RCF

VOICE ALARM SYSTEMS

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INTELLIGENT EVACUATION SYSTEMS EN 54

In any place where people live and work, dangererous situations may occur, requiring an effective and efficient evacuation of affected areas, in conditions of maximum safety for all occupants and avoiding panic as much as possible.

In these circumstances, time is precious and each second saved means saving human lifes. For this reason the use of Intelligent Evacuation Systems - designed to communicate clear and intelligible instructions - is crucial.

Alarms transmitted using encoded tones, usually generated by sirens or alarm sounders, are a suitable solution where occupants are periodically trained to behave in a specific way depending on the specific alarm.

However in crowded places, where occupants are occasional bystanders or even foreigners and need to be reassured and guided along safe routes, it is more effective to use a paging microphone and pre-recorded messages, performed in an intelligible way and containing specific instructions on how to behave in situations of alarm or warning (e.g. how to use escape routes).

The normative UNI ISO 7240-19 is in force since 2011, introducing new rules and procedures for the design, installation and maintenance of voice evacuation systems, also known as Sound Systems for Emergency Purposes (SSEP), and the use of EN 54 certified components.

The UNI ISO 7240-19 contains all information necessary for designers, installers, maintainance engineers and construction companies. Electronics must include devices and strategies for self-diagnosis and protection, and must be certified by accredited notified bodies according to EN 54-16, plus the loudspeakers must be in accordance with EN 54-24.

APPLICATIONS

Environments which are more critical in terms of occupants' safety (since they are the most critical to be alerted and evacuated) are those with the highest concentration of people. The risk is high and the area to evacuate particularly extended.

Examples: hospitals, schools, shopping centres, sales areas, places of entertainment (cinemas, theatres, clubs, etc.), densely populated buildings (offices buildings), factories (production sites, warehouses, etc.), powerstations, chemical industries, railway stations, subways and airports are the most common structures.

SYSTEMS' AVAILABILITY

An intelligent EN54-certified evacuation system must be operational 24 hours a day, every day of the year.

In case of interruption of the primary power supply, it must be powered by a secondary source and its autonomy must be guaranteed for at least 24 hours in a quiescent condition and for 30 minutes in a working condition.

These systems, on which safety depends at all times, must be maintained in perfect working order with periodic inspections.

Intelligent evacuation systems must also be connected to the fire detection system, so that they can react in a programmed way without supervisory staff and communicate the status to the fire alarm system.

DXT 7000

DXT 7000 is a sound system conceived to completely control and manage background music and paging, even for emergency and evacuation purposes.
The system has been designed to fulfil all requirements of EN 54-16 and EN 60849 standard, and it is really scalable, suitable for a wide range of applications: up to 32 MU 7100EN can be linked together in order to get an extended system, including many paging stations and up to 256 loudspeaker lines / paging zones.
The main unit can play all necessary evacuation and alarm messages previously stored into its built-in digital memory.

SPARE AMPLIFIER CHANGE OVER BOARD

The line transformer interface override voltage output is used to activate the relay in case of the main amplifier is faulty.

PATH MONITORING

The whole signal path from fireman's microphone to loudspeaker lines is completely and automatically monitored against faults.

The 8 internal digital amplifiers are highly reliable and their efficiency is excellent (> 90%): that means less heat dissipation and smaller capacity required for unbreakable power supply sources (UPS) used in security applications.
A digital Matrix 7x8 is configurable for several applications with routing to any output channel, supported by an efficient Digital Signal Processor (DSP) providing Band Parametric EQ, Filters, Delay circuit for line arrays, Compressor / Limiter and Level controls.
A software utility is available for saving unit parameters to PC, updating unit firmware, virtual control activation and status indication.

MU 7100EN p/n 17170157

DIGITAL MATRIX DXT 7000

MU 7100 is the main unit of the RCF DXT 7000 system, which has been designed to fulfill all requirements of EN 54-16 and EN 60849 standard. The whole signal path from fireman's microphone to loudspeaker lines is completely and automatically monitored against faults. All properties and functions of the system are specified with Windows® based DXT 7000 configuration software and are downloaded to 'master' unit through its USB port.

- Up to 32 units can be linked together in order to get an extended the systems
- Up to 256 loudspeaker lines and many paging stations
- The 8 digital internal amplifiers are highly reliable and excellent efficiency
- Small capacity requirement for unbreakable power supply sources (UPS) used in security applications
- The main unit can play all necessary evacuation and alarm messages previously stored into its built-in digital memory
- Digital Matrix 7 x 8 is configurable for several applications with routing to any output channel

- An automatic level control facility can be got by simply connecting an omnidirectional noise detection microphone to the inputs
- Efficient Digital Signal Processor (DSP): 5-Band Parametric EQ, High and Low Pass Filters, Compressor / Limiter, Level controls are provided
- Delay circuit for line array speaker applications
- Built-in WAV file message player (up to 128 messages)

CERTIFICATION

EN 54-16	CPR: 1438-CPR-0241	CE

SYSTEM SPECIFICATIONS

Number of zones managed:	128
Amplificatore integrato:	Yes
Spare amplifier automatic change-over:	Yes
Max number of consoles:	32
Number of console buses:	2
Number of simultaneous emergency audio channels:	2
Max number of units connectable:	64
Communication bus:	Serial
Connections cables:	FTP CAT 5, FTP CAT 6
Integrated pre-reocorded emergency messages:	Yes
Integrated pre-reocorded routine messages:	Yes
Message scheduler:	Yes

SYSTEM SPECIFICATIONS

Remote monitoring:	Yes
Protocols for system integration:	ASCII

AMPLIFIER SPECIFICATIONS

Amplifier Class:	D
Number of channels:	8
Linee altoparlanti A/B:	Yes

INPUT SECTION

Total number of inputs:	9
Balanced:	7
Mono:	7
Mic+Line inputs:	7
Mic+Line connectors:	Euroblock
Paging inputs:	2
Paging connectors:	RJ45
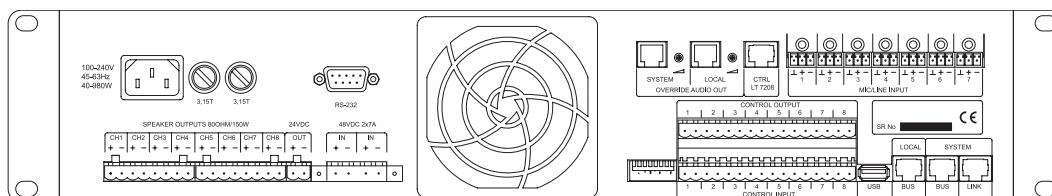
INPUT SECTION

General Purpose Inputs (GPI):	8
Programmable GPI:	Yes
Monitored GPI:	8

OUTPUT SECTION

Power Output Lines:	8
Power output connectors:	Euroblock
General Purpose Outputs (GPO):	8
Programmable GPO:	Yes

PROCESSING

DSP, Filtri, Compressore, Delay, Controllo toni

CONTROLS

Configuration:	Interruttore, PC Software
Number of programs/presets:	128
Priority, Music on hold, Chime tone	

PROTECTIONS

Cooling:	Convection/Forced
Dc Delay, Short Circuit, Thermal, Fuses	

POWER REQUIREMENT

Operating voltage:	90-240 V~ 50/60Hz
DC power:	Yes
DC power value:	48 V
Power consumption:	990 W

PHYSICAL SPECIFICATIONS

Rack mounting:	19", 2U
Height:	88 mm / 3.46 inches
Width:	485 mm / 19.09 inches
Depth:	375 mm / 14.76 inches
Weight:	8.4 kg / 18.52 lbs

MT 7308 p/n 17170159

POWER AMPLIFIER MANAGER
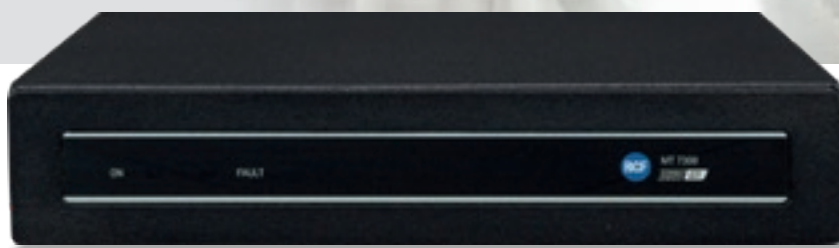
MT 7308 is suitable to control up to 8 additional power amplifiers and relevant speaker lines, according to EN 54-16 norm. It works connected to the MU 7100EN master system unit. When speaker lines drive high power loads, it could be convenient to optimize the system configuration by using one or more dedicated power amplifiers dimensioned according the loads involved.

- Integrates external (constant voltage) amplifiers into the monitored DXT 7000EN voice evacuation system.
- It is possible to use any professional single / multichannel amplifier equipped with a 0 ÷6 dBu balanced audio input and 50/70/100 V constant voltage output(s).
- One or two MT 7308EN can be linked to each MU 7100EN main unit.
- One unit can be used for up to eight external amplifiers (and its loudspeaker line monitoring).

- Max. power for each external amplifier: 500 W.
- Spare amplifier facility on dip-switch with automatic replacement of a faulty one.
- Half 19" rack unit, so two MT 7308EN can be installed into 19" 1U rack.
- PC configuration software and communication on local bus with host MU 7100EN
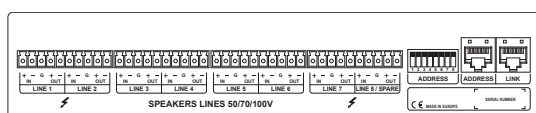
CERTIFICATION

EN 54-16	CPR: 1438-CPR-0241	CE

SYSTEM SPECIFICATIONS

|	
Number of zones managed:	8
Max number of units connectable:	2 (for each one MU 7100EN)
Max power of each external amplifier:	500 W RMS
Spare amplifier automatic change-over:	Yes
Communication bus:	Serial
Connections cables:	FTP CAT 5, FTP CAT 6
Output lines connectors:	Euroblock
Configuration:	PC software

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Metal
Rack mounting:	1/2 19", 2U
Height:	44 mm / 1.73 inches
Width:	215 mm / 8.46 inches
Weight:	0.98 kg / 2.16 lbs

LT 7208EN p/n 17170156

LINE TRANSFORMER INTERFACE

The LT 7208EN unit has 8 internal transformers (80 W / each) to convert the 8 Ohm loudspeaker outputs of the MU 7100 central unit into constant voltage lines (100 - 70 - 50 V) for loudspeakers having transformers.
The possible combinations are 8 x 80 W, 4 x 160 W and 2 x 320 W (or any combination from these).

- The LT 7208EN line transformer interface allows you to link/ group the 8 amplifiers to increase the power of the speaker lines two, three or four times

- If the needed speaker line power is more than 80W, several outputs (in groups made of 2, 3 or 4) can be connected together (in parallel) in order to get locked groups for 160 W, 240 W or 320 W lines

- Output line voltage setting (50-70-100 V) is made by changing the output tapping of each transformer

- Includes also line specific 24V dc outputs for override relays (max. current: 1A / line)

- Connection cable to MU 7100EN main unit 8 pcs. of 'end of line' unit, used when the loudspeaker line monitoring is provided

- The 'end of line' unit shall be installed right at the end of the line, near the last installed loudspeaker
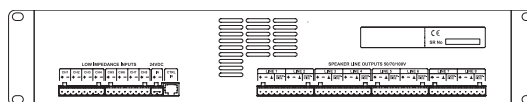
CERTIFICATION

EN 54-16   CPR: 1438-CPR-0241   C E

SYSTEM SPECIFICATIONS

Number of inputs:	8
Input impedance:	8 Ohm
Output voltage:	100 V (on request: 70 V – 50 V)
Power output (@ 100 V):	640 W RMS
Communication bus:	Serial
Connections cables:	FTP CAT 5, FTP CAT 6
Output lines connectors:	Euroblock

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Metal
Rack mounting:	1/2 19", 1U
Height:	88 mm / 3.46 inches
Width:	485 mm / 19.09 inches
Depth:	382 mm / 15.04 inches
Weight:	13 kg / 28.66 lbs

UP 8501 p/n 12135070
UP 8502 p/n 12135077
UP 8504 p/n 12135079

DIGITAL POWER AMPLIFIERS

Our class D amplifiers with selectable 70 – 100 V output per channel provide pro audio performance with double switching AC-DC power supply and transformer-less galvanic insulated speaker output. They are equipped with double input per channel, active full protections on amplifier and power supply, activity and status indicators, as well as stand-by, priority and fault remote commands.
They are equipped with volume knobs on front panel with disablement facility and characterized by a light-weight 1 U 19" rack enclosure. UP 8501, UP 8502 and UP 8504 are EN 54-16 certified only when combined with DXT 7000.

- Class D amplifier and double switching AC-DC power supply, transformer-less galvanic insulated speaker output
- Pro audio performance
- Selectable 70 – 100 V output per channel
- Double input per channel

- Active full protections on amplifier and power supply
- Stand-by, priority and fault remote commands
- Activity and status indicators
- Volume knobs on front panel with disablement facility

CERTIFICATION
EN 54-16   CPR: 1438-CPR-0241   C E

AMPLIFIER SPECIFICATIONS	UP 8501	UP 8502	UP 8504
Amplifier Class:	D	D	D
Number of channels:	1	2	4
Power output (@ 100 V):	500 W RMS	500 W RMS	500 W RMS
Frequency Response (-3dB):	40 Hz ÷ 16 kHz	40 Hz ÷ 16 kHz	40 Hz ÷ 16 kHz
Signal/noise rate ("A" weighted)	>86 dB	>86 dB	>86 dB
Crosstalk	-	<70 dB	<60 dB
Distortion (THD+N) @ 1 kHz nominal power	<0.3 %	<0.3 %	<0.3 %

INPUT SECTION			
Total number of inputs:	3	6	12
Balanced:	2	4	8
Unbalanced:	1	2	4
Mono:	3	6	12
Line inputs:	3	6	12
Line connectors:	Euroblock	Euroblock	Euroblock

OUTPUT SECTION			
Output lines connectors:	Euroblock	Euroblock	Euroblock
General Purpose Inputs (GPO):	1	2	4

UP 8501
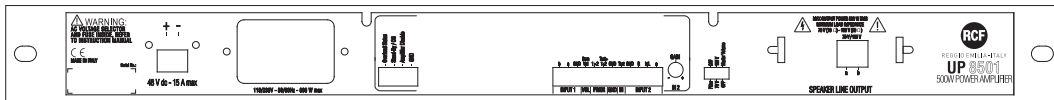
UP 8502
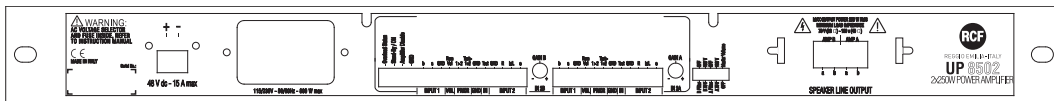
UP 8504
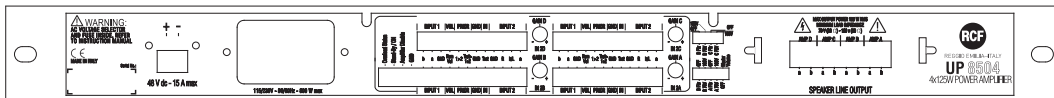
CONTROLS	UP 8501	UP 8502	UP 8504
Configuration:	DIP switch, Front panel	DIP switch, Front panel	DIP switch, Front panel
Priority:	Yes	Yes	Yes

PROTECTIONS			
Cooling:	Forced	Forced	Forced
Short circuit, Thermal, Fuses	Yes	Yes	Yes

POWER REQUIREMENT			
Operating voltage:	220-240/115 V~ 50/60Hz	220-240/115 V~ 50/60Hz	220-240/115 V~ 50/60Hz
Voltage selection:	Internal	Internal	Internal
DC power:	Yes	Yes	Yes
DC power value:	48 V	48 V	48 V
Power consumption:	800 W	800 W	800 W

PHYSICAL SPECIFICATIONS			
Cabinet/Case Material:	Metal	Metal	Metal
Rack mounting:	19", 1U	19", 1U	19", 1U
Height:	44 mm / 1.73 inches	44 mm / 1.73 inches	44 mm / 1.73 inches
Width:	482 mm / 18.98 inches	482 mm / 18.98 inches	482 mm / 18.98 inches
Depth:	375 mm / 14.76 inches	375 mm / 14.76 inches	375 mm / 14.76 inches
Weight:	5 kg / 11.02 lbs	5.2 kg / 11.46 lbs	5.4 kg / 11.9 lbs

BM 7608   p/n 14322015
BM 7608D   p/n 14322016
BM 7608DFM   p/n 14322014
BM 7624D   p/n 14322018

MICROPHONE CONSOLE

Paging microphone set monitored according to EN 54-16 norm, with metal body and an high intelligibility microphone mounted on a 250mm gooseneck.

