

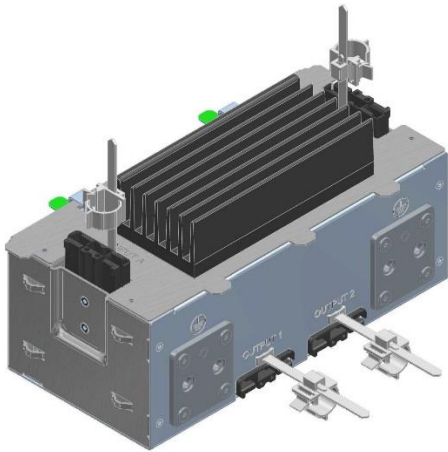
HV DC Power Distribution Unit

for SPSPFE3-07 Power Shelf

Bel Power Solutions High Voltage DC Power Distribution Unit (PDU) is used for 240 to 380 VDC power distribution in an OCP rack.

This device has been designed to supply a SPSPFE3-07 shelf (HV DC input shelf). Two internally connected output circuits supply two separate inputs of the shelf.

The main power is fed into two separate HV DC inputs via Anderson power connector. These inputs are 'OR'd with a power diode inside the PDU.



Key Features & Benefits

- Input voltage range from 240 to 380 VDC
- Power distribution cables connected with Anderson Power SBS75X connector
- Two separate VDC inputs
- Two 33 A VDC outputs
- UL approved in conjunction with the upstream protection circuit breakers (specified in UL file)
- Two PE power connections (dual-hole terminal lugs)

1. ORDERING INFORMATION

MODEL	DESCRIPTION
YSU.00218	Two 240 to 380 VDC inputs Two 240 to 380 VDC, 33 A outputs Two PE contacts The PDU includes screws for the power connections. The PDU does not include mating lugs/cables

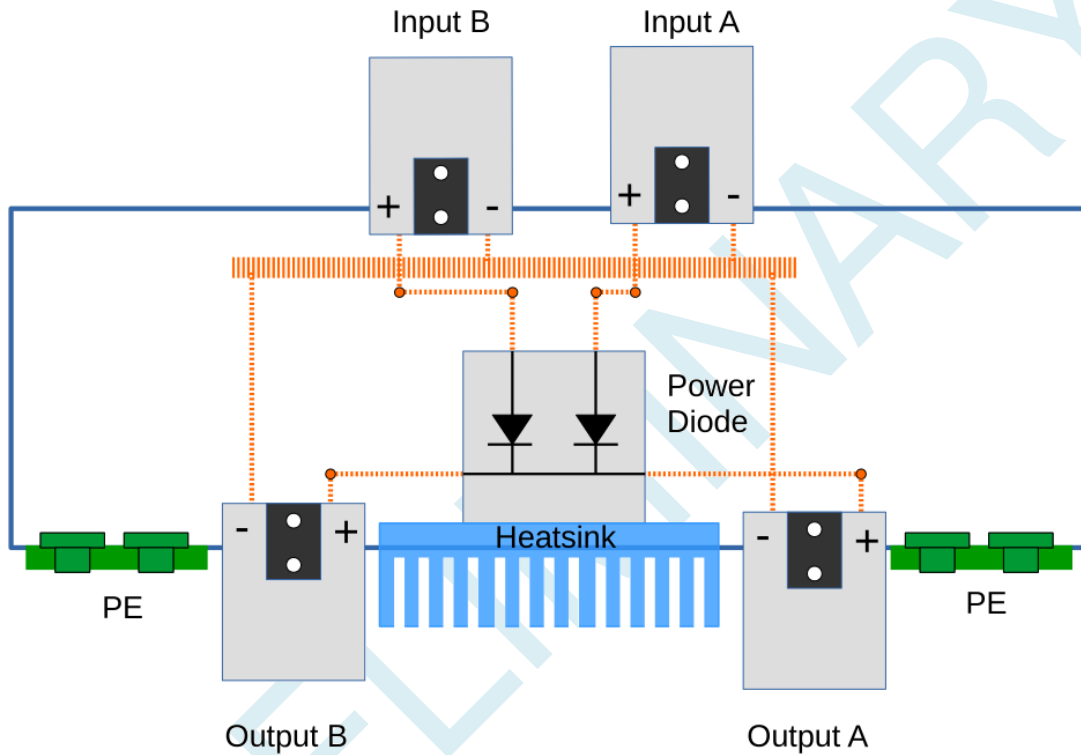


Figure 1. Electrical Schematic

2. INPUT SPECIFICATIONS


The PDU can handle 15 kW of input power and 66 A input current per phase and in total.

