)

10. **දැනුම් සහ අයවීම්**

අ. දැනුම් සහ අයවීම් ඉල්ලාගැනීමේදී අයවීමේ දින / අයවීමේ දින $\times 80$ රුපියල් දැනුම් අයවීමක් ඉල්ලාගැනීමට හැකිවනු ඇත. (අවම වශයෙන් 10 රුපියල් දැනුම් අයවීමක් ඉල්ලාගැනීමට හැකිවනු ඇත.)

ආ. දැනුම් සහ අයවීම් ඉල්ලාගැනීමේදී අයවීමේ දින / අයවීමේ දින $\times 80$ රුපියල් දැනුම් අයවීමක් ඉල්ලාගැනීමට හැකිවනු ඇත. (අවම වශයෙන් 10 රුපියල් දැනුම් අයවීමක් ඉල්ලාගැනීමට හැකිවනු ඇත.)

ඇ. දැනුම් සහ අයවීම් ඉල්ලාගැනීමේදී අයවීමේ දින / අයවීමේ දින $\times 80$ රුපියල් දැනුම් අයවීමක් ඉල්ලාගැනීමට හැකිවනු ඇත. (අවම වශයෙන් 10 රුපියල් දැනුම් අයවීමක් ඉල්ලාගැනීමට හැකිවනු ඇත.)

11. **සේවා ගාස්තු**

දැනුම් සහ අයවීම් ඉල්ලාගැනීමේදී අයවීමේ දින / අයවීමේ දින $\times 80$ රුපියල් දැනුම් අයවීමක් ඉල්ලාගැනීමට හැකිවනු ඇත. (අවම වශයෙන් 10 රුපියල් දැනුම් අයවීමක් ඉල්ලාගැනීමට හැකිවනු ඇත.)



TOWER COM. SETS



VHF AIR BAND TRANSCEIVERS

IC-A110 IC-A110EURO



Rugged and reliable for serious ground crew communications

Setting a new standard for ground based communications, the IC-A110 /EURO provide durability and reliability in demanding operational environments.

- **Capable of being installed in any vehicle**
IC-A110/EURO are adaptable to vehicles working on a 12 V, as well as a 24 V power source.
- **Front mounted loud speaker**
A loud speaker mounted in the front of the transceiver is free of any obstacles blocking audio reproduction. And 10 W, of powerful output power is available for the external speaker.
- **Dial selection**
With a simple rotation of the dial, frequently used memory channels, or desired frequency selection can be made.
- **Memory channel name capability**
Up to 7-character memory names can be assigned for each channel. Allows simple and quick channel recognition and selection.
- **Side tone function**
Operator's transmitted messages and calls are audio modulated and can be heard by standard airband headsets*, even in the most demanding operating airport conditions.
*Option OPC-871 is necessary when using standard type headset.
- **Convenient on hook scan functions**
Hanging the microphone on the mic. hanger activates the auto scan function. When released, the transceiver will return to the last used, or priority channel, depending on the selection.
- **Usable in extreme cold**
The adopted LCD guaranteed usable in temperatures from -30°C to $+70^{\circ}\text{C}$ (-22°F to $+158^{\circ}\text{F}$). Normal performance, as well as display indications, are guaranteed even in extremely cold areas.



Icom Inc.

ADDITIONAL FEATURES

- Additional to the predominantly used 25 kHz channel spacing, an extra version complying to new regulations is available for 8.33 kHz channel spacing
- Equipped EEPROM system provides maintenance free memory backup capability, without the use of a separate backup battery
- Various scan functions, such as VFO and priority scans are available
- Limited number of keys for simple manipulation, but providing advanced multi-functions

- A total of 20 memory channels are available
- Ideal compact size of 150(W)×50(H)×180(D) mm* to mount in various types of vehicles
*5²/₃₂(W)×1³/₃₂(H)×7³/₃₂(D) in
- 36 W (pwp) of powerful output
- Excellent durability to cope with even the toughest workplace
- Memory channel only operation possible via PC programming
- Hand microphone supplied

SPECIFICATIONS

GENERAL

- Frequency range : 118.000-136.975 MHz
- Channel spacing : 8.33/25 kHz auto selection (according to version) or 25 kHz only
- Mode : 6K00A3E (AM)
- No. of memory Ch. : 20
- Antenna connector : SO-239 (50 Ω)
- Power supply requirement (negative ground) : 13.75 V DC or 27.5 V DC automatic selection
- Current drain (at 13.75 V DC):
Transmitting : 5.0 A max.
Receiving : 4.0 A (at AF max.)
0.5 A (at stand-by)
- Operating temperature range:
IC-A110 : -30°C to +60°C
 : -22°F to +140°F
IC-A110EURO : -20°C to +55°C
- Frequency stability
IC-A110 : ±5 ppm (-30°C to +60°C)
IC-A110EURO : ±1 ppm (0°C to +40°C)
- Dimensions : 150(W)×50(H)×180(D) mm (projections not incl.)
5²/₃₂(W)×1³/₃₂(H)×7³/₃₂(D) in
- Weight (approx.) : 1.5 kg; 3 lb 5 oz

Measurements made in accordance with RTCA D0-186a (Class C/E, Class 4/G) or EN 300 676. All stated specifications are and subject to change without notice or obligation.

