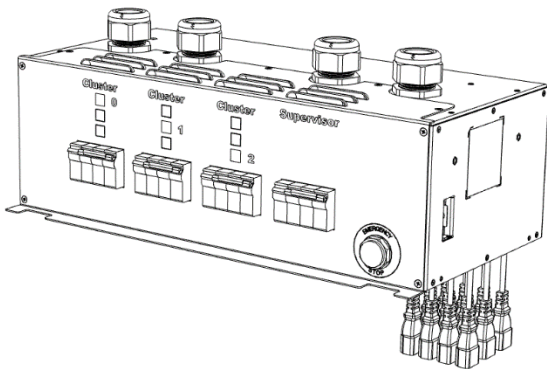


YSU.00210

AC Power Distribution Unit for SPSTET4-02

Bel Power Solutions AC Power Distribution Unit (PDU) is used for 54.5 VDC output power shelf.

This device has been designed to supply SPSTET4-02 shelf (54.5 VDC power shelf). AC PDU converts 3phase input to 3x single phase output. The main power is fed from a 3phase delta (3W+PE) or 3phase wye (3W+N+PE) configuration. Single phase AC output is configured with respect to AC input configuration, Delta to Delta or Wye to Wye. AC PDU is protected by 50A C curve UL1077 circuit breaker. PDU offers 12pcs. AC appliance outlets which is protected by a 16A C curve UL1077 circuit breaker.



Key Features & Benefits

- Input voltage range from 200 to 415 VAC.
- Can accommodate 3-phase Delta or Wye configuration.
- AC output is manually selected based from input configuration.



1. ORDERING INFORMATION

MODEL	DESCRIPTION
YSU.00210	CLUSTER 0, 1, 2 50 A C Curve UL1077 circuit breaker Output Connectors for Delta or Wye configuration.
	SUPERVISOR 16 A C Curve UL1077 circuit breaker Output Power Cords: 4x IEC 60320 C-15 Power Cords 8x IEC C13 Power Cords with Locking System. 1x IEC Appliance Outlet F Shuttered with Fuseholder. The PDU does not include input and output mating connector/lugs/cables

2. TECHNICAL DATA

PARAMETER	DESCRIPTION / CONDITION
CLUSTER 0, 1, 2	
Input Voltage	3Phase (Delta or Wye) 200-415 VAC Line to Line input.
Output Voltage	3pcs single phase from Delta or Wye input configuration
Input Max Current	40 A (sum per phase)
Circuit Breaker	50 A C curve, UL 1077
Output Connection	Molex: 151053-0006
SUPERVISOR	
Input Voltage	3Phase (Delta or Wye) 200-415 VAC Line to Line input.
Output Voltage	13pcs single phase from Delta or Wye input configuration
Input Max Current	12.8 A (sum per phase)
Circuit Breaker	16 A C curve, UL 1077
Output Connection	4x IEC 60320 C-15 Power Cords 8x IEC C13 Power Cords with Locking System. 1x IEC Appliance Outlet F Shuttered with Fuseholder, protected by T 10A, 250Vac

3. SAFETY WARNING

The user assumes all responsibility and liability for proper and safe handling of the goods. Further, the user indemnifies Bel Power Solutions Inc. from all claims arising from the handling or use of the goods. Persons handling the product(s) must have electronics training and observe good engineering practice standards.

CAUTION: Multiple power source. Disconnect all power cords before servicing.

4. REFERENCE DOCUMENTS

DOCUMENT NUMBER	DESCRIPTION
BCM.00476	YSU.00210 Installation Instruction
BCD.00906	SPSTET4-02 Datasheet
BCM.00473	SPSTET4-02 Installation Instruction

5. OVERVIEW

This device has been designed to supply SPSTET4-02 shelf (54.5 VDC power shelf). The main power is fed from a 3phase delta or 3phase wye configuration. Single phase AC outputs are configured with respect to AC input configuration, Delta to Delta or Wye to Wye. AC PDU is protected by 50 A C curve UL1077 circuit breaker. PDU also offers 12pcs. AC appliance outlets which are protected by a 16 A C curve UL1077 circuit breaker.

