

8. Specifications

8.1 mbl C31 CD Player

General

Weight	15,5 kg / 34.2 lbs
Dimensions (without cables)	W 45,0 cm / D 44,5 cm / H 14,5 cm W 17.7 in / D 17.5 in / H 5.7 in
Dimensions with packaging	W 59,0 cm / D 54,0 cm / H 35,5 cm W 23.2 in / D 21.3 in / H 21.9 in
Line Voltage	230 Vac / 50 Hz or 115 Vac / 50/60 Hz (single voltage, factory setting depending on country)
Power consumption	
in stand by	< 0.5 VA
in idle	< 20 VA
Maximum	21 VA (during 'Play')

Digital Inputs

1 x Toslink

Connection	Snap-In-Type
Wavelength	650 nm
Nominal Input Power	10mW
Working input power range	3mW - 30mW
electrically/galvanically Isolated	optically isolated

1 x S/P-DIF

Connection	RCA
Input Impedance	75 Ohm
Nominal Input-Level	0.5 Vpp
Working Input-Voltage Range	0,2 - 5 Vpp
electrically/galvanically Isolated	galvanically isolated

USB Input

Connection	USB Type B
Sampling Frequency	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
Mode	MCMI (Master Clock Mode Interface), Asynchronous USB
electrically/galvanically Isolated	galvanically isolated
Operating System Drivers	Natively supported, without any special driver



Digital Outputs

1 x S/P-DIF

Connection	RCA
Output Impedance	75 Ohm
Nominal Output-Level	0.5 Vpp
electrically/galvanically isolated	galvanically isolated

Analog Outputs

Maximum Output Level

Unbalanced RCA Out	2 V @ 0 dBFS
Balanced XLR Out	4 V @ 0 dBFS
Output Impedance (RCA / XLR)	100 Ohm / 200 Ohm
Absolute Phase (RCA / XLR)	In-Phase / Pin-2 = In-Phase
Total Harmonic Distortion (THD)	< 0.001% @ 0 dBFS
Signal to Noise Ratio (RCA / XLR)	> 110 dB (A-Weighted) @ 0 dBFS
Channel Separation	> 100 dB @ 1 kHz

CD Section

CD Mechanism	Slot drive, front loader
Media	Standard compact disc (Red Book), 12 cm and 8 cm discs
Formats	CD, CDR, CD-RW (Multi-Read)
Book-Type	CD-DA, CD-Extra, Extended CD, CD-Enhanced
Laser type	780 nm (reads black CDR)
Resolution / Sample Rate	16 Bit / 44.1 kHz (CD-Digital-Audio)
Control Features	Play, Pause, Stop, Skip FW, Skip BW, Repeat One, Repeat All, Shuffle
CD-Text	Album Title, Album Artist, Track Title, Track Artist

DAC Section

Resolution	24 Bit
Sampling Frequencies	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
D/A Converter Type	Multi-Bit Delta Sigma
Jitter Reduction	Digital/Analog Dual Nested PLL for effective jitter reduction
Digital Oversampling Filter	Psychoacoustic optimized filter of 4/5 Minimum Phase and 1/5 Linear Phase
Analog Output Filter	Group Delay Optimized Bessel Filter @ 40 kHz

8.2 mbl C11 Preamplifier

General

Weight	15,5 kg / 34.2 lbs
Dimensions (without cables)	W 45,0 cm / D 44,5 cm / H 14,5 cm W 17.7 in / D 17.5 in / H 5.7 in
Dimensions with packaging	W 59,0 cm / D 54,0 cm / H 35,5 cm W 23.2 in / D 21.3 in / H 21.9 in
Line Voltage	230 Vac / 50 Hz or 115 Vac / 50/60 Hz (single voltage, factory setting depending on country)
Power consumption	
in stand by	< 0.5 VA
in idle	< 20 VA
Maximum	< 20 VA

Connections

Inputs

RCA unbalanced	2 x MBL CD1 / CD2 2 x Tuner AUX1 / AUX2 1 x Processor By-Pass
XLR balanced (unity gain)	1 x Symmetrical
Options	1 x optional 2nd Symmetrical In (XLR) or 1 x optional Phono Module (RCA)

Outputs

RCA unbalanced	2 x Variable Out 1 x Fixed Record Out
XLR balanced (double gain)	1 x Variable Out
Other	Ground Terminal 2 x MBL SmartLink

