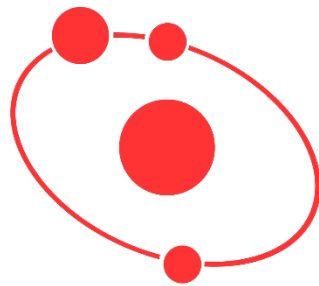


**AMPERE**  **EV**



**ATOM**  
DRIVE SYSTEM

Atom Drive PDU Fuse Layout

Version 1.0



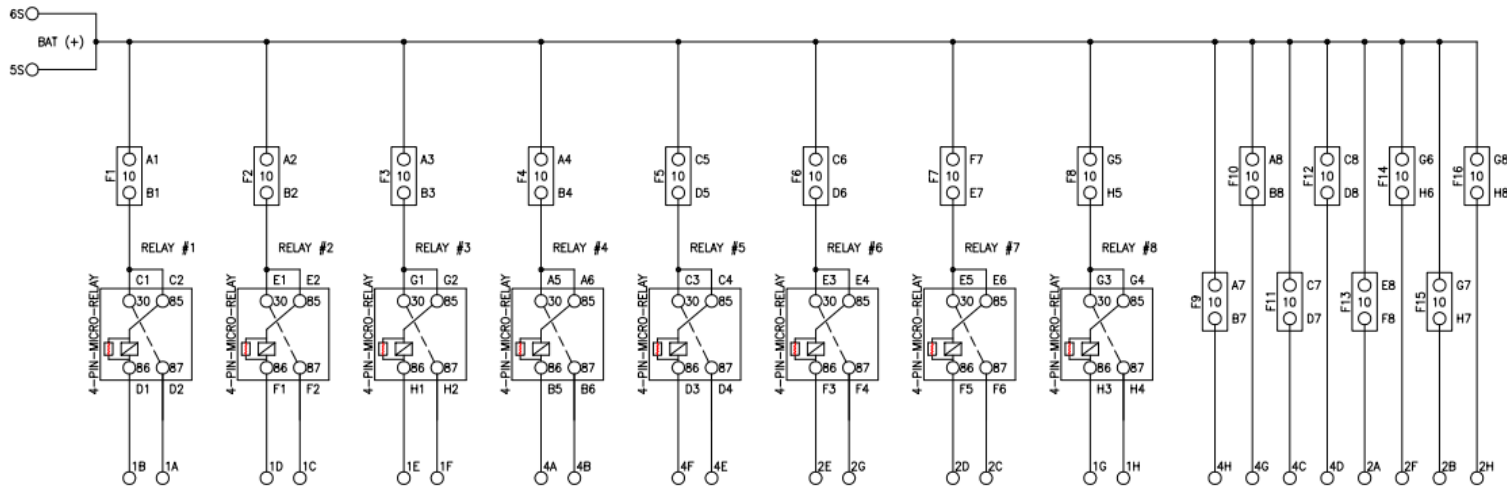
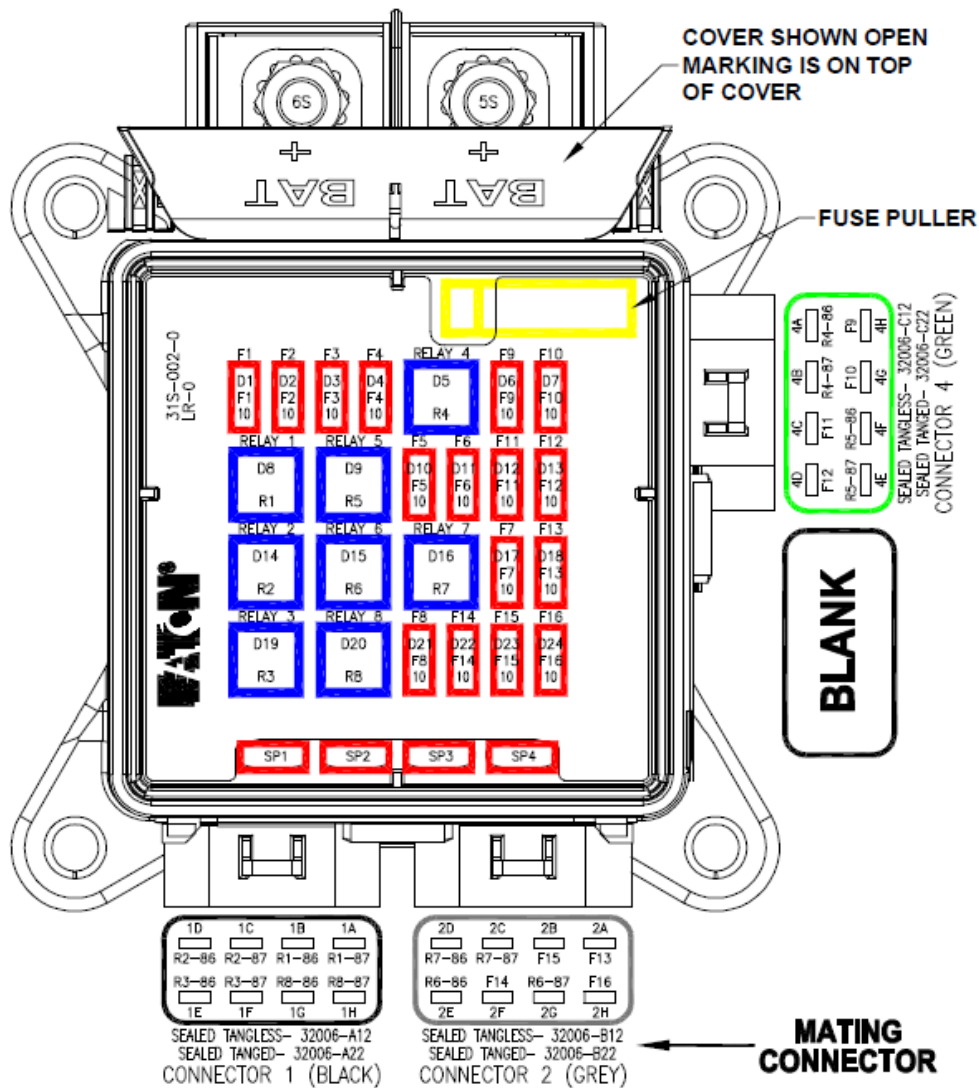
# CONTENTS

