MWBBU118-4000-A

OCP Compliant Battery Backup Unit

PRODUCT OVERVIEW

MWBBU118-4000-A is a 2U high, 12.3V based 4,000W battery backup unit (BBU) intended for deployment with Murata BBU shelf (MWBBES-212 or MWBBS-192). Each BBU is capable of providing 4,000W of backup power for up to two minutes enhancing system reliability by providing a light- weight, high energy density backup solution for applications requiring distribution of 12Vdc power.

FEATURES

- 4kw discharge power
- 12.3V charge/discharge voltage
- 150 seconds hold up time at 3.75kW
- 2U height
- 118(W)x 566(L)x 77(H)mm
- Adjustable charging power
- Active current sharing
- ORing FET isolation
- Hot swappable
- OVP, OCP, OTP and reporting

ORDERING GUIDE

Part Number	Discharge power	Charge/Discharge Voltage	Remark
MWBBU118-4000-A-B	4,000W	12.3Vdc	Internal cooling fan

CHARGE/DISCHARGE CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Charge Voltage			12.3		V
Charge Current		0		67	A
Charge Power				804	W
Discharge Voltage			12.3		V
Discharge Power		0		4000	W
Discharge Current		0		325	A
Hold up time (BOL)	3.75kW/25°C		150①		Sec

① Dependent upon load power and deterioration over time

ENVIRONMENTAL CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Temperature	Storage	-20		50	℃
	Operating	0		40	℃
Storage Time	-20 to 30°C ; 30% maximum initial state of charge (SOC); 30%; Internal UV protection will not activate during this period	12			Month
Humidity	Storage, non-condensing	5		93	%
	Operating, non-condensing	10		90	%
Non-operating altitude				12000	m
Operating altitude				3000	m
Life	Based on ten (10) discharge cycles per year at 25°C and 100% Depth of discharge		5		Year
Shock	30G non-operating, UN3480.				
Vibration	Random vibration: 5-500Hz, 1.11G. Sine sweep: 5-150Hz, 2G, UN3480				
Safety approval	UL 1973, IEC 62619, IEC 62133, UL 60730-1, IEC 60730-1				
Transportation Test	UN38.3				
Weight			7.8		Kg

EMISSION AND IMMUNITY

Item name	Standard	Criteria
Radiated emission	FCC47 CFR part15, CISPR 22: 2008 , EN 55022: 2010 , CISPR 32: 2012, EN 55032: 2012	Class A
ESD immunity	IEC/EN 61000-4-2	Parts in rear panel, e.g. 12V_Main_output, 12V_Main_return, signal connector, FAN: Level 3, criteria A; All other portions e.g. sheet metal, LED cover, handle, latch: Level 4, criteria A
MTBF	Telcordia SR-332 M1C1@40 deg C (without cells)	>500K Hrs.

OPEN COMMUNITY

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RoHS COMPLIANT

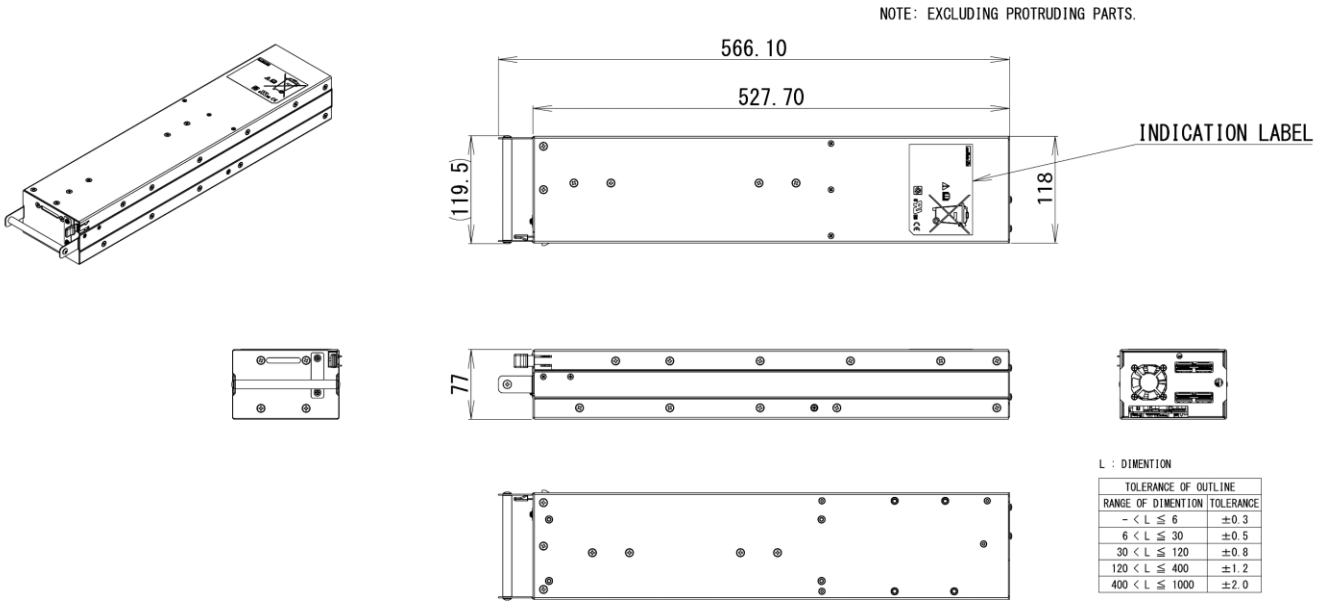
For full details go to:
www.murata.com/rohs