*These specification items are not available for the IC-A110 due to approval test specifications.

Type approval for the IC-A110/EURO varies between countries. Ask your dealer for availability.

TRANSMITTER

- Output power : 36 W typ. pep (9 W typ. for CW)
- Modulation limiting : 70-100% (IC-A110)
- Modulation compression* : Linear 85%
Max. 95%
- AF harmonic distortion : Less than 10% (at 85% mod.)
- Hum and Noise ratio : More than 40 dB
- Spurious emissions
IC-A110 : Less than -16 dBm
IC-A110EURO : 9 kHz to 1 GHz
 : Less than -46 dBm
 : (Less than -36 dBm for harmonics in 30 MHz to 1 GHz range)
- : 1-4 GHz
 : Less than -40 dBm
 : (Less than -30 dBm for harmonics)
- Adjacent Ch. power* : Less than 60 dB (25 kHz)
 : Less than 50 dB (8.33 kHz)
- Microphone connector : 8 pin modular (600 Ω)

RECEIVER

- Receiving system : Double conversion super-heterodyne
- Intermediate freq. : 1st 38.85 MHz
 : 2nd 450 kHz
- Sensitivity (pd)
IC-A110 : Less than 1 μV (at 6 dB S/N)
IC-A110EURO : Less than +5 dBμV (at 12 dB SINAD)
- Squelch sensitivity (pd, at threshold):
IC-A110 : Less than 0.3 μV
IC-A110EURO : Less than -6 dBμV
- Selectivity :
25 kHz Ch. spacing : More than ±8 kHz (at -6dB)
 : Less than ±17 kHz (at -40dB)
 : Less than ±25 kHz (at -60dB)
8.33 kHz Ch. spacing : More than ±2.778 kHz (at -6dB)
 : Less than ±7.37 kHz (at -60dB)
- Spurious response : More than 74 dBμ (IC-A110)
 : More than 70 dBμ (IC-A110EURO)
- Intermodulation rejection ratio* : More than 64 dB
- Blocking/desensitisation* : More than 70 dB
- Cross modulation rejection* : More than 70 dB
- Audio output power (at 13.75 V, 10% dist.; 60% mod.):
Internal speaker : 1.5 W typical w/8 Ω load
External speaker : More than 10.0 W w/8 Ω load
Headset (side tone) : More than 0.1 W w/500 Ω load
- AF output impedance : EXT SP 8 Ω
 : Headset (side tone) 500 Ω

Supplied Accessories

- Hand microphone, HM-161
- DC power cable
- Mounting bracket kit
- Microphone hanger kit
- Fuses

OPTION



OPC-871 HEADSET ADAPTER
For connection with standard airband headset.



HM-161 HAND MICROPHONE
Same as supplied.

Applicable U.S. Military Specifications
Icom makes rugged products that have been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810 C		MIL 810 D		MIL 810 E	
	Method	Proc.	Method	Proc.	Method	Proc.
Low Pressure	502.1	I	502.2	I, II	502.3	I, II
High Temp.	501.1	I	501.2	I, II	501.3	I, II
Low Temp.	502.1	I	502.2	I, II	502.3	I, II
Temp. Shock	503.1	I	503.2	I	503.3	I
Solar Radiation	505.1	I	505.2	I	505.3	I
Rain	506.1	I, II	506.2	I, II	506.3	I, II
Humidity	507.1	I, II	507.2	II, III	507.3	II, III
Salt Fog	509.1	I	509.2	I	509.3	I
Dust	510.1	I	510.2	I	510.3	I
Vibration	514.2	VIII, V	514.3	I	514.4	I
Shock	516.2	I, II, IV	516.3	I, IV	516.4	I, IV

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MOTOTRBO™

XiR R8200 Repeater



Supports **two simultaneous voice or data paths** in digital Time-Division Multiple-Access (TDMA) mode

Doubles the number of users you can have on a single licensed 12.5 kHz channel

Integrates voice and data to increase operational efficiency

Operates in **analog or digital** mode – bright, clear, colored LEDs indicate mode
Optional **IP Site**

Connect allows networks up to 15 repeaters to expand voice & data coverage

Monitor and manage repeater via the the optional diagnostic and control utility

100% continuous full duty cycle at high power

Integrated power supply

Rack or wall-mountable; desktop housing also available

Automated battery back-up (battery sold separately)

Optional **Capacity Plus** is a scalable, single-site digital solution that enables a large group of MOTOTRBO radio users to share both voice and data communication on the same system

Accelerate performance.

