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LIFESCIENCES



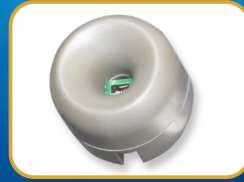
VIVA® VA2 G4

Class II Type A2 Animal BSC

The Portable Safety Solution for Animal Research Laboratories



VIVA® G4 (VA2 G4) CLASS II TYPE A2 ANIMAL BSC,



Airflow Sensor

- Monitors real-time airflow for safety
- Alerts the user if airflow is insufficient

USB Port and Zero Volt Relay Contact

- USB Port to send operational information to Building Management System (BMS)
- Zero Volt Relay Contact to turn ON/OFF exhaust blower and signal the building alarm



Centurion 7" Capacitive Touchscreen Controller

- Displays all safety information on one large screen
- Shows cabinet parameters with intuitive 3D illustration
- Easy to use menu, similar to Smart Phone Apps
- Large buttons, easy to operate when wearing gloves
- Self-guidance to users to deal with specific situations
- Centered and angled down for easy reach and viewing



Single Piece Wall

- Easy to reach service fixtures and electrical outlets on sidewalls
- Large radius corners for easy cleaning



User-friendly Work Tray

- Largest useable area in the market
- Recessed to contain spillage
- Sloped perimeter for easy cleaning
- Large, easy to clean tray handle



Raised Arm Rest

- Prevent grille blocking
- Comfortable working posture
- Durable stainless steel construction



Ergonomic Work Zone

- 10° angle to optimize user comfort, reduce glare, and maximize reach into the work area
- Brightly illuminated with 1000 lux (93 ft-c)
- Industry-leading dimmable LED for optimum work comfort
- Airtight seal port for cable/tube exit protected by a negative pressure side wall
- 12" sash working height for mouse and rat cages

Available in 1.2, 1.5, and 1.8 meter models (4', 5', and 6').



Dander Pre-filter Rack

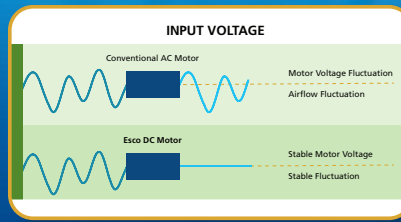
- Captures animal dander
- Easy to replace pre-filter
- Prolongs ULPA filter life



FEATURING ADVANCED TOUCHSCREEN CONTROLLER

Energy-efficient DC ECM Blower

- The leading energy-efficient Class II Type A2 Biosafety Cabinet in the world with 70% energy savings compared to AC motor
- Stable airflow despite building voltage fluctuations and filter loading
- Standby mode to further reduce power consumption by 80%



Advanced ULPA Filtration System

- 10x Filtration efficiency of HEPA filter
- Creates ISO Class 3 work zone instead of industry-standard ISO Class 5
- Same 10 years filter life and replacement cost as HEPA filters

Note:

- 99.999% at 0.1 to 0.3 micron, ULPA as per IEST-RP-CC001.3 USA
- 99.999% at MPPS, H14 as per EN 1822 EU



Dimmable LED Lamp

- Save energy and optimize work comfort



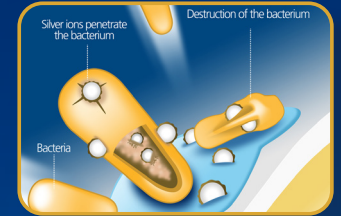
User Modified Pass-Through / Cable Port

- 3" Port with 1/4" hole on rubber membrane inside
- Surrounded by negative pressure
- Allows cables and tubes to exit with fully closed sash



Removable Paper Catch

- Prevent objects from being pulled into blower plenum
- Removable for easy cleaning



Tray Support Beams

- Support work tray evenly for less vibration
- Cleaning holder to easily wipe the drain pan

Isocide™ Powder Coat

- Silver-ion impregnated powder coat
- Inhibits microbial growth to improve safety
- Prevents the plenum from becoming biohazard landfill

ELISA Proven Containment

- Provides >99% allergen containment.
- Ensures user's safety



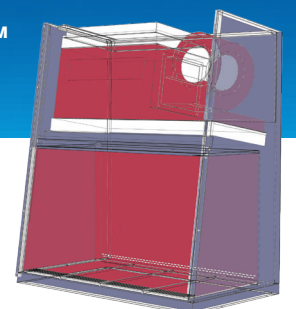
Certification

	Performance	Air Quality	Filtration	Electrical Safety
Standards Compliance	NSF / ANSI 49, USA*	ISO 14644.1, Class 3, Worldwide US Fed Std 209E, Class 1 USA JIS B9920, Class 3, Japan	EN-1822 (H14), Europe IEST-RP-CC001, USA	UL 61010-1 3rd Ed, USA CSA22.2, No.1010-192, Canada IEC61010-1, Worldwide

