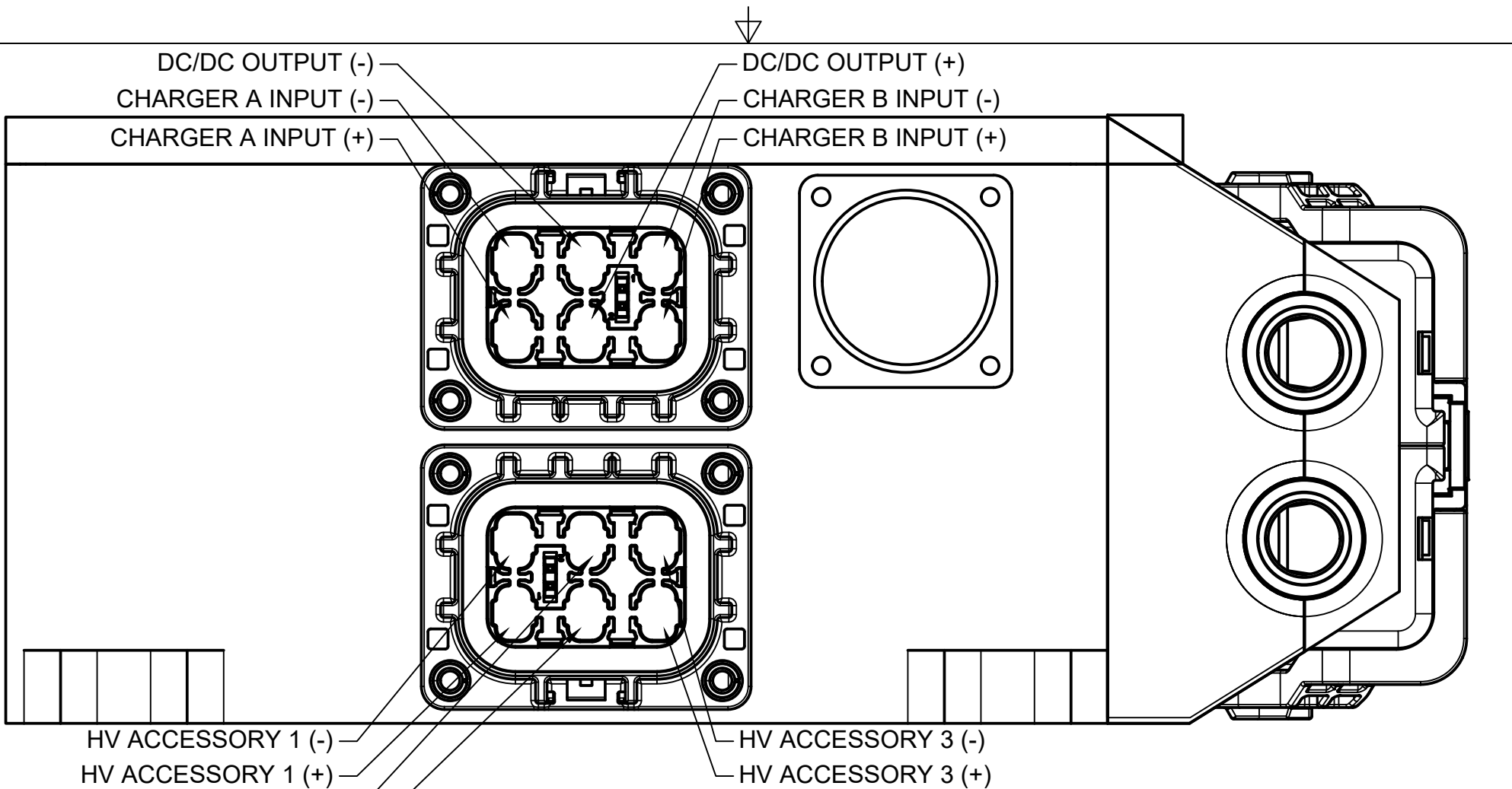




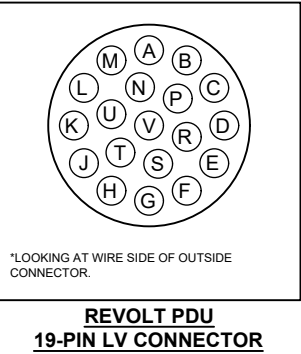
		PROJECT		
		BUCKWIRED		
		TITLE		
		400v PDU Box		
APPROVED	SIZE	CODE	DWG NO	REV
CHECKED	A			
DRAWN	William Buckwalter07/24/2024		SCALE 1	WEIGHT
				SHEET 1/1

TESLA LARGE DRIVE UNIT 23-PIN CONNECTOR (TE CONNECTIVITY PART #: 770680-1)					
PIN #	APPLICATION	STATUS	COLOR	AWG	LENGTH (FT)
1	KEY POWER INPUT	(+) 12V INPUT	PNK	18	10
2	BRAKE ON	(+) 12V INPUT	YLW	20	16
3	BRAKE OFF	(+) 12V INPUT	TAN	20	16
4	CAN IN (HI)	DATA COMMS	RED*	20	10
5	CAN IN (LO)	DATA COMMS	BLK*	20	10
6	N/C	-	-	-	-
7	N/C	-	-	-	-
8	N/C	-	-	-	-
9	ENCODER REF	(+) 5V OUTPUT	RED**	20	3
10	ENCODER A	DATA COMMS	WHT**	20	3
11	CHASSIS GND	CHASSIS GND	BLK	18	26
12	ACCEL 1 REFERENCE	(+) 5V OUTPUT	RED	20	16
13	ACCEL 1 SIGNAL	0-5V SIGNAL	GRN	20	16
14	ACCEL 2 SIGNAL	0-5V SIGNAL	WHT	20	16
15	ACCEL SIGNAL RETURN	5V GND	BLK	20	16
16	ENCODER B	DATA COMMS	GRN**	20	3
17	ENCODER RETURN	DATA BUS GND	BLK**	20	3
18	ENCODER SHIELD	EFI SHIELD GND	BARE**	20	3