The 8 configurable buttons can be programmed to send live microphone announcements in specific zones or groups of zones.

There are dedicated buttons to access the emergency operation/functions, in order to send pre-recorded security messages or microphone announcements.

One input on RCA stereo connector is available for the direct connection of a program source (i.e. CD player), to be sent through the same audio cannel where the console is connected when paging is not in progress.

The console is powered through the same system bus or through a local optional power supply. High intelligibility microphone with polyurethane foam wind screen. The connection to the MU 7100EN master unit can be made by using a CAT 5 cable or a J-Type 4 twisted pair cable (es. Fire resistant model RCF CJ 428E) .

- Modern design
- Monitored microphone
- Audio input (3.5 mm TRS jack connector) for an external device
- Up to 32 paging microphones in the entire system, up to 8 for each local bus
- 2 data bus ports for redundant systems
- Connections to system / local buses according to the EIA/TIA-568B standard (CAT 5/6/7 wiring)

- Flexible gooseneck microphone
- 8 zone / function buttons
- BM 7608D, BM 7608DFM, BM 7624D: Backlit LCD (menu based user interface)
- BM 7608D, BM 7608DFM, BM 7624D: Numeric keyboard
- BM 7608D, BM 7608DFM, BM 7624D: Input selection and volume control through menu

CERTIFICATION

EN 54-16   CPR: 1438-CPR-0241   C€

MICROPHONE SPECIFICATIONS	BM 7608	BM 7608D	BM 7608DFM	BM 7624D
Type:	Electret	Electret	Dynamic	Electret
Directivity:	Cardioid	Cardioid	Omnidirectional	Cardioid
Frequency Response (-3dB):	50 Hz ÷ 17 kHz	50 Hz ÷ 17 kHz	50 Hz ÷ 17 kHz	50 Hz ÷ 17 kHz
Total harmonic distortion @1 kHz:	< 0.10%	< 0.10%	< 0.10%	< 0.10%

CONSOLE SPECIFICATIONS

Console Type:	Emergency	Emergency	Emergency	Emergency
General call, Selective call, Preamplified, Configurable buttons, LED indicators	Yes	Yes	Yes	Yes
Display LCD:	-	Yes	Yes	Yes

CONNECTIONS

Connectors:	RJ45	RJ45	RJ45	RJ45

BM 7608

BE 7608D

BM 7608DFM

BM 7624D

CONNECTIONS	BM 7608	BM 7608D	BM 7608DFM	BM 7624D
Cable:	FTP CAT 5	FTP CAT 5	FTP CAT 5	FTP CAT 5
Daisy-chain:	Yes	Yes	Yes	Yes
Max number in daisy-chain:	8	8	8	8
Interlock:	Yes	Yes	Yes	Yes

FUNCTIONALITIES				
Priority, Chime tone generator	Yes	Yes	Yes	Yes

ACCESSORIES				
Cable included length 5 m:	Yes	Yes	Yes	Yes

PHYSICAL SPECIFICATIONS				
Cabinet/Case Material:	Metal	Metal	Metal	Metal
Height:	55 mm / 2.17 inches	55 mm / 2.17 inches	55 mm / 2.17 inches	55 mm / 2.17 inches
Width:	126 mm / 4.96 inches	226 mm / 8.9 inches	326 mm / 12.83 inches	326 mm / 12.83 inches
Depth:	135 mm / 5.31 inches	135 mm / 5.31 inches	135 mm / 5.31 inches	135 mm / 5.31 inches
Weight:	0.5 kg / 1.1 lbs	0.8 kg / 1.76 lbs	1.2 kg / 2.65 lbs	1 kg / 2.2 lbs

ACCESSORIES

AC 7212 p/n 17170152

SPARE AMPLIFIER CHANGE-OVER BOARD FOR LT 7208EN

The board has 2 main 70-100V loudspeaker line inputs, spare amplifier input and output, 2 relays. AC 7212 terminal shall be directly connected to a pair of LT 7208EN loudspeaker 50-70-100 V outputs. The LT 7208EN override voltage output is used to activate the AC 7212 relay in case of the main amplifier is faulty and switch the spare amplifier output to the respective loudspeaker line.

**EN 54-16**   **CPR: 1438-CPR-0241**   CE

SI 7120 p/n 17170153

MONITORED LOGICAL INPUT BOARD FOR MU 7100EN

The SI 7120 board is a system monitoring module for the DXT 7000 system.
It monitors the operation condition of 2 lines coming from the fire alarm system to DXT 7000.
If a line is open or shorted, the SI 7120 board will detect the fault and activate a command.

EN 54-16   **1438-CPR-0241**   CE
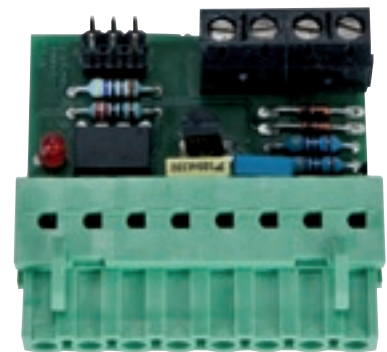
RO 7102 p/n 17170151

DRY OUTPUT CONTACT BOARD FOR MU 7100EN

A RO 7102 board can be directly connected to a pair of MU 7100EN control outputs.
It converts the 2 MU 7100EN open-collector 'control outputs' to 2 dry closing contacts that can be used as commands or external devices.
It also has resistors needed for monitored alarm lines.

EN 54-16   **1438-CPR-0241**   CE

SV 7982 p/n 17170140

REMOTE PROGRAMME SELECTOR AND LEVEL CONTROL DEVICE

Used as local sound control device. It controls a zone group volume and operates as program selector. Connection to local or system bus by using CAT5/6 cabling. To be wall mounted by using with accessories provided.

LI 7903 p/n 17170141

REMOTE LOCAL INPUT / CONTROL DEVICE

Used for connection and routing of a local program source (mono signal, 3.5 mm balanced stereo plug). 3 function keys can be individually programmed, for example, to route local program source to desired loudspeaker lines. To be wall mounted by using the accessories provided.
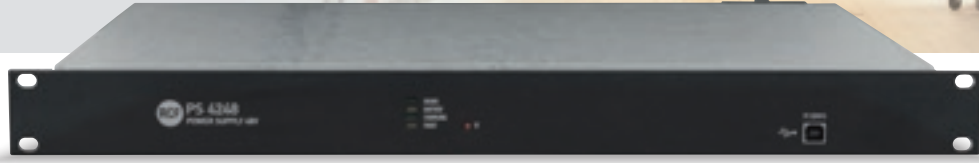

EL 7001 p/n 63531167

END OF LINE

Installed after the last speaker, it allows to accurately monitor speakers lines integrity. Suitable for DXT 7000 system.

PS 4248 _p/n 17100005_

48 VCC POWER SUPPLY CERTIFIED EN 54-4 FOR DXT 7000

PS 4248 is a power supply unit suitable to get continuity power for EN 54-16 systems units like DXT 7000, and relevant complementary devices in case of mains power supply interruptions. It includes recharging and monitoring functions for the lead-acid batteries connected to it. It must be equipped with batteries with suitable capacity, dimensioned according to the system power absorption and to the evacuation requirements. According to EN 54-16 standard, PS 4248 shall be installed into the same rack cabinet where there is the audio system with emergency purposes (or a system part) to which it is connected.

- ■ 4 main outputs to system's units
- ■ 2 auxiliary outputs
- ■ Permanent and emergency power for installations
- ■ Continuity of service of your installation through real time monitoring of system status

- ■ Control of the battery and its circuit: protection, management, self-diagnostic
- ■ Quick and easy installation and user-friendly operation
- ■ No preventive maintenance: continuous monitoring of the emergency power supply with local display and remote reporting

CERTIFICATION

EN 54-4	CPR: 1438-CPR-0538	CE

GENERAL SPECIFICATIONS

Power factor	0.94
Efficiency (during battery charging)	84%
Battery nominal voltage	48 V
Max. current from main outputs	4 x 15 A
Max. current from auxiliary outputs	2 x 2 A
Maximum capacity of connected batteries	200 Ah
Max. charging current	2 ÷ 8 A
Max. resistance of battery circuit	30 ÷ 100 mOhm

GENERAL SPECIFICATIONS

Battery disconnection threshold	40.8 V
Operating voltage	220-240 V~ 50Hz

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Metal
Color:	Black
Rack mounting:	19", 1U
Height:	43 mm / 1.69 inches
Width:	483 mm / 19.02 inches
Depth:	321 mm / 12.64 inches
Weight:	4.7 kg / 10.36 lbs

# CJ 428E _p/n 14380021_

FIRE RESISTANT DATA CABLE

Fire resistant cables for data with conductor thickness of 0.8 mm shielded. Color of the outer cover Red. Inner conductors colors Yellow, Grey, Blue, Red. Certification VDE 0815, DIN 4102, EN 50200 PH 120, EN 60332-1-2, EN61034-2, FIPEC (EN) Coils of 200 m. The construction process consists in conductors isolation using a layer of silicon rubber. The core is then separated into two twisted pairs together and screens, subsequently the outer sheath is applied with a process of compression seeds.

PS 6648 p/n 17100006

48 VCC POWER SUPPLY CERTIFIED EN 54-4 FOR DXT 7000
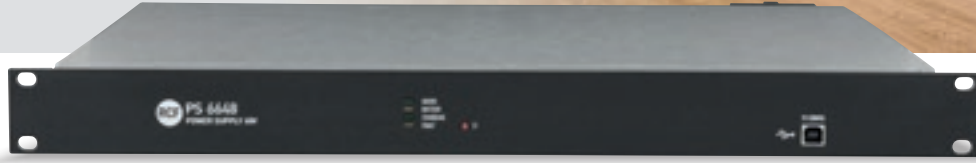
PS 6648 is a power supply unit suitable to get continuity power for EN 54-16 systems units like DXT 7000, and relevant complementary devices in case of mains power supply interruptions. It includes recharging and monitoring functions for the lead-acid batteries connected to it. It must be equipped with batteries with suitable capacity, dimensioned according to the system power absorption and to the evacuation requirements. According to EN 54-16 standard, PS 6648 shall be installed into the same rack cabinet where there is the audio system with emergency purposes (or a system part) to which it is connected.

- 6 main outputs to system's units
- 4 auxiliary outputs
- Permanent and emergency power for installations
- Continuity of service of your installation through real time monitoring of system status
- Control of the battery and its circuit: protection, management, self-diagnostic

- Quick and easy installation and user-friendly operation
- No preventive maintenance: continuous monitoring of the emergency power supply with local display and remote reporting
- Monitoring software available for download on website

CERTIFICATION

EN 54-4	CPR: 1438-CPR-0538	CE

GENERAL SPECIFICATIONS

Power factor	0.94
Efficiency (during battery charging)	84%
Battery nominal voltage	48 V
Max. current from main outputs	6 x 15 A
Max. current from auxiliary outputs	4 x 2 A
Maximum capacity of connected batteries	200 Ah
Max. charging current	2 ÷ 8 A
Max. resistance of battery circuit	30 ÷ 100 mOhm

GENERAL SPECIFICATIONS

Battery disconnection threshold	40.8 V
Operating voltage	220-240 V~ 50Hz

PHYSICAL SPECIFICATIONS

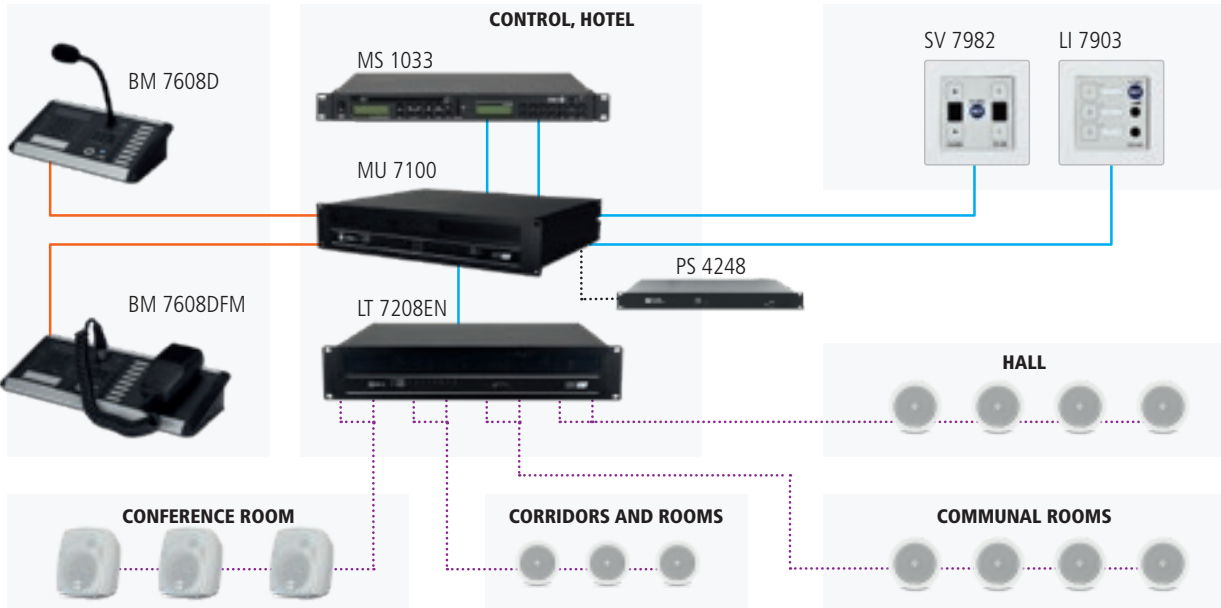|	
Cabinet/Case Material:	Metal
Color:	Black
Rack mounting:	19", 1U
Height:	43 mm / 1.69 inches
Width:	483 mm / 19.02 inches
Depth:	321 mm / 12.64 inches
Weight:	4.9 kg / 10.8 lbs