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
Input Voltage Range		240		380	VDC
Input Current per input circuit				66	A

2.1 INPUT CONNECTIONS

DESCRIPTION	REFERENCE DESIGNATOR	TYPE	MATING PART MPN	RECOMMENDED CABLING
Input Connectors	Input A Input B	Power connector	Housing: Anderson SBS75XBLK Power pin for AWG6: Anderson 1339G2	6 AWG / 13 mm ² UL Style UL10070 or Equivalent

2.2 PROTECTIVE EARTH CONNECTION

DESCRIPTION	REFERENCE DESIGNATOR	TYPE	MATING PART MPN	RECOMMENDED CABLING	TORQUE
PE	PE 	Copper plate with dual hole	Burndy YA26L-2TC38 Panduit LCD2/0-38D-X or Equivalent (need to be UL Listed)	00 AWG / 67 mm ² UL Style UL10070 or Equivalent	11.3 Nm

There are two copper plates for the connection of PE. It is sufficient if one is connected. Either of them can be used to ground the PDU. It is not allowed to ground other devices via the other plate.

3. OUTPUT SPECIFICATIONS

The PDU can handle 7.5 kW of out power and a maximum of 33 A for each output circuit. In total 15 kW and 66 A.

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
Output Voltage Range	All outputs	240		380	VDC
Output Current	Per output			33	A

3.1 OUTPUT CONNECTIONS

DESCRIPTION	REFERENCE DESIGNATOR	TYPE	MATING PART MPN	RECOMMENDED CABLING
Output Connectors	Output A Output B	Power connector	Housing: Anderson SBS75XBLK Power pin for AWG6: Anderson 1339G2	6 AWG / 13 mm ² UL Style UL10070 or Equivalent

4. SAFETY, REGULATORY AND EMC SPECIFICATIONS

PARAMETER	CONDITIONS / DESCRIPTION	CRITERION
Agency Approvals	UL/CSA 60950-1 CE Mark RoHS Compliant	
Isolation Strength	Input to case (PE)	Basic
Electrical Strength Test		According to safety standard

5. ENVIRONMENTAL SPECIFICATIONS

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
Altitude	Operating			4000	m
				13000	ft
	Non-Operating (without derating)			13000	m
Operating Ambient Temperature	1800 m	-5		+55	°C
	4000 m	-5		+40	°C
Storage Temperature		-40		+70	°C
Transportation Temperature	Short term storage, 72 hours	-55		+85	°C
Relative Humidity	Operating: Non-condensing	7		93	%
	Non-operating: 38.7°C maximum wet bulb temperature with no cosmetic damage	5		95	%
Shock	Operating: 11 ms, 3 half-sine wave shocks, 3 axes			5	g
	Non-Operating: 2 ms, 6 half-sine wave shocks, 3 axes			140	g
Sinusoidal Vibration	Operating: zero to peak, 10 to 500 Hz, 0.25 oct/min			0.25	g
	Non-Operating: zero-to-peak, 10 to 500 Hz, 0.5 oct/min			0.75	g

6. MECHANICAL SPECIFICATIONS

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
Dimensions (W x H x D)			264 x 152 x 134		mm
Weight			2.7		kg