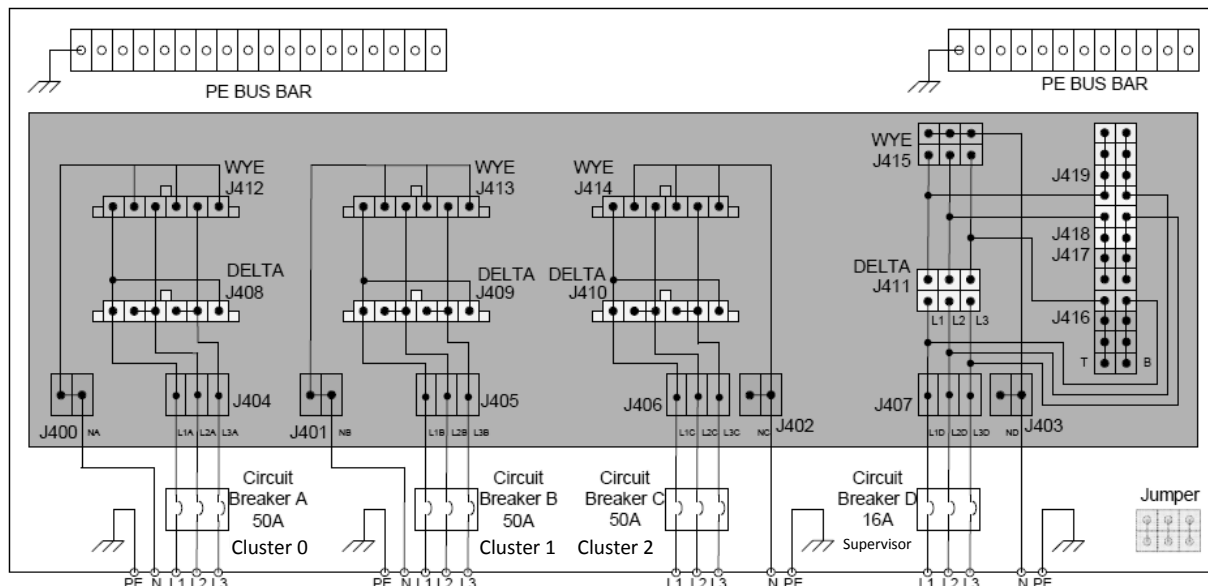


Figure 1: Electrical Schematic

6. INPUT SPECIFICATIONS

The PDU can handle 28 A (sum per phase) of output current and a maximum of 50 A for each input circuit breaker on Cluster 0, 1, and 2.

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
AC Nominal Input Voltage	3phase Delta Configuration (3W+PE), Line-to-Line voltage		208		VAC
AC Input Voltage Ranges	Line-to-Line voltage	180		264	VAC
Max Input Current	Sum per phase			40	Arms
Input Frequency		47	50 / 60	63	Hz

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
AC Nominal Input Voltage	3phase Wye Configuration (3W+N+PE), Line-to-Line		400		VAC
AC Input Voltage Ranges	Line-to-Neutral	180		264	VAC
Max Input Current	Sum per phase			28	Arms
Input Frequency		47	50 / 60	63	Hz

The PDU have appliances outlets which can deliver 9 A (sum per phase) of output current and a maximum of 16 A input circuit breaker on Supervisor.

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
AC Nominal Input Voltage	3phase Delta Configuration (3W+PE) Line-to-Line voltage		208		VAC
AC Input Voltage Ranges	Line-to-Line voltage	180		264	VAC
Max Input Current	Sum per phase			12.8	Arms
Input Frequency		47	50 / 60	63	Hz

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
AC Nominal Input Voltage	3phase Wye Configuration (3W+N+PE), Line-to-Line voltage		400		VAC
AC Input Voltage Ranges	Line-to-Neutral voltage	180		264	VAC
Max Input Current	Sum per phase			9	Arms
Input Frequency		47	50 / 60	63	Hz