Dynamic Chamber™

- Blower plenum and side walls are surrounded by negative pressure
- Prevent contaminants from escaping outside

- Positive Pressure
- Negative Pressure



* The NSF / ANSI 49 certified models are VA2-4S_G4 and VA2-6S_G4

General Specifications, VIVA® VA2 Class II Type A2 Animal BSC

Model	220-240 V 50/60Hz	VA2-4S8 G4 12" (2011861)	VA2-5S8 G4 12"* (2011863)	VA2-6S8 G4 12" (2011865)
	110 - 120 V 50/60Hz	VA2-4S9 G4 12" (2011862)	VA2-5S9 G4 12"* (2011864)	VA2-6S9 G4 12" (2011866)
Nominal Size		1.2 meter (4')	1.5 meter (5')	1.8 meter (6')
External dimensions with SLC support stand at minimum height (W x D x H)**		1487 x 882 x 2027 - 2535 mm (58.6" x 34.7" x 79.8" - 99.8")	1792 x 882 x 2027 - 2535 mm (70.6" x 34.7" x 79.8" - 99.8")	2097 x 882 x 2027 - 2535 mm (82.6" x 34.7" x 79.8" - 99.8")
Internal work area, dimensions (W x D x H)		1220 x 625 x 720 mm (48.0" x 24.6" x 28.3")	1525 x 625 x 720 mm (60.0" x 24.6" x 28.3")	1830 x 625 x 720 mm (72.0" x 24.6" x 28.3")
Working Area		0.63 m ² (6.8 sq.ft)	0.79 m ² (8.5 sq.ft)	0.94 m ² (10.3 sq.ft)
Maximum sash opening		575 mm (22.6")		
Working Opening		305 mm (12")		
Average airflow velocity	Inflow	0.53 m/s (105 fpm)		
	Downflow	0.30 m/s (60 fpm)	0.35 m/s (70 fpm)	0.35 m/s (70 fpm)
Airflow volume	Inflow / exhaust without ducting	710 m ³ /h (420 cfm)	890 m ³ /h (525 cfm)	1065 m ³ /h (630 cfm)
	Downflow	771 m ³ /h (461 cfm)	1128 m ³ /h (662 cfm)	1349 m ³ /h (794 cfm)
	Required exhaust with optional thimble exhaust collar	756 m ³ /h (445 cfm)	921 m ³ /h (542 cfm)	1133 m ³ /h (667 cfm)
ULPA Filter typical efficiency		>99.999% at 0.1 to 0.3 micron, ULPA as per IEST-RP-CC001.3 USA >99.999% at MPPS, H14 as per EN 1822 EU		
Sound emission per NSF / ANSI 49***		60 dBA	65 dBA	65.9 dBA
LED Lamp intensity		≥ 1000 lux (≥ 93 ft-cd)		
Cabinet construction	Main body	Electro-galvanized steel with white oven-baked epoxy-polyester Isocide™ antimicrobial powder-coated finish, 1.5 mm (0.06") / 16 gauge thick		
	Workzone	Stainless steel type 304 with no.4 finish, 1.5 mm (0.06") / 16 gauge thick		
	Sash Window	6 mm UV-absorbing Tempered Glass		
Electrical Rating (8) 220-240 VAC, 50/60 Hz****	Nominal Power	236 W	455 W	550 W
	Heat Load	805 BTU/Hr	1553 BTU/Hr	1877 BTU/Hr
	Cabinet FLA exclude 5A EO	6 A	10 A	10 A
Electrical Rating (9) 110-120 VAC, 50/60 Hz****	Nominal Power	240 W	380 W	537 W
	Heat Load	819 BTU/Hr	1570 BTU/Hr	1832 BTU/Hr
	Cabinet FLA exclude 5A EO	10 A	15 A	15 A
Net weight cabinet including stand		287 kg (633 lbs)	381 kg (840 lbs)	400 kg (882 lbs)
Shipping weight Cabinet including stand		360 kg (722 lbs)	451 kg (968 lbs)	565 kg (1246 lbs)
Shipping dimensions, maximum (W x D x H) cabinet excluding stand		1490 x 950 x 2120 mm (58.7" x 37.4" x 83.5")	1950 x 950 x 2120 mm (76.8" x 37.4" x 83.5")	2200 x 950 x 2120 mm (86.6" x 37.4" x 83.5")
Shipping volume, excluding stand		3 m ³ (105.9 cu. ft.)	3.9 m ³ (137.7 cu. ft.)	4.4 m ³ (155.4 cu. ft.)