19	CAN OUT (HI)	DATA COMMS	120OHM RES	18	-
20	CAN OUT (LO)	DATA COMMS	120OHM RES	18	-
21	ACCEL 2 REFERENCE	(+) 5V OUTPUT	BLU	20	16
22	ACCEL 2 SIGNAL RETURN	5V GND	BRN	20	16
23	N/C	-	-	-	-
Notes					
* #20/2C TWISTED PAIR					
** #20/4C OVERALL SHIELDED					

LDU ENCODER 4-PIN CONNECTOR					
PIN #	APPLICATION	STATUS	COLOR	AWG	LENGTH
1	ENCODER GROUND	5V GND	BLK	20	16"
2	ENCODER B	DATA COMMS	GRN	20	16"
3	ENCODER A	DATA COMMS	WHT	20	16"
4	ENCODER REF	(+)5V OUTPUT	RED	20	16"
Notes					
SHIELDING NOT CONNECTED					
#20/4C OVERALL SHIELDED					
ENCODER A(WHT) AND B(GRN) SWAPPED FOR REVERSE MOTOR ROTATION					

THROTTLE 6-PIN CONNECTOR (MOLEX PART #: 31403-6110)			
PIN #	APPLICATION	STATUS	COLOR
1	ACCEL 1 SIGNAL REFERENCE	(+)5V INPUT	RED*
2	ACCEL 1 SIGNAL	(0-5V) SIGNAL	GRN*
3	ACCEL 1 SIGNAL RETURN	5V GND	BLK*
4	ACCEL 2 SIGNAL RETURN	5V GND	BRN*
5	ACCEL 2 SIGNAL	(0-5V) SIGNAL	WHT*
6	ACCEL 2 SIGNAL REFERENCE	(+)5V INPUT	BLU*
* #18/6C UNSHIELDED			
Notes			

