

# 3-PHASE WYE (Y) CONNECTION 277/480 VAC INPUT / 48 VDC OUTPUT AC-DC POWER SHELVES SPSTET4-01, SPSTET4-07, SPSTET4-08, SPSTET4-09

The SPSTET4 power shelf solutions provide rectification, system management, and power distribution functions while maintaining high reliability and offering flexibility for future expansion.

The power shelf can be configured with up to six hot-swap capable TET4000-48-069RAH AC/DC-DC power modules that convert AC input to 54.5 VDC output for powering IT racks, OCP racks and Data centers.

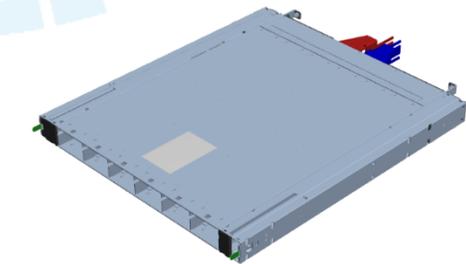
The shelf has an optional slot for a Network Attached Controller, providing control functions and monitoring through a 10/100 MB base Ethernet port. It can be connected directly to the data center management network.

## Key Features & Benefits

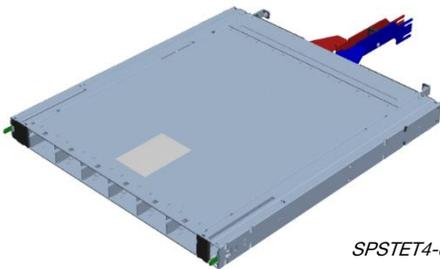
- Two 3-Phase WYE inputs, each input supports 3 power modules
- Power modules are hot-swap capable
- Power shelf and power modules support CANBus communication for control, programming, and monitoring
- Power modules implement the following protections:  
over temperature, output over voltage and output overcurrent
- Dimensions w/o busbar: 535 x 47 x 602 mm (21.06 x 1.85 x 27.7 in)

## Applications

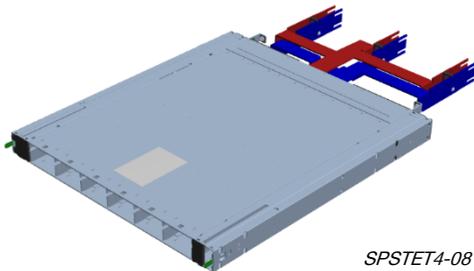
- IT racks
- OCP racks
- Data centers



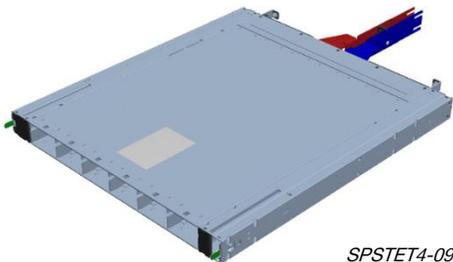
SPSTET4-01



SPSTET4-07



SPSTET4-08



SPSTET4-09



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### 1. GENERAL BEL POWER SHELF REFERENCE TABLE

		INPUT						
		AC (Y) 277/480 VAC	AC (Y) 240/415 VAC	AC (Δ) 208 VAC	AC (1-Phase) 3x 230 VAC	- 48 VDC	+380 VDC	
OUTPUT	+12 VDC	Triple Busbar Straight	SPSPFE3-05G	SPSPFE3-15*	SPSPFE3-09	-	SPSPFF3-03*	SPSPFE3-13*
		Single Busbar Straight	SPSPFE3-06G	SPSPFE3-16*	SPSPFE3-10	SPSTET4-02	SPSPFF3-02*	SPSPFE3-12*
		Single Busbar Offset <sup>1</sup>	SPSPFE3-08	SPSPFE3-14*	SPSPFE3-11	-	SPSPFF3-01	SPSPFE3-07
	+48 VDC	Single Busbar Offset Short <sup>2</sup>	<b>SPSTET4-01</b>	SPSTET4-11	SPSTET4-03*	-	N/A	SPSTET4-04*
		Single Busbar Offset Long <sup>1</sup>	<b>SPSTET4-07</b>	SPSTET4-12	-	-	N/A	-
		Single Busbar Straight Long	<b>SPSTET4-09</b>	SPSTET4-13	-	-	N/A	-
		Triple Busbar Straight Long	<b>SPSTET4-08</b>	SPSTET4-14	SPSTET4-17*	-	N/A	-
	+380 VDC	Connector Type	SPSTET4-05*	-	SPSTET4-06*	-	-	N/A

<sup>1</sup> Mates with V2

<sup>2</sup> Mates with V2 shallow rack

\* Available on request requiring short design cycle.

**NOTE:** Other datasheets contain alternative shelf configurations, check factory for availability.

### 2. ORDERING INFORMATION

MODEL	AC INPUT (WYE CONFIGURATION)	DC OUTPUT	# OF BUSBAR BLADES	CONTROLLER
SPSTET4-01	3-phase, 200 – 277 / 346 – 480 VAC	48 VDC	Single Offset Short	No
SPSTET4-01C	3-phase, 200 – 277 / 346 – 480 VAC	48 VDC	Single Offset Short	Yes
SPSTET4-07	3-phase, 200 – 277 / 346 – 480 VAC	48 VDC	Single Offset Long	No
SPSTET4-07C	3-phase, 200 – 277 / 346 – 480 VAC	48 VDC	Single Offset Long	Yes
SPSTET4-08	3-phase, 200 – 277 / 346 – 480 VAC	48 VDC	Triple Straight Long	No
SPSTET4-08C	3-phase, 200 – 277 / 346 – 480 VAC	48 VDC	Triple Straight Long	Yes
SPSTET4-09	3-phase, 200 – 277 / 346 – 480 VAC	48 VDC	Single Straight Long	No
SPSTET4-09C	3-phase, 200 – 277 / 346 – 480 VAC	48 VDC	Single Straight Long	Yes

### 3. TECHNICAL DATA

PARAMETER	DESCRIPTION / CONDITION
Input	3-phase, 200 – 277 / 346 – 480 VAC Line to Line input with Neutral line <sup>1</sup>
AC Inlet Configuration	2 AC Inlets. Each inlet powers 3 power modules
Auxiliary AC Outlet	3 pcs low power AC outlet providing 200 – 277 VAC output with max. 6 A – 10 A, Protected by T 10 A – F 15 A / 500 VAC Fuse (serviceable) When T <sub>A</sub> : +45 °C to +55 °C, Output load current must be derated to 75%.
Redundant Configuration	6+0 configuration
Rated Power	24060 W <sup>2</sup>
Output Connection	Single output blade for +54.5 VDC output (SPSPTE4-01, SPSPTE4-07, SPSPTE4-09) Triple output blade for +54.5 VDC output (SPSPTE4-08)
Standby Output	60 W (Standby output 12 V / 5 A)
Communication	CANBus
NAC Controller	Network Attached Controller (optional accessory)

<sup>1</sup> Power modules are connected Line to Neutral.

<sup>2</sup> Rated Power is reduced as per current share accuracy characteristic. See TET4000-48-069RAH Datasheet.

#### 4. 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.

#### 5. REFERENCE DOCUMENTS

DOCUMENT NUMBER	DESCRIPTION
BCD.01051	TET4000-48-069RAH Datasheet
BCM.00498	TET4000-48-069RAH Installation Instruction
BCA.00231.0	TET4000-48-069RAH CAN Communication Manual
BCA.00318	Network Attached Controller Documentation
BCA.00257.0	SPSTET4-0x CAN Communication Manual
BCM.00566	SPSTET4-01 / SPSTET4-07 / SPSTET4-09 Installation Instruction
BCM.00988	SPSTET4-08 Installation Instruction

#### 6. OVERVIEW

The SPSTET4 is a 10U height power shelf. It can be configured with up to six hot-swap capable TET4000-48-069RAH AC/DC-DC power modules that convert standard AC input to a 54.5 VDC output.

The power shelf and power module support CANBus communication for control, programming, and monitoring. The power shelf and power module are connected to the same CANBus interface. Refer to the respective CAN Communication Manual for additional information.