*Only VA2-4S_ G4 12" and VA2-6S_ G4 12" are the NSF-certified models.

**Depth with arm rest removed: 800 mm (31.5") without SLC stand and 818 mm (32.2") with SLC stand

***Noise as measured in open field / anechoic chamber. Noise reading in normal room varies by room size, layout, and background noise, but may reach roughly 3-4 dBA above these values.

**** Electrical power consumption is a measurement of new unit within nominal set point. Result may vary due to several independent variables.

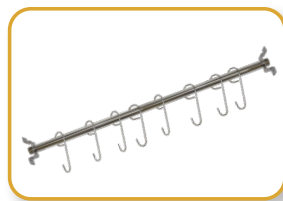
Options and Accessories

Model	220-240 V 50/60Hz	VA2-4S8 G4 12" (2011861)	VA2-5S8 G4 12"* (2011863)	VA2-6S8 G4 12" (2011865)
	110 - 120 V 50/60Hz	VA2-4S9 G4 12" (2011862)	VA2-5S9 G4 12"* (2011864)	VA2-6S9 G4 12" (2011866)
UV Lamp	UV-30A-L 5170255			
Electrical Outlet	Direct Mounted	EO-H_		
	GFCI Type	EO-GFCI 5170071		
Support Stand w/ Castors wheel and levelling feet (710 mm to 920 mm with 50 mm increment / 28.0" to 36.0" with 2" increment)	STA-4A0 5131341	STA-5A0 5131427	STA-6A0 5131389	
Motorized Stand (18-38" height)	5131494 SLC-4A8 G4 with 20" PISTON	5131584 SLC-5A8 G4 with 20" PISTON	5131496 SLC-6A8 G4 Wwith 20" PISTON	
Motorized Stand (18-30" Height)	5131446 SLC-4A8 G4 with 12" PISTON	5131583 SLC-5A8 G4 with 12" PISTON	5131495 SLC-6A8 G4 with 12" PISTON	
Service Fixture	EU SF – Gas – 20mm	SF-1G20 5170410		
	EU SF – Vacuum – 20mm	SF-1V20 5170457		
	EU SF – Air – 20mm	SF-1A20 5170502		
	EU SF – Nitrogen – 20mm	SF-1N20 5170503		
	EU SF – Water – 20mm	SF-1W20 5170458		
	EU SF – Universal – 22mm	SF-2U22 5170504		
	Copper Piping	COPPER PIPING 5170026		
Arm Rest Padding	MEWREST 5170127			
Stainless Steel Pipette Storage Shelf	5260327			
Foot Rest	FT-REST 5170073			
IQ/OQ Protocol	9010179			
Laboratory Chair	ME-LD-AR360 1150006			





