#### Plasma Freezers













# The most suitable environments for sensitive plasma freezing.

Wide temperature range down to -40°C and high advanced safety functions satisfying the high medical standards. (ISO13485 / DIN 58375)



#### **BSF-650**

Standard accessories see page 141

- · Chart type recorder
- · Auto dialing remote system
- · Slide drawers, Door key

#### **Performance**

- · Fully insulated chamber ensuring minimal chamber's temperature fluctuation.
- High thermal efficiency evaporation system, made of low corrosive materials.
- · Auto-defrost system for automatic frost removal and manual defrost system for immediate frost removal.

#### Convenience

- · Intuitive and easy-to-operate control panel with VFD and touch-sensitive buttons.
- Easy temperature unit conversion between °C and °F
- Air-tight door seal and lockable door latch enhances tightness to door closure.
- · High-quality 304 grade stainless steel interior.
- Easy to store samples with smooth full-extension sliding
- Precise documentation is available by the provided chart type recorder.

#### Safety

- Dual temperature controllers for safe blood storage.
- If one controller fails to adjust temperature, then the other automatically activates to counteract the failure.
- Battery backup for emergency caused by power failures.
- Built in auto-dialing remote alarm to alert abnormal temperature changes or power failures.
- High/low temperature protection, Over current protection.
- · Open door alarm and automatic fan stop interlocked with door opening for minimization of heat loss.
- · Keypad lock function, Built in door lock with a key.

Model		BSF	-300	BSF-650			
Chamber volume (L / cu ft)		303 / 10.7		647 / 22.8	647 / 22.8		
Temperature range (°C / °F)		-40 to -25 / -40 to -13					
Refrigerator (Hp)		1		1-1/2			
No. of drawer shelf, slide (standard / max.)		4/4		6/6	6/6		
Max. load per shelf (kg / lbs)		26 / 57.3		30 / 66.1			
Interior		Stainless steel #304					
Material	Exterior	Steel, 1 mm, powder coating					
	Insulation	100mm, Polyurethane foam					
	Interior (mm / inch)	550x550x1000 / 21.7×21	.7×39.4	700×675×1370 / 27.6×26.6×53.9			
Dimension (W×D×H)	Exterior (mm / inch)	765x760x1650 / 30.1x29.9x64.9		915x885x2020 / 36x34.8x79.5			
(WADAII)	Net weight (kg / lbs)	150 / 331		240 / 529			
Electrical requirements (230V)		50Hz, 5.5A	60Hz, 5.5A	50Hz, 7.5A	60Hz, 7.5A		
Cat. No.		AAHE5102K	AAHE5101K	AAHE5112K	AAHE5111K		
Electrical requirements (120V)		60Hz, 11A					
Cat. No.		AAHE5103U		-			

<sup>\*</sup> Technical data according to DIN 58375.

<sup>\*</sup> FDA establishment registered company. FDA listed products.

# **Accessories & Options**







Wire shelves

Wire shelves (slide type)

Drawer shelves (slide type)