The power shelf has a slot for a Network Attached Controller (NAC) for providing control functions and monitoring through a 10/100 MB base Ethernet port. It is hot-pluggable and supplied via the 12 V standby output of the power modules. The NAC can be configured through a web interface; the monitoring and control functions are accessed through SNMPv3.



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# AC-DC POWER SHELVES

SPSTET4-01, SPSTET4-07, SPSTET4-08, SPSTET4-09

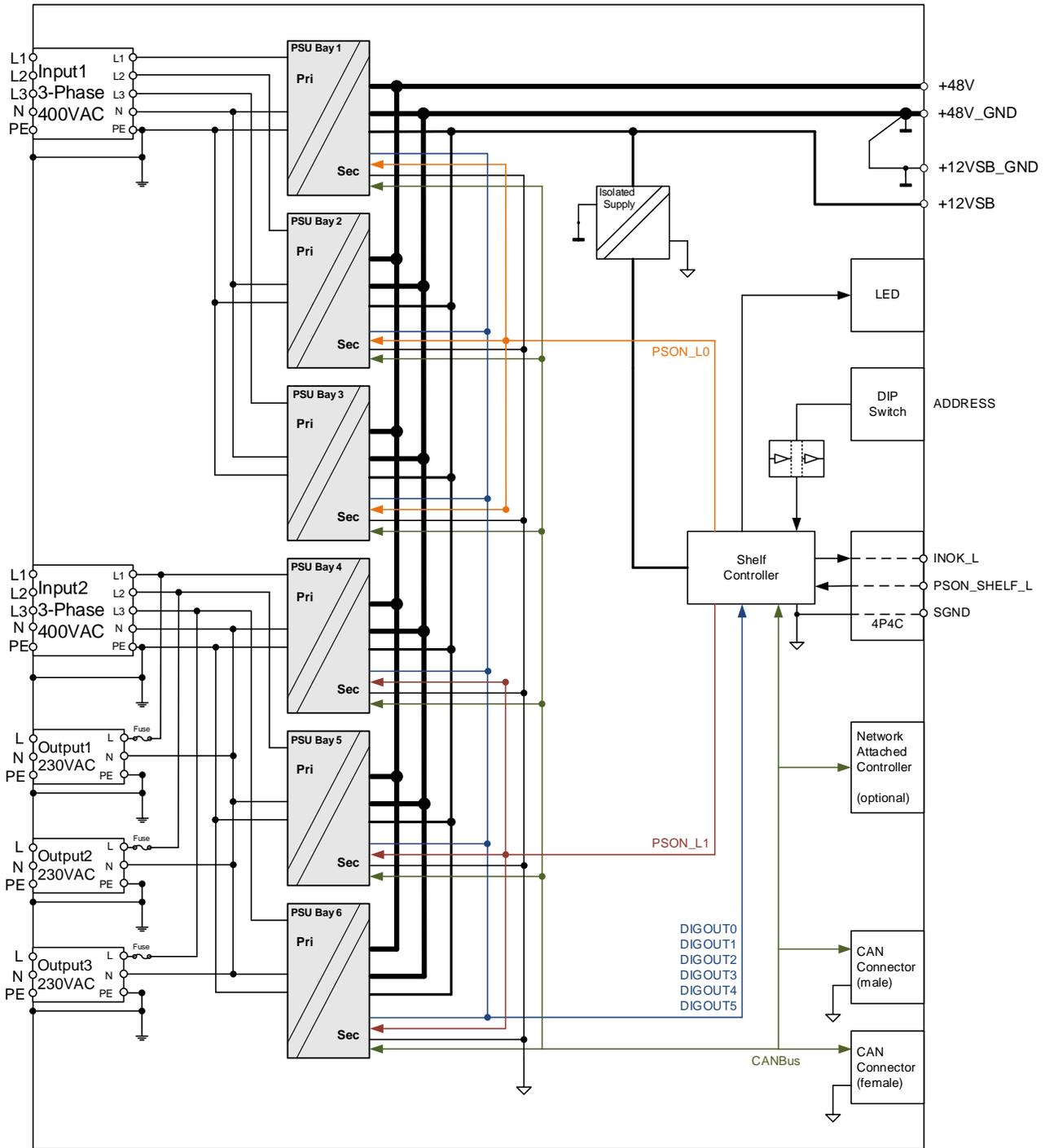


Figure 1. SPSTET4 Block Diagram

## 7. INPUT SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT
<i>Input Connector (J1107, J1108)</i>					
AC Nominal Input Voltage	Line to Line input		400 / 480		VAC
AC Input Voltage Ranges	Line to Neutral input	180		300	VAC
Max Input Current	Per Line			30	Arms
Input Frequency		47	50 / 60	63	Hz

## 8. OUTPUT SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT
<i>Main Output V1 (Output Bus Bar)</i>					
Nominal Output Voltage			54.5		VDC
Voltage Regulation	Programmable PSU module	-12		+6.5	% Vout nom
Nominal Output Power	6+0 configuration, $T_a < 45^\circ\text{C}$			24000	W
Derated Output Power	6+0 configuration, $T_a = 55^\circ\text{C}$			18000	W
Nominal Output Current	6+0 configuration, $T_a < 45^\circ\text{C}$			440	ADC
Derated Output Current	6+0 configuration, $T_a = 55^\circ\text{C}$			330	ADC

<i>Standby Output VSB (J1204)</i>					
Output Voltage			12		VDC
Voltage Regulation		-5		+5	% Vout nom
Output Power				60	W
Output Current				5	ADC

<i>Auxiliary AC Outlet (J1202, J1206, and J1207)</i>					
AC Output Voltage (J1202)	L1 to Neutral		230 / 277		VAC
AC Output Voltage (J1206)	L2 to Neutral		230 / 277		VAC
AC Output Voltage (J1207)	L3 to Neutral		230 / 277		VAC
AC Output Current (J1202)	L3 to Neutral			6	Arms
AC Output Current (J1206, and J1207)	L1, L2 to Neutral			10	Arms
Fuse Protection per Line (F1201)	Serviceable (10 A / 500 VAC Time Lag fuse)				
Fuse Protection per Line (F1206, and F1207)	Serviceable (15 A / 500 VAC Fast-Acting fuse)				

Note: When  $T_A$ :  $+45^\circ\text{C}$  to  $+55^\circ\text{C}$ , Output load current must be derated to 75%.

**8.1. PROTECTION (PER POWER MODULE)**

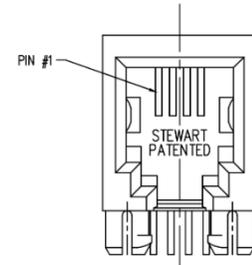
PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT
Input Fuses (L+N)	Not user accessible, fast-acting (F)		30		A
OV Threshold $V_1$	Hardware protection	64	67	70	VDC
OV Latch Off Time $V_1$				1	ms
Nominal Power Limitation	$V_{in} > 180 \text{ VAC}$ , $T_a \leq 45^\circ\text{C}$ , $V_1 \geq 48 \text{ VDC}$	4000	4100		W
Nominal Current Limitation	$V_{in} > 180 \text{ VAC}$ , $T_a \leq 45^\circ\text{C}$ , $V_1 \geq 48 \text{ VDC}$	73	76		A
Power Limit Blanking Time	Time until power limit is reduced to nominal value		5		ms
Power limit during over subscription $V_1$	Maximum duration 5 ms	4400	4500		W
Current limit during Over subscription $I_1$	Maximum duration 5 ms	83	86		A
Max Short Circuit Current $I_1$	$V_1 < 10 \text{ VDC}$			83 <sup>3</sup>	A
Short Circuit Latch Off Time	Time to latch off when in short circuit or output under voltage ( $V_1 < 42 \text{ VDC}$ )		20		ms
UV Threshold $V_1$	Output under voltage protection	42.5	43	43.5	VDC
$V_1$ Output under voltage protection delay time	$V_1 < V_{1 \text{ UV}}$		20		ms
Over Temperature on Critical Points	Inlet Ambient Temperature			60	°C
	PFC Primary Heatsink Temperature			90	
	Secondary Sync Mosfet Temperature			90	
	Secondary OR-ing Mosfet Temperature			100	
UV Threshold $V_{SB}$	Output under voltage protection standby	11	11.2	11.3	VDC
Current Limitation $V_{SB}$	Standby over current limit		5.5		A

<sup>3</sup> Limit doesn't include effects of main output capacitive discharge.