6.1 INPUT CIRCUIT BREAKER

DESCRIPTION	REFERENCE DESIGNATOR	MPN	MFN	RECOMMENDED CABLING
50A C curve UL1077	CLUSTER 0, 1, 2	2CDS253001R0504	ABB	8 AWG / 8 mm ² UL Type-W or equivalent
16A C curve UL1077	SUPERVISOR	2CDS253001R0164	ABB	

6.2 PROTECTIVE EARTH CONNECTION

DESCRIPTION	REFERENCE DESIGNATOR	MPN	MFN	RECOMMENDED CABLING
18 port ground bus bar	PE 	UGB2/0-414-18	PANDUIT	8 AWG / 8 mm ² UL Type-W or equivalent
12 port ground bus bar	PE 	UGB2/0-414-12	PANDUIT	8 AWG / 8 mm ² UL Type-W or equivalent

7. OUTPUT SPECIFICATIONS

7.1 CLUSTER 0, 1, 2

The PDU can handle maximum of 28 A (sum per phase) for each main output circuit.

The PDU provides 2 terminal connectors for each cluster, each of the connectors correspond to either Delta or Wye input configuration.

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
Nominal AC Input Voltage	DELTA Configuration		208		VAC
Output Voltage Range	Use J408, J409, J410		208		VAC
Output Current	sum per phase			28	Arms

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
Nominal AC Input Voltage	WYE Configuration		400		VAC
Output Voltage Range	Use J412, J413, J414		230		VAC
Output Current	sum per phase			28	Arms

7.1.1 OUTPUT CONNECTIONS

DESCRIPTION	REFERENCE DESIGNATOR	MPN	MATING PART MPN	RECOMMENDED CABLING
DELTA Config Output Connector	J408, J409, J410	Molex 151053-0006	Molex 151034-0016	8 AWG / 8 mm ² UL Type-W or equivalent
WYE Config Output Connector	J412, J413, J414	Molex 151053-0006	Molex 151034-0016	8 AWG / 8 mm ² UL Type-W or equivalent

7.2 SUPERVISOR

The PDU can handle maximum of 9 A (sum per phase) for all appliance power outlets.

The PDU have 2 terminal connectors which is configurable by a jumper connector ZLH.U1G01.0. Each of the connectors correspond to either Delta or Wye input configuration.

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
Nominal AC Input Voltage	DELTA Configuration		208		VAC
Output Voltage Range	Use J411		208		VAC
Output Current	sum per phase			9	Arms

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
Nominal AC Input Voltage	WYE Configuration		400		VAC
Output Voltage Range	Use J415		230		VAC
Output Current	sum per phase			9	Arms

7.2.1 OUTPUT CONNECTIONS

DESCRIPTION	QUANTITY	MPN	MFN	RECOMMENDED CABLING
IEC60320 C-15 power cords	4pcs	Multiple	Multiple	
IEC C13 Power Cords with Locking System.	8pcs.	IL13-SE-SJT-3100-x00	Multiple	
IEC Appliance Outlet F Shuttered with Fuseholder	1pc.	4719.4310	Schurter	

DESCRIPTION	Position	Remarks	MFN:	MPN:
IEC60320 C-15 power cords	Position 1, 2, 3, 4	80 cm 0/+2 cm.		
IEC C13 Power Cords with Locking System.	Position 5, 6, 9, 10, 11, 12	80 cm 0/+2 cm.		
IEC C13 Power Cords with Locking System.	Position 7, 8	180 cm 0/+2 cm.		
IEC Appliance Outlet F Shuttered with Fuseholder	Position 13	Fuse Protection: 5 x 20 mm Time Lag Fuse.	MFN: Bel Fuse Schurter Littelfuse	MPN: 5HT 10-R 0001.2514 0215010.MXP

7.3 EMERGENCY STOP BUTTON

The PDU have a manual stop button to release all circuit breaker in case of emergency.