Dot recorder

Chart recorder

Thermal line recorder

## for Laboratory Cooling

Cat. No.	Description	CLG-150	CLG-30	0	CLG-	650	CI	LG-850	CLG-1400
AAAE1511		•	•		-			-	-
AAAE1512	Wire shelves - flat type (included shelf bracket)	-	-		•			-	•
AAAE1513	,	-	-		-			•	-
AAAE1514		•	•		-			-	-
AAAE1515	Wire shelves - slide type (included guide rail)	-	-		•			-	•
AAAE1516	(	-	-		-			•	-
AAAE1517		•	•		-			-	-
AAAE1518	Drawer shelves - slide type (included guide rail)	-	-		•			-	•
AAAE1519	(	-	-		-			•	-
AAAE1562	Recorder set; Recorder (dot type, 6 point) with Temp. sensor	•	•		•			•	•
AAAE1501	Recorder set; Recorder (chart type, 6", 24hr / 7day) with Temp. sensor	•	•		•			•	•
AAAE1502	Chart recorder paper (6", 60ea/1 package)	•	•		•			•	•
AAAE1563	Recorder set; Recorder (thermal line type) with Temp. sensor	•	•		•			•	•
AAAE1551	Auto dialing remote system	•	•		•			•	•
AAAE1521	Cable port	-	•		•			•	•
AAAE1531	Electric outlet (120V-US style)	-	•		•			•	•
AAAE1532	Electric outlet (230V-Korea style)	-	•		•			•	•
Cat. No.	Description	FHG-150 / FMG-150	FHG-300 / FMG-300		G-650 /IG-650	FCG-1	50	FCG-300 / FDG-300	FCG-650 / FDG-650
AAAE1511	Wire shelves - flat type	•	•		-	•		•	-
AAAE1512	Wire shelves - flat type (included shelf bracket)	-	-		•	-		-	•
AAAE1517	Drawer shelves - slide type	•	•		-	•		•	-
AAAE1518	(included guide rail)	-	-		•	-		-	•
AAAE1562	Recorder set; Recorder (dot type, 6 point) with Temp. sensor	•	•		•	•		•	•
AAAE1501	Recorder set; Recorder (chart type, 6", 24hr / 7day) with Temp. sensor	•	•		•	•		•	•
AAAE1502	Chart recorder paper (6", 60ea/1 package)	•	•		•	•		•	•
AAAE1563	Recorder set; Recorder (thermal line type) with Temp. sensor	•	•		•	•		•	•
AAAE1551	Auto dialing remote system	•	•		•	•		•	•

### for Medical Cooling

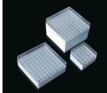
Cat. No.	Description	BSR-300	BSR-650
<b>AAAE1517</b>	Decrees the base of the transfer to the transf	•	-
AAAE1518	Drawer shelves - slide type (included guide rail)	-	•
AAAE1501	Recorder set; Recorder (chart type, 6", 24hr / 7day) with Temp. sensor	•	•
AAAE1502	Chart recorder paper (6", 60ea/1 package)	•	•
AAAE1551	Auto dialing remote system	•	•

Cat. No.	Description	BSF-300	BSF-650
AAAE1517	Drawer shakes alide type (feetigled wilders)	•	-
AAAE1518	Drawer shelves - slide type (included guide rail)	-	•
AAAE1501	Recorder set; Recorder (chart type, 6", 24hr / 7day) with Temp. sensor	•	•
AAAE1502	Chart recorder paper (6", 60ea/1 package)	•	•
AAAE1551	Auto dialing remote system	•	•

Cat. No.	Description	PSR-300	PSR-650
AAAE1511	NAC and the second of the seco	•	-
AAAE1512	Wire shelves - flat type (included shelf bracket)	-	•
AAAE1514	MACON Allerton and the state of	•	-
AAAE1515	Wire shelves - slide type (included guide rail)	-	•
<b>AAAE1517</b>	Daywar ala da a a a lida tara firahadad ayida asib	•	-
AAAE1518	Drawer shelves - slide type (included guide rail)	-	•
AAAE1501	Recorder set; Recorder (chart type, 6", 24hr / 7day) with Temp. sensor	•	•
AAAE1502	Chart recorder paper (6", 60ea/1 package)	•	•
AAAE1551	Auto dialing remote system	•	•

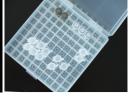
### Cryo box / Storage box

Cryo box is designed for ultra-low temperature storage of biological materials. (heat resistance : -196  $^{\circ}$  to 121  $^{\circ}$ C) Storage box is suitable for storage of samples in general conditions. (heat resistance: 20°C to 121°C)









Cryo box

Storage box

Cat. No.	Description	<b>Dimension</b> (WxDxH) (mm / inch)
AAAJ7001	Cryo box (PC, 1.2 to 2.0ml tubes x 25)	77×77×53 / 3.0×3.0×2.1
AAAJ7002	Cryo box (PC, 1.2 to 2.0ml tubes x 81)	132×132×54 / 5.2×5.2×2.1
AAAJ7003	Cryo box (PC, 5ml tubes x 81)	132×132×96 / 5.2×5.2×3.8
AAAJ7011	Storage box (PP, 1.2 to 2.0ml tubes x 100)	140×140×53 / 5.5×5.5×2.1

<sup>※ 5</sup>ea for 1 set.