## 8.2. LOGIC SIGNALS

### J3202 PINOUT

PIN	FUNCTION	DESCRIPTION
1	DNC	Do Not Connect
2	INOK_L	Active-low output Low = At least 1 power module has input in range High = Otherwise
3	PSON_SHELF_L	Active-low input Low = Turn-on main output V1 of power modules High = Turn-off main output V1 of power modules
4	SGND	Signal ground



Signal Connector (4P4C Modular Jack) Pin Out

### MAXIMUM RATINGS

SYMBOL	DESCRIPTION	MIN	NOM	MAX	UNIT
V <sub>I/O</sub>	I/O Voltage	0		24	V
I <sub>I/OL</sub>	I/O Sink Current			20	mA

### I/O CHARACTERISTICS

SYMBOL	DESCRIPTION	MIN	NOM	MAX	UNIT
V <sub>IL</sub>	High-level input voltage	1.5			V
V <sub>IH</sub>	Low-level input voltage			0.8	V
V <sub>OL</sub>	High-level output voltage		3.1 <sup>4</sup>		V
V <sub>OH</sub>	Low-level output voltage, @ 10 mA Sink Current	0.2			V
V <sub>OH</sub>	Low-level output voltage, @ 20 mA Sink Current	0.4			V

### SHELF I/O CIRCUITRY

All I/O are implemented as open collector with a weak pull-up. The I/O are internally pulled up to 3.3 V via a 10 kΩ resistor. The schematic drawing represents the internal circuit of the shelf. External pullup resistors to higher voltages may be added. When selecting external pullups, please consider the maximum ratings.

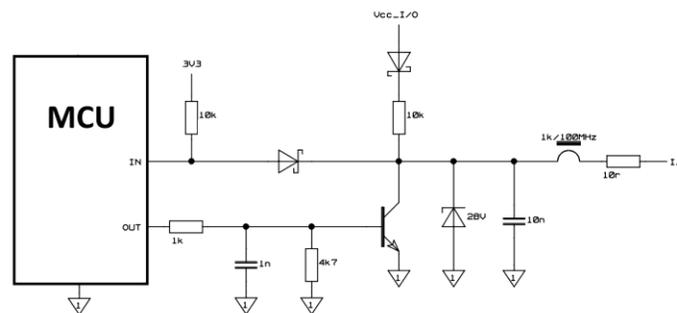


Figure 2. I/O Circuitry

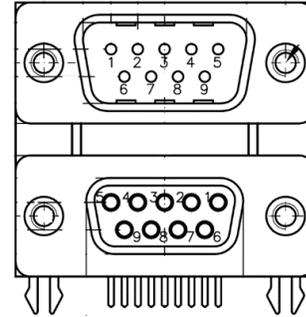
<sup>4</sup> Without external pull-up.

## 9. COMMUNICATION

Communication to the power shelf and the power modules is via CANBus. The power modules also use CANBus for its active current-share function. For further information please refer to the CAN Communication Manual documents (BCA.00257.0 and BCA.00231.0).

### 9.1. J1201 PINOUT

D-Sub 9 PIN OUTS (J1201)	FUNCTION	DESCRIPTION
1	NC	NC
2	CAN_L	Dominant Low
3	CAN_GROUND	Ground
4	NC	NC
5	CAN_SHIELD	Shield, Optional
6	CAN_GROUND	Ground, Optional
7	CAN_H	Dominant High
8	NC	NC
9	NC	NC



Front View

### 9.2. ADDRESSING

The power shelf and the power modules are individually addressable. The individual addresses are configured via DIP Switch (S1201) according to the table below.

DIP Switch			Address			
POSITION 1	POSITION 2	POSITION 3	PSU1	PSU2	PSU6	Backplane
OFF	OFF	OFF	0x01	0x02	0x06	0x0F
OFF	OFF	ON	0x11	0x12	0x16	0x1F
OFF	ON	OFF	0x21	0x22	0x26	0x2F
OFF	ON	ON	0x31	0x32	0x36	0x3F
ON	OFF	OFF	0x41	0x42	0x46	0x4F
ON	OFF	ON	0x51	0x52	0x56	0x5F
ON	ON	OFF	0x61	0x62	0x66	0x6F
ON	ON	ON	0x71	0x72	0x76	0x7F

*DIP Switch Setting (S1)*

### 9.3. NETWORK ATTACHED CONTROLLER (OPTIONAL)

The Network Attached Controller is a shelf level controller providing monitoring and control functions through a 10/100 MB base Ethernet port. It is hot-pluggable and supplied via the 12 V standby output of the power modules. The controller can be configured through a web interface; the monitoring and control functions are accessed through SNMP. See BCA.00318 for Network Attached Controller Documentation.

## 10. PARALLEL OPERATION

Up to 8 SPSTET4-0x power-shelves can be configured for parallel operation.

For parallel operation:

- Connect the following:
  - V1 Main Output
  - VSB Standby Output
  - CANBus
- NAC
  - Per power-zone, install only 1 NAC.
  - If a NAC is used, then install it either on the top-shelf or the bottom-shelf.
  - If a NAC is installed, a CAN Terminator on that shelf is not required. The NAC has termination assembled internally.
- CANBus connection and termination
  - Use CANBus Cables (see Accessories) to connect the CAN ports between shelves.
  - Connect a CAN Terminator (see Accessories) to the top-shelf and bottom-shelf. If a NAC is installed, a CAN Terminator on that shelf is not required.
- Set the power-shelf address via the DIP Switches

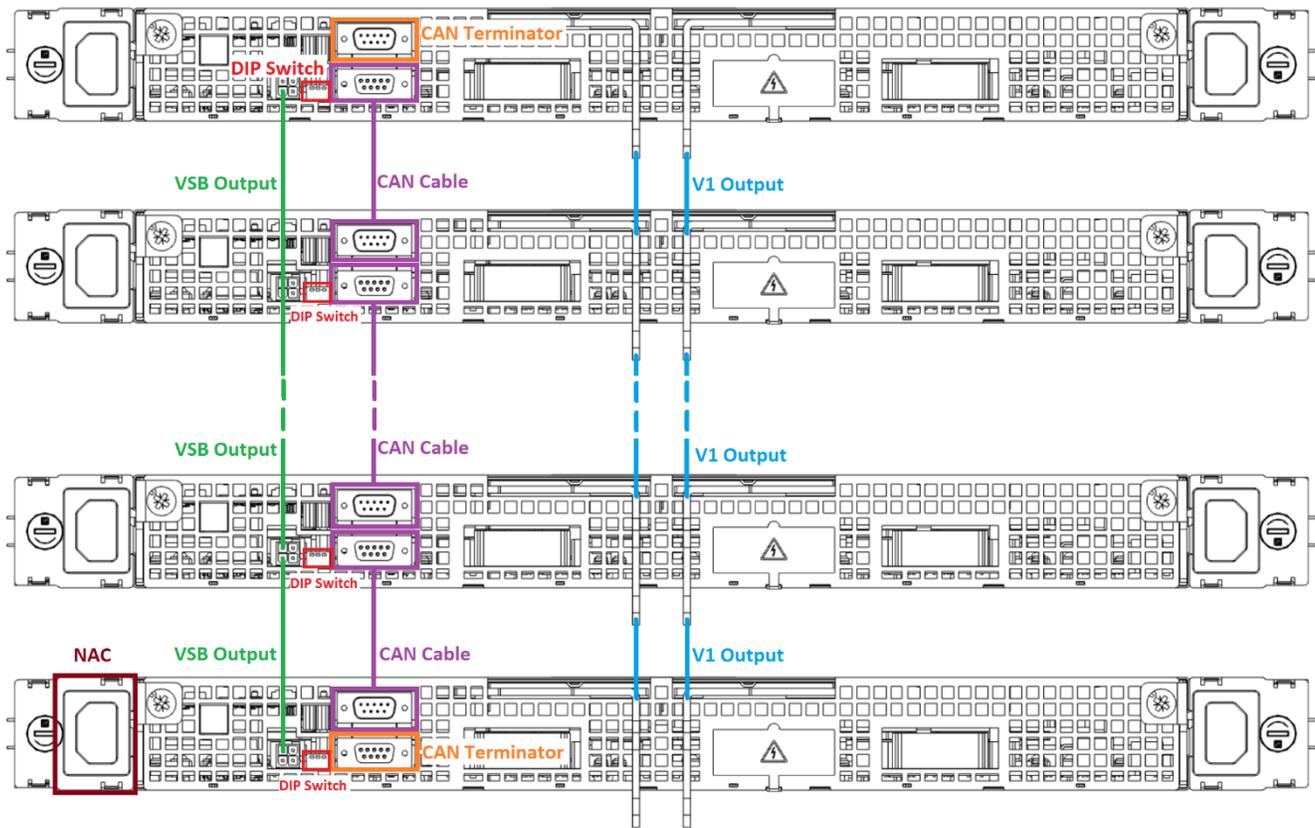


Figure 3. Parallel Operation

## 11. LEDs

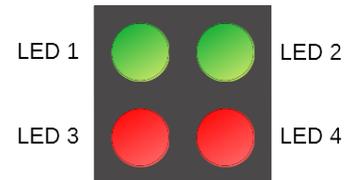
### 11.1. POWER MODULE LEDs (FRONTSIDE)