The next-generation professional two-way radio communications solution is here, with more performance, productivity and value – thanks to digital technology that delivers increased capacity and spectrum efficiency, integrated data communications and enhanced voice communications.

MOTOTRBO offers you a private, standards-based, cost-effective solution that can be tailored to meet your unique coverage and feature needs. This versatile portfolio provides a complete system of portable radios, mobile radios, repeaters, accessories and data applications.



General Specifications*

	XIRR300		
	UHF		VHF
Channel Capacity	16		
Frequencies	403-470 MHz	450-512 MHz	136-174 MHz
Dimension (H x W x L)	132.6 x 482.6 x 296.5 mm 5.22 x 19 x 11.67 in		
Voltage requirements	100 - 240 VAC, 50/60Hz		
Weight	14 kg (31 lbs)		
Current Drain			
Standby	1.0A (100 VAC), 0.5A (240 VAC)		
Transmit	4.0A (100 VAC), 1.8A (240 VAC)		
Operating Temperature Range	-30°C to +60°C		
Max Duty Cycle	100%		
FCC Description	1-25 W : ABZ99FT4026 25-40 W : ABZ99FT4025	1-40W : ABZ99FT4027	1-25 W : ABZ99FT3026 25-45 W : ABZ99FT3025

Receiver

	403-470 MHz	450-512 MHz	136-174 MHz
Frequencies			
Channel Spacing	12.5 kHz/ 25 kHz		
Frequency Stability (-30° C, +60° C, +25° C)	±/ 0.5 ppm		
Analog Sensitivity	0.3 µV (12 dB SINAD) 0.4 µV (20 dB SINAD) 0.22 µV (typical)		
Digital Sensitivity	5% BER, 0.3 µV		
Intermodulation			
TIA603C	75 dB		
ETS	70 dB		
Adjacent Channel Selectivity	60 dB @ 12.5 kHz 70 dB @ 25 kHz		
Spurious Rejection			
TIA603C	75 dB		60 dB
ETS	70 dB		70 dB
Audio Distortion @ Rated Audio	3% (typical)		
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz		
Audio Response	+1, -3 dB		
Conducted Spurious Emission	-57 dBm		

Transmitter

	403-470 MHz	450-512 MHz	136-174 MHz
Frequencies			
Channel Spacing	12.5 kHz/ 25 kHz		
Frequency Stability (-30° C, +60° C, +25° C)	±/ 0.5 ppm		
Power Output			
Low Power	1-25 W	1-40 W	1-25 W
High Power	25-40 W		25-45 W
Modulation Limiting	±/ 2.5 kHz @ 12.5 kHz ±/ 5.0 kHz @ 25 kHz		
FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz		
Conducted / Radiated Emission	-36 dBm < 1 GHz -30 dBm > 1 GHz		
Adjacent Channel Power	-60 dB @ 12.5 kHz -70 dB @ 25 kHz		
Audio Response	+1, -3 dB		
Audio Distortion	3%		
FM Modulation	12.5 kHz : 11K0F3E 25 kHz : 16K0F3E		
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD 12.5 kHz Data & Voice: 7K60FXE		
Digital Vocoder Type	AMBE+2™		
Digital Protocol	ETSI-TS102 361-1		

*Specifications subject to change without notice. All specifications shown are typical. Radio meets applicable regulatory requirements.

Conforms to:
EC 1999/5/EC (R&TTE - Radio and Telecommunications Terminal Equipment)
EN 300 086
EN 300 113



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MC02-007 Rev.4





YOUR VOICE JUST GOT STRONGER

MOTOTRBO™ XiR™ P8600 SERIES DIGITAL TWO-WAY PORTABLE RADIOS



From the factory worker building components to the road crew making repairs, MOTOTRBO can transform your enterprise and make employee interactions smarter and safer. Our best-in-class audio and unrivaled data capabilities empower people like never before.

Versatile and powerful, MOTOTRBO combines the best of two-way radio functionality with the latest digital technology. XiR P8600 Series radios integrate voice and data seamlessly, offer enhanced features that are easy to use, and deliver business-critical advantages like integrated Bluetooth® and Intelligent Audio.

The XiR P8600 Series can remaster your workplace and the way people collaborate to help you achieve even greater efficiency.



AUDIO BEYOND EXPECTATIONS

When it comes to exceptional audio clarity, the quality of digital can't be denied. XiR P8600 Series portables give you digital audio performance throughout your coverage area plus unique features to help your employees hear and speak clearly, wherever they work.

With Intelligent Audio, the radio volume automatically adjusts to compensate for background noise so workers don't have to adjust their radio volume to avoid missing a call in loud situations or disturb others when they move into quiet areas. Increased background noise suppression helps filter out unwanted external clamor – from heavy equipment to the roar of engines.