CJ 428CAT p/n 12399047

CAT5 FTP FIRE RESISTANT DATA CABLE

Shielded CAT5 FTP fire resistant cable suitable for the transmission of signals and commands for voice alarm systems, when maximum safety against fire is required. Made of 4 pairs of twisted annealed copper conductors with 0.63sqmm (AWG22) section. For fixed indoor installations in normal or humid environments. Red external sheath. Sold in coils of 200m.
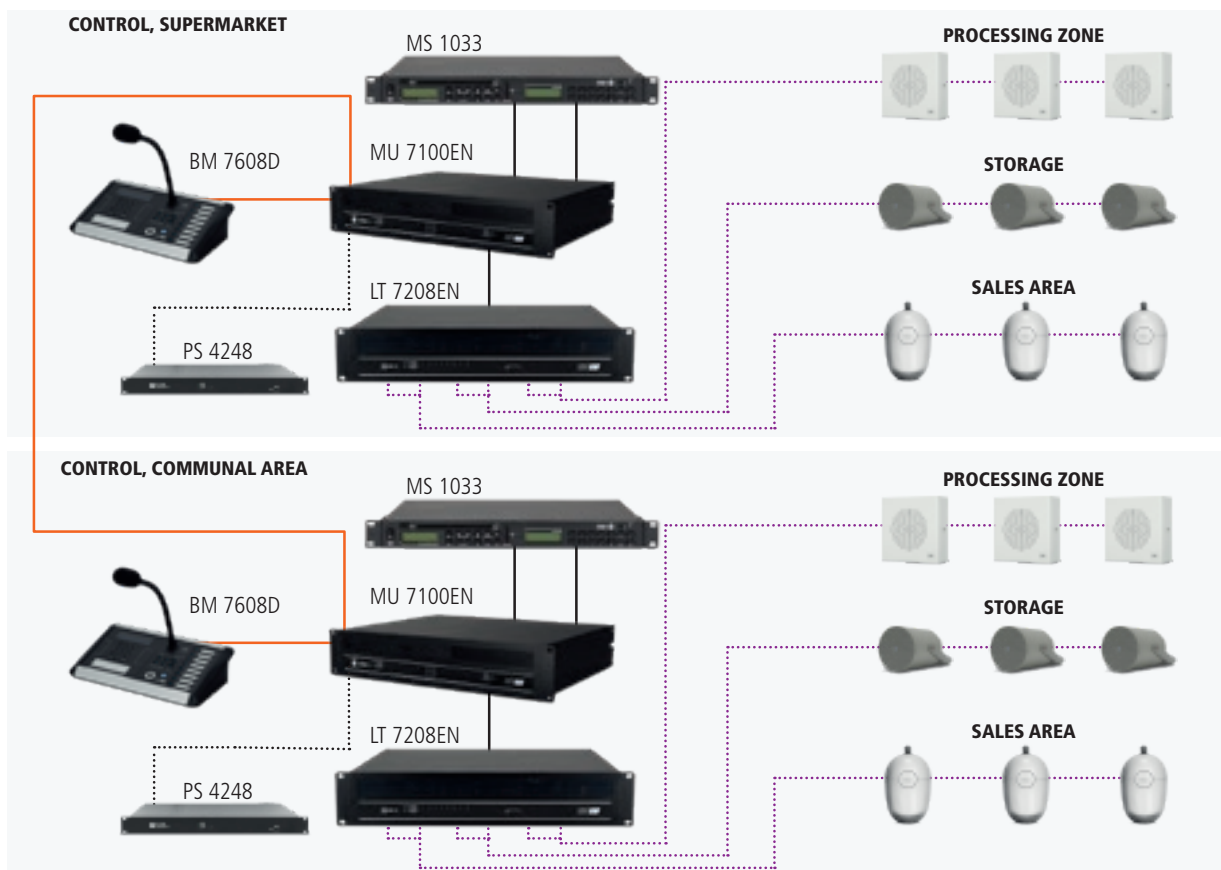
CONFIGURATION EXAMPLES

HOTEL

CONTROL, HOTEL

BM 7608D

MS 1033

SV 7982   LI 7903

MU 7100

PS 4248

BM 7608DFM

LT 7208EN

HALL

CONFERENCE ROOM

CORRIDORS AND ROOMS

COMMUNAL ROOMS

SHOPPING CENTRE

CONTROL, SUPERMARKET

MS 1033

PROCESSING ZONE

BM 7608D

MU 7100EN

STORAGE

LT 7208EN

SALES AREA

PS 4248

CONTROL, COMMUNAL AREA

MS 1033

PROCESSING ZONE

BM 7608D

MU 7100EN

STORAGE

LT 7208EN

SALES AREA

PS 4248

BUSINESSES

CONTROL, BUILDING A

BM 7608D

MU 7100EN

PS 4248

LT 7208EN

PROCESSING ZONES

ZONE FOR SANITARY ROOMS

CONTROL, BUILDING B

BM 7608D

MU 7100EN

PS 4248

LT 7208EN

PROCESSING ZONES

ZONE FOR SANITARY ROOMS

CONTROL, OFFICE BUILDING

MS 1033

BM 7608D

MU 7100EN

PS 4248

LT 7208EN

GROUND FLOOR ZONE

FIRST FLOOR ZONE

.... TWO-POLE FIRE RESISTANT CABLE, UNI 9795 - IEC 20-105V1 COMPLIANT

───── MULTIMODAL GLASS FIBRE FIRE-RESISTANT

───── FTP CAT-5 CABLE FIRE-RESISTANT

───── FTP CAT-5 CABLE (OR BETTER)

DXT 3000

DXT 3000 is a wall-mounting intelligent evacuation system dedicated to small and medium size applications, where an EN54-16 system is required. It includes a digital DSP-based master unit equipped with up to 6 RCF Class D+ power amplifiers, able to provide up to 250W on 100V or 70V speaker lines.

A spare power amplifier with automatic replacement of a faulty unit is configurable too. MX 3250 hosts batteries and the necessary EN54-4 circuitry for the DC back-up. Furthermore it offers inputs, controls and pre-recorded messages to get a real plug & play solution.

ADVANCED TECHNOLOGY

Digital DSP-based master unit equipped with 2, 4 or 6 RCF Class D+ technology power amplifiers.

MONITORED PAGING CONSOLE

BM 3804, a low power consumption monitored console, suitable for selective emergency paging and message triggering.

Monitored paging consoles and 6 button extensions allow to complete the installation by adding live announcements. Local single-button paging microphones and background music programs can be implemented as well.

The system can be expanded to fit with middle size applications, centralized or distributed connecting up to eight using a dedicated interlink accessory board.

DXT 3000 system has been designed to be wired by using very convenient fire-rated J-TYPE cables for paging console and interlink connections.

MX 3500/2 p/n 12100009
MX 3500/4 p/n 12100010
MX 3500/6 p/n 12100011

MASTER UNITS
WITH AMPLIFIERS

MX 3500 is the master unit of the evacuation system DXT 3000, dedicated to small and medium size applications, where an EN54-16:2008 system is required. It includes a digital DSP-based master unit equipped with up to 6 RCF Class D+ power amplifiers, able to provide up to 500W on 100V or 70V speaker lines. A spare power amplifier with automatic replacement of a faulty unit is configurable too. It hosts batteries and the necessary EN54-4 circuitry for the DC back-up.

Furthermore it offers inputs, controls and pre-recorded messages to get a real plug & play solution. The system can be completed with monitored paging consoles BM 3804, BM 3804FM and 6 button extensions BE 3806, allow to complete the installation by adding live announcements. Local single-button paging consoles (not monitored) BM 3022 and background music programs can be implemented as well. DXT 3000 system has been designed to be wired by using very convenient fire-rated J-TYPE cables for paging console and interlink connections.

- DSP-based Master Unit
- Equipped with 2, 4 or 6 RCF Class D+ technology power amplifiers
- A/B speakers lines
- Spare power amplifier with automatic replacement
- Internal power supply with battery charger and space for batteries
- Emergency messages on monitored SD card

CERTIFICATION

EN 54-16 | 54-4   **CPR: 0068-CPR-007/2015**   CE

SYSTEM SPECIFICATIONS	MX 3500	MX 3250
Number of zones managed:	2, 4 or 6	
Built-in power amplifier:	Yes	
Spare amplifier automatic change-over:	Yes	
Max number of consoles:	4	
Number of console buses:	1	
Number of simultaneous emergency audio channels:	1	
Max number of units connectable:	8	
Communication bus:	Serial	
Connections cables:	J Type (fire-rated)	
Integrated pre-reocorded emergency messages:	Yes	

AMPLIFIER SPECIFICATIONS

	MX 3500	MX 3250
Amplifier Class:	D+	
Number of channels:	2	
Power output (@ 100 V):	250 W RMS	500W RMS
A/B speakers line:	Yes	

AMPLIFIER SPECIFICATIONS	MX 3500	MX 3250
Frequency Response (-3dB):	80 Hz ÷ 16 kHz	
Signal/noise rate ("a" weighted):	>80 dB	>80 dB
Distortion (THD+N) @ 1 kHz nominal power	<0.3 %	

INPUT SECTION

Total number of inputs:	3
Balanced:	3
Mono:	3
Line inputs:	2
Line connectors:	Euroblock, JACK
VOX:	Yes
Paging inputs:	1
Paging connectors:	Euroblock
Paging command:	Serial
Paging emergency:	Yes
General Purpose Inputs (GPI):	6
Monitored GPI:	6
Photo-coupled GPI:	6

MX 3250/2 p/n 17170177
MX 3250/4 p/n 17170183
MX 3250/6 p/n 17170184

MASTER UNITS
WITH AMPLIFIERS

MX 3250 is the master unit of the evacuation system DXT 3000, dedicated to small and medium size applications, where an EN54-16:2008 system is required. It includes a digital DSP-based master unit equipped with up to 6 RCF Class D+ power amplifiers, able to provide up to 250W on 100V or 70V speaker lines. A spare power amplifier with automatic replacement of a faulty unit is configurable too. It hosts batteries and the necessary EN54-4 circuitry for the DC back-up. Furthermore it offers inputs, controls and pre-recorded messages to get a real plug & play solution. The system can be completed with monitored paging consoles BM 3804 and 6 button extensions BE 3806, allow to complete the installation by adding live announcements. Local single-button paging consoles (not monitored) BM 3022 and background music programs can be implemented as well. DXT 3000 system has been designed to be wired by using very convenient fire-rated J-TYPE cables for paging console and interlink connections.

- DSP-based Master Unit
- Equipped with 2, 4 or 6 RCF Class D+ technology power amplifiers
- Spare power amplifier with automatic replacement
- Internal power supply with battery charger and space for batteries
- Emergency messages on monitored SD card
- Integrated audio source on front panel

MX 3500 and MX 3250 are equipped with an integrated audio source, directly accessible from the unit front panel and connected to the BGM input. The source, which supports MP3 files only, includes an SD card reader, a USB pen drive reader and an auxiliary input on 3.5 mm jack. In addition to the inputs, the front panel offers also the basic controls for track selection and the pause command.
Moreover, a monitor output is available on 3.5 mm jack, and allows checking the audio content before send it to the speakers lines. After control, audio shall be activated manually using the AUDIO ON button (also indicated by LED).

OUTPUT SECTION	MX 3500	MX 3250
Signal output number:	1	
Signal output connectors:	JACK	
Output lines connectors:	2	
Power output connectors:	Euroblock	
General Purpose Outputs (GPO):	6	

PROCESSING		
DSP:	Yes	
Tone controls:	Yes	
High-pass filter:	20 ÷ 500 Hz	

CONTROLS		
Configuration:	DIP switch, Front panel	
Chime tone:	Yes	

PROTECTIONS		
Cooling:	Convection	
Short circuit, Thermal, DC, Fuses, VHF (Very High Frequencies)		

AUDIO SOURCES	MX 3500	MX 3250
USB pen drives, SD card	Yes	

POWER REQUIREMENT		
Operating voltage:	220-240/115 V~ 50/60Hz	
Voltage selection:	Internal	
DC power:	Yes	
DC power value:	48 V	24 V
Power consumption:	700 W	400 W

PHYSICAL SPECIFICATIONS		
IP protection grade:	IP 33	IP 33
Cabinet/Case Material:	Metal	Metal
Rack mounting:	19", 14U	19", 14U
Height mm/inches:	620 / 24.41	533 / 20.98
Width mm/inches:	430 / 16.93	430 / 16.93
Depth mm/inches:	230 / 9.06	190 / 7.48
Weight kg/lbs (2 zones):	19.4 / 42.77	15 / 33.07
Weight kg/lbs (4 zones):	20.7 / 45.64	15.96 / 35.19
Weight kg/lbs (6 zones):	22 / 48.5	16.92 / 37.3

BM 3804 p/n 14380028
BM 3804 FM p/n 14380037
BE 3806 p/n 14380036
ME 3801 p/n 14322030

PAGING MICROPHONES

BM 3804 is a desktop paging microphone exclusively dedicated for the RCF DXT 3000 system. It can be directly connected to the MX 3250 main unit through a fourpair J-type fire-rated cable.

Up to four interlocked BM 3804 paging microphones can be linked (daisy-chained) to the line. The first BM 3804 paging microphone (of the line) is directly powered by the MX 3250 main unit, while the second, the third and the fourth need 24 V dc adapters (500 mA, i.e. RCF AC AD 2405, optional).

BM 3804 is also available in Firemen version (BM 3804FM), hosted in a closed wall mounting red metal cabinet, with glass door to access console status. This version is equipped with dynamic microphone, with incorporated push to talk button, and can be used in combination with a BE 3806 (also installed inside the cabinet), to improve selective calls efficiency.

BE 3804 can be directly connected to the MX 3250 main unit through a fourpair J-type fire-rated cable.

ME 3801 is a wall mount emergency microphone exclusively dedicated for the RCF DXT 3000 system. It allows to make general calls, with priority over all other inputs (included pre-recorded messages during ALERT and EVAC events), and can be directly connected to the MX 3250 / MX 3500 main unit through a four-pair J-type fire-rated cable.

ME 3801 can be installed together with other paging microphones BM 3804 and BM 3804FM (up to a maximum of 4, interlocked one another), and shall be the first in the line.

- Up to 4 microphone consoles can be connected to DXT 3000 master units.
- Pre-recorded message activation.
- Alert and evacuation indications.
- Dedicated "chime" key.
- Pre-amplified hyper-cardioid hi-quality microphone with integrated compressor and limiter to get intelligible announcements even in critical ambients.

- Power supply from master unit (first console only) or from 24V DC local input.
- Die-cast metal enclosure with 420 mm gooseneck.
- 5m connecting cable (with RJ 45 plugs) included.

CERTIFICATION

EN 54-16   **CPR: 0068-CPR-007/2015**   CE

MICROPHONE SPECIFICATIONS	BM 3804	BM 3804 FM	BE 3806	ME 3801
Type:	Electret	Dynamic	-	Dynamic
Directivity:	Cardioid	Omnidirectional	-	Omnidirectional
Sensitivity:	-65 dB	-70 dB	-	-70 dB
Frequency Response (-3dB):	50 Hz ÷ 18 kHz	300 Hz ÷ 6000 kHz	-	300 Hz ÷ 6000 kHz
Output impedance:	470 ohm	500 ohm	-	500 ohm

CONSOLE SPECIFICATIONS

Console Type:	Emergency	Emergency	Emergency	Emergency
General call, Preamplified, LED indicators:	Yes	Yes	Yes	Yes
Selective call:	Yes	Yes	Yes	-

POWER REQUIREMENT

Operating voltage:	24V ~ Hz	24V ~ Hz	-	24V ~ Hz

ME 3801

BM 3804 FM

BM 3804

BE 3806

CONNECTIONS	BM 3804	BM 3804 FM	BE 3806	ME 3801
Connectors:	RJ45	RJ45	-	RJ45
Cable:	J Type (fire-rated)	J Type (fire-rated)	-	J Type (fire-rated)
Daisy-chain:	Yes	Yes	Yes	Yes
Max number in daisy-chain:	4	4	8	4
Interlock:	Yes	Yes	-	Yes

FUNCTIONALITIES				
Priority:	Yes	Yes	-	-
Chime tone generator:	Yes	Yes		Yes

ACCESSORIES				
Cable included length 5 m:	Yes	Yes	-	Yes

| PHYSICAL SPECIFICATIONS				
Cabinet/Case Material:	Metal	Metal	Metal	Metal
Height:	44 mm / 1.73 inches	360 mm / 14.17 inches	39 mm / 1.54 inches	210 mm / 8.27 inches
Width:	203 mm / 7.99 inches	360 mm / 14.17 inches	78 mm / 3.07 inches	115 mm / 4.53 inches
Depth:	128 mm / 5.04 inches	129 mm / 5.08 inches	203 mm / 7.99 inches	36 mm / 1.42 inches
Weight:	1.2 kg / 2.65 lbs	6.9 kg / 15.21 lbs	0.7 kg / 1.54 lbs	1.14 kg / 2.51 lbs

ACCESSORIES

IE 3008   p/n 12399015

DXT 3000 INTERLINK BOARD

It allows connecting up to 8 master units, in a MASTER/SLAVE configuration. The system units communicate over 2 eight poles euroblock connectors, in order to guarantee a fully redundant network. Local paging for non-emergency purpose is also possible.