Each power module has 2 LEDs to indicate status condition. LED number one is green and indicates AC power is on or off, while LED number two is bi-colored: green and yellow to indicate DC power presence or fault conditions.

OPERATING CONDITION	LED SIGNALING
<b>AC LED</b>	
AC Line within range	Solid Green
AC Line out of range	Off
<b>DC LED<sup>5</sup></b>	
$V_I$ or $V_{SB}$ out of regulation	
Over temperature shutdown	
Output over voltage shutdown ( $V_I$ or $V_{SB}$ )	Solid Yellow
Output under voltage shutdown ( $V_I$ or $V_{SB}$ )	
Output over current shutdown ( $V_I$ or $V_{SB}$ )	
Invalid CANBus Node-Id	Blinking Yellow
Main output V1 is turned off	Blinking Green
Normal Operation	Solid Green
Power module is back supplied and AC Line out of range	Blinking Yellow
Otherwise	Off

### 11.2. POWER SHELF LEDs (BACKSIDE)

LED	FUNCTION	DESCRIPTION
LED 1	INOK_L	On if INOK_L is low. See “Logic Signals”
LED 2	PSON_SHELF_L	On if PSON_SHELF_L is low. See “Logic Signals”
LED 3	-	Reserved
LED 4	WATCHDOG	Blink 1 Hz if the Shelf Controller is alive.



### 11.3. +12VSB CONNECTOR (J1204)

PIN OUTS (J1204)	FUNCTION	DESCRIPTION
1, 3	VSB_GND	+12VSB return
2, 4	VSB	+12VSB output



## 12. AUXILIARY AC OUTLET

The 3 connectors (J1202, J1206, and J1207) are used to provide AC power to the Network Switch Devices. Each connector is connected to one of the LIVE terminals (L1, L2, and L3) and NEUTRAL from the 3-phase input (J1108). These are protected by a 10 A / 500 VAC Time Lag fuse on the LIVE terminal (F1201) and 15 A / 500 VAC Fast-Acting fuse on the LIVE terminal (F1206, and F1207). See Safety Warning when servicing the fuse.

When a power shelf is operated at ambient temp of +45 °C to +55 °C, the output load current must be derated to 75%.

<sup>5</sup> The order of the criteria in the table corresponds to the testing precedence in the controller. LEDs are only available if sufficient input voltage is applied for operation of the internal supply circuits.

### 13. SAFETY, REGULATORY AND EMC SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	CRITERION
Agency Approvals	Approved to the latest revisions/amendments of the following standards: UL/CSA 62368-1, EN 62368-1 and IEC 62368-1	Approved
Insulation	Input (L/N) to case (PE)	Basic
	Input (L/N) to output Output to case (PE)	Reinforced Functional
Creepage / Clearance ( $\alpha$ )	Primary (L/N) to protective earth (PE)	Min. 2.8 / 2.4 mm
	Primary to secondary	Min. 5.6 / 4.8 mm
Electrical Strength Test	Input to case	Min. 2500 VDC
	Input to output (tested by manufacturer only)	Min. 5000 VDC
Conducted Emission	EN 55022 / CISPR 22: 0.15 ... 30 MHz, QP and AVG	Class A
Radiated Emission	EN 55022 / CISPR 22: 30 MHz ... 1 GHz, QP	Class A
Harmonic Emissions (per module)	IEC 61000-3-2, $V_{in} = 230$ VAC, 50 Hz, 100% Load (per module)	Class A
AC Flicker	IEC / EN 61000-3-3, $d_{max} < 3.3\%$	PASS
ESD Contact Discharge	IEC / EN 61000-4-2, $\pm 8$ kV, 25+25 discharges per test point (metallic case, LEDs, connector body)	A
ESD Air Discharge	IEC / EN 61000-4-2, $\pm 15$ kV, 25+25 discharges per test point (non-metallic user accessible surfaces)	A
Radiated Electromagnetic Field	IEC / EN 61000-4-3, 10 V/m, 1 kHz/ 80% Amplitude Modulation, 1 $\mu$ s Pulse Modulation, 10 kHz...2 GHz	A
Burst	IEC / EN 61000-4-4, level 3	A
	AC port $\pm 2$ kV, 1 minute DC port $\pm 1$ kV, 1 minute	
Surge	IEC / EN 61000-4-5	A
	Line to earth: level 3, $\pm 2$ kV Line to line: level 2, $\pm 1$ kV	
RF Conducted Immunity	IEC/EN 61000-4-6, Level 3, 10 Vrms, CW, 0.1 ... 80 MHz	A
Voltage Dips and Interruptions (per module)	IEC/EN 61000-4-11 (per module)	A V1: B, VSB: A B
	1: $V_i$ 230 VAC, 100% Load, Dip 100%, Duration 12 ms	
	2: $V_i$ 230 VAC, 100% Load, Dip 100%, Duration < 150 ms 3: $V_i$ 230 VAC, 100% Load, Dip 100%, Duration > 150 ms	

### 14. ENVIRONMENTAL SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT
Operating Temperature	@ full load, up to 4000 m:	0		+35	°C
	@ full load, up to 1800 m:	0		+45	
	@ 75% load, up to 1800 m:	0		+55	
Non-Operating Temperature		-40		+70	°C
Humidity	Operating: @ at 40 °C, non-condensing	7		93	%RH
	Non-Operating: non-condensing	5		95	
Altitude	Operating:			4000	m
	Non-Operating:			13000	
Shock	Operating: 11 ms half-sine shocks in Z axis 10+ve, 10-ve		5		g
	Non-Operating: 11 ms half-sine shocks in Z axis 10+ve, 10-ve		30		
Vibration	Operating: 0.2 $g_{rms}$ random	5		500	Hz
	Non-Operating: 1 $g_{rms}$ random	2		200	
Cooling	When equipped with operating PSUs			50	Pa

**15. CONNECTORS**

DESCRIPTION	REFERENCE DESIGNATOR	TYPE	MANUFACTURER	MPN
Input Connector	J1107, J1108	3-phase input	Positronic Industries	SP5YYE48M0LN9A1/AA-PA1067
Logic Signal Connector	J3202	4P4C Modular Jack	Bel Fuse Inc.	SS-6444-NF
+12VSB output connector	J1204		Molex	39-30-0040
CAN Connector	J1201	Dual port D-SUB 9	Norcomp	189-009-413R571
Auxiliary AC Outlet	J1202	Single phase output	Molex	172043-0302
Auxiliary AC Outlet	J1206, J1207	Single phase output	Rong Feng	RF-203P-HP-A-1.0
Auxiliary AC Outlet Fuse	F1201	5 x 20 mm Time Lag Fuse	Bel Fuse Inc. Eaton	0ADKC9100-BE BK1-S505H-10-R
Auxiliary AC Outlet Fuse	F1206, F1207	6.3 x 32 mm Fast-Acting Fuse	Bel Fuse Inc. Littelfuse Inc.	0ADEC9150-BE 0505015.MXP