Bluetooth® audio is embedded right in the radio, so no adapter is needed when using wireless accessories. Also, IMPRES™ audio accessories enhance noise suppression and improve voice intelligibility for smarter accessories than they've ever experienced before.

INDUSTRY-LEADING DATA

XiR P8600 Series radios feature integrated Bluetooth® data, so rather than waiting until the end of a shift, busy work crews can send real time information back to the office, saving valuable hours and enabling better decision making. Integrated GPS enables location tracking of mobile work teams and text messaging enables communication when voice isn't feasible. And the large, full-color, 5-line display operates in day or night mode, for easy viewing of contact lists, text messages and work order tickets even in bright sunlight.

MOTOTRBO's Application Developer Program offers customized data applications so you can adapt your radios to your business challenges. With the largest developer program in the industry, data applications help meet your objectives – from work order ticket management to telephony integration, and more.

HIGH-POWERED PERFORMANCE

Because MOTOTRBO uses TDMA digital technology, you get integrated voice and data, twice the calling capacity and clearer voice communications. When it comes to battery performance, MOTOTRBO radios operate up to 40 percent longer between recharges compared to analog.

RICH FUNCTIONALITY

XiR P8600 Series radios offer plenty of features businesses seek – including enhanced call signaling, basic and enhanced privacy-scrambling, option board expandability and the transmit interrupt suite to prioritize critical

communication the moment you need it. Programmable button features appear on the display for easy viewing and quick access. And when workers can't be distracted, customizable voice announcement provides audible confirmation of channel and zone changes as well as programmable button features, eliminating the need to view the display.

EXPANDED CAPACITY AND COVERAGE

Your workforce is hard at work every day – picking up loads, making road repairs, providing security, responding to guest requests or restoring power after a storm.

IP Site Connect helps to dramatically improve customer service and productivity by using the Internet to extend coverage to create a wide area network, enhance single site coverage or link geographically dispersed locations. Capacity Plus single-site trunking expands capacity to over 1,000 users without having to add new frequencies. Linked Capacity Plus combines the expanded capacity of Capacity Plus with the wide area coverage of IP Site Connect, delivering a high capacity, wide area, and cost effective multi-site trunking solution. So whether you want coverage at a single site or across multiple ones, MOTOTRBO can be scaled to your business and budget.

MIGRATE AT YOUR OWN PACE


Keeping operations running smoothly during a change in communication systems is vital to any business. It's easy to migrate to digital with XiR P8600 Series radios because they operate in analog and digital mode. To ease the transition even further, the dynamic mixed mode repeater functionality streamlines automatic switching between analog and digital calls. So you can begin using MOTOTRBO radios and repeaters on your existing analog system, and when your time and budget allow, move to digital at your own pace.

DAY-IN, DAY-OUT DURABILITY

XiR P8600 Series radios meet the most demanding specs, including IP57 for water submersibility and U.S. Military 810 C, D, E, F, & G standards for exceptional durability. The radio is also "intrinsically safe" when purchased and equipped with an intrinsically safe (FM) battery, for use in environments where flammable gas, vapors or combustible dust may be present. And it's backed by a two-year Standard Warranty, and 1-year warranty for batteries and accessories.




KEEP YOUR BUSINESS RUNNING SMOOTHLY WITH BUSINESS APPLICATIONS:


 **Location tracking:** Monitor the whereabouts of mobile workers so they can respond immediately; in an emergency, you can pinpoint security personnel and send the nearest to the scene