EN 54-16   **CPR: 0068-CPR-007/2015**   CE
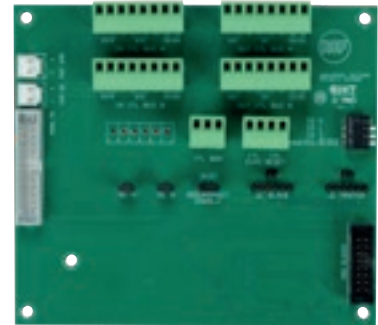
IT 3010   p/n 12399049

DXT 3000 TRANSFOMERS BOARD

IT 3010 is an additional board for DXT 3000 that shall be used in combination with IE 3008 interlink board only. Thanks to its 6 line transformers, it is helpful in all those installations when the audio signal may be affected by high noises along system's units connections. Moreover, it offers the possibility to connect DXT 3000 units using both removable screw terminals and RJ 45 plugs, improving installation efficiency and flexibility.

MG 3006   p/n 13360344

MONITORED GPI BOARD

MG 3006 is an additional monitored GPI board for the DXT 3000 master units. It allows to monitor emergency system general purpose inputs (GPI), and detect (and report) any open line or short circuit along the path between DXT 3000 and other alarm devices, such as alarm buttons.

BATT 18AH 2X   p/n 13360317

BATTERIES

Pair of sealed lead acid batteries (12V - 18Ah each.)

EOL 3-9   p/n 17170176

END OF LINE

20 Hz resonator, with an impedance of 200 Ohm at the resonance frequency. Installed after the last speaker, it allows to accurately monitor speakers lines integrity. Suitable for DXT 3000 systems.
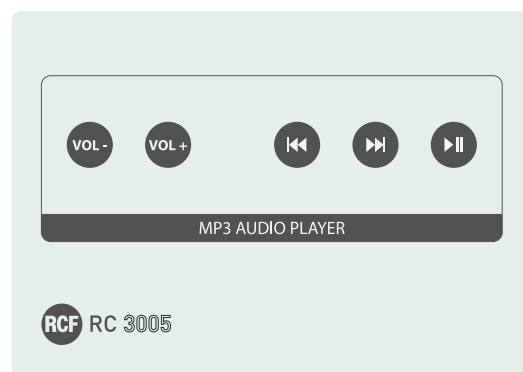
EN 54-16   **CPR: 0068-CPR-007/2015**   CE

RC 3005   p/n 12399044

WALL MOUNT REMOTE CONTROL

RC 3005 is a wall mount remote control that allows to manage the music source integrated in the master units front panel. Design with a universal wall mount mechanics.

VOL -   VOL +   ⏮   ⏭   ⏯

MP3 AUDIO PLAYER

RCF RC 3005

DXT 3000 PLANNER

VOICE ALARM SYSTEM
DESIGN SOFTWARE

The software allows configuring small and medium VOICE-ALARM systems in accordance to the regulations (prescriptive method), using EN 54-24 loudspeakers and EN 54-16 management electronics of the RCF DXT 3000 Series (250W and 500W models; 2, 4 and 6 zones, in stand-alone or networked configuration) and related accessories.
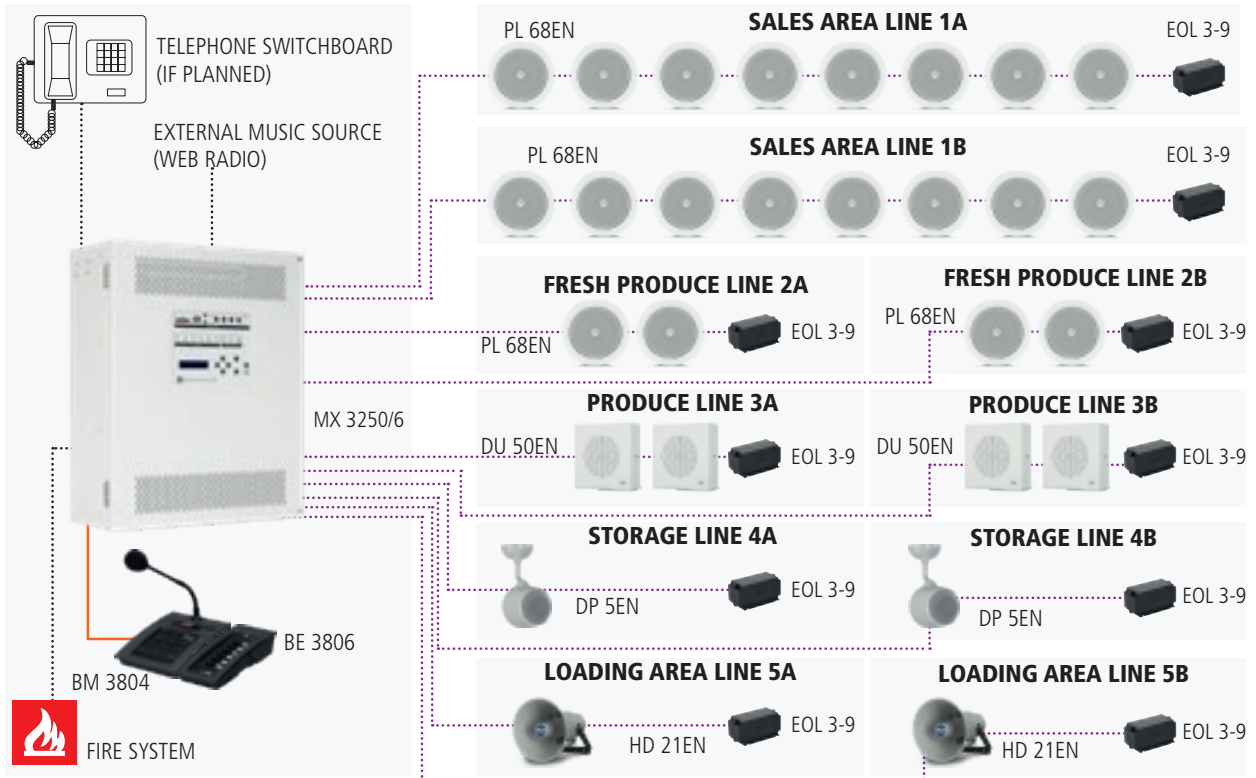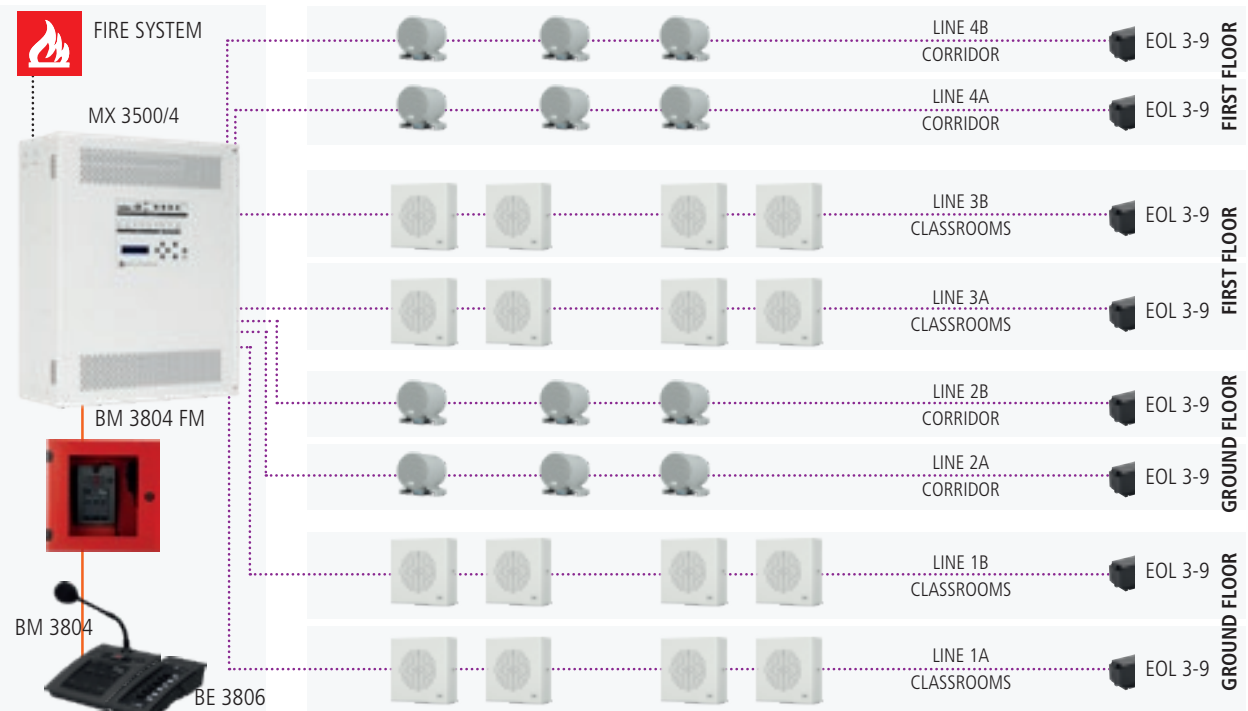Free software download from web site.
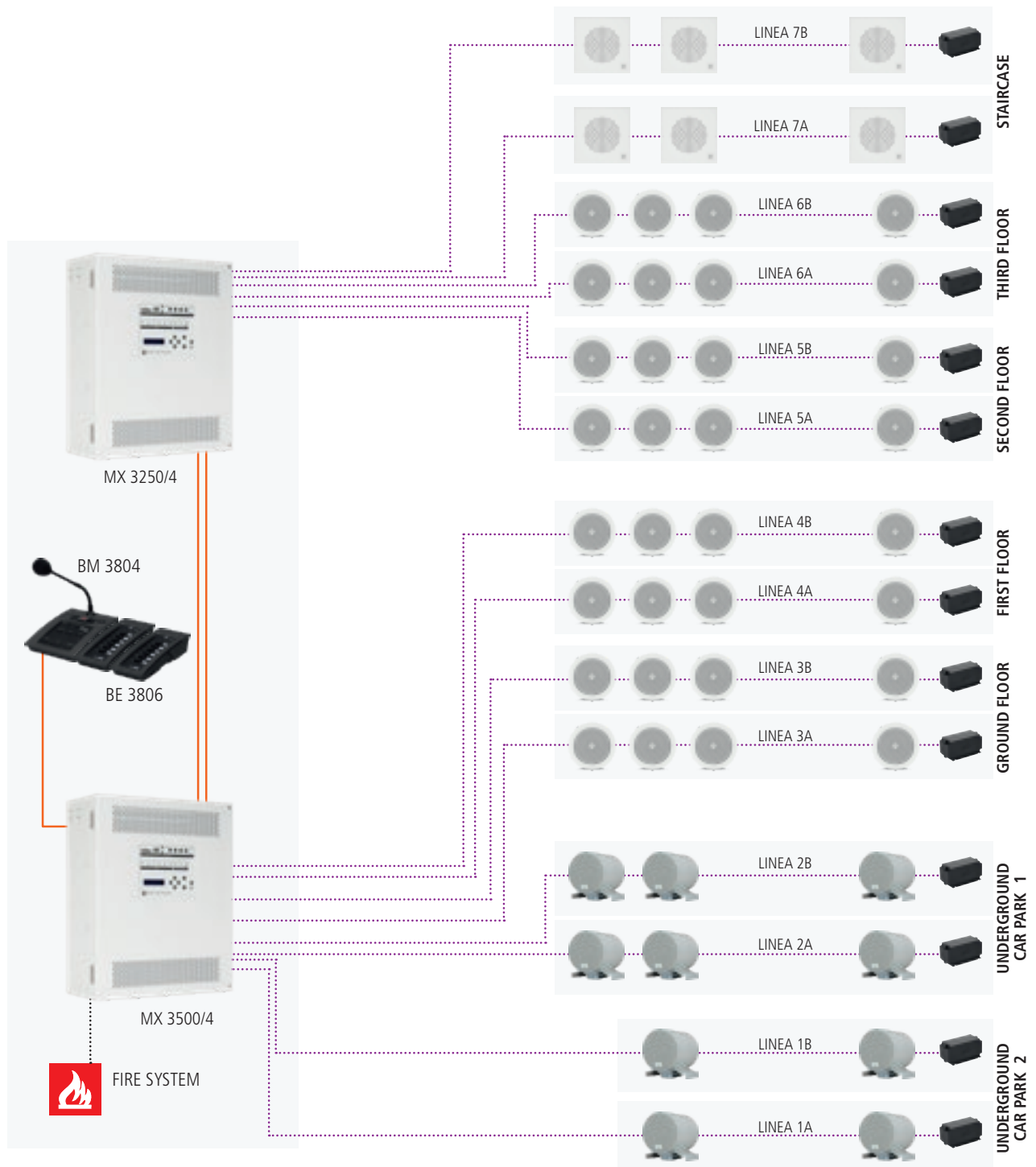
CONFIGURATION
EXAMPLES

SUPERMARKET

TELEPHONE SWITCHBOARD
(IF PLANNED)

EXTERNAL MUSIC SOURCE
(WEB RADIO)

MX 3250/6

BE 3806

BM 3804

FIRE SYSTEM

PL 68EN	**SALES AREA LINE 1A**	EOL 3-9

PL 68EN	**SALES AREA LINE 1B**	EOL 3-9

FRESH PRODUCE LINE 2A	**FRESH PRODUCE LINE 2B**
PL 68EN — EOL 3-9	PL 68EN — EOL 3-9

PRODUCE LINE 3A	**PRODUCE LINE 3B**
DU 50EN — EOL 3-9	DU 50EN — EOL 3-9

STORAGE LINE 4A	**STORAGE LINE 4B**
DP 5EN — EOL 3-9	DP 5EN — EOL 3-9

LOADING AREA LINE 5A	**LOADING AREA LINE 5B**
HD 21EN — EOL 3-9	HD 21EN — EOL 3-9

TWO-FLOORED SCHOOL BUILDING

FIRE SYSTEM

MX 3500/4

BM 3804 FM

BM 3804

BE 3806

	Line	EOL	Floor
	LINE 4B CORRIDOR	EOL 3-9	FIRST FLOOR
	LINE 4A CORRIDOR	EOL 3-9	FIRST FLOOR
	LINE 3B CLASSROOMS	EOL 3-9	FIRST FLOOR
	LINE 3A CLASSROOMS	EOL 3-9	FIRST FLOOR
	LINE 2B CORRIDOR	EOL 3-9	GROUND FLOOR
	LINE 2A CORRIDOR	EOL 3-9	GROUND FLOOR
	LINE 1B CLASSROOMS	EOL 3-9	GROUND FLOOR
	LINE 1A CLASSROOMS	EOL 3-9	GROUND FLOOR

OFFICE BUILDING

Line	Location
LINEA 7B	STAIRCASE
LINEA 7A	STAIRCASE
LINEA 6B	THIRD FLOOR
LINEA 6A	THIRD FLOOR
LINEA 5B	SECOND FLOOR
LINEA 5A	SECOND FLOOR
LINEA 4B	FIRST FLOOR
LINEA 4A	FIRST FLOOR
LINEA 3B	GROUND FLOOR
LINEA 3A	GROUND FLOOR
LINEA 2B	UNDERGROUND CAR PARK 1
LINEA 2A	UNDERGROUND CAR PARK 1
LINEA 1B	UNDERGROUND CAR PARK 2
LINEA 1A	UNDERGROUND CAR PARK 2

MX 3250/4

BM 3804

BE 3806

MX 3500/4

FIRE SYSTEM

.... TWO-POLE FIRE RESISTANT CABLE, UNI 9795 - IEC 20-105V1 COMPLIANT

——— MULTIMODAL GLASS FIBRE FIRE-RESISTANT

——— FTP CAT-5 CABLE FIRE-RESISTANT

——— FTP CAT-5 CABLE (OR BETTER)

LOUDSPEAKERS

Emergency Voice Alarm Communication (EVAC) systems support the safety of public buildings. Their main function is to provide safety announcements in emergency situations. These can be in the form of pre-recorded or "live" announcements. RCF has been developing and manufacturing professional audio systems since 1949. This experience is incorporated into all its products, including those with EN-54 certification. All RCF loudspeaker systems offer planners and installation professionals the best solutions for optimum speech clarity. In addition, RCF loudspeakers are suited to playback of background music and public address messages, a role often required for products used for publicly accessible spaces requiring EVAC.