**15.1. CONNECTOR PIN ASSIGNMENT**

**3-Phase Input Connector (J1107, J1108)**

MPN: SP5YYE48M0LN9A1/AA-PA1067  
 Mating Part: SP5YYE1F0091/AA with FC1210P2S/AA

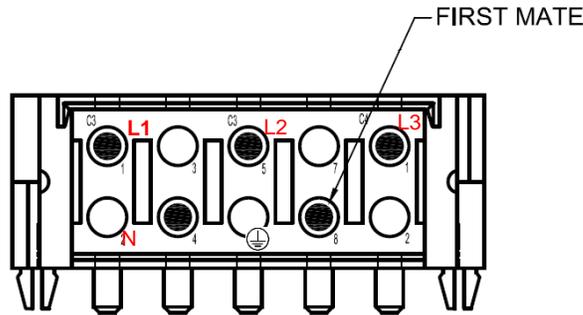


Figure 4. Front View

**Auxiliary AC Outlet (J1102)**

MPN: 172043-0302  
 Mating Part: 172672-2003

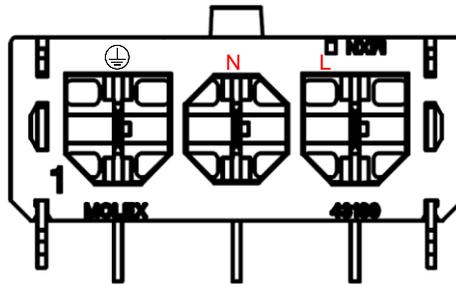


Figure 5. Front View

# 3-PHASE WYE (Y) CONNECTION 277/480 VAC INPUT / 48 VDC OUTPUT

## Auxiliary AC Outlet (J1206, J1207)

MPN: RF-203P-HP-A-1.0

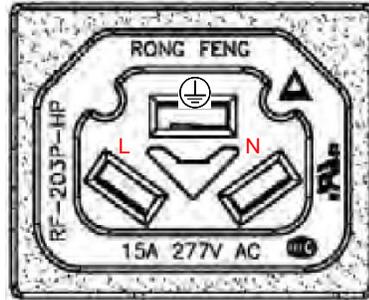


Figure 6. Front View

## 16. MECHANICAL SPECIFICATIONS

PARAMETER	
Dimensions (W x H x D)	534.0 x 46.5 x 602 (overall: 534.5 x 47 x 718.6 mm) for SPSTET4-01 534.5 x 46.5 x 602 (overall: 436.5 x 47 x 858.8 mm) for SPSTET4-07, -08, -09
Weight (Shelf only)	9 kg
Weight (6 PSU installed)	25 kg

### 16.1. SPSTET4-01 MECHANICAL DATA

**NOTE:** Finished good may look different from images.

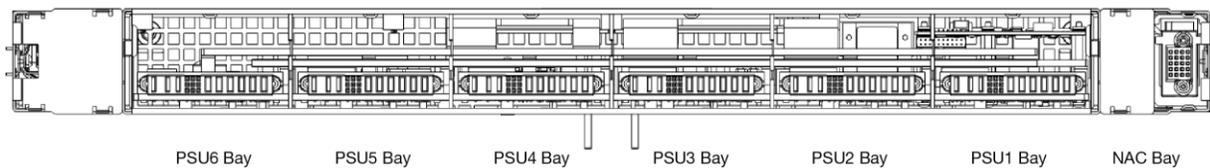


Figure 7. SPSTET4-01 Front View

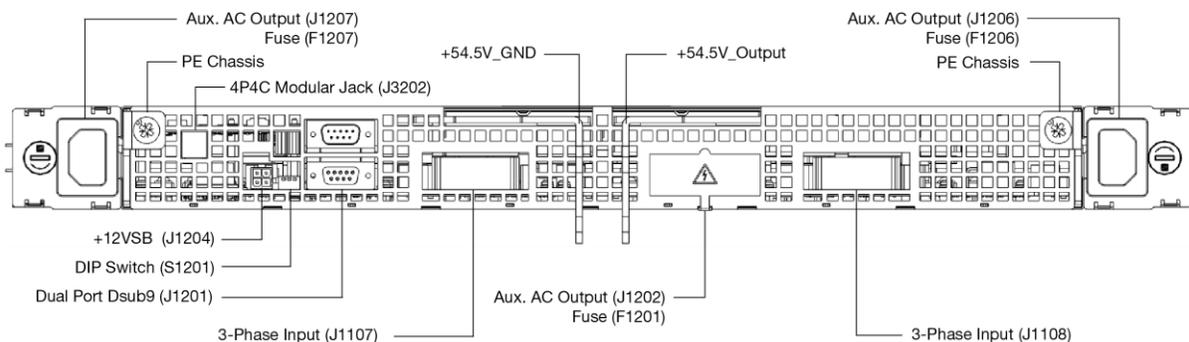


Figure 8. SPSTET4-01 Rear View



Asia-Pacific  
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Europe, Middle East  
+353 61 49 8941