 **Integrated Bluetooth®** for sharing data wirelessly and instantly between devices


 **Dispatch consoles** for centralized communication

 **Email gateways** to connect to email from your radio

 **Network monitoring** to maximize system utilization

 **Man-down applications** so radios call for help when workers can't

 **Telephony** for communication between radios and landline or mobile phones

 **Text messaging** for quick and discreet communication

 **Work order tickets** for faster customer response



XiR P8600 SERIES SPECIFICATIONS

		DISPLAY XiR P8668/P8660/P8628/P8620		NON DISPLAY XiR P8608/P8600	
		VHF	UHF	VHF	UHF
Channel Capacity		1000		32	
Frequency		136-174 MHz	403-527 MHz	136-174 MHz	403-527 MHz
IMPRES Hi-Cap Li-ion 2150 mAh Battery (PMNN4409)	(HxWxL)	5.13 inch / 2.17 inch / 1.62 inch (130.3 mm / 55.2 mm / 41.1 mm)		5.13 inch / 2.17 inch / 1.56 inch (130.3 mm / 55.2 mm / 39.6 mm)	
	Weight	12.54 oz (355.5 g)		11.39 oz (323 g)	
Slim IMPRES Li-ion 1500 mAh Battery (PMNN4407)	(HxWxL)	5.13 inch / 2.17 inch / 1.41 inch (130.3 mm / 55.2 mm / 35.8 mm)		5.13 inch / 2.17 inch / 1.35 inch (130.3 mm / 55.2 mm / 34.3 mm)	
	Weight	11.83 oz (335.5 g)		10.69 oz (303 g)	
IMPRES Hi-Cap Li-ion FM 2300 mAh Battery (NNTN8129)	(HxWxL)	5.13 inch / 2.17 inch / 1.62 inch (130.3 mm / 55.2 mm / 41.1 mm)		5.13 inch / 2.17 inch / 1.56 inch (130.3 mm / 55.2 mm / 39.6 mm)	
	Weight	12.89 oz (365.5 g)		11.75 oz (333 g)	
Power Supply		7.5 V (Nominal)			
Operating Temperature		-30 – +60 °C ¹			
FCC Description		ABZ99FT3085	ABZ99FT4086	ABZ99FT3085	ABZ99FT4086
IC Description		109AB-99FT3085	109AB-99FT4086	109AB-99FT3085	109AB-99FT4086

BATTERY		
Average Battery Life	5/5/90 duty cycle with carrier squelch and transmitter in high power ²	
Slim IMPRES Li-ion 1500 mAh Battery	Analog: 7.7 hrs/ Digital: 11.3 hrs	Analog: 8 hrs/ Digital: 11.8 hrs
IMPRES Hi-Cap Li-ion 2150 mAh Battery	Analog: 11.1 hrs/Digital: 16.2 hrs	Analog: 11.5 hrs/Digital: 17 hrs
IMPRES Hi-Cap Li-ion FM 2300 mAh Battery	Analog: 11.9 hrs/Digital: 17.3 hrs	Analog: 12.3 hrs/Digital: 18.1 hrs

	RECEIVER	
	VHF	UHF
Frequencies	136-174 MHz	403-527 MHz
Channel Spacing	12.5/25kHz	
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 5 ppm	
Analog Sensitivity (12dB SINAD)	0.3uV (0.22uV typical)	
Digital Sensitivity	0.25 uV (0.19 uV typical)	
Intermodulation (TIA603D)	70 dB	
Adjacent Channel Selectivity (TIA603A)-1T	60dB @ 12.5 kHz / 70dB @ 25 kHz ³	
Adjacent Channel Selectivity (TIA603D)-2T	45dB @ 12.5 kHz / 70dB @ 25 kHz ³	
Spurious Rejection (TIA603D)	70 dB	
Rated Audio	0.5W	
Audio Distortion @ Rated Audio	5% (3% typical)	
Hum and Noise	-40dB @ 12.5 kHz / -45dB @ 25 kHz ³	
Audio Response	TIA603D	
Conducted Spurious Emission (TIA603D)	-57dBm	

	TRANSMITTER	
	VHF	UHF
Frequencies	136-174 MHz	403-527 MHz
Channel Spacing	12.5/25 kHz	
Frequency Stability	± 5 ppm	
Low Power Output	1W	1W
High Power Output	5W	4W
Modulation Limiting	± 2.5kHz @ 12.5 kHz / ± 5.0kHz @ 25 kHz ³	
FM Hum and Noise	-40dB @ 12.5 kHz / -45dB @ 25 kHz ³	
Conducted/Radiated Emission	-36 dBm < 1GHz / -30 dBm > 1GHz	
Adjacent Channel Power	60dB @ 12.5 kHz / 70dB @ 25 kHz ³	
Audio Response	TIA603D	
Audio Distortion	3%	
4FSK Digital Modulation	12.5 kHz Data: 7K60F1D & 7K60FXD	
	12.5 kHz Voice: 7K60F1E & 7K60FXE	
	Combination of 12.5 kHz Voice & Data: 7K60F1W	
Digital Vocoder Type	AMBE+2™	
Digital Protocol	ETSI TS 102 361-1, -2, -3	



PRODUCT SPEC SHEET

MOTOTRBO™ XiR P8600 SERIES PORTABLE RADIOS

GPS

Accuracy specs are for long-term tracking (95th percentile values >5 satellites visible at nominal -130 dBm signal strength)

TTFF (Time To First Fix) - Cold Start	< 60 seconds
TTFF (Time To First Fix) - Hot Start	< 10 seconds
Horizontal Accuracy	< 5 meters

BLUETOOTH

Version	Supports Bluetooth® 2.1 + EDR Specification
Range	Class 2, 10 meters

FACTORY MUTUAL APPROVALS

MOTOTRBO XiR P8600 Series portable radios have been certified by FM in accordance with U.S. Codes as intrinsically safe for use in Class I, II, III, Division 1, Groups C, D, E, F, G, when properly equipped with a Motorola FM approved battery option. They are also approved for use in Class I, Division 2, Groups A, B, C, D.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Thermal Shock	Per MIL-STD
Humidity	Per MIL-STD
ESD	IEC 61000-4-2 Level 3
Dust and Water Intrusion	IEC 60529 - IP57
Packaging test	MIL-STD 810D and E

Some components may vary from specifications listed in this document.