PROPERTIES
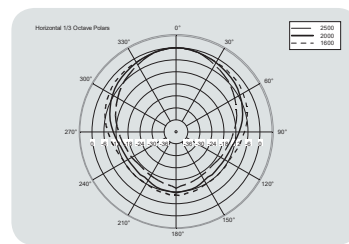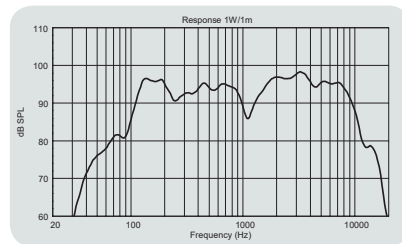
The high efficiency of the system, in particular of the amplifiers and speakers, guarantees savings in terms of acquisition as well as operation and maintenance. This is especially true for EN-54 certified systems. Here, too, RCF products offer best-in-class performance.

Consider that a loudspeaker with sensitivity of 3 dB (1W / 1m) higher than a matched loudspeaker requires half the power to provide the same sound level. In scenarios incorporating dozens, hundreds or even thousands of speakers, it becomes quickly apparent that excellent efficiency means substantial savings in terms of amplifier power, electric power, space requirements and maintenance.

FIRE AND MECHANICAL SAFETY REQUIREMENTS FOR LOUDSPEAKERS

The EN 54-24 standard requires that, in the event of fire, speakers connected to fire-resistant cabling do not affect on the function of other speakers connected to the same cable. As a result, RCF speakers offered as "EN" versions feature ceramic termination blocks with strain relief and thermal fuses.

The standard divides speakers into two mechanical safety categories:
- **Type A**: All indoor components are compliant with IP21C safety (touching with finger, vertically dripping water, touching dangerous parts with tools).
- **Type B**: Speakers suitable for indoor and outdoor installation, offering safety features compliant with, at minimum, IP33C.

PL 82EN p/n 13100009

2 WAYS CEILING SPEAKER WITH FIRE DOME

The PL 82EN is a 2 ways ceiling speaker featuring a flameproof steel bottom designed for recess installation in false ceilings or panels. It is especially suitable for broadcasting alarm messages thanks to highly intelligible sound reproduction and it is resistant to the high temperatures reached during fires. The terminal connection boards are in ceramic material for input and output flameproof cables. A thermal fuse protects the integrity of the line in case of heat affecting the speaker. Ground screw. Cables inside speaker made using flameproof leads.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 8″ diameter wide band loudspeaker.
- Power (selectable) at 100V: 20 W – 10 W – 5 W.
- Cabinet/Case Material: Metal
- Thermal fuse protection
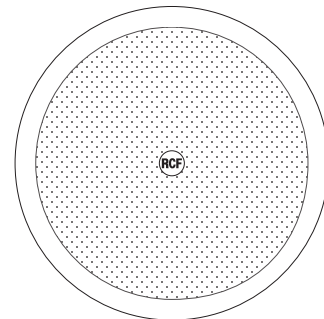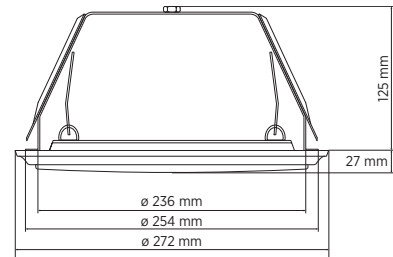
CERTIFICATION

EN 54-24	CPR: 0068-CPR-051/2017	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	130 Hz ÷ 20000 Hz
Max SPL @ 1m:	106 dB
Max SPL @ 4m:	94 dB
System Sensitivity:	94 dB
System Sensitivity 1W @ 4m:	82 dB
Coverage angle:	160°

POWER SECTION

Power Handling:	20 W RMS
Peak Power Handling:	80 W PEAK
Recommended Amplifier:	40 W
Protections:	Thermal fuse

TRANSDUCERS

Dome Tweeter:	0.75''
Woofer:	Coaxial 8''

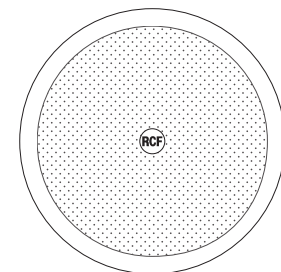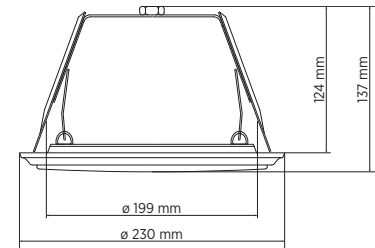### INPUT/OUTPUT SECTION

Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	20 W - 500 ohm
Power selection 2 (100 V):	10 W - 1000 ohm
Power selection 3 (100 V):	5 W - 2000 ohm

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Metal
Hardware:	Steel back cover
Grille:	Steel
Color:	White - RAL 9016
Depth:	152 mm / 5.98 inches
Recessed Depth:	125 mm / 4.92 inches
Diameter:	272 mm / 10.71 inches
Cut out diameter:	240 mm / 9.45 inches
Weight:	3.42 kg / 7.54 lbs

PL 70EN   p/n 13133065

CEILING SPEAKER
WITH FIRE DOME

The PL 70EN is a ceiling speaker featuring a flameproof steel bottom designed for recess installation in false ceilings or panels. It is especially suitable for broadcasting alarm messages thanks to highly intelligible sound reproduction and it is resistant to high temperatures that are reached during fires. The terminal connection boards are in ceramic material for input and output flameproof cables. A thermal fuse protects the integrity of the line in case of heat affecting the speaker. Ground screw. Cables inside speaker made using flameproof leads.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 6″ diameter dual cone wide band loudspeaker
- Power (selectable) at 100V: 6 W – 3 W – 1.5 W – 0.75 W.
- Cabinet/Case Material: Metal
- Thermal fuse protection

CERTIFICATION

EN 54-24	CPR: 1488-CPR-0487/W	C E

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	230 Hz ÷ 20000 Hz
Max SPL @ 1m:	99 dB
Max SPL @ 4m:	87 dB
System Sensitivity:	93 dB
System Sensitivity 1W @ 4m:	81 dB
Coverage angle:	131°

POWER SECTION

Nominal Impedance:	8 ohm
Power Handling:	6 W RMS
Peak Power Handling:	24 W PEAK
Recommended Amplifier:	12 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	6.0''

INPUT/OUTPUT SECTION
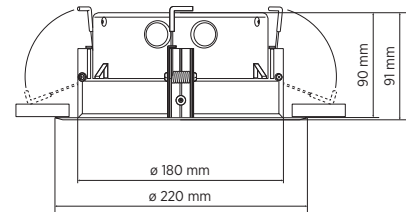
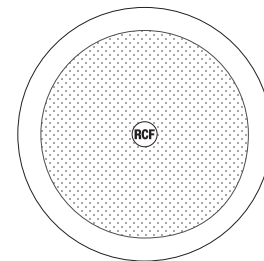|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	6 W - 1667 ohm
Power selection 2 (100 V):	3 W - 3333 ohm
Power selection 3 (100 V):	1.5 W - 6667 ohm
Power selection 4 (100 V):	0.75 W - 13333 ohm

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Metal
Hardware:	Steel back cover
Grille:	Steel
Color:	White - RAL 9003
Height:	137 mm / 5.39 inches
Recessed Depth:	124 mm / 4.88 inches
Diameter:	230 mm / 9.06 inches
Cut out diameter:	199 mm / 7.83 inches
Weight:	2.03 kg / 4.48 lbs

PL 68EN   p/n 13133082

CEILING SPEAKER
WITH FIRE DOME

The PL 68EN is a ceiling speaker featuring a flameproof steel bottom designed for recess installation in false ceilings or panels. It is especially suitable for broadcasting alarm messages thanks to highly intelligible sound reproduction and is resistant to the high temperatures reached during fires. The terminal connection boards are in ceramic material for input and output flameproof cables. A thermal fuse, protects the integrity of the line in case of heat affecting the speaker. Ground screw. Cables inside speaker made using flameproof leads.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 6″ diameter dual cone wide band loudspeaker
- Power (selectable) at 100V: 6 W – 3 W – 1.5 W.
- Cabinet/Case Material: Metal
- Thermal fuse protection

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	230 Hz ÷ 20000 Hz
Max SPL @ 1m:	102 dB
Max SPL @ 4m:	90 dB
System Sensitivity:	94 dB
System Sensitivity 1W @ 4m:	82 dB
Coverage angle:	126°

POWER SECTION

Power Handling:	6 W RMS
Peak Power Handling:	24 W PEAK
Recommended Amplifier:	12 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	6.0''

INPUT/OUTPUT SECTION

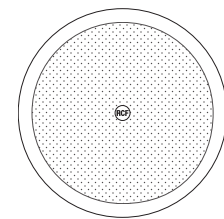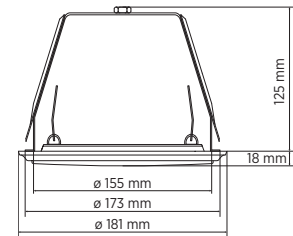|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	6 W - 1667 ohm
Power selection 2 (100 V):	3 W - 3333 ohm
Power selection 3 (100 V):	1.5 W - 6667 ohm

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Metal
Hardware:	Steel back cover
Grille:	Steel
Color:	White - RAL 9003
Height:	91 mm / 3.58 inches
Recessed Depth:	90 mm / 3.54 inches
Diameter:	220 mm / 8.66 inches
Cut out diameter:	180 mm / 7.09 inches
Weight:	1.12 kg / 2.47 lbs

PL 50EN   p/n 13100007

CEILING SPEAKER
WITH FIRE DOME

The PL 50EN is a ceiling speaker featuring a flameproof steel bottom designed for recess installation in false ceilings or panels. It is especially suitable for broadcasting alarm messages thanks to highly intelligible sound reproduction and is resistant to the high temperatures reached during fires. The terminal connection boards are in ceramic material for input and output flameproof cables. A thermal fuse, protects the integrity of the line in case of heat affecting the speaker. Ground screw. Cables inside speaker made using flameproof leads.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 5″ diameter wide band loudspeaker.
- Power (selectable) at 100V: 6 W – 3 W – 1.5 W.
- Cabinet/Case Material: Metal
- Thermal fuse protection

125 mm
18 mm
ø 155 mm
ø 173 mm
ø 181 mm

CERTIFICATION

EN 54-24   **CPR: 0068-CPR-051/2017**   CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	130 Hz ÷ 15000 Hz
Max SPL @ 1m:	100 dB
Max SPL @ 4m:	88 dB
System Sensitivity:	92 dB
System Sensitivity 1W @ 4m:	80 dB
Coverage angle:	170°

POWER SECTION

Power Handling:	6 W RMS
Peak Power Handling:	24 W PEAK
Recommended Amplifier:	12 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	5.0''

INPUT/OUTPUT SECTION
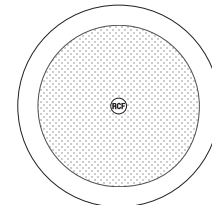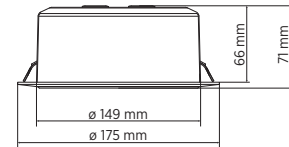
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	6 W - 1667 ohm
Power selection 2 (100 V):	3 W - 3333 ohm
Power selection 3 (100 V):	1.5 W - 6667 ohm
Power selection 4 (100 V):	0.75 W - 13333 ohm

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Metal
Hardware:	Steel back cover
Grille:	Steel
Color:	White - RAL 9016
Depth:	143 mm / 5.63 inches
Recessed Depth:	125 mm / 4.92 inches
Diameter:	181 mm / 7.13 inches
Cut out diameter:	155 mm / 6.1 inches
Weight:	1.35 kg / 2.98 lbs

PLP 50EN   p/n 13100008

CEILING SPEAKER WITH PLASTIC FIRE DOME

The PLP 50EN is a ceiling speaker featuring a flameproof plastic bottom designed for recess installation in false ceilings or panels. It is especially suitable for broadcasting alarm messages thanks to highly intelligible sound reproduction and is resistant to the high temperatures reached during fires. The terminal connection boards are in ceramic material for input and output flameproof cables. A thermal fuse, protects the integrity of the line in case of heat affecting the speaker. Ground screw. Cables inside speaker made using flameproof leads.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 5″ diameter wide band loudspeaker.
- Power (selectable) at 100V: 6 W – 3 W – 1.5 W.
- Cabinet/Case Material: plastic
- Thermal fuse protection

CERTIFICATION

EN 54-24   CPR: 0068-CPR-051/2017   CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	130 Hz ÷ 15000 Hz
Max SPL @ 1m:	101 dB
Max SPL @ 4m:	89 dB
System Sensitivity:	93 dB
System Sensitivity 1W @ 4m:	81 dB
Coverage angle:	165°

POWER SECTION

Power Handling:	6 W RMS
Peak Power Handling:	24 W PEAK
Recommended Amplifier:	12 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	5.0''

INPUT/OUTPUT SECTION

Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	6 W - 1667 ohm
Power selection 2 (100 V):	3 W - 3333 ohm
Power selection 3 (100 V):	1.5 W - 6667 ohm

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Plastic
Hardware:	Plastic back cover
Grille:	Steel
Color:	White - RAL 9016
Depth:	71 mm / 2.8 inches
Recessed Depth:	66 mm / 2.6 inches
Diameter:	175 mm / 6.89 inches
Cut out diameter:	149 mm / 5.87 inches
Weight:	0.66 kg / 1.46 lbs

DP 5EN p/n 13133076

UNIDIRECTIONAL SOUND PROJECTOR

DP 5EN is a 20W, EN 54-24 certified weatherproof sound projector.
It is suitable for all those installations where high intelligibility for alarm messages broadcasting and great sound reproduction quality are required; moreover, thanks to its IP 65 protection grade, it can be installed both indoor and outdoor.
A modern and endearing design makes it the perfect product for environments where projectors are intended also as architectural elements and contribute to improve global aesthetics.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 5" full range speaker.
- Power (selectable) at 100V: 20 W – 10 W – 5 W – 2.5 W.
- Cabinet/Case Material: ABS
- Thermal fuse protection

CERTIFICATION

EN 54-24   **CPR: 0068-CPR-058/2014**   C€

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	80 Hz ÷ 20000 Hz
Max SPL @ 1m:	101 dB
Max SPL @ 4m:	89 dB
System Sensitivity:	88 dB
System Sensitivity 1W @ 4m:	76 dB
Coverage angle:	210°

POWER SECTION

Power Handling:	20 W RMS
Peak Power Handling:	80 W PEAK
Recommended Amplifier:	40 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	5.0''

INPUT/OUTPUT SECTION

Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	20 W - 500 ohm
Power selection 2 (100 V):	10 W - 1000 ohm
Power selection 3 (100 V):	5 W - 2000 ohm
Power selection 4 (100 V):	2.5 W - 4000 ohm

PHYSICAL SPECIFICATIONS

IP protection grade:	IP 65
Cabinet/Case Material:	ABS
Hardware:	Wall mount metal plate
Grille:	Steel
Color:	White - RAL 9016
Height:	183 mm / 7.2 inches
Width:	176 mm / 6.93 inches
Depth:	261 mm / 10.28 inches
Weight:	2.61 kg / 5.75 lbs

# BD 5EN   p/n 13133077
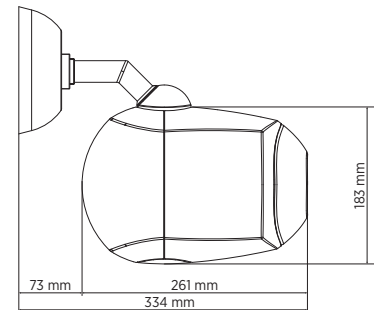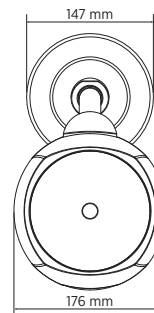
BIDIRECTIONAL SOUND PROJECTOR

BD 5EN is a 20 W weatherproof bidirectional EN 54-24 certified sound projector.