8. SAFETY AND REGULATORY SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	CRITERION
Agency Approvals Pending	Approved to the latest revisions/amendments of the following standards: UL 60950-1 Second Edition CAN/CSA-C22.2 No. 60950-1-07 Second Edition IEC 60950-1:2005 EN 60950-1:2006	Approved by independent body (see CE Declaration)
Insulation	Primary (L/N) to case (PE)	Basic
Creepage / Clearance (α)	Primary (L/N) to case (PE)	
Electrical Strength Test	Input to case	Min. 2121 VDC

9. ENVIRONMENTAL SPECIFICATIONS

PARAMETER	CONDITIONS / DESCRIPTION	MIN	NOM	MAX	UNITS
Operating Ambient Temperature		0		+32	°C
Storage Temperature		-40		+70	°C
Relative Humidity	Operating: @ at 32°C, non-condensing Non-Operating: non-condensing	10 5		90 95	%
Altitude	Operating Non-Operating			TBD TBD	m
Shock	Operating: 11 ms half-sine shocks in Z axis 10+ve, 10-ve Non-Operating: 11 ms half-sine shocks in Z axis 10+ve, 10-ve		5 30		g
Vibration	Operating: 0.2 g _{rms} random Non-Operating: 1 g _{rms} random	5 2		500 200	Hz

10. MECHANICAL SPECIFICATIONS

PARAMETER	CONDITIONS / DESCRIPTION
Dimensions (W x H x D)	588 X 190 X 300 mm
Weight	16kg

10.1 YSU.00210 MECHANICAL DATA:

NOTE: finished good may look different from images.