Table 1: Environmental Specifications
 Note: Battery option required for operation in extreme temperatures. Refer to Motorola Solutions GPS and Bluetooth specifications for more information.
 Please contact your Motorola Solutions representative for more information.

MILITARY STANDARDS

APPLICABLE MIL-STD	810C		810D		810E		810F		810G	
	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.5	II
High Temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Hot	501.5	I-A1, II
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I-C3, II/C1	502.5	I, II
Temperature Shock	503.1	-	503.2	I/A1/C3	503.3	I/A1/C3	503.4	I	503.5	I-C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I-A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-	507.5	II
Salt fog	509.1	-	509.2	-	509.3	-	509.4	-	509.5	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	II/5
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, IV, VI

For more information on how to strengthen your portable voice, visit motorolasolutions.com/mototrbo

Devices must be stored in storage without power. Always follow the instructions in the manual.
 Equipment subject to change without notice.

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motorolasolutions.com

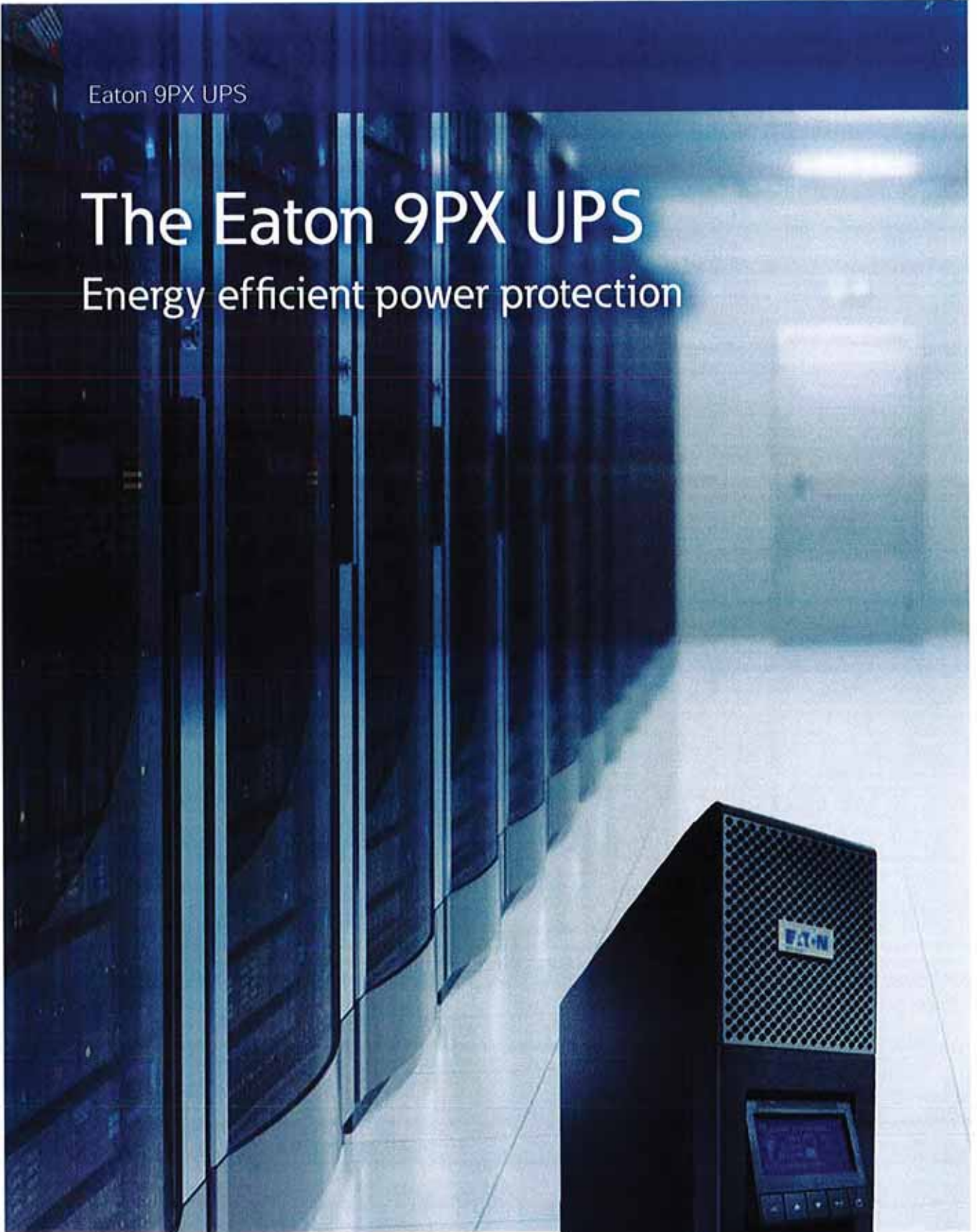
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Eaton 9PX UPS