North America  
+1 866 513 2839

# AC-DC POWER SHELVES SPSTET4-01, SPSTET4-07, SPSTET4-08, SPSTET4-09

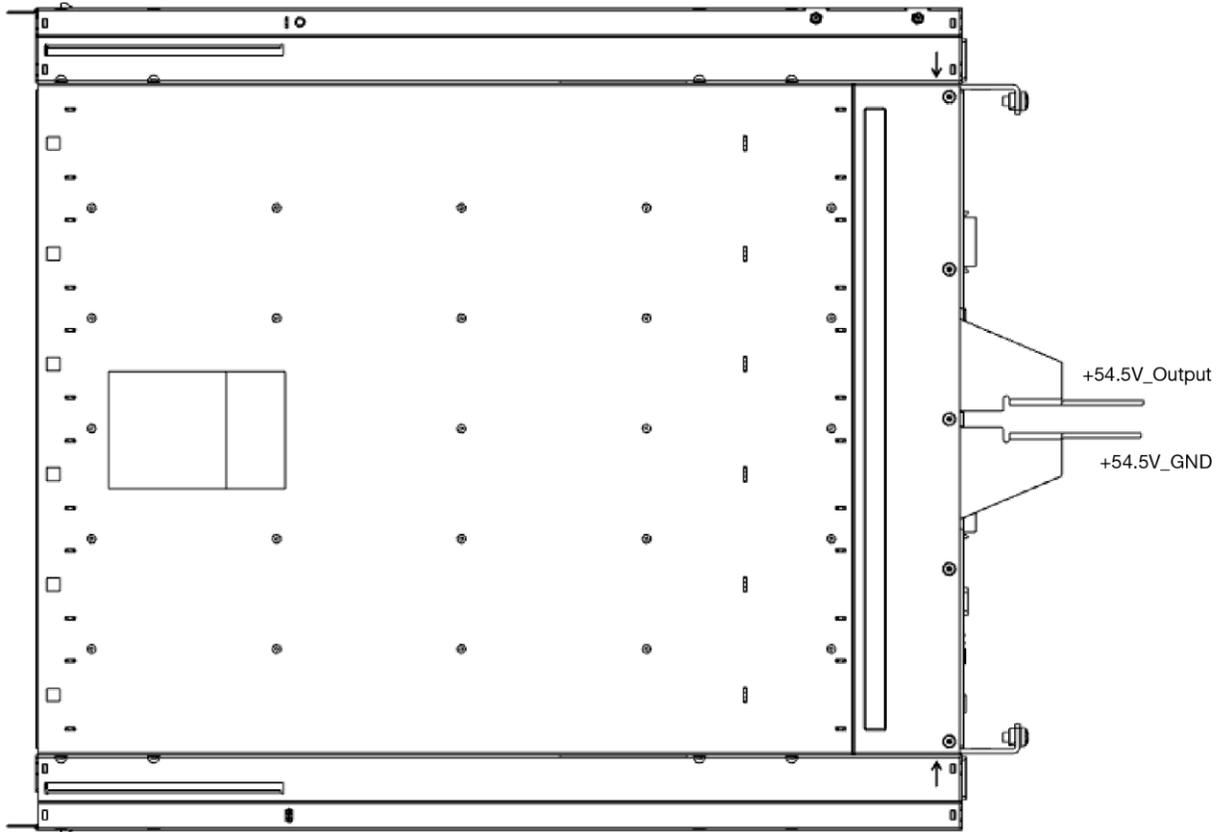


Figure 9. SPSTET4-01 Top View

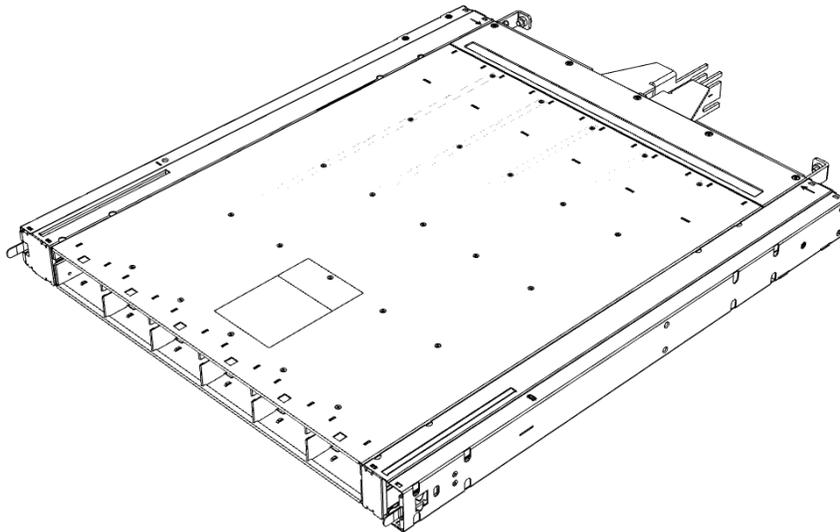


Figure 10. SPSTET4-01 Isometric View

**16.2. SPSTET4-07 MECHANICAL DATA**

**NOTE:** Finished good may look different from images.

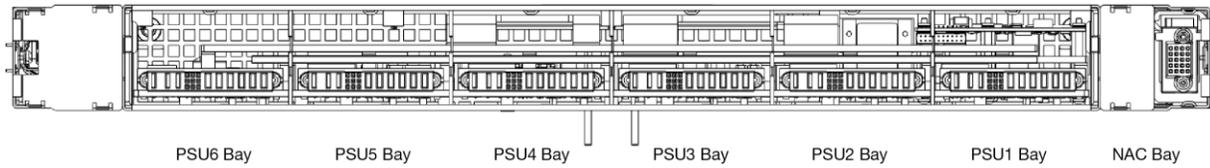


Figure 11. SPSTET4-07 Front View

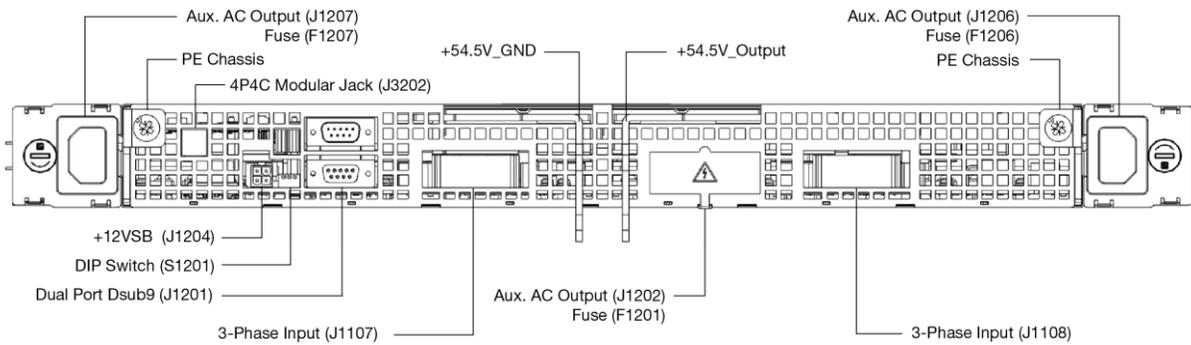


Figure 12. SPSTET4-07 Rear View

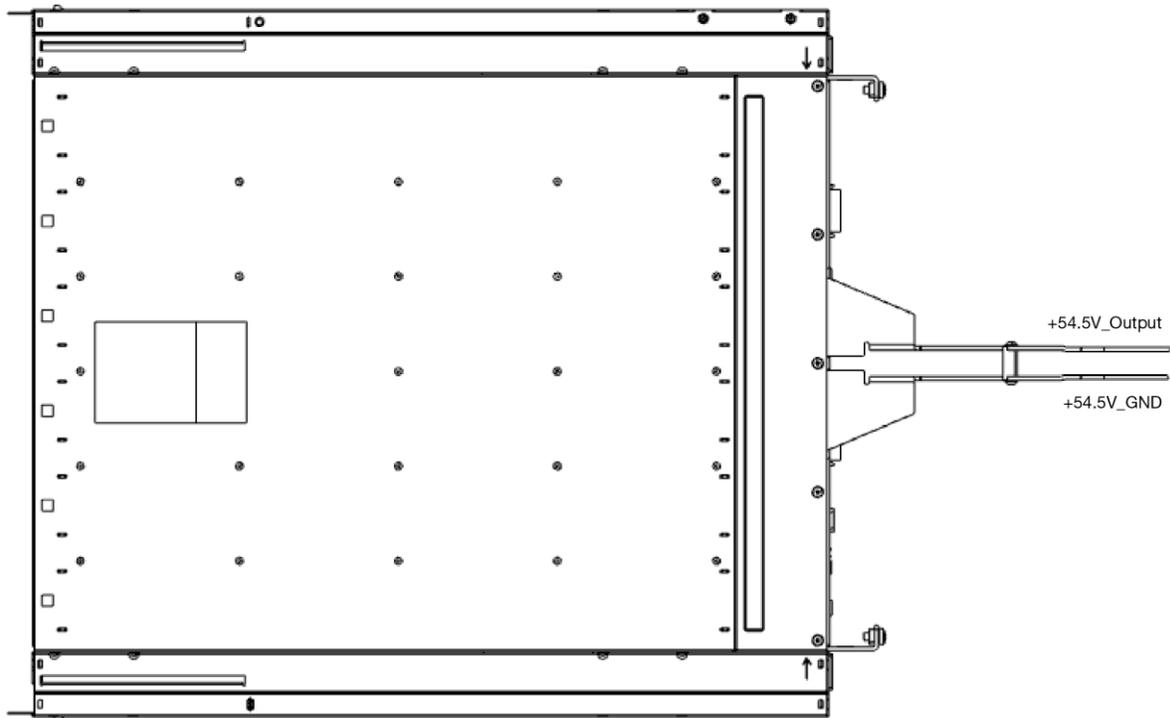


Figure 13. SPSTET4-07 Top View

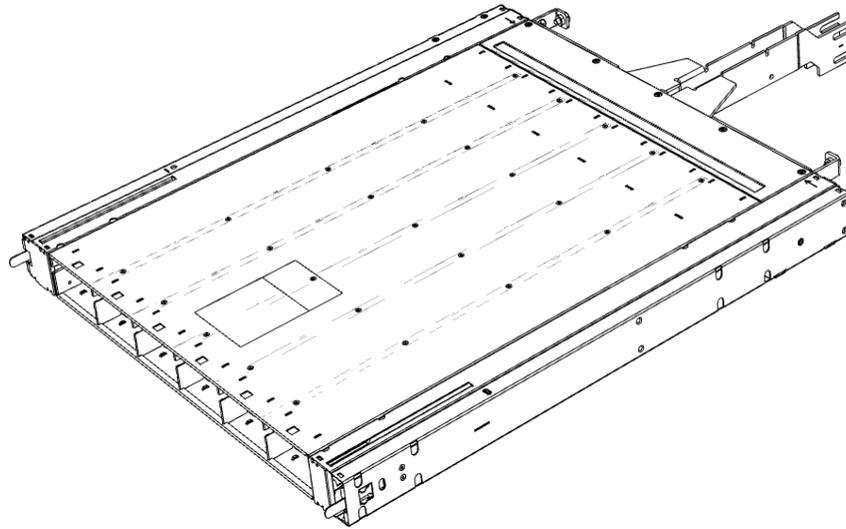


Figure 14. SPSTET4-07 Isometric View

**16.3. SPSTET4-08 MECHANICAL DATA**

**NOTE:** Finished good may look different from images.

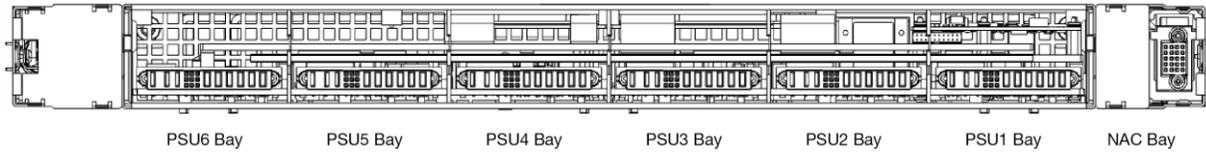


Figure 15. SPSTET4-08 Front View

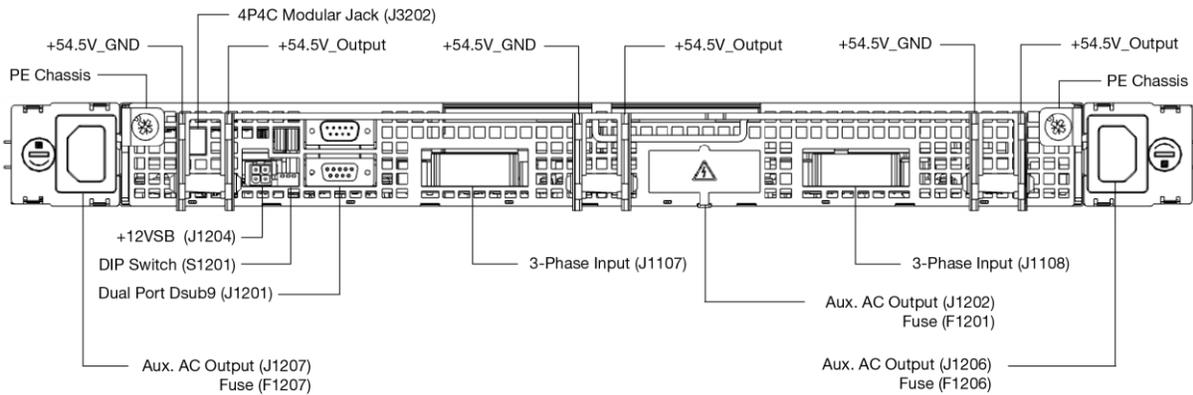


Figure 16. SPSTET4-08 Rear View

3-PHASE WYE (Y) CONNECTION  
277/480 VAC INPUT / 48 VDC OUTPUT

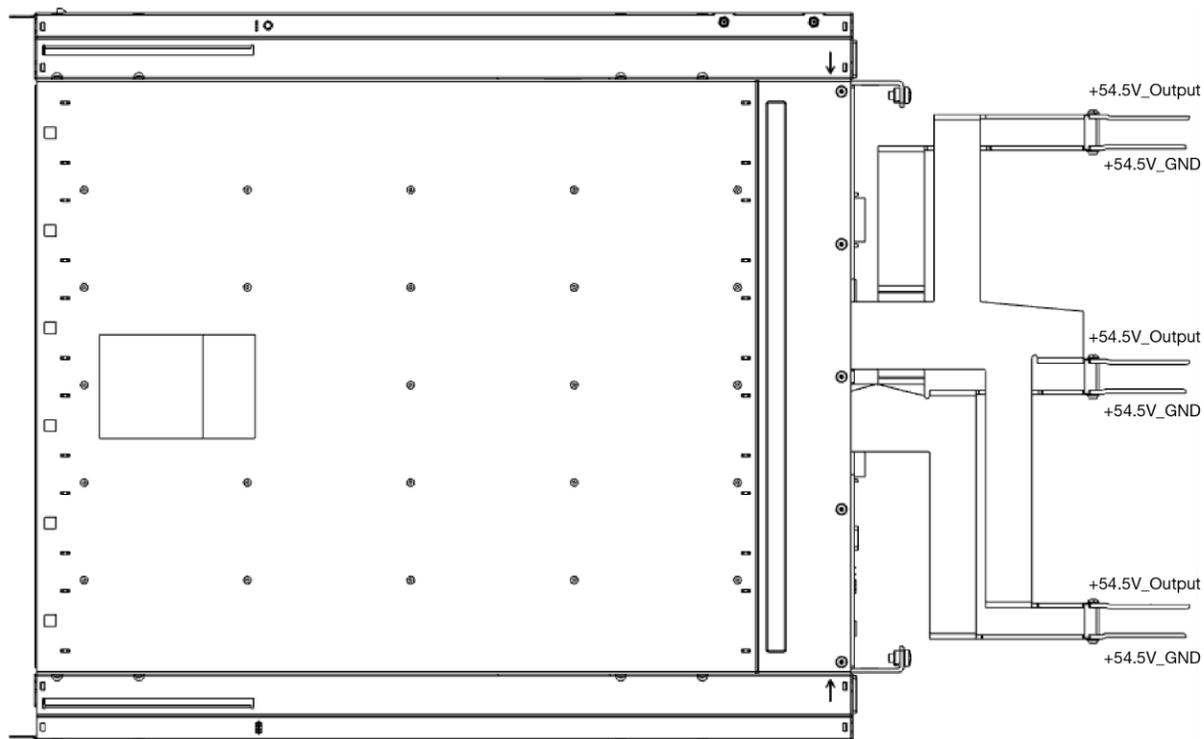


Figure 17. SPSTET4-08 Top View