UV_A-L



IV_



EO-H_



EO-GFCI



SF-1_



SF-2U_



SLC



SS Pipette Storage Shelf



MEWREST



FT-REST

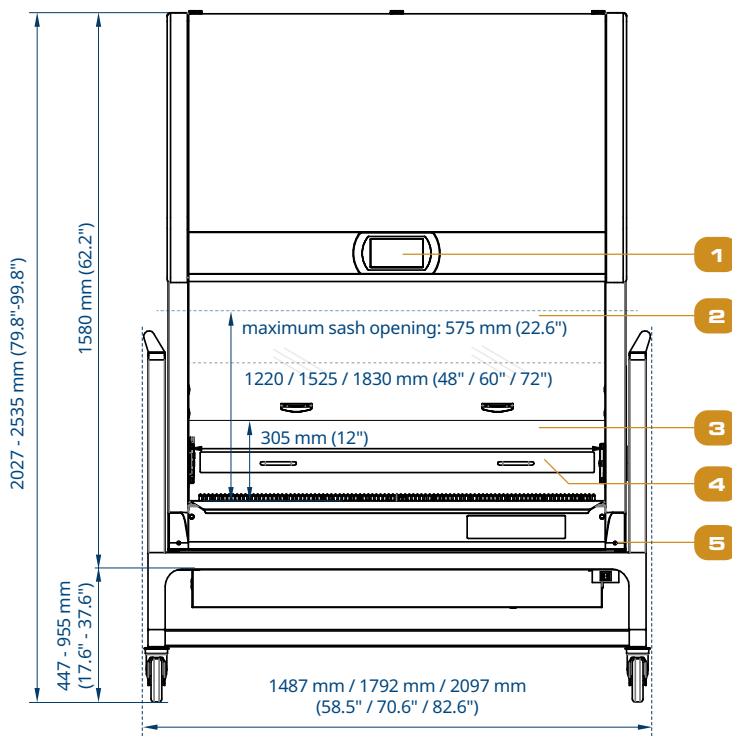


ME-LD-AR360

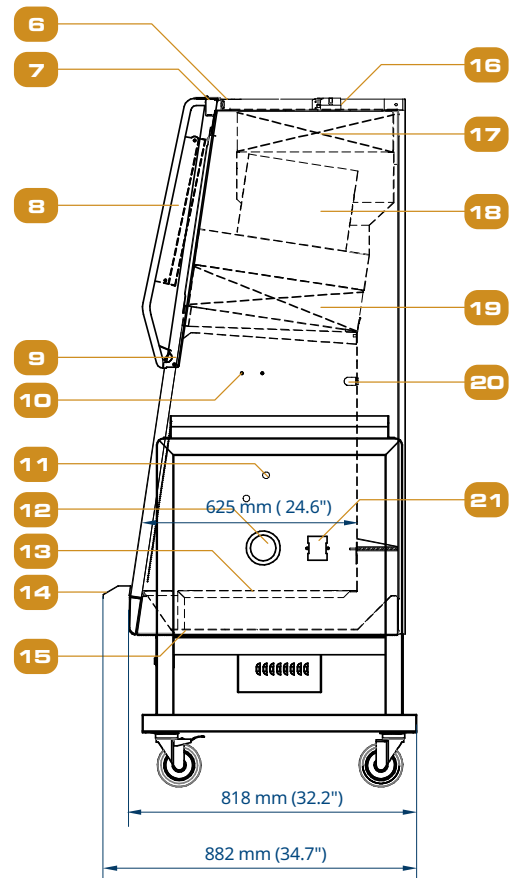


IQOQ

Engineering Drawing



1. Centurion™ Touchscreen Controller
2. Safety Glass Sliding Sash Window
3. Single-piece Stainless Steel Back Wall and Side Walls
4. Prefilter Rack
5. Removable Side Panel for Plumbing Access
6. USB Port for Data Transfer Data, Zero Volt Relay Contact (Blower & Alarm)
7. Power Inlet



8. Electrical Panel
9. LED Lamps
10. IV Bar Retrofit Kit Provision
11. Plugged Service Fixture provisions (2 on each side)
12. Cable Port
13. Stainless Steel Single-piece Work Tray
14. Stainless Steel Arm Rest
15. Drain Valve Retrofit Kit Provision
16. Airflow Sensor
17. Exhaust ULPA / H14 Filter
18. Energy-efficient DC ECM Blower
19. Downflow ULPA / H14 Filter
20. UV Lamp
21. Electrical Outlet

ESCO®

LIFESCIENCES GROUP

Improving Lives Through Science

**DIRECT
MANUFACTURER**



- Animal Research Workstation
- Biosafety Safety Cabinet
- CO₂ Incubator
- Ducted Fume Hood
- Ductless Fume Hood
- Filtered Storage Cabinet
- Laboratory Centrifuge
- Laboratory Oven and Incubator

- Laboratory Refrigerator and Freezer
- Laboratory Shaker
- Laminar Flow Cabinet
- PCR Cabinet
- PCR Thermal Cycler
- Powder Weighing Balance Enclosure
- Ultra-low Temperature Freezer

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- Airflow Containment
- Cross-Contamination Facility Integrated Barrier
- Isolation Containment
- Ventilation Containment
- Radiopharmacy

- Adherent Cell Bioreactors
- Adherent Automated Cell Harvesting System
- Cell Culture Monitoring Tools
- Single-use Consumables for Bioprocessing



ESCO®

MEDICAL

- Time-Lapse Incubator
- Benchtop Incubator
- ART Workstation
- CO₂ Incubator
- Anti-Vibration Table
- Gas Analyser
- Centrifuges

ESCO®

ASTER



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