The Eaton 9PX UPS

Energy efficient power protection



EATON

Powering Business Worldwide



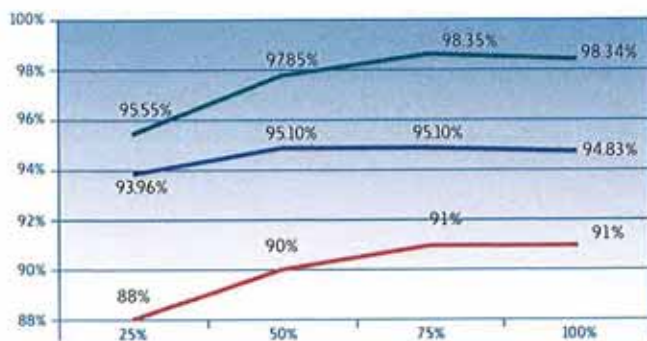
Performance and efficiency come together in the Eaton 9PX UPS

As an industry professional, and because of rising energy costs and the business need for energy-efficient performance, you'll be looking for ways to reduce costs and consumption. The Eaton 9PX UPS enables you to secure all your mission-critical applications, giving you the reductions in energy usage and costs you need.

Eaton 9PX UPS key benefits

- Constantly monitors power conditions and regulating voltage and frequency
- Up to **95% efficiency** in online double conversion mode and 98% in high-efficiency mode
- 0.9 power factor delivers **28% more power** than UPS in its class
- Compact rack/tower versatile form factor, delivering up to **5400W in only 3U** and **10kW in only 6U**

Essentially, the Eaton 9PX UPS gives you the chance to optimise power density and minimise capital and operating expenditure, along with the assurance that, should the power go down, critical processes will be maintained in your IT infrastructures and other applications.



— 9PX 11kVA HE Mode
 — 9PX 11kVA Online Mode
 — Legacy UPS

Features that set the Eaton 9PX UPS apart

- **New graphical LCD display** provides clear information on the UPS's status and measurements on a single screen which tilts 45° for ease-of-viewing
- **Metering energy consumption** – kWh values can be monitored using the LCD or our own Intelligent Power® Software Suite
- **Availability and Flexibility** – The internal bypass allows service continuity in case of internal fault, a maintenance bypass is also available for easy replacement of the UPS without powering down critical systems
- **Paralleling functionality** to achieve twice the power of unitary products using Hot Sync technology
- **Load segment control** enables prioritised shutdowns of nonessential equipment to maximise battery runtime for critical devices (5 and 6kVA UPS)
- **Serial, USB and relay connectivity**, plus an extra slot for an optional communication card
- **Intelligent Power® Software Suite** compatible with all major OS including virtualisation software such as VMware and Hyper-V is included with each UPS
- **Eaton ABM® battery management** technology for longer battery life
- Plus, add more runtime with up to **12 external hot-swappable battery modules**, able to run systems for hours if necessary



Eaton 9PX UPS can easily be used as a rack or a tower model



Eaton innovating for more than 50 years

Eaton has been safeguarding the critical systems of businesses across the globe for over half a century. Whether protecting a single desktop or the largest data centre. Eaton solutions provide clean, uninterrupted power to keep mission-critical applications working.

We offer a comprehensive range of environmentally-sensitive, efficient, reliable UPSs, surge protective devices, power distribution units (PDUs), remote monitoring, meters, software, connectivity, enclosures, airflow management and professional services.



As the ultimate protection for your IT equipment, the Eaton 9PX UPS also integrates seamlessly into all major virtual environments including VMware, Hyper-V, Citrix XenServer, RedHat KVM. With Eaton you are sure to benefit from the best of virtualisation technology.



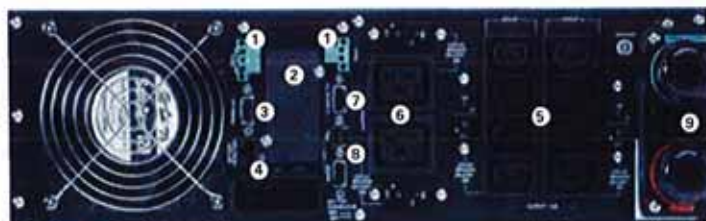
9PX LCD tilts 45° for ease-of-viewing



9PX 11kVA with Maintenance Bypass



- 1 Remote Off/On and Remote Power Off connectors
- 2 Slot for Network-MS, ModBus-MS or Relay-MS cards
- 3 Parallel operation port (DB15)
- 4 External battery module (EBM) connector with automatic detection (RJ11)