Specifications

Output Level / Maximum Output

Variable unbalanced RCA Outputs	0 ... 5 V @ 2 V Input, max 8 V (According to Volume Setting)
Variable balanced XLR Output	0 ... 10 V @ 2 V Input, max 16 V (According to Volume Setting)
Fixed Record Output	2 V @ 2 V Input, max. 8 V
Nominal / Maximum Input Level (All Inputs except Phono)	2 V / 8V
Absolute Polarity	In-Phase (RCA / XLR Pin2)
Frequency Range (All Inputs and Outputs except Phono)	DC - > 200 kHz



Output Impedance

All RCA Outputs	100 Ohm
XLR Output	200 Ohm

Input Impedance

CD and Processor By-Pass Inputs	≥ 5 kOhm
AUX Inputs	50 kOhm
XLR Input	10 kOhm

Signal to Noise Ratio
(All Inputs and Outputs except Phono) > 110 dB (A) @ 2 V Input, Volume set to 0 dB / unity gain

Channel Separation
(All Inputs and Outputs except Phono) > 100 dB @ 1 kHz

Total Harmonic Distortion + Noise
(All Inputs and Outputs except Phono) < 0.001 % @ 2V Input / 1kHz, Volume set to 0 dB / unity gain

8.3 mbl C51 Integrated Amplifier

General

Weight	23 kg / 50.7 lbs
Dimensions (without cables)	W 45,0 cm / D 44,5 cm / H 14,5 cm W 17.7 in / D 17.5 in / H 5.7 in
Dimensions with packaging	W 59,0 cm / D 54,0 cm / H 35,5 cm W 23.2 in / D 21.3 in / H 21.9 in
Line Voltage	230 Vac / 50 Hz or 115 Vac / 50/60 Hz (single voltage, factory setting depending on country)
Power consumption	
in stand by	< 0.5 VA
in idle	< 70 VA
Maximum	< 1000 VA (w. 2 x 300 W @ 4 Ohm)

Connections

Inputs

RCA unbalanced	2 x MBL CD1 / CD2 2 x Tuner AUX1 / AUX2 1 x Processor By-Pass
XLR balanced (unity gain)	1 x Symmetrical
Options	1 x optional 2nd Symmetrical In (XLR) or 1 x optional Phono Module (RCA)

Outputs

RCA unbalanced	1 x Variable Out 1 x Fixed Record Out
Loudspeaker	1 x pair Loudspeaker Binding Posts
Other	Ground Terminal 2 x MBL SmartLink

Preamplifier Section

Output Level / Maximum Output

Variable unbalanced RCA Outputs	0 ... 5 V @ 2 V Input, max 1.7 V *1 (According to Volume Setting) *1: Input Voltage for Rated Power
Fixed Record Output	2 V @ 2 V Input, max. 8 V
Nominal / Maximum Input Level (All Inputs except Phono)	2 V / 8V (According to Volume Setting)
Absolute Polarity	In-Phase (RCA / XLR Pin2)
Frequency Range (All Inputs and Outputs except Phono)	DC - > 200 kHz



Output Impedance

All RCA Outputs 100 Ohm

Input Impedance

CD and Processor By-Pass Inputs ≥ 5 kOhm

AUX Inputs 50 kOhm

XLR Input 10 kOhm

Signal to Noise Ratio
(All Inputs and Outputs except Phono) > 110 dB (A) @ 2 V Input, Volume set to 0 dB / unity gain

Channel Separation
(All Inputs and Outputs except Phono) > 100 dB @ 1 kHz

Total Harmonic Distortion + Noise
(All Inputs and Outputs except Phono) < 0.001 % @ 2V Input / 1kHz, Volume set to 0 dB / unity gain

Power Amplifier Section

Rated Power

Stereo 4 Ohm 2 x 300 W

Stereo 8 Ohm 2 x 180 W

Stereo 2 Ohm 2 x 400 W

Peak Output Voltage 62 Vp

Peak Output Current 20 Ap

Input Sensitivity (RCA / XLR) 100 mV for 1 W @ 4 Ohm

Rated Input Voltage (RCA / XLR) 1.70 V for 300 W @ 4 Ohm

Voltage Gain 20 (26 dB)

Absolute Polarity In-Phase

Signal / Noise Ratio @ Rated Output 122 dB (A) @ 300 W / 4 Ohm

Signal / Noise Ratio @ 1 Watt 98 dB (A) @ 1 W / 4 Ohm

Equivalent Input Noise 124 dB (A) @ 2 V Input

Frequency Response < 10 Hz - 45 kHz

Distortion THD+N Typ. 0.01 % @ 3 W from 20 Hz ... 20 kHz

Damping Factor > 100 (40 dB) @ 1 kHz / 4 Ohm

Channel Separation > 90 dB @ 1 kHz

8.4 mbl C21 Stereo Power Amplifier

General

Weight	22 kg / 48.5 lbs
Dimensions (without cables)	W 45,0 cm / D 44,5 cm / H 14,5 cm W 17.7 in / D 17.5 in / H 5.7 in
Dimensions with packaging	W 59,0 cm / D 54,0 cm / H 35,5 cm W 23.2 in / D 21.3 in / H 21.9 in
Line Voltage	230 Vac / 50 Hz or 115 Vac / 50/60 Hz (single voltage, factory setting depending on country)
Power consumption	
in stand by	< 0.5 VA
in idle	< 70 VA
Maximum	< 1000 VA (w. 2 x 300 W @ 4 Ohm)