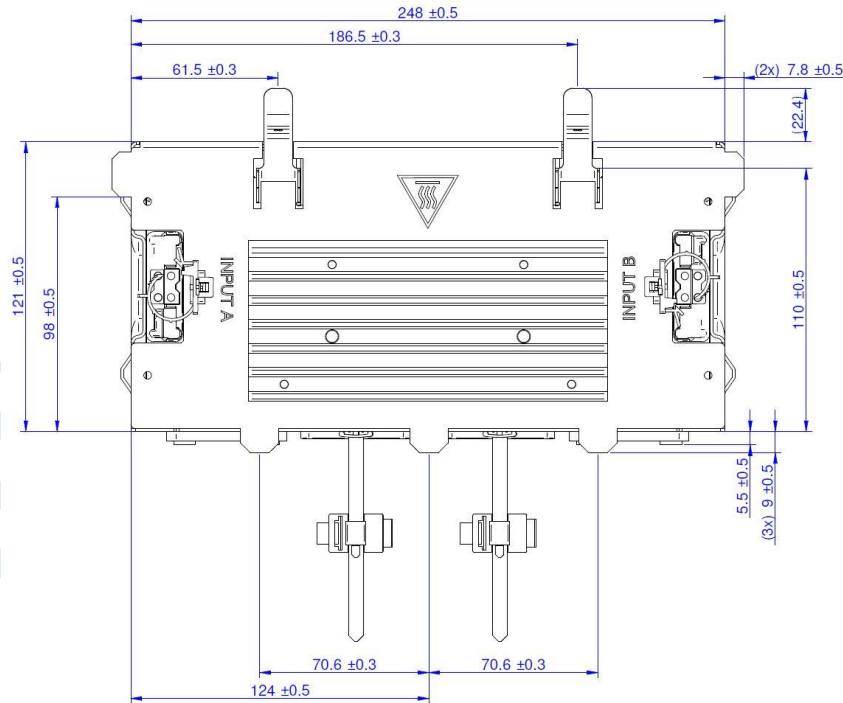


Figure 2. Dimension Drawing DC PDU (Top View)

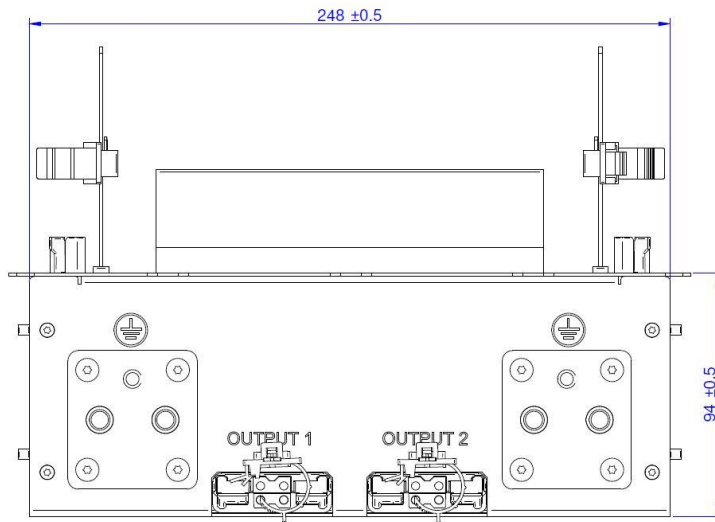


Figure 3. Dimension Drawing DC PDU (Front View)

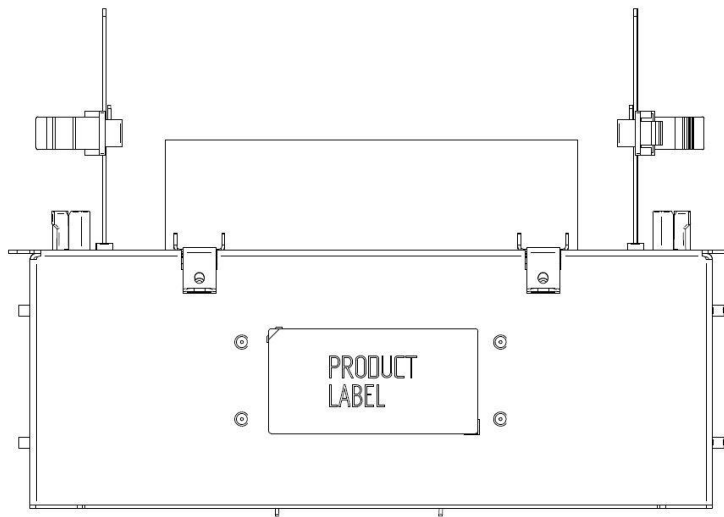


Figure 4. Dimension Drawing DC PDU (Back View)