It is suitable for all those installations where high intelligibility for alarm messages broadcasting and great sound reproduction quality are required; moreover, thanks to its IP 65 protection grade, it can be installed both indoor and outdoor.

A modern and endearing design makes it the perfect product for environments where projectors are intended also as architectural elements contributing to improve global aesthetics.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 2 x 5" full range speakers.
- Power (selectable) at 100V: 20 W – 10 W – 5 W – 2.5 W.
- Cabinet/Case Material: ABS
- Thermal fuse protection
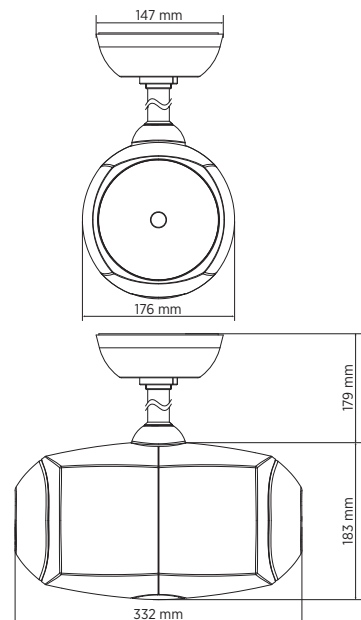
CERTIFICATION

EN 54-24	CPR: 0068-CPR-058/2014	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	150 Hz ÷ 18000 Hz
Max SPL @ 1m:	99 dB
Max SPL @ 4m:	87 dB
System Sensitivity:	86 dB
System Sensitivity 1W @ 4m:	74 dB
Coverage angle:	210°

POWER SECTION

Power Handling:	20 W RMS
Peak Power Handling:	80 W PEAK
Recommended Amplifier:	40 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	2 x 5.0''

INPUT/OUTPUT SECTION

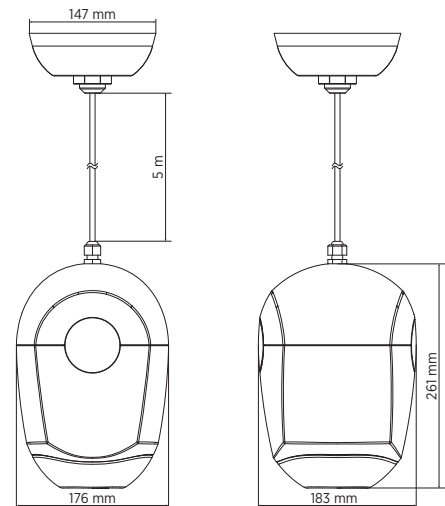|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	20 W - 500 ohm
Power selection 2 (100 V):	10 W - 1000 ohm
Power selection 3 (100 V):	5 W - 2000 ohm
Power selection 4 (100 V):	2.5 W - 4000 ohm

PHYSICAL SPECIFICATIONS

IP protection grade:	IP 65
Cabinet/Case Material:	ABS
Hardware:	Wall mount metal plate
Grille:	Steel
Color:	White - RAL 9016
Height:	183 mm / 7.2 inches
Width:	332 mm / 13.07 inches
Depth:	176 mm / 6.93 inches
Weight:	3.59 kg / 7.91 lbs

BS 5EN p/n 13133078

PENDANT SPEAKER

BS 5EN is a 20W, EN 54-24 certified pendant speaker.
It is suitable for all those installations where high intelligibility for alarm messages broadcasting and great sound reproduction quality are required; moreover, thanks to its IP 65 protection grade, it can be installed both indoor and outdoor.

A modern and endearing design makes it the perfect product for environments where projectors are intended also as architectural elements and contribute to improve global aesthetics.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 5" coaxial speaker.
- Power (selectable) at 100V: 20 W – 10 W – 5 W – 2.5 W.
- Cabinet/Case Material: ABS
- Thermal fuse protection

CERTIFICATION

EN 54-24	CPR: 0068-CPR-058/2014	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	80 Hz ÷ 20000 Hz
Max SPL @ 1m:	101 dB
Max SPL @ 4m:	89 dB
System Sensitivity:	88 dB
System Sensitivity 1W @ 4m:	76 dB
Coverage angle:	170°

POWER SECTION

Power Handling:	20 W RMS
Peak Power Handling:	80 W PEAK
Recommended Amplifier:	40 W
Protections:	Thermal fuse

TRANSDUCERS

Dome Tweeter:	0.75''
Woofer:	Coaxial 5.0''

INPUT/OUTPUT SECTION

|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	20 W - 500 ohm
Power selection 2 (100 V):	10 W - 1000 ohm
Power selection 3 (100 V):	5 W - 2000 ohm
Power selection 4 (100 V):	2.5 W - 4000 ohm

PHYSICAL SPECIFICATIONS

IP protection grade:	IP 65
Cabinet/Case Material:	ABS
Hardware:	Wall mount metal plate - 5m cable
Grille:	Steel
Color:	White - RAL 9016
Height:	261 mm / 10.28 inches
Width:	176 mm / 6.93 inches
Depth:	183 mm / 7.2 inches
Weight:	2.79 kg / 6.15 lbs

DP 1420EN   p/n 13133071

ALUMINIUM SOUND PROJECTOR

The DP 1420EN sound projector is elegant and suitable for sound distribution in very large environments. These have a cylindrical fire protection steel body and an U bracket support in aluminum for the installation. The projector incorporates a 130 mm (5") loudspeaker. It includes a transformer inside for the connection to (100 – 70 V) constant voltage lines. Thanks to its ceramic termination blocks (capable of withstanding temperatures in excess of 650° C/202 °F), its thermal fuse (threshold: 150 °C/ 302 °F) and its fire-resistant cable, the speaker does not allow fire to move to the audio system.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 5" full range speakers.
- Power (selectable) at 100V: 20 W – 10 W – 5 W – 2.5 W – 1.25 W.
- Cabinet/Case Material: Aluminium
- Thermal fuse protection
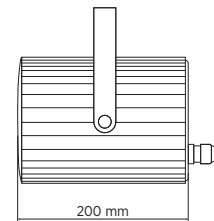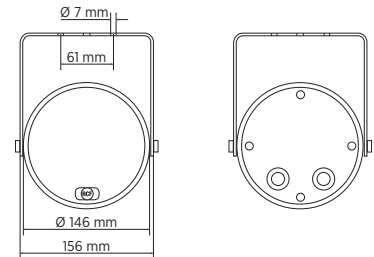
CERTIFICATION

EN 54-24   CPR: 1488-CPR-0485/W   CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	160 Hz ÷ 20000 Hz
Max SPL @ 1m:	105 dB
Max SPL @ 4m:	93 dB
System Sensitivity:	92 dB
System Sensitivity 1W @ 4m:	80 dB
Coverage angle:	155°

POWER SECTION

Power Handling:	20 W RMS
Peak Power Handling:	80 W PEAK
Recommended Amplifier:	40 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	5.0''

INPUT/OUTPUT SECTION

Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	70/100 V
Power selection 1 (100 V):	20 W - 500 ohm
Power selection 2 (100 V):	10 W - 1000 ohm
Power selection 3 (100 V):	5 W - 2000 ohm
Power selection 4 (100 V):	2.5 W - 4000 ohm
Power selection 5 (100 V):	1.25 W - 8000 ohm

PHYSICAL SPECIFICATIONS

|	
IP protection grade:	IP 66
Cabinet/Case Material:	Aluminium
Hardware:	Aluminium bracket
Grille:	Aluminium
Color:	Grigio - RAL 7035
Depth:	200 mm / 7.87 inches
Diameter:	146 mm / 5.75 inches
Weight:	2.73 kg / 6.02 lbs

BD 2412EN p/n 13133074

ALUMINIUM BIDIRECTIONAL SOUND PROJECTOR

BD 2412EN sound projector is elegant and suitable for sound distribution in very large environments. These have a cylindrical fire protection steel body and support for the installation. The projector incorporates two 130 mm (5") loudspeaker.

It includes a transformer inside for the connection to (100 – 70V) constant voltage lines. Thanks to its ceramic termination blocks (capable of withstanding temperatures in excess of 650° C/202 °F), its thermal fuse (threshold: 150 °C/ 302 °F) and its fire-resistant cable, the speaker does not allow fire to move to the audio system.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 2 x 5" full range speakers.
- Power (selectable) at 100V: 10 W – 5 W – 2.5 W.
- Cabinet/Case Material: Aluminium
- Thermal fuse protection
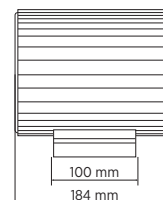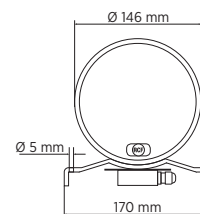
CERTIFICATION

EN 54-24	CPR: 1488-CPR-0641/W	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	130 Hz ÷ 20000 Hz
Max SPL @ 1m:	101 dB
Max SPL @ 4m:	89 dB
System Sensitivity:	88 dB
System Sensitivity 1W @ 4m:	76 dB
Coverage angle:	130°

POWER SECTION

Power Handling:	20 W RMS
Peak Power Handling:	80 W PEAK
Recommended Amplifier:	40 W
Protections:	Thermal fuse

TRANSDUCERS

|	
Fullrange:	2 x 5.0''

INPUT/OUTPUT SECTION

|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	20 W - 500 ohm
Power selection 2 (100 V):	10 W - 1000 ohm
Power selection 3 (100 V):	5 W - 2000 ohm

PHYSICAL SPECIFICATIONS

IP protection grade:	IP 66
Cabinet/Case Material:	Aluminium
Hardware:	Aluminium bracket
Grille:	Aluminium
Color:	Grigio - RAL 7035
Depth:	184 mm / 7.24 inches
Diameter:	146 mm / 5.75 inches
Weight:	3.25 kg / 7.17 lbs

DP 4EN p/n 13100021

UNIDIRECTIONAL SOUND PROJECTOR

DP 4EN is a 10 W sound projector certified EN 54-24:2008. It is elegant and suitable for sound distribution in very large and noisy environments (e.g. railway stations, underground, car parks, factories, warehouses, shopping centers, etc.). It has a cylindrical plastic body with a U-bracket support for the installation and includes a dual cone loudspeaker (externally protected by a grille), and a transformer for 100 V (/ 70 V) constant voltage lines, with the possibility to set the power during the installation. It has a ceramic terminal strip (inside its rear panel) to connect in / out cables. Its thermal fuse prevents damages to the audio line due to excessive speaker heat.
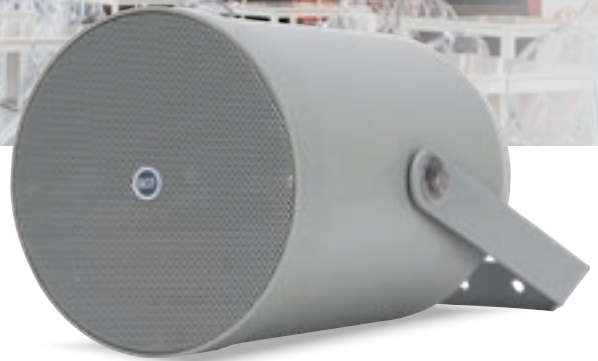
- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 5" full range speakers.
- Power (selectable) at 100V: 10 W – 5 W – 2.5 W.
- Cabinet/Case Material: ABS
- Thermal fuse protection
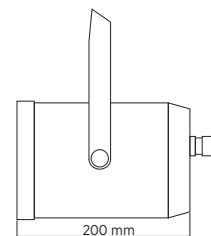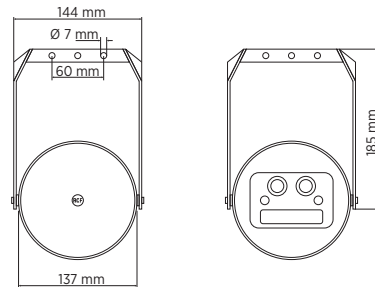
CERTIFICATION

EN 54-24	CPR: 0068-CPR-085/2017	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	180 Hz ÷ 16000 Hz
Max SPL @ 1m:	101 dB
Max SPL @ 4m:	89 dB
System Sensitivity:	91 dB
System Sensitivity 1W @ 4m:	79 dB
Coverage angle:	180°

POWER SECTION

Power Handling:	10 W RMS
Peak Power Handling:	40 W PEAK
Recommended Amplifier:	20 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	4.0''

INPUT/OUTPUT SECTION

Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	10 W - 1000 ohm
Power selection 2 (100 V):	5 W - 2000 ohm
Power selection 3 (100 V):	2.5 W - 4000 ohm

PHYSICAL SPECIFICATIONS

IP protection grade:	IP 55
Cabinet/Case Material:	ABS
Grille:	Aluminium
Color:	Grigio - RAL 7035
Depth:	200 mm / 7.87 inches
Diameter:	137 mm / 5.39 inches
Weight:	1.3 kg / 2.87 lbs

MR 52EN B
p/n 13100011

MR 52EN W
p/n 13100010

2 WAYS BASS REFLEX CABINET SPEAKERS

Compact design and a wealth of mounting options make the RCF MR 52BEN / MR 52WEN a Compact 2-way loudspeakers ideal for use both for alarm and business music systems.