Eaton 9PX 6kVA

- 5 8 IEC 10A sockets (2 groups of 4 manageable sockets) with cable retention system
- 6 2 IEC 16A sockets with cable retention system
- 7 DB 9 with output contacts
- 8 USB and serial ports
- 9 Input/Output connection



Eaton 9PX UPS Technical Specifications

Technical Specifications	5kVA	6kVA	8kVA	11kVA
Rating (kVA/kW)	5kVA/4.5kW	6kVA/5.4kW	8kVA/7.2kW	11kVA/10kW
Electrical Characteristics				
Technology	On-line double conversion with Power Factor Correction (PFC) system			
Nominal voltage	200/208/220/230/240V		200/208/220/230/240V/250V	
Input voltage range	176-276V without derating (up to 100-276V with derating)			
Output voltage/THDU	200/208/220/230/240V +/- 1%; THDU <2%		200/208/220/230/240/250V +/- 1%; THDU <2%	
Input frequency range/THDI	40-70Hz, 50/60Hz auto-selection, frequency converter as standard, THDI < 5%			
Efficiency	Up to 94% in Online mode, 98% in Hi-Efficiency mode		Up to 95% in Online mode, 98% in Hi-Efficiency mode	
Crest factor/short circuit current	3:1/90A	3:1/90A	3:1/120A	3:1/150A
Overload capacity	102-110%: 120s, 110-125%: 60s, 125-150%: 10s, >150%: 500ms		102-110%: 120s, 110-125%: 60s, 125-150%: 10s, >150%: 900ms	
Connections				
Input	Terminal block (up to 10 mm ²)		Terminal block (up to 16mm ²)	
Outputs	Terminal block + 2 controlled groups of 4 IEC C13 (10A) + 2 IEC C19 (16A)		Terminal block	
Outputs with HotSwap Maintenance Bypass	Terminal block + 3 IEC C13 (10A) + 2 IEC C19 (16A)		Terminal block + 4 IEC C19 (16A)	
Batteries				
Typical backup times at 50 and 70% load*				
9PX	13/10 min	11/8 min	20/15 min	13/9min
9PX + 1 EBM	60/40 min	48/34 min	48/32 min	32/21 min
9PX + 4 EBM	220/150 min	170/120 min	140/100 min	100/70 min
Battery management	ABM™ and Temperature compensated charging method (user selectable), automatic battery test, deep discharge protection, automatic recognition of external battery units			
Communication				
Communication ports	1 USB port, 1 RS232 serial port (USB and RS232 ports cannot be used simultaneously), 4 dry contacts (DB9), 1 mini terminal block for remote On/Off and 1 for remote power Off, 1 DB15 for parallel operation			
Communication slot	1 slot for Network-MS card, ModBus-MS or Relay-MS cards			
Operating conditions, standards and approvals				
Operating temperature	0 to 40°C continuous			
Noise level	<45dB	<45dB	<48db	<50db
Safety	IEC/EN 62040-1, UL 1778, CSA 22.2			
EMC performance	IEC/EN 62040-2, FCC Class A, IEC/EN 62040-3 (Performance)			
Approvals	CE, CB report (TUV), UL			
Dimensions H x W x D/Weight				
UPS	440(19")*130(3U)*685mm/48kg	440(19")*130(3U)*685mm/48kg	440(19")*260(6U)*700mm/84kg	440(19")*260(6U)*700mm/86kg
EBM	440(19")*130(3U)*645mm/68kg	440(19")*130(3U)*645mm/68kg	440(19")*130(3U)*680mm/65kg	440(19")*130(3U)*680mm/69kg
Power module	-	-	440(19")*130(3U)*700mm/19kg	440(19")*130(3U)*700mm/21kg
Customer Service and Support				
Warranty	3 years on electronics, 2 years on battery		2 years on electronics and battery	
* Runtimes are shown at 0.7 power factor. Backup times are approximate and may vary with equipment, configuration, battery age, temperature, etc.				
Parts Numbers				
UPS with Rack Kit	9PX5KRT	9PX6KRT	9PX8KRT	9PX11KRT
EBM with Rack Kit	9PXEEM180RT	9PXEEM180RT	9PXEEM240RT	9PXEEM240RT
Power Module	-	-	9PX8KiPM	9PX11KiPM
Network Management Card	Network-MS	Network-MS	Network-MS	Network-MS
HotSwap Maintenance Bypass	MBP6Ki	MBP6Ki	MBP11Ki	MBP11Ki
Transformer Module	TFMR11Ki	TFMR11Ki	TFMR11Ki	TFMR11Ki
Supercharger with Rack Kit	-	-	SC240RT	SC240RT
1.8m Battery Connection Cable	EBMCBL180	EBMCBL180	EBMCBL240	EBMCBL240
Battery Integration System	BINTSYS	BINTSYS	BINTSYS	BINTSYS
Rack Kit	9RK	9RK	9RK	9RK



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