Connections

Inputs	1 x RCA In, unbalanced 1 x XLR In, balanced
Outputs	1 pair Loudspeaker Binding Posts
Other	2 x MBL SmartLink

Specifications

Rated Power	
Stereo 4 Ohm	2 x 300 W
Stereo 8 Ohm	2 x 180 W
Stereo 2 Ohm	2 x 400 W
Peak Output Voltage	62 Vp
Peak Output Current	20 Ap
Input Impedance (RCA / XLR)	9 kOhm/ 18 kOhm
Input Sensitivity (RCA / XLR)	100 mV / 200 mV for 1 W @ 4 Ohm
Rated Input Voltage (RCA / XLR)	1.7 V / 3.4 V for 300 W @ 4 Ohm
Voltage gain (RCA / XLR)	20 (26 dB) / 10 (20 dB)
Absolute Polarity	In-Phase (RCA / XLR Pin 2)
Signal / Noise Ratio @ Rated Output	124 dB (A) @ 300 W / 4 Ohm
Signal / Noise Ratio @ 1 Watt	100 dB (A) @ 1 W / 4 Ohm
Equivalent Input Noise - RCA	126 dB (A) @ 2 V Input
Equivalent Input Noise - XLR	126 dB (A) @ 4 V Input
Frequency Response	< 10 Hz - 45 kHz
Distortion THD+N	Typ. 0.01 % @ 3 W from 20 Hz ... 20 kHz
Damping Factor	> 100 (40 dB) @ 1 kHz / 4 Ohm
Channel Separation	> 100 dB @ 1 kHz



8.5 mbl C15 Mono Power Amplifier

General

Weight	22 kg / 48.5 lbs
Dimensions (without cables)	W 45,0 cm / D 44,5 cm / H 14,5 cm W 17.7 in / D 17.5 in / H 5.7 in
Dimensions with packaging	W 59,0 cm / D 54,0 cm / H 35,5 cm W 23.2 in / D 21.3 in / H 21.9 in
Line Voltage	230 Vac / 50 Hz or 115 Vac / 50/60 Hz (single voltage, factory setting depending on country)
Power consumption	
in stand by	< 0.5 VA
in idle	< 50 VA
Maximum	< 900 VA (w. 1 x 500 W @ 4 Ohm)

Connections

Inputs	1 x RCA In, unbalanced 1 x XLR In, balanced (XLR H) / unbalanced (XLR L)
Outputs	2 pairs Loudspeaker Binding Posts
Other	2 x MBL SmartLink

Specifications

Rated Power	
Stereo 4 Ohm	500 W
Stereo 8 Ohm	280 W
Stereo 2 Ohm	> 500 W
Peak Output Voltage	85 Vp
Peak Output Current	36 Ap
Input Impedance (RCA / XLR L / XLR H)	10 kOhm / 20 kOhm / 20 kOhm
Input Sensitivity (RCA / XLR L / XLR H)	100 mV / 200 mV / 100 mV for 1 W @ 4 Ohm
Rated Input Voltage (RCA / XLR L / XLR H)	2.20 V / 4.40 V / 2.20 V for 500 W @ 4 Ohm
Voltage gain (RCA / XLR L / XLR H)	20 (26 dB) / 10 (20 dB) / 20 (26 dB)
Absolute Polarity	In-Phase (RCA / XLR Pin 2)
Signal / Noise Ratio @ Rated Output	127 dB (A) @ 500 W / 4 Ohm
Signal / Noise Ratio @ 1 Watt	100 dB (A) @ 1 W / 4 Ohm
Equivalent Input Noise - RCA	126 dB (A) @ 2 V Input
Equivalent Input Noise - XLR	126 dB (A) @ 2 V Input
Frequency Response	< 10 Hz - 50 kHz
Distortion THD+N	Typ. 0.01 % @ 5 W from 20 Hz ... 20 kHz
Damping Factor	> 100 (40 dB) @ 1 kHz / 4 Ohm

Design and technical specifications are subject to change without notice.