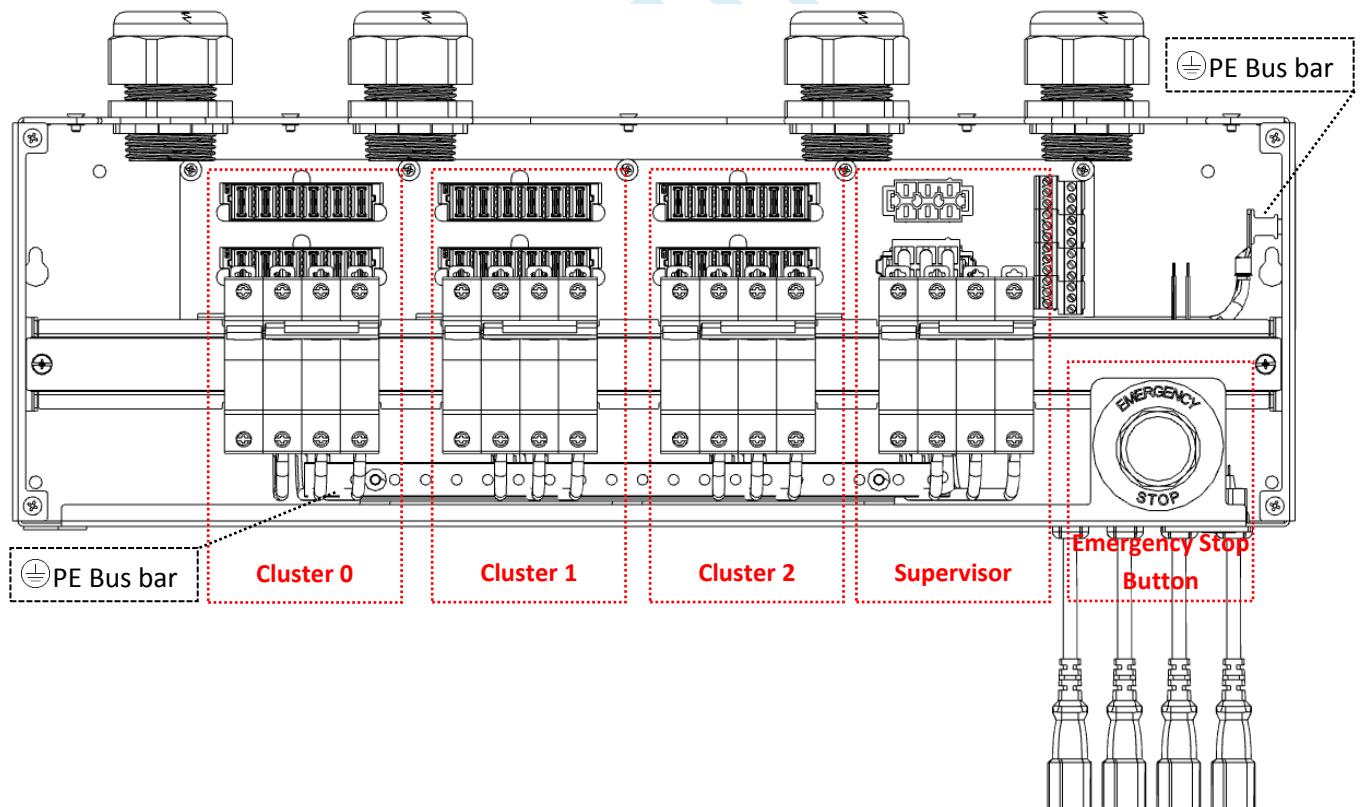


Figure 2. Drawing AC PDU (Front View without faceplate)

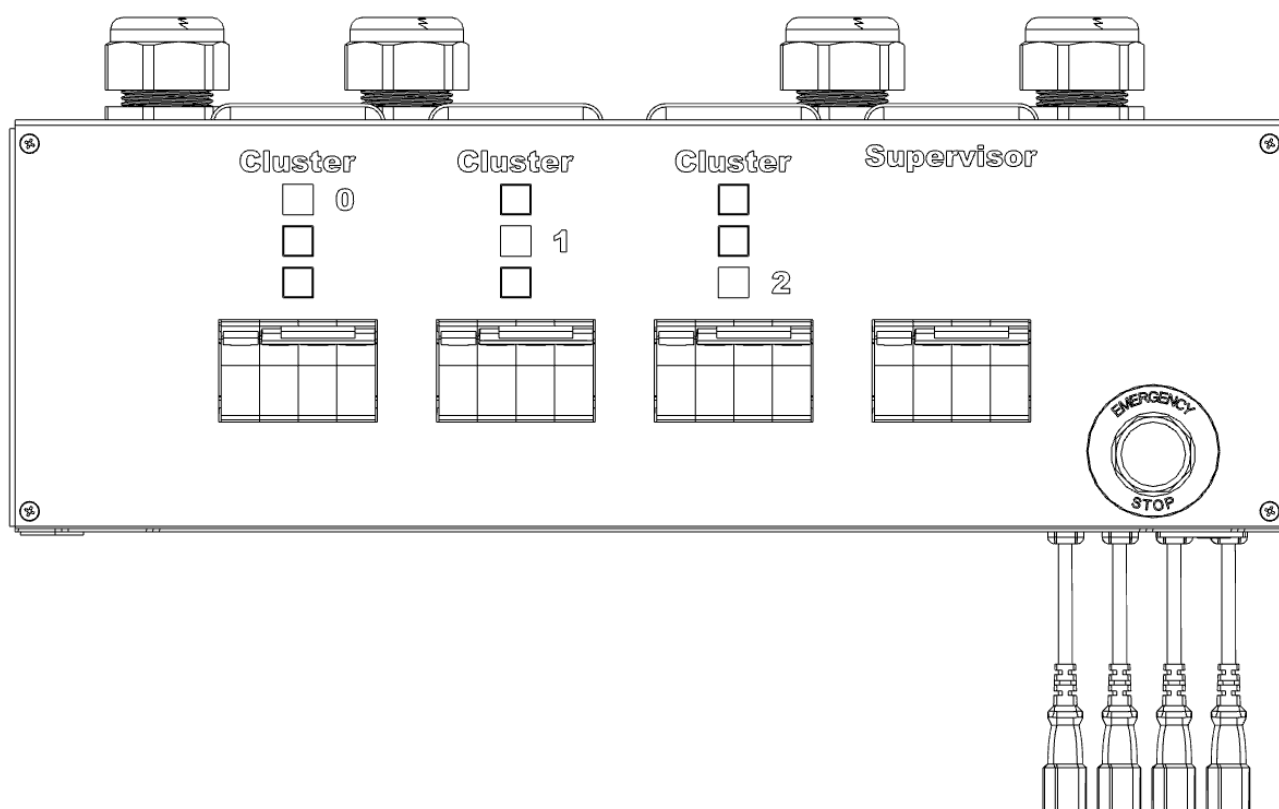


Figure 3. Drawing AC PDU (Front View)