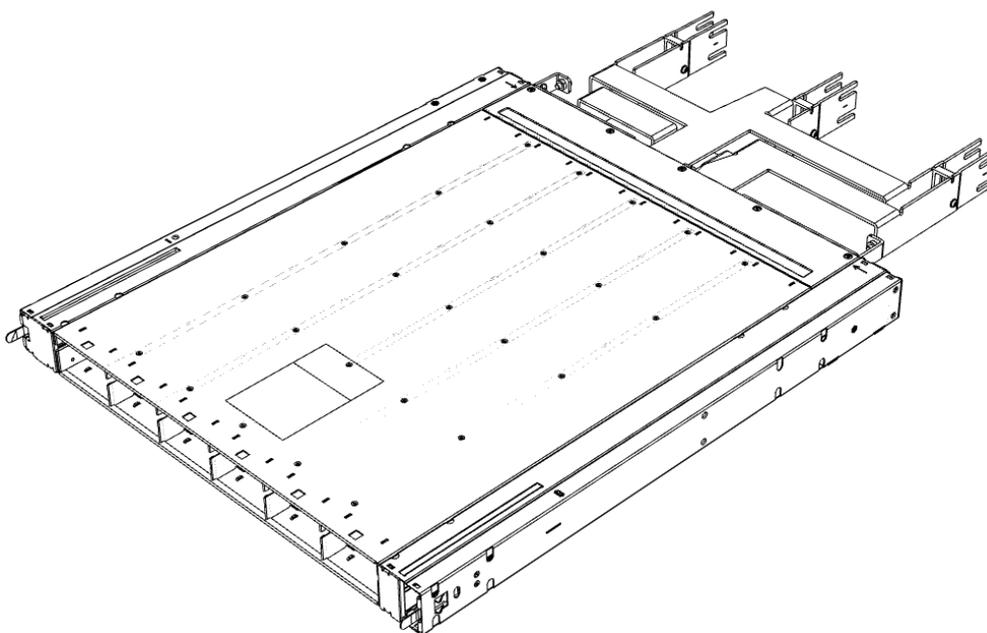


Figure 18. SPSTET4-08 Isometric View

16.4. SPSTET4-09 MECHANICAL DATA

**NOTE:** Finished good may look different from images.

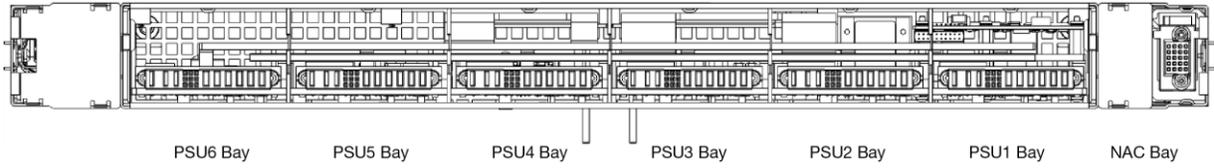


Figure 19. SPSTET4-09 Front View

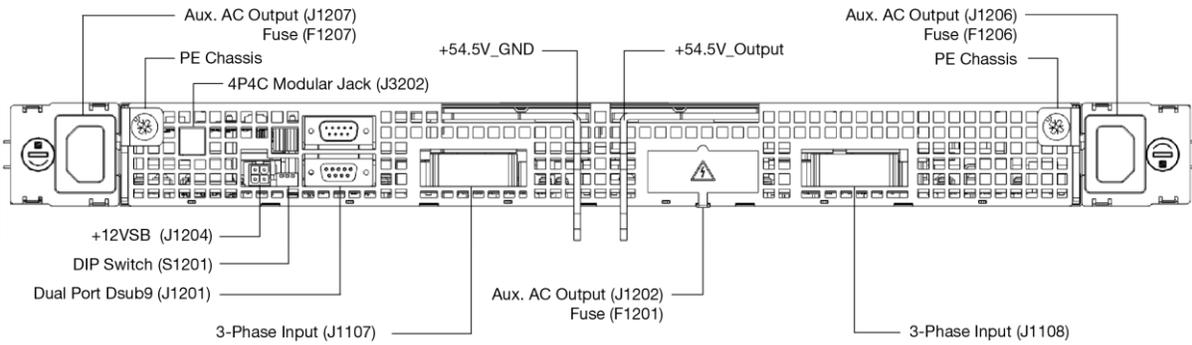


Figure 20. SPSTET4-09 Rear View

3-PHASE WYE (Y) CONNECTION  
277/480 VAC INPUT / 48 VDC OUTPUT

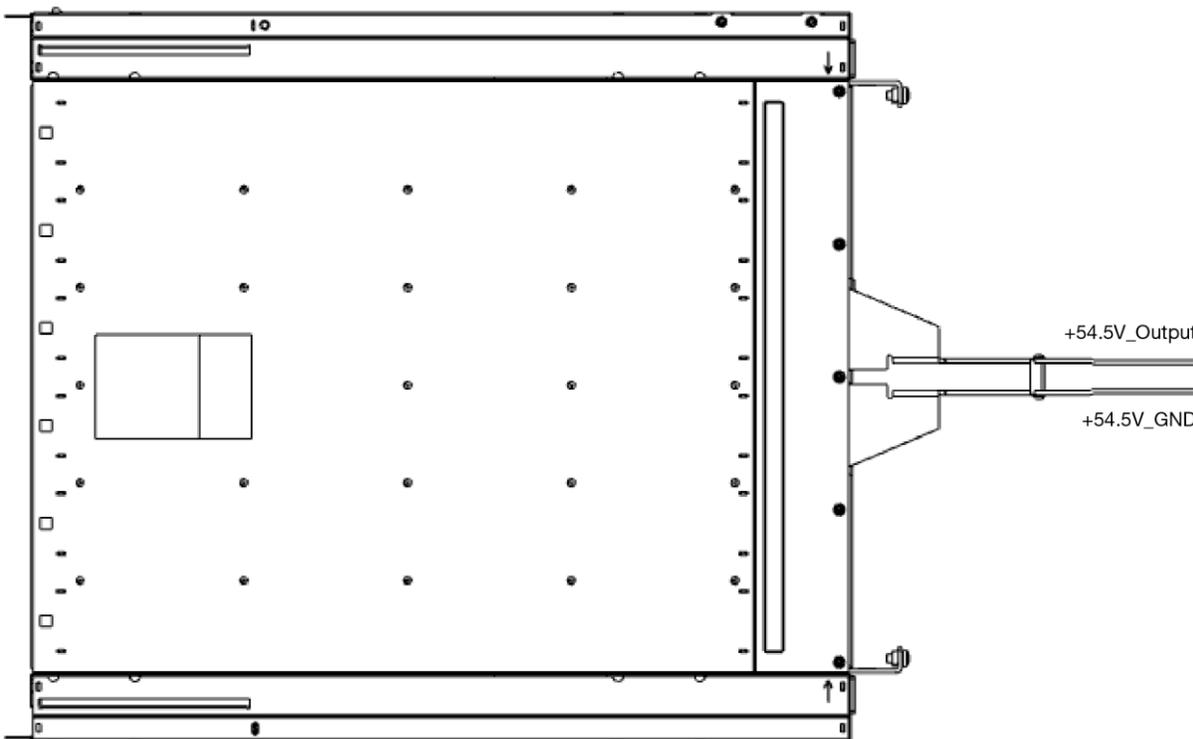


Figure 21. SPSTET4-09 Top View

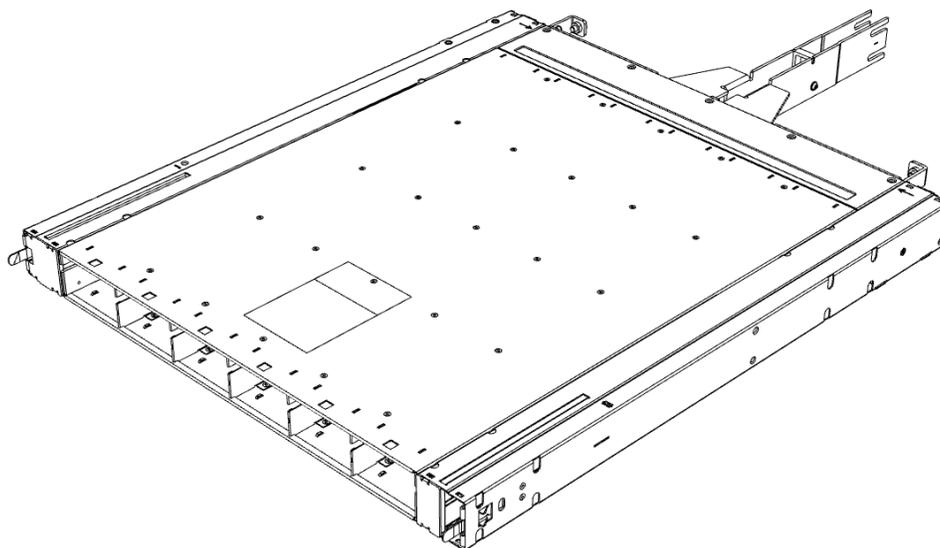


Figure 22. SPSTET4-09 Isometric View

## 17. ACCESSORIES

ITEM	DESCRIPTION	ORDERING PN
Network Attached Controller	The Network Attached Controller provides easy access to monitoring and control functions through SNMP.	NAC1026-02 NAC3006-01 (available 2021)
Blanking Panel	Power Rack Blanking Panel	SPSPFE3-BP01G
AC Auxiliary Power cord	Power cord for AC Auxiliary outlet from 277 VAC to IEC C13	ZLH.01200.0
AC Auxiliary Power cord	Power cord for AC Auxiliary outlet from Molex 172672-2003 to IEC C13	ZLH.01202.0
AC Auxiliary Power cord	Power cord for AC Auxiliary outlet from 277 VAC to 277 VAC	ZLH.01206.0
CANBus Terminator (female)	D-SUB 9; Pinout the same as J1201; 120 Ohm resistor between CAN_H and CAN_L	ZES.20036
CANBus Terminator (male)	D-SUB 9; Pinout the same as J1201; 120 Ohm resistor between CAN_H and CAN_L	ZES.20037
CANBus Cable	D-SUB 9; Pinout the same as J1201; Cable length = 110 mm	ZLH.20020

## 18. REVISION HISTORY

REV	DESCRIPTION	PRODUCT VERSION	DATE	AUTHOR
001	Initial Draft	V001	05-27-2018	GS
2	Add SPSTET4-09 Model Update Ref des and Mechanical views	V001	07-02-2020	CM/GS
3	Adding PN SPSTET4-08 into the datasheet, datasheet renamed		08-11-2020	VS
4	Block diagram update, Parallel operation schematics replaced, Multiple wording clarifications throughout the datasheet added		11-16-2020	EE
A	Correct the description of project name in Ordering information column		12-15-2021	Jeff

For more information on these products consult: [tech.support@psbel.com](mailto: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.