Planned Submissions

ISOLATION CHARACTERISTICS

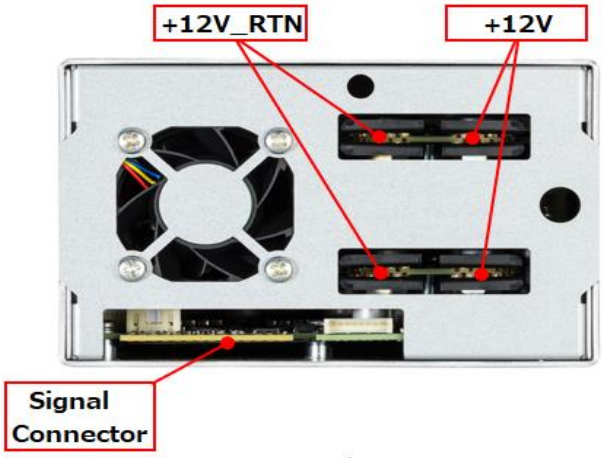
Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation Test Voltage	SELV to chassis	641			Vac

MECHANICAL DRAWING



PRODUCT VIEWS AND CONNECTOR DETAILS

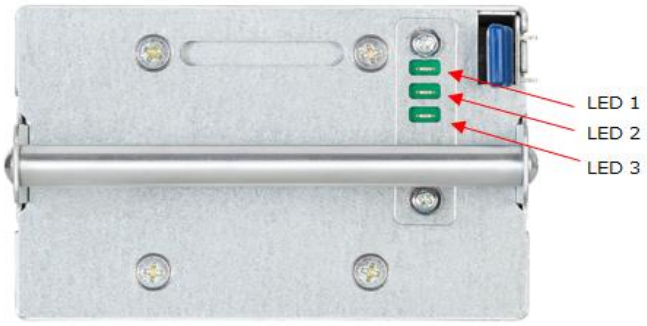
Front View



Rear View

STATUS INDICATION AND CONTROL SIGNAL

Front View, BBU



STATE	LED1 (Green)	LED2 (Green)	LED3 (Amber)
INITIALIZE[1]	BLINKING[4]	BLINKING[4]	BLINKING[4]
STANDBY(possible to discharge)[2]	BLINKING[4]	BLINKING[4]	OFF
STANDBY(impossible to discharge)	BLINKING[4]	OFF	OFF
DISCHARGE	OFF	ON	OFF
CHARGE(possible to charge)	ON	OFF	OFF
CHARGE(impossible to charge)	ON	BLINKING[4]	OFF
STORAGE	OFF	OFF	OFF
PRI PROTECTION	OFF	OFF	ON
SEC PROTECTION	OFF	OFF	BLINKING[4]
DCDC UPDATE[3]	ON	ON	ON
BMS UPDATE[3]	OFF	OFF	OFF

[1] LED1, LED2, and LED3 blink in order
[2] LED1 and LED2 blink simultaneously
[3] LED3 flashes when the FW data is transmitted from upper system
[4] Blink rate: every 2 seconds, 25% duty cycle

RELATED PRODUCT DATASHEETS

Document Number	Description	Link
MWBBES-212	21” BBU Shelf	https://power.murata.com/datasheet?/data/power/mwbbes-212.pdf
MWBBES-192	19” BBU Shelf	https://power.murata.com/datasheet?/data/power/mwbbes-192.pdf
MWBB-BCU	BCU (Battery Control Unit)	https://power.murata.com/datasheet?/data/power/mwbb-bcu.pdf

SAFETY CONSIDERATIONS

MWBBU118-4000-A is designed for deployment only wthin the Murata MWBBES-212 or MWBBES-192, refer to respective datasheet for additional details.

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ISO 9001 REGISTERED

This product is subject to the following operating requirements and the Life and Safety Critical Application Sales Policy: Refer to:

https://www.murata.com/requirements/