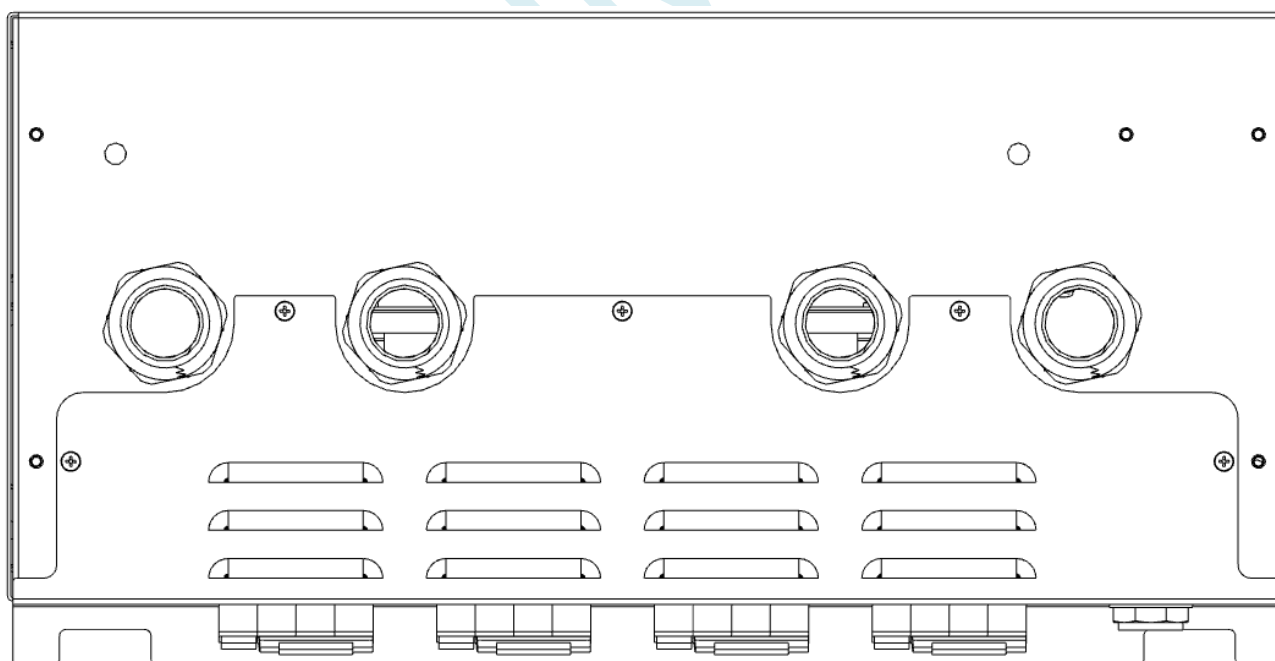


Figure 4. Drawing AC PDU (Top View)