REVOLT 400V PDU (CONTACTOR BOX)			
PIN	APPLICATION	STATUS	COLOR
A	UNUSED	-	-
B	PRECHARGE RELAY COIL (HI)	(+)12V INPUT	BLU
C	HV ACCESSORY 1 COIL (HI)	(+)12V INPUT	USER PROVIDED
D	HV ACCESSORY 2 COIL (HI)	(+)12V INPUT	USER PROVIDED
E	HV ACCESSORY 3 COIL (HI)	(+)12V INPUT	USER PROVIDED
F	CURRENT SENSOR REF	USER PROVIDED	USER PROVIDED
G	CURRENT SENSOR SIGNAL A	USER PROVIDED	USER PROVIDED
H	CURRENT SENSOR GND	USER PROVIDED	USER PROVIDED
J	HV ACCESSORY 3 COIL (LO)	CHASSIS GND	USER PROVIDED
K	HV ACCESSORY 2 COIL (LO)	CHASSIS GND	USER PROVIDED
L	HV ACCESSORY 1 COIL (LO)	CHASSIS GND	USER PROVIDED
M	PRECHARGE RELAY COIL (LO)	CHASSIS GND	USER PROVIDED
N	HV POSITIVE CONTACTOR COIL (LO)	CHASSIS GND	USER PROVIDED
P	HV NEGATIVE CONTACTOR COIL (HI)	(+)12V INPUT	PUR
R	HV POSITIVE CONTACTOR COIL (HI)	(+)12V INPUT	ORG
S	INTERLOCK	USER PROVIDED	USER PROVIDED
T	CURRENT SENSOR SIGNAL B	USER PROVIDED	USER PROVIDED
U	HV NEGATIVE CONTACTOR COIL (LO)	CHASSIS GND	USER PROVIDED
V	INTERLOCK	USER PROVIDED	USER PROVIDED



MCU CINCH 30-PIN CONNECTOR (PART #: 581-01-30-029)					
PIN #	APPLICATION	STATUS	COLOR	AWG	LENGTH (FT)
A1	POS CONTACTOR COIL (HI)	(+)12V OUTPUT	ORG	18	16
A2	NEG CONTACTOR COIL (HI)	(+)12V OUTPUT	PUR	18	16
A3	(+)12V BANK 1	FUSED (+)12V INPUT (FUSED @ 5A)	YLW	18	16
B1	CHARGER STATUS OUTPUT	(+)12V OUTPUT	GRN	18	16
B2	SPARE RELAY BANK 1	(+)12V OUTPUT	-	-	-
B3	PRECHARGE RELAY COIL (HI)	(+)12V OUTPUT	BLU	18	16
C1	(+)12V BANK 2	FUSED (+)12V INPUT (FUSED @ 5A)	RED	18	16
C2	SPARE RELAY BANK 2	(+)12V OUTPUT	-	-	-
C3	REVERSE LIGHTS OUTPUT	(+)12V OUTPUT	WHT	18	16
D1	BRAKE LIGHTS OUTPUT	(+)12V OUTPUT	GRY	18	16
D2	SPARE 12V OUTPUT 2	(+)12V OUTPUT	-	-	-
D3	SPARE 12V OUTPUT 1	(+)12V OUTPUT	-	-	-
E1	INVERTER 12V OUTPUT	(+)12V OUTPUT	PNK	18	10
E2	POWERTRAIN RADIATOR FAN	(+)12V OUTPUT	BRN	18	16
E3	12V (+) INPUT	FUSED (+)12V INPUT (FUSED @ 5A)	PNK	18	16
F1	CHASSIS GND	CHASSIS GND	BLK	18	16
F2	SPARE SWITCH INPUT 2	SIGNAL TO GND	-	-	-
F3	SPARE SWITCH INPUT 1	SIGNAL TO GND	-	-	-
G1	REVERSE LAMP OUTPUT	(+)12V OUTPUT	TAN	20	16
G2	REGEN ENABLE SWITCH INPUT	SIGNAL TO GND	WHT	20	16
G3	NEUTRAL INPUT	SIGNAL TO GND	BRN	20	16
H1	FAULT LAMP OUTPUT	(+)12V OUTPUT	-	-	-
H2	REVERSE INPUT	SIGNAL TO GND	YLW	20	16
H3	DRIVE INPUT	SIGNAL TO GND	GRN	20	16
J1	DRIVE LAMP OUTPUT	(+)12V OUTPUT	PUR	20	16
J2	CAN2 (LO)	DATA COMMS	-	-	-
J3	CAN1 (LO)	DATA COMMS	BLK*	20	10
K1	NEUTRAL LAMP OUTPUT	(+)12V OUTPUT	GRY	20	16
K2	CAN2 (HI)	DATA COMMS	-	-	-
K3	CAN1 (HI)	DATA COMMS	RED*	20	10
Notes					
* #18/2C TWISTED PAIR					

