LiveAmp	Technical specifications
EEG/ExG channels	
Number/type of channels	LiveAmp 8: LiveAmp 8 can record a total of 8 channels, referential and/or bipolar. LiveAmp 16: LiveAmp 16 can record a total of 16 referential channels with a maximum of 8 bipolar channels or 8 referential and 8 bipolar channels. LiveAmp 32: LiveAmp 32 can record either 32 referential channels or 24 referential and 8 bipolar channels. LiveAmp 64: LiveAmp 64 can recorder either 64 referential channels or 56 referential and 8 bipolar channels.
Measurement range	±341.6 mV
Input noise	< 2 µVpp (0.01 Hz to 65 Hz at 250 Hz sampling rate) measured with internal battery and shorted inputs
Input impedance	> 200 MΩ (at DC) impedance of EEG/ExG channels to GND
Differential input impedance	> 400 MΩ (at DC) impedance between two EEG/ExG channels or bipolar EEG/ ExG channels
Common-mode rejection (CMR)	> 80 dB (at 50/60 Hz)
Signal coupling	DC (there is no high pass filter in amplifier hardware)
Low pass filter in amplifier	Third order sinc filter with -3 dB frequency depending on the sample rate: - 1,000 Hz: 262 Hz - 500 Hz: 131 Hz - 250 Hz: 65 Hz
A/D conversion	24 bit
Resolution	Approx. 40.7 nV / bit (= 2*341.6 mV / 224 bit)
Acceleration sensor	Built-in 3-axis acceleration sensor Three separate channels (x, y, z) Measurement range: ±2 g Resolution: 1 mg/bit, 12 bit Error: ±0.2 g (±10% of full scale)
Hardware sampling rates	Select between 250 Hz, 500 Hz and 1,000 Hz. Note: Maximum wireless bandwidth cannot always be guaranteed due to external interference
Sampling Rate = 1000 Hz	EEG/ExG channels: Up to 32 channels (this incl. AUX and acceleration)
Sampling Rate = 500 Hz	EEG/ExG channels: 32 channels or more (this incl. AUX and acceleration)
Data Storage	
Data storage	- On recording computer via wireless transmission - On micro memory card - On recording computer and on micro memory card
Card type	Micro SD® card, class 10
Size of memory card	32 GB
Maximum file size on memory card	4 GB
Data format on internal memory card	Proprietary format; can be converted to generic Brain Products data format with converter software provided by Brain Products
Wireless transmission	
Wireless data transmission	In 2.402 - 2.480 GHz ISM band worldwide no restrictions for using this ISM range
Radio frequency output power	Max. 13 dBm (approx. 20 mW)

LiveAmp	Technical specifications
Wireless transmission range	Indoor: Up to 10 m (depending on environment) Outdoor: Up to 30 m
Electrodes	
Compatible electrodes	- Passive Ag/AgCl based electrodes - Passive Ag/AgCl sponge-based electrodes - Active actiCAP electrodes
Impedance measurement	Available for passive and active electrodes and integrated in amplifier
Impedance measurement range	Up to 500 kOhm
Battery and power supply	
Battery type	Lithium ion cobalt battery
Power supply	Built-in rechargeable battery; Capacity: 1,000 mAh
Current consumption	Max. 250 mA
Charging time	Approx. 4 hours at 500 mA (for example, USB port of a computer)
Uninterrupted recording time with built-in battery (when fully charged)	- 3 hours (wireless data transfer only and passive electrodes) - 4.5 hours (storage on memory card only and passive electrodes)
Dimensions and weight	
LiveAmp 8, 16, 32: Dimensions (W x D x H)	83 mm x 51 mm x 14 mm
LiveAmp 8, 16, 32: Weight	Approx. 60 g (incl. built-in battery)
LiveAmp 64: Dimensions (W x D x H)	140 mm x 83 mm x 18 mm (incl. connectors: 25 mm)
LiveAmp 64: Weight	Approx. 120 g (incl. built-in battery)
Further data	
Built-in trigger/marker input	Yes, 3-pin 2.5 mm phone jack; TTL (LVTTL) signals, 0 to +5 V (+ 3.3 V); active low
LED indicators	Battery/status LED: green, yellow, red Wireless LED: blue
LiveAmp USB adapter	
USB communication	Data rate: 12 MBit/s USB 2.0 compatible
Input and output voltage	5 V
Maximum power transfer	5 W
Galvanic isolation	2,500 VDC
Dimensions (W x D x H)	40 mm x 30 mm x 20 mm
Weight	Approx. 30 g
Cable length	Approx. 50 cm, not detachable
System requirements	
Operating system	Windows® 10 Windows® 11
USB port	USB 2.0 or higher

LiveAmp	Technical specifications
LiveAmp Firmware	LiveAmp 64: Both LiveAmps should be running firmware version 4.60 or later.
Software requirements	LiveAmp 8 and 16: BrainVision Recorder version 1.21.0202 or later LiveAmp 32: BrainVision Recorder version 1.21.0004 or later LiveAmp 64: BrainVision Recorder version 1.21.0303 or later
Mobility Set	
Description	The LiveAmp Mobility Set consists of a harness, several belt clips and mounts
Miscellaneous	
Suitable for use in MR scanner room	No
Medical device	No
CE marking	Brain Products GmbH confirms the compatibility of this product according to the Directive 2014/53/EU (RED) of the European Parliament and the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment. The Brain Products GmbH confirms the RoHS compliance of this product according to the Directive 2011/65/EU of the European Parliament and the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast published in the Official Journal of the European Union on 1 July 2011) as well as all its amendments up to and including the Commission delegated directive (EU) 2015/863 of 31 March 2015 (published in the 0fficial Journal of the European Union on 4 June 2015).
FCC compliance (USA)	Yes
IC compliance (Canada)	Yes
MIC compliance (Japan)	Yes