

Bosch LA3-VARI-E Vari-Directional Array Extension Unit

Frequency range ²	
VARI-B	130 Hz to 10 kHz (± 3 dB)
VARI-BH	130 Hz to 18 kHz (± 3 dB)
Max SPL ³	Continuous / peak
VARI-B	90 / 93 dB SPL (A-weighted at 20 m)
VARI-B+E	90 / 93 dB SPL (A-weighted at 32 m)
VARI-B+E+E	88 / 91 dB SPL (A-weighted at 50 m)
VARI-BH	89 / 92 dB SPL (A-weighted at 20 m)
VARI-BH+E	89 / 92 dB SPL (A-weighted at 32 m)
VARI-BH+E+E	87 / 90 dB SPL (A-weighted at 50 m)
Coverage	
Horizontal (fixed) ⁴	130° (-6 dB, avg. 1 to 4 kHz)
Vertical (adjustable) ⁵	Software configurable
Maximum throw:	
VARI-B(H)	20 m
VARI-B(H)+E	32 m
VARI-B(H)+E+E	50 m
Transducers	
VARI-B	4" Full Range (8 x 1 driver)
VARI-BH	4" Coaxial (8 x 1 driver)
VARI-E	4" Full Range (4 x 2 drivers)
Input Line (2x)	
Input level nominal	0 dBV rms
Input level maximum	+20 dBV peak
Type	Transformer balanced
Impedance (balanced)	7.8 kohm at 1 kHz
Input 100 V (2x)	
Input level nominal	+40 dBV rms
Type	Transformer balanced (floating input)
Impedance (balanced)	1 Mohm at 1 kHz
Power Amplifiers	
Power	
VARI-B(H)	8 x 15 W (class-D full bridge)
VARI-E	4 x 25 W (class-D full bridge)
Protection	Thermal shutdown
Current limiting	
Dynamic range ⁶	>105 dB
PSU	
Mains voltage	100 to 120 V / 200 to 240 V (auto switching)
Power consumption	@ Mains / 24 Vdc (22 V min, 36 V max)
Power save	
VARI-B(H)	13 / 4.5 W
VARI-B(H)+E	17 / 7 W
VARI-B(H)+E+E	19 / 9 W
Idle	
VARI-B(H)	18 / 8.5 W
VARI-B(H)+E	23 / 13 W
VARI-B(H)+E+E	28 / 17 W
Max. (Noise, CF 6 dB)	
VARI-B(H)	60 / 36 W

VARI-B(H)+E	97 / 75 W
VARI-B(H)+E+E	124 / 100 W
Power factor	According to EN61000-3-2, class A
Mains inrush current	<70 A (at 230 V)
Protection	Thermal shutdown
Current limiting	
Under voltage lock-out	
Signal processing ⁵	
DSP	32-bit floating point, 900 Mflops
ADC / DAC	24-bits S-D, 128 x oversampling
Sample rate	48 kHz
Functions	Pre-delay (max. 21 s)
Input-delay (max. 2 x 10 s / 4 x 5 s)	
Equalizer and compensation filtering	
Compressor	
Volume	
AVC	
Control	
Network interface	RS-485 full duplex, auto-switching 115k2, 57k6, 38k4, 19k2 baud, optically isolated
Max. number of units ⁷	126
Surveillance	General status
Amplifier and load monitoring	
External pilot-tone detection(20 kHz to 30 kHz, min. level -22 dBV)	
Built-in ambient noise sensing microphone	
Thermal overload protection	
Failure relay	Maskable conditions
Contact 1	No failure = closed / Failure = open
Rating	Max. 24 V, 100 mA
Contact 2	No failure = 10 k ohm / Failure = 20 k ohm
Control voltage input	5 to 24 Vdc, optically isolated
CobraNet	
Interface	RJ-45, Ethernet 100 Mbps
Word length	16-/20-/24-bit (set by transmitter)
Sample rate	48 kHz
Additional latency	1.33/2.67/5.33 ms (set by transmitter)
Dimensions (H x W x D)	
VARI-B(H)	1200 x 130 x 98 mm (47.2 x 5.1 x 3.8 in)
VARI-B(H)+E	2400 x 130 x 98 mm (94.5 x 5.1 x 3.8 in)
VARI-B(H)+E+E	3600 x 130 x 98 mm (141.7 x 5.1 x 3.8 in)
Bracket	27 mm (1.1 in) additional depth, flat mounted
VARI-CM	100 x 50 x 23 mm (3.9 x 2.0 x 0.9 in)
Weight	
VARI-B(H)	13.0 kg (28.7 lbs)
VARI-B(H)+E	24.7 kg (54.5 lbs)
VARI-B(H)+E+E	36.4 kg (80.3 lbs)
Color	
Enclosure: VARI-B(H) and -E	RAL9007 (gray aluminum)
Grill: VARI-B(H) and -E	RAL9006 (white aluminum)
Operating temperature	-25 °C to 55 °C (-13 °F to 131 °F)
Storage and transport temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95 %