NOTES:

A TO SPECIFIED DEVICE RELAY COIL CONTROL (TYPICALLY PIN 86 OF RELAY POWERING SPECIFIED DEVICE)

DRAWING SCALE:

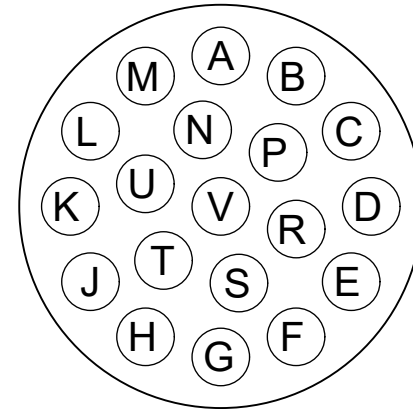
DESIGNER INFORMATION:



BUCKWIRED, LLC

REVOLT 400V PDU (CONTACTOR BOX)

A	UNUSED	-	-
B	PRECHARGE RELAY COIL (HI)	(+)12V INPUT	BLU
C	HV ACCESSORY 1 COIL (HI)	(+)12V INPUT	USER PROVIDED
D	HV ACCESSORY 2 COIL (HI)	(+)12V INPUT	USER PROVIDED
E	HV ACCESSORY 3 COIL (HI)	(+)12V INPUT	USER PROVIDED
F	CURRENT SENSOR REF	USER PROVIDED	USER PROVIDED
G	CURRENT SENSOR CAN LO	USER PROVIDED	USER PROVIDED
H	CURRENT SENSOR GND	USER PROVIDED	USER PROVIDED
J	HV ACCESSORY 3 COIL (LO)	CHASSIS GND	USER PROVIDED
K	HV ACCESSORY 2 COIL (LO)	CHASSIS GND	USER PROVIDED
L	HV ACCESSORY 1 COIL (LO)	CHASSIS GND	USER PROVIDED
M	PRECHARGE RELAY COIL (LO)	CHASSIS GND	USER PROVIDED
N	HV POSITIVE CONTACTOR COIL (LO)	CHASSIS GND	USER PROVIDED
P	HV NEGATIVE CONTACTOR COIL (HI)	(+)12V INPUT	PUR
R	HV POSITIVE CONTACTOR COIL (HI)	(+)12V INPUT	ORG
S	INTERLOCK	USER PROVIDED	USER PROVIDED
T	CURRENT SENSOR CAN HI	USER PROVIDED	USER PROVIDED
U	HV NEGATIVE CONTACTOR COIL (LO)	CHASSIS GND	USER PROVIDED
V	INTERLOCK	USER PROVIDED	USER PROVIDED



*LOOKING AT WIRE SIDE OF OUTSIDE CONNECTOR.

REVOLT PDU 19-PIN LV CONNECTOR

NOTES:

DRAWING SCALE:

DESIGNER INFORMATION:



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will@buckwired.com