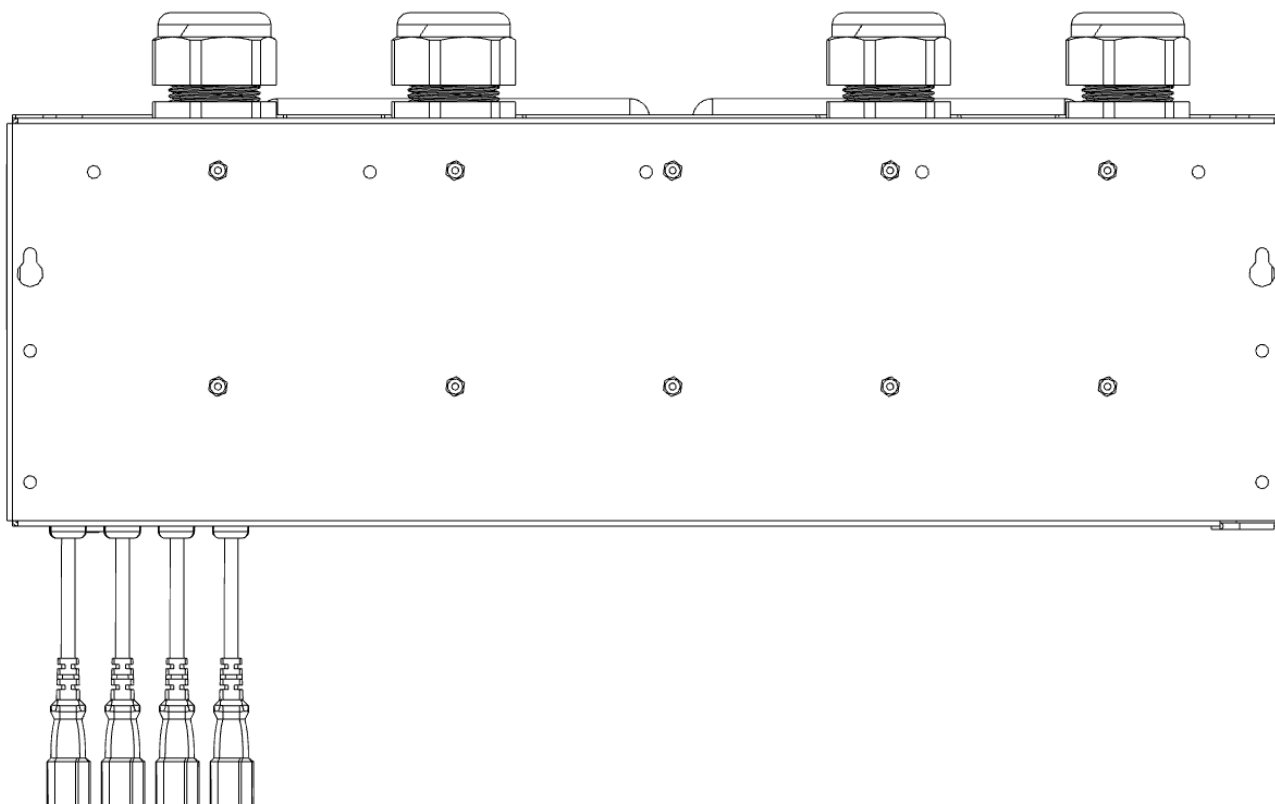


Figure 5. Drawing AC PDU (Rear View)