The installation is fast and efficient using the accompanying adjustable mounting bracket. Connections are made with ceramic terminals. Wattage taps and voltage adjustments selectable by means of two rotary switches. The enclosure is constructed of high density, scratch resistant ABS and includes a protective steel grille and connection cover. Compliant with EN 54-24:2008 standard.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 5″ woofer and 1″ dome tweeter.
- Power (selectable) at 100V: 30 W – 15 W – 7.5 W – 3.75 W.
- Cabinet/Case Material: ABS
- Thermal fuse and internal fire-resistant cable.
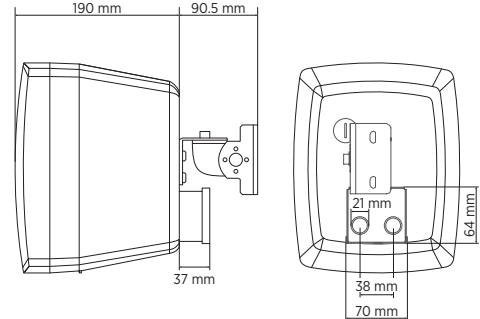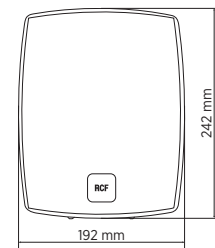
CERTIFICATION

EN 54-24   CPR: 1488-CPR-0591/W   CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	80 Hz ÷ 20000 Hz
Max SPL @ 1m:	103 dB
Max SPL @ 4m:	91 dB
System Sensitivity:	89 dB
System Sensitivity 1W @ 4m:	77 dB
Coverage angle:	180°

POWER SECTION

Power Handling:	30 W RMS
Peak Power Handling:	120 W PEAK
Recommended Amplifier:	60 W
Protections:	Thermal fuse

TRANSDUCERS

Dome Tweeter:	1.0''
Woofer:	5.0''

INPUT/OUTPUT SECTION

|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	30 W - 333 ohm
Power selection 2 (100 V):	15 W - 667 ohm
Power selection 3 (100 V):	7.5 W - 1333 ohm
Power selection 4 (100 V):	3.75 W - 2667 ohm

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	ABS
Grille:	Steel
Color:	White
Height:	242 mm / 9.53 inches
Width:	192 mm / 7.56 inches
Depth:	190 mm / 7.48 inches
Weight:	3 kg / 6.61 lbs

CS 6520EN p/n 13133079

TWO-WAY COLUMN SPEAKER

Two-way speakers with very compact dimensions, the CS 6520EN features 4 extended-range speakers and a tweeter. This model utilizes a series of innovative technological solutions that guarantee highly intelligible reproduction of the vocal message. It's complete with line transformer for directly connecting the speaker columns to 70 V or 100 V constant-voltage systems and, thanks to multiple sockets, permit selecting the power to be diffused from among various values. Thanks to IP 66 insulation, the column speakers can also be used outdoors. Usable in railway stations, subways, churches, factories, warehouses, PA systems in general.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- Four 3″ mid-woofer speakers and one central 20mm tweeter
- Power (selectable) at 100V: 20 W – 10 W – 5 W – 2.5 W – 1.25 W.
- Cabinet/Case Material: Aluminium
- Thermal fuse protection

620 mm

96 mm
55 mm 119 mm

114 mm
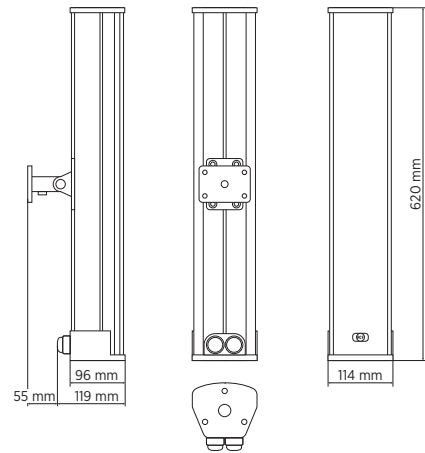
CERTIFICATION

EN 54-24	CPR: 1488-CPR-0490/W	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	140 Hz ÷ 20000 Hz
Max SPL @ 1m:	105 dB
Max SPL @ 4m:	93 dB
System Sensitivity:	93 dB
System Sensitivity 1W @ 4m:	81 dB
Angolo di copertura orizzontale:	185°
Angolo di copertura verticale:	47°

POWER SECTION

Power Handling:	20 W RMS
Peak Power Handling:	80 W PEAK
Recommended Amplifier:	40 W
Protections:	Thermal fuse

TRANSDUCERS

Dome Tweeter:	0.75''
Fullrange:	4 x 3.0''

INPUT/OUTPUT SECTION

|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	70/100 V
Power selection 1 (100 V):	20 W - 500 ohm
Power selection 2 (100 V):	10 W - 1000 ohm
Power selection 3 (100 V):	5 W - 2000 ohm
Power selection 4 (100 V):	2.5 W - 4000 ohm
Power selection 5 (100 V):	1.25 W - 8000 ohm

PHYSICAL SPECIFICATIONS

IP protection grade:	IP 66
Cabinet/Case Material:	Aluminium
Grille:	Aluminium
Color:	White - RAL 9003
Height:	620 mm / 24.41 inches
Width:	114 mm / 4.49 inches
Depth:	96 mm / 3.78 inches
Weight:	4.2 kg / 9.26 lbs

CS 6940EN   p/n 13100005

TWO-WAY COLUMN SPEAKER

Two-way speakers with very compact dimensions, the CS 6940 EN features 8 round extended-range speakers and a tweeter. This model utilizes a series of innovative technological solutions that guarantee highly intelligible reproduction of the vocal message. It's complete with line transformer for directly connecting the speaker columns to 70V or 100V constant-voltage systems and permit selecting the power to be diffused from among various values. Thanks to IP 66 insulation, the speaker columns can also be used out of doors. Usable in railway stations, subways, churches, factories, warehouses, PA systems in general. EN 54-24:2008 certified.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- Eight 3,5″ mid-woofer speakers and one central tweete.
- Power (selectable) at 100V: 40 W – 20 W – 10 W – 5 W – 2.5W.
- Cabinet/Case Material: Aluminium
- Thermal fuse protection
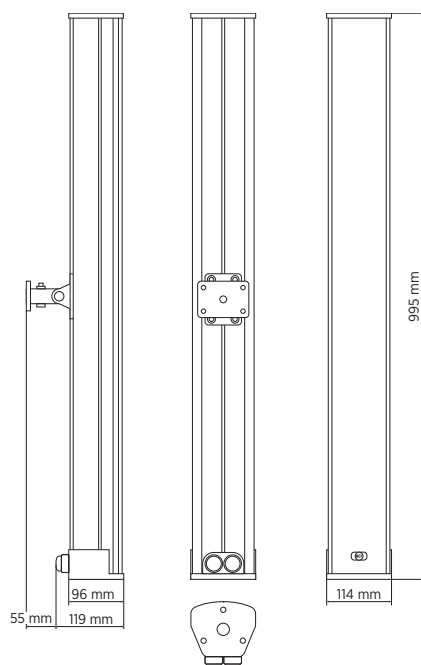
CERTIFICATION

EN 54-24	CPR: 1488-CPR-0490/W	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	140 Hz ÷ 20000 Hz
Max SPL @ 1m:	109 dB
Max SPL @ 4m:	97 dB
System Sensitivity:	95 dB
System Sensitivity 1W @ 4m:	83 dB
Angolo di copertura orizzontale:	194°
Angolo di copertura verticale:	30°

POWER SECTION

Power Handling:	40 W RMS
Peak Power Handling:	160 W PEAK
Recommended Amplifier:	80 W
Protections:	Thermal fuse

TRANSDUCERS

Dome Tweeter:	0.75''
Fullrange:	8 x 3.0''

INPUT/OUTPUT SECTION

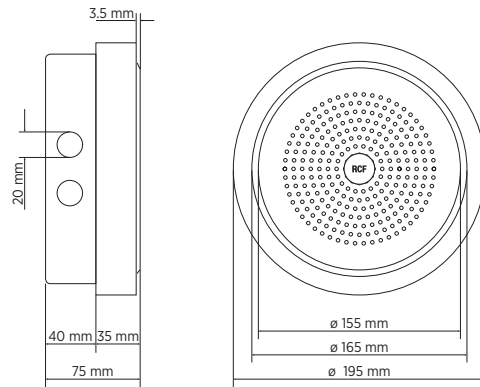|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	70/100 V
Power selection 1 (100 V):	40 W - 250 ohm
Power selection 2 (100 V):	20 W - 500 ohm
Power selection 3 (100 V):	10 W - 1000 ohm
Power selection 4 (100 V):	5 W - 2000 ohm
Power selection 5 (100 V):	2.5 W - 4000 ohm

PHYSICAL SPECIFICATIONS

|	
IP protection grade:	IP 66
Cabinet/Case Material:	Aluminium
Grille:	Aluminium
Color:	White - RAL 9003
Height:	995 mm / 39.17 inches
Width:	114 mm / 4.49 inches
Depth:	96 mm / 3.78 inches
Weight:	7 kg / 15.43 lbs

DU 60EN p/n 13133083

WALL/CEILING STEEL SPEAKER

DU 60EN is a speaker with high intelligibility designed for use in alarm messages and background music. The 5" dual cone speaker is included in a steel can; the speaker is provided with a multitap transformer for 100V/70V constant voltage systems, a terminal block made with ceramic material for input and output flameproof cables and thermal switch. DU 60EN is EN 54-24 certified.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- Dual cone 5" loudspeaker.
- Power (selectable) at 100V: 6 W – 3 W – 1.5 W – 0.75 W.
- Cabinet/Case Material: Metal
- Thermal fuse protection

CERTIFICATION

EN 54-24   **CPR: 1488-CPR-0488/W**   CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	100 Hz ÷ 20000 Hz
Max SPL @ 1m:	100 dB
Max SPL @ 4m:	88 dB
System Sensitivity:	94 dB
System Sensitivity 1W @ 4m:	82 dB
Coverage angle:	180°

POWER SECTION

Power Handling:	6 W RMS
Peak Power Handling:	24 W PEAK
Recommended Amplifier:	12 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	5.0''

INPUT/OUTPUT SECTION

|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	6 W - 1667 ohm
Power selection 2 (100 V):	3 W - 3333 ohm
Power selection 3 (100 V):	1.5 W - 6667 ohm
Power selection 4 (100 V):	0.75 W - 13333 ohm

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Metal
Grille:	Steel
Color:	White - RAL 9016
Depth:	75 mm / 2.95 inches
Diameter:	195 mm / 7.68 inches
Weight:	1.61 kg / 3.55 lbs

DU 50EN p/n 13133064

WALL/CEILING STEEL SPEAKER

DU 50EN is a speaker with high intellegibility designed for use in alarm messages and background music.

The 5" full range speaker is included in a steel can; the speaker is provided with a multitap transformer for 100V/70V constant voltage systems, a terminal block made with ceramic material for input and output antiflame cables and thermal switch. DU 50EN is EN 54-24 certified.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- Wide-band dual cone loudspeaker, diameter 5".
- Power (selectable) at 100V: 6 W – 3 W – 1.5 W – 0.75 W.
- Cabinet/Case Material: Metal
- Thermal fuse protection
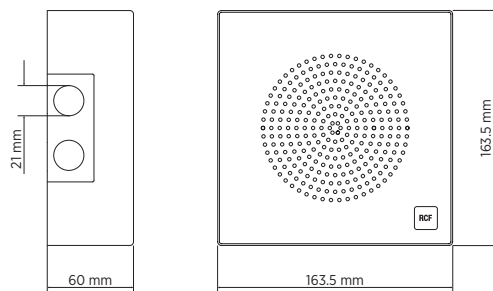
CERTIFICATION

EN 54-24	CPR: 1488-CPR-0489/W	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	190 Hz ÷ 18000 Hz
Max SPL @ 1m:	100 dB
Max SPL @ 4m:	88 dB
System Sensitivity:	91 dB
System Sensitivity 1W @ 4m:	79 dB
Coverage angle:	175°

POWER SECTION

Power Handling:	6 W RMS
Peak Power Handling:	24 W PEAK
Recommended Amplifier:	12 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	5.0''

INPUT/OUTPUT SECTION

|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	6 W - 1667 ohm
Power selection 2 (100 V):	3 W - 3333 ohm
Power selection 3 (100 V):	1.5 W - 6667 ohm
Power selection 4 (100 V):	0.75 W - 13333 ohm

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Metal
Grille:	Steel
Color:	White - RAL 9010
Height:	164 mm / 6.46 inches
Width:	164 mm / 6.46 inches
Depth:	60 mm / 2.36 inches
Weight:	1.9 kg / 4.19 lbs

DUP 5EN p/n 13100019

UNIVERSAL WALL MOUNT PLASTIC SPEAKER

DUP 5EN is a 6 W wall surface mounted speaker certified EN 54- 24:2008. It is suitable for evacuation / alarm messages, paging and background music. Its body is made of ABS and includes a 5.5" loudspeaker (externally protected by a grille), and a transformer for 100 V (/ 70 V) constant voltage lines with the possibility to set the power during the installation (tapping). It has a ceramic terminal strip (inside) to connect in / out cables. Its thermal fuse prevents damages to the audio line due to excessive speaker heat.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 5.5" full range speaker.
- Power (selectable) at 100V: 6 W – 3 W – 1.5 W.
- Cabinet/Case Material: ABS
- Thermal fuse protection
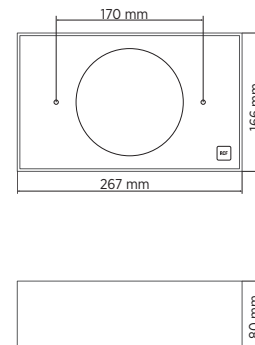
CERTIFICATION

EN 54-24   **CPR: 0068-CPPR-085/2017**   C€

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	130 Hz ÷ 17000 Hz
Max SPL @ 1m:	100 dB
Max SPL @ 4m:	88 dB
System Sensitivity:	92 dB
System Sensitivity 1W @ 4m:	80 dB
Coverage angle:	180°

POWER SECTION

Power Handling:	6 W RMS
Peak Power Handling:	24 W PEAK
Recommended Amplifier:	12 W
Protections:	Thermal fuse

TRANSDUCERS

Fullrange:	5.5"

INPUT/OUTPUT SECTION

Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	6 W - 1667 ohm
Power selection 2 (100 V):	3 W - 3333 ohm
Power selection 3 (100 V):	1.5 W - 6667 ohm

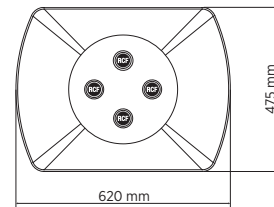### PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	ABS
Grille:	Steel
Color:	White - RAL 9016
Height:	166 mm / 6.54 inches
Width:	267 mm / 10.51 inches
Depth:	80 mm / 3.15 inches
Weight:	1.15 kg / 2.54 lbs

HD 6045EN p/n 13133085

LONG-THROW MULTI CELL HORN SPEAKER

HD 6045EN is a fiberglass horn designed to withstand the most adverse weather conditions, offering high sound reproduction quality and sound pressure levels. A high level of efficiency and sound pressure can be obtained thanks to the use of 4 dynamic driver units for a total output power of 200W. Internal transformers for 100V/70V constant voltage systems are equipped with ceramic terminal blocks for input and output flameproof cables and thermal switch. HD 6045EN is EN 54-24 certified.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 4 x 50 mm (2") horn loaded compression driver units
- Power (selectable) at 100V: 200 W.
- Cabinet/Case Material: ABS
- Thermal fuse to protect the audio line from heat
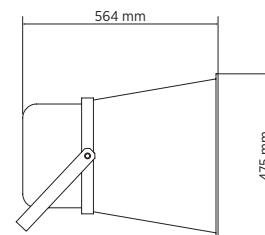
CERTIFICATION

EN 54-24	CPR: 0068-CPR-030/2015	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	200 Hz ÷ 10000 Hz
Max SPL @ 1m:	124 dB
Max SPL @ 4m:	112 dB
System Sensitivity:	101 dB
System Sensitivity 1W @ 4m:	89 dB
Angolo di copertura orizzontale:	60°
Angolo di copertura verticale:	50°

POWER SECTION

Power Handling:	200 W RMS
Peak Power Handling:	800 W PEAK
Recommended Amplifier:	400 W
Protections:	Thermal fuse

TRANSDUCERS

Compression Driver:	4 x 2.0''

INPUT/OUTPUT SECTION

|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	200 W - 50 ohm

PHYSICAL SPECIFICATIONS

IP protection grade:	IP 65
Cabinet/Case Material:	Vetroresina
Color:	White - RAL 9003
Height:	475 mm / 18.7 inches
Width:	620 mm / 24.41 inches
Depth:	564 mm / 22.2 inches
Weight:	10.5 kg / 23.15 lbs