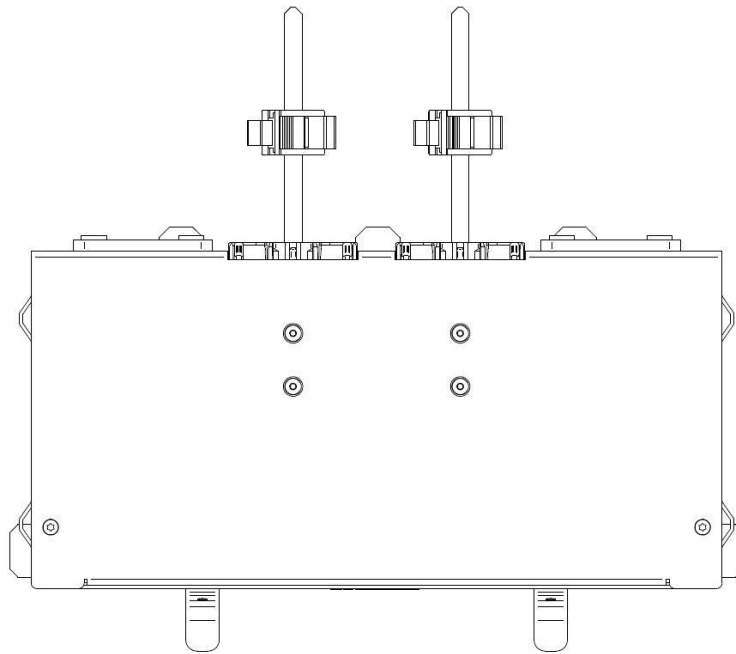


Figure 5. Dimension Drawing DC PDU (Bottom View)

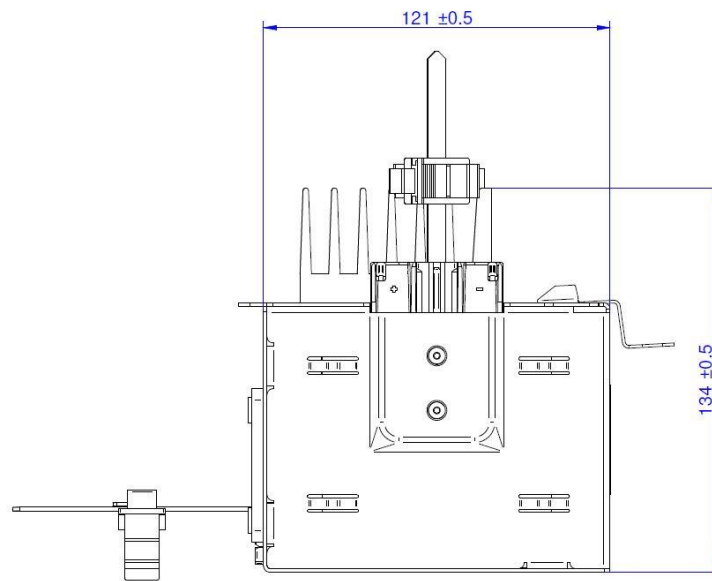


Figure 6. Dimension Drawing DC PDU (Side View)

7. ACCESSORIES

ITEM	DESCRIPTION	ORDERING PN	SOURCE
	Output wiring harness power zone 1 Set of two cables including connectors for the connection of the PDU to the shelf in power zone 1	ZLH.U1C03.0	belfuse.com/power-solutions
	Output wiring harness power zone 2 Set of two cables including connectors for the connection of the PDU to the shelf in power zone 2	ZLH.U1C04.0	belfuse.com/power-solutions
	Input connector accessory 4x input connectors considered for the input connection of two HVDC PDUs	ZES.U1C01	belfuse.com/power-solutions

8. REFERENCE DOCUMENTS

DOCUMENT NUMBER	DESCRIPTION
BCM.00475	YSU.00218 Installation Instruction
BCD.00919	SPSPFF3-07 Datasheet

PRELIMINARY

For more information on these products consult: tech.support@psbel.com

NUCLEAR AND MEDICAL APPLICATIONS - Products are not designed or intended for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems.

TECHNICAL REVISIONS - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.



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