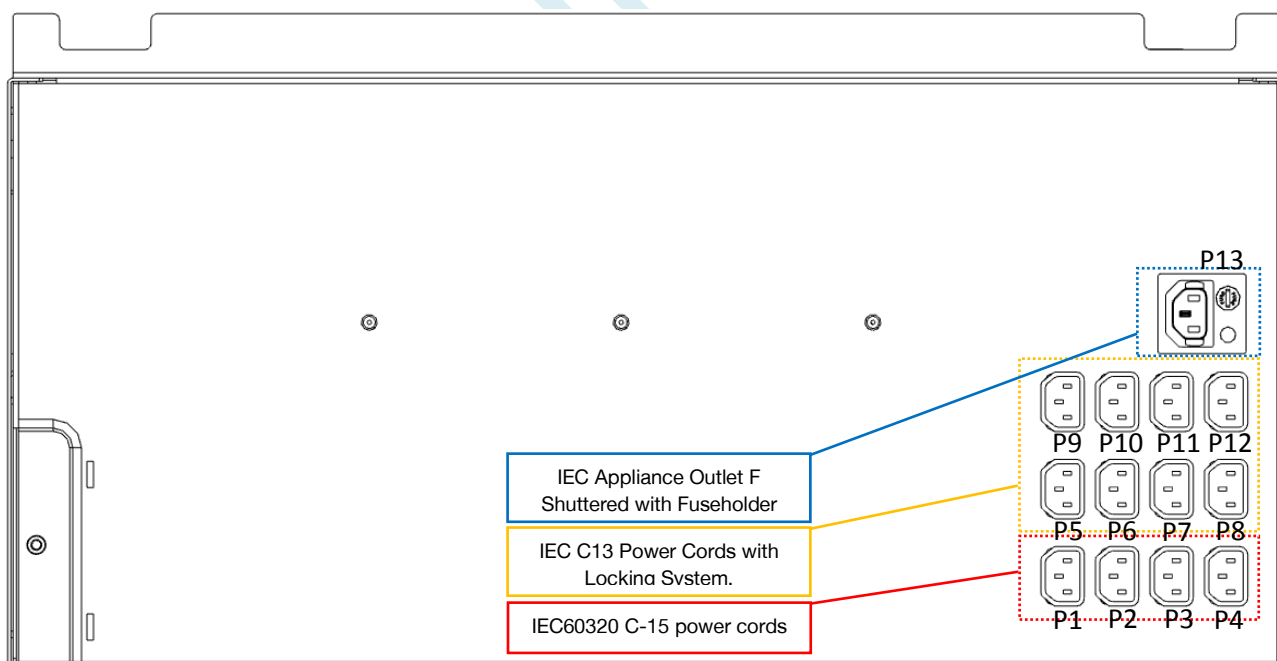


Figure 6. Drawing AC PDU (Bottom View)

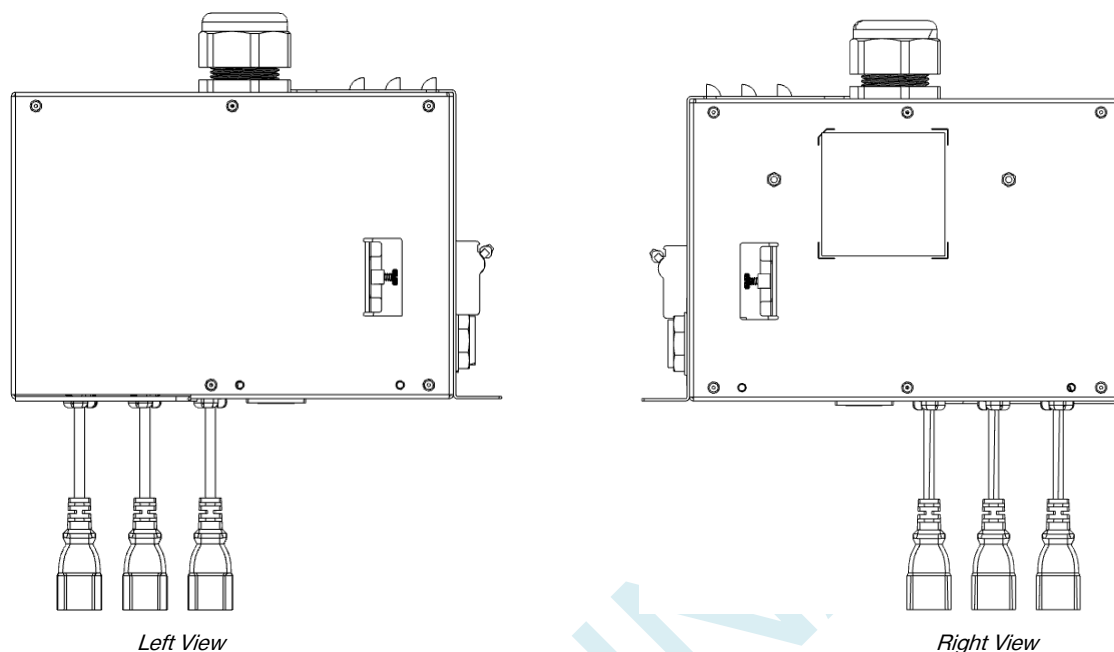


Figure 7. Drawing AC PDU (Side View)

11. REVISION HISTORY

REV	DESCRIPTION	PRODUCT VERSION	DATE	AUTHOR
001	PRELIMINARY: Initial Draft	V001	21.09.2017	GS
002	Datasheet Update for V002: Appliance outlet power cord change. Mechanical Drawing change.	V002	06.02.2018	GS
003	Update Input Current at Delta configured Input.	V003	24.04.2018	GS

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

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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.