MH 61EN p/n 13100042

2 WAY PLASTIC HORN SPEAKER

MH 61EN is a 60 W horn loudspeaker compliant with EN 54-24 standard. Thanks to IP66 protection and its UV resistant ABS housing and it is suitable for both indoors and outdoors applications. It can be easily aimed towards any direction through the adjustable wall-mount bracket, and can be used for sound reinforcement and speech systems in medium and large spaces, for instance sports halls, swimming pools, theme parks, stations, undergrounds, etc. and also in all environments that need high efficiency loudspeakers grade. Equipped with transformer for 100 V / 70 V constant voltage lines, internal power setting and ceramic terminal strip to link cables, it also has a thermal fuse that prevents damages to the audio line due to heat.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 1″ tweeter e 1 woofer da 6.5″
- Power (selectable) at 100V: 60 W - 30 W - 15 W - 7.5 W.
- Cabinet/Case Material: ABS
- Thermal fuse to protect the audio line from heat
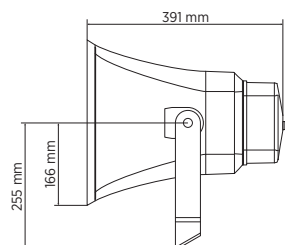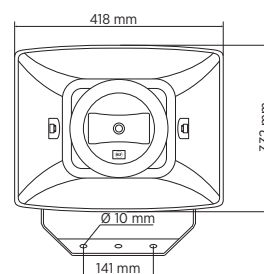
CERTIFICATION

EN 54-24	CPR: 1488-CPR-0672/W	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	100 Hz ÷ 20000 Hz
Max SPL @ 1m:	115 dB
Max SPL @ 4m:	103 dB
System Sensitivity:	99 dB
System Sensitivity 1W @ 4m:	87 dB
Angolo di copertura orizzontale:	70°
Angolo di copertura verticale:	90°

POWER SECTION

Power Handling:	60 W RMS
Peak Power Handling:	240 W PEAK
Recommended Amplifier:	120 W
Protections:	Thermal fuse

TRANSDUCERS

Tweeter:	1''
Woofer:	6.5''

INPUT/OUTPUT SECTION

Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	60 W - 167 ohm
Power selection 2 (100 V):	30 W - 333 ohm
Power selection 3 (100 V):	15 W - 667 ohm
Power selection 4 (100 V):	7.5 W - 1333 ohm

PHYSICAL SPECIFICATIONS

|	
IP protection grade:	IP 66
Cabinet/Case Material:	ABS
Hardware:	Staffa in acciaio
Color:	Grigio - RAL 7035
Height:	332 mm / 13.07 inches
Depth:	418 mm / 16.46 inches
Width:	391 mm / 15.39 inches
Weight:	7 kg / 15.43 lbs

HD 31EN   p/n 13100004

PLASTIC HORN SPEAKER

HD 31EN is a 30W horn. Thanks to IP66 protection and its UV resistant ABS housing and it is suitable for both indoors and outdoors applications. It can be easily aimed towards any direction through the adjustable wall-mount bracket, and can used in sounds systems having large spaces, for instance supermarkets, railway stations, undergrounds, factories, warehouses, etc. and also in all environments that need high efficiency loudspeakers grade. Equipped with transformer for 100V/70V constant voltage lines, internal power setting and ceramic terminal strip to link cables, it also has a thermal fuse protection. EN 54-24:2008 certified.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 1.5″ dome compression driver
- Power (selectable) at 100V: 30 W – 15 W – 7.5 W – 3.75 W.
- Cabinet/Case Material: ABS
- Thermal fuse to protect the audio line from heat

ø 233 mm

7 mm

60 mm

325 mm

106 mm

ø 233 mm

151 mm
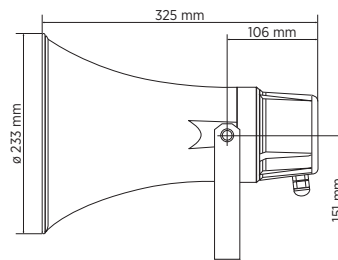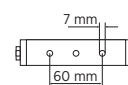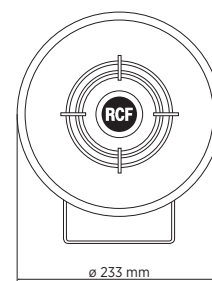
CERTIFICATION

EN 54-24	CPR: 1488-CPR-0584/W	CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	410 Hz ÷ 10000 Hz
Max SPL @ 1m:	115 dB
Max SPL @ 4m:	103 dB
System Sensitivity:	98 dB
System Sensitivity 1W @ 4m:	86 dB
Coverage angle:	95°

POWER SECTION

Power Handling:	30 W RMS
Peak Power Handling:	120 W PEAK
Recommended Amplifier:	60 W
Protections:	Thermal fuse

TRANSDUCERS

Compression Driver:	1.5″

INPUT/OUTPUT SECTION

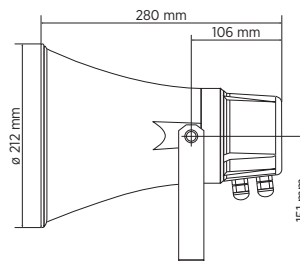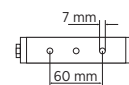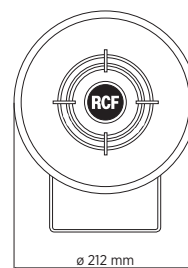|	
Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	70/100 V
Power selection 1 (100 V):	30 W - 333 ohm
Power selection 2 (100 V):	15 W - 667 ohm
Power selection 3 (100 V):	7.5 W - 1333 ohm
Power selection 4 (100 V):	3.75 W - 2667 ohm

PHYSICAL SPECIFICATIONS

IP protection grade:	IP 66
Cabinet/Case Material:	ABS
Hardware:	Staffa in acciaio inox
Color:	Grigio
Depth:	325 mm / 12.8 inches
Diameter:	233 mm / 9.17 inches
Weight:	2.01 kg / 4.43 lbs

HD 21EN p/n 13133075

PLASTIC HORN SPEAKER

HD 21EN is a 30W, EN 54-24 certified horn loudspeaker. Thanks to the IP 66 protection and its UV resistant ABS housing and it is suitable for both indoors and outdoors applications.

It can be easily aimed towards any direction through the adjustable wall-mount bracket, and can used in sounds systems having large spaces, for instance supermarkets, railway stations, undergrounds, factories, warehouses, etc. and also in all environments that need high efficiency loudspeakers grade. Equipped with transformer for 100 V / 70 V constant voltage lines, internal power setting and ceramic terminal strip to link cables, it also has a thermal fuse that prevents damages to the audio line due to heat.

- Speaker for transmitting alarm voice messages with high intelligibility and background music.
- 1.5″ dome compression driver
- Power (selectable) at 100V: 30 W – 15 W – 7.5 W – 3.75 W.
- Cabinet/Case Material: ABS
- Thermal fuse to protect the audio line from heat

ø 212 mm

7 mm
60 mm

280 mm
106 mm
ø 212 mm
151 mm

CERTIFICATION

EN 54-24   **CPR: 1488-CPR-0652/W**   CE

ACOUSTICAL SPECIFICATIONS

Frequency Response (-10dB):	340 Hz ÷ 9000 Hz
Max SPL @ 1m:	117 dB
Max SPL @ 4m:	105 dB
System Sensitivity:	104 dB
System Sensitivity 1W @ 4m:	92 dB
Coverage angle:	135°

POWER SECTION

Power Handling:	30 W RMS
Peak Power Handling:	120 W PEAK
Recommended Amplifier:	60 W
Protections:	Thermal fuse

TRANSDUCERS

Compression Driver:	1.5''

INPUT/OUTPUT SECTION

Input connectors:	Ceramic screw terminals
Output connectors:	Ceramic screw terminals
Constant Voltage Transformer:	100 V
Power selection 1 (100 V):	30 W - 333 ohm
Power selection 2 (100 V):	15 W - 667 ohm
Power selection 3 (100 V):	7.5 W - 1333 ohm
Power selection 4 (100 V):	3.75 W - 2667 ohm

PHYSICAL SPECIFICATIONS

IP protection grade:	IP 66
Cabinet/Case Material:	ABS
Hardware:	Staffa in acciaio inox
Color:	Grigio
Depth:	280 mm / 11.02 inches
Diameter:	212 mm / 8.35 inches
Weight:	2 kg / 4.41 lbs

FIRE RESISTANT
LOUDSPEAKER CABLES

The CV Series cables are suitable for the transmission of electrical signals and commands for those applications where maximum security is required in situations of fire alarm. They ensure the transmission of the signal to emergency speakers even when exposed to flames, allowing the safe evacuation of the environments where they are installed. The CV Series cable are suitable for fixed installation indoors in wet or normal environments, and temporarily outside. They can be installed on platforms, pipes, conduits and similar systems.

CV 210   p/n 14380030

SPEAKER CABLE 100V
SECTION 2 X 1 MMQ

CV 215   p/n 14380031

SPEAKER CABLE 100V
SECTION 2 X 1.5 MMQ

CV 225   p/n 14380032

SPEAKER CABLE 100V
SECTION 2 X 2.5 MMQ

GENERAL SPECIFICATIONS	CV 210	CV 215	CV 225
Number of conductors:	2	2	2
Conductors section (mm²):	1	1.5	2.5
Overall diameter (mm):	6.60	7.80	9.20
Sheath material:	Mix LSZH, quality M1	Mix LSZH, quality M1	Mix LSZH, quality M1
Sheath colour:	Violet	Violet	Violet
Insulation (V):	100 / 100	100 / 100	100 / 100
PHYSICAL SPECIFICATIONS			
Coil length (m):	200	200	200
STANDARD COMPLIANCE			
Standards:	CEI EN 60228	CEI EN 60228	CEI EN 60228
	CEI EN 50363	CEI EN 50363	CEI EN 50363
	CEI EN 60332-1-2	CEI EN 60332-1-2	CEI EN 60332-1-2
	CEI EN 60332-3-25	CEI EN 60332-3-25	CEI EN 60332-3-25
	CEI EN 50267-2-1/2	CEI EN 50267-2-1/2	CEI EN 50267-2-1/2
	IEC 60754-1/2	IEC 60754-1/2	IEC 60754-1/2
	CEI EN 61034-2	CEI EN 61034-2	CEI EN 61034-2
	CEI EN 50200	CEI EN 50200	CEI EN 50200

RACK COMPONENTS

FOR THE OPTIMUM MANAGEMENT OF
THE SYSTEM CONFIGURATIONS

The structure is made of steel painted RAL 7035 light grey. The rack enclosures are bake-painted at high temperature using epoxy powders to make the structure unalterable over time and resistant to scratching, abrasion, and atmospheric agents. They are constructed in compliance with the IEC 297-2 dimensional standard, and the depth is 600 mm for all models.

BASIC STRUCTURE

The rack enclosures are composed of a basic structure that is assembled simply and quickly by fitting and securing four steel uprights to the upper and lower panels.

CR 2600

RACK ENCLOSURES

The CR 2600 series rack enclouseres are designed to hold all RCF 19" rack standard components. The rack enclosures are bake-painted at high temperature using epoxy powders to make the structure unalterable over timeand resistant to scratching, abrasion, and atmospheric agents. The CR 2600 SERIES rack enclosures are composed of a basic structure that is assembled simply and quickly by fitting and securing four steel uprights to the upper and lower panels.

MODEL	CR 2642	CR 2628
Part number	17170082	17170081
Type	42 U	28 U
Base dimensions	600 x 600 mm	600 x 600 mm
Height	2000 mm	1600 mm
Weight	68 Kg	54 Kg
Max load	350 Kg	320 Kg
Ventilation system	Thermostat controlled	Thermostat controlled
Thermal dissipation 25 °c	3320 W	3280 W
Thermal dissipation 35 °c	2180 W	2160 W
Included accessories	-	-
Model door	AK 2642V	AK 2628V
Part number door	(17100010)	(17100009)

- The CR 2600 series rack enclouseres are designed to hold all RCF 19" rack standard components.

- They are constructed in compliance with the IEC 297-2 dimensional standard, and the depth is 600 mm for all models.

- The structure is made of steel painted RAL 7035 light grey. The rack enclosures are bake-painted at high temperature using epoxy powders to make the structure unalterable over time and resistant to scratching, abrasion, and atmospheric agents.

- The protection level is IP 30. The CR 2600 SERIES rack enclosures are composed of a basic structure that is assembled simply and quickly by fitting and securing four steel uprights to the upper and lower panels.

- The lower door and side panels are fitted following the wiring operations to facilitate the insertion and connection of the components. The lower panel, which forms the base of the rack, has openings for the passage of external connection cables (speaker lines, power supply, data, etc.) that are sized and shaped to guarantee the electrical safety of the structure. The earthing of the rack complies with current safety regulations.

- For the optimisation of the internal wiring, supports are supplied to gather the cable and attach them in an orderly fashion. The packing materials can be reused for transport the enclosure once it has been wired.

- Front doors are also available, which are useful for to protect the components installed in the rack.

CR 2615 FV	CR 2615	CR 2609
17170129	17170080	17170179
15 U	15 U	9 U
600 x 600 mm	600 x 600 mm	600 x 500 mm
800 mm	800 mm	470 mm
30 Kg	26 Kg	24 Kg
100 Kg	105 Kg	25 Kg mountable on rack
Thermostat controlled	-	Natural ventilation on sides
3130 W	230 W	100 W
2070 W	140 W	150 W
4 wheels with braking system	4 wheels with braking system	-
AK 2615V	AK 2615V	(included)
(17100008)	(17100008)	-

ACCESSORIES

PV 2603 p/n 17170137

VENTILATION UNIT

PV 2603 is a ventilation unit composed by 3 blowers (230 V ac) and a main switch.
The blowers turn on due to the activation command of a thermostat included in all RCF CR 2600 rack cabinets series.

- The ventilation unit is composed of 3 fans (powered by 230 V AC) with one main switch on the rear panel
- It can be turned on from the thermostat of rack units belonging to the CR 2600 Series
- The ventilation unit has an air flow capacity of 500 m/h, from the bottom to the top

- 19" Rack mounting
- Energy consumption less than 45 W
- Low noise

GENERAL SPECIFICATIONS

Number of fun	3
Air flow	500 m³/h
Operating voltage	220÷240 ~ 50 / 60 V ~ Hz
Power (consumption)	45 VA

PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	Metal

PHYSICAL SPECIFICATIONS

Color:	Black
Rack mounting:	19", 1U
Height:	44 mm / 1.73 inches
Width:	483 mm / 19.02 inches
Depth:	271 mm / 10.67 inches
Weight:	4.91 kg / 10.82 lbs

CLOSURE PANELS

	PU 1	PU 2	PU 3	PU 4
Part number	17170145	17170146	17170147	17170148
Rack mounting:	1U	2U	3U	4U
Color:	RAL 9005 Nero	RAL 9005 Nero	RAL 9005 Nero	RAL 9005 Nero

RR 2601   p/n 17360038

RACK WHEELS KIT

- Wheels for RCF rack cabinets CR 2628 and CR 2642.
- The kit includes 2 wheels with brake and 2 swivel wheels. Wheel diameter: 80 mm .
- The maximum applicable load does not change when wheels are mounted.

AR 2605   p/n 17360027

FRAME WITH POWER SOCKETS

- 5-socket frame, Schuko and Italian standard, on back-rack support 2U.
- 16A total capacity; cable included
- Portion of Omega bar for installing 5 Omega standard modules

AR 1050-N   p/n 17360039

RACK LATERAL SUPPORT

- Accessory for installation in RCF CR2600 series racks

P AER1   p/n 17130149

FRONT VENTILATION PANELS

- 1U for CR 2600 series racks, RAL 9005 black

BH 1042   p/n 17360040

BATTERY HOLDER

- Universal battery holder for RCF series "CR 2600"

ALPHABETICAL INDEX

70 RCF ANNIVERSARY

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