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Schematic .....	<b>Error! Bookmark not defined.</b>
PDU 1 .....	4
PDU 2 .....	5
REVISION HISTORY .....	6



# SCHEMATIC





# PDU 1

PDU 1 Component Layout			
Position	Reference	Device	Output
D1	F1	MINI FUSE – 10A	GUI 12V
D2	F2	MINI FUSE – 10A	FAN 1 12V
D3	F3	MINI FUSE – 10A	FAN 2 12V
D4	F4	MINI FUSE – 10A	AC COMPRESSOR 12V
D5	R4	12V, 4-PIN MICRO	
D6	F9	MINI FUSE – 10A	
D7	F10	MINI FUSE – 10A	
D8	R1	12V, 4-PIN MICRO	
D9	R5	12V, 4-PIN MICRO	
D10	F5	MINI FUSE – 10A	BRAKE LIGHTS 12V
D11	F6	MINI FUSE – 10A	VACUUM PUMP 12V
D12	F11	MINI FUSE – 10A	
D13	F12	MINI FUSE – 10A	
D14	R2	12V, 4-PIN MICRO	
D15	R6	12V, 4-PIN MICRO	
D16	R7	12V, 4-PIN MICRO	
D17	F7	MINI FUSE – 10A	REVERSE LIGHTS 12V
D18	F13	MINI FUSE – 10A	
D19	R3	12V, 4-PIN MICRO	
D20	R8	12V, 4-PIN MICRO	
D21	F8	MINI FUSE – 10A	MOTOR ENABLE
D22	F14	MINI FUSE – 10A	
D23	F15	MINI FUSE – 10A	
D24	F16	MINI FUSE – 10A	

Connector 1 Pinout	
Pin	Function
1A	GUI DISPLAY
1B	VCU PIN A93
1C	COOLING FAN 1
1D	VCU PIN A3
1E	VCU PIN A45
1F	COOLING FAN 2
1G	VCU PIN A2
1H	MOTOR ENABLE

Connector 2 Pinout	
Pin	Function
2A	Not Connected
2B	Not Connected
2C	REVERSE LIGHTS
2D	VCU PIN A1
2E	VCU PIN A31
2F	Not Connected
2G	VACUUM PUMP
2H	Not Connected

Connector 4 Pinout	
Pin	Function
4A	VCU PIN A22
4B	AC COMPRESSOR
4C	Not Connected
4D	Not Connected
4E	BRAKE LIGHTS
4F	VCU PIN A4
4G	Not Connected
4H	Not Connected



## PDU 2

PDU 2 Component Layout			
Position	Reference	Device	Output
D1	F1	MINI FUSE – 10A	CCS VOLTAGE SENSOR
D2	F2	MINI FUSE – 10A	CCS CONTACTORS
D3	F3	MINI FUSE – 10A	MAIN NEG CONTACTOR
D4	F4	MINI FUSE – 10A	PRECHARGE RELAY
D5	R4	12V, 4-PIN MICRO	
D6	F9	MINI FUSE – 10A	
D7	F10	MINI FUSE – 10A	
D8	R1	12V, 4-PIN MICRO	
D9	R5	12V, 4-PIN MICRO	
D10	F5	MINI FUSE – 10A	DISCHARGE RELAY
D11	F6	MINI FUSE – 10A	CABIN HEATER
D12	F11	MINI FUSE – 10A	
D13	F12	MINI FUSE – 10A	
D14	R2	12V, 4-PIN MICRO	
D15	R6	12V, 4-PIN MICRO	
D16	R7	12V, 4-PIN MICRO	
D17	F7	MINI FUSE – 10A	BATTERY HEATER
D18	F13	MINI FUSE – 10A	
D19	R3	12V, 4-PIN MICRO	
D20	R8	12V, 4-PIN MICRO	
D21	F8	MINI FUSE – 10A	BMS WAKE
D22	F14	MINI FUSE – 10A	
D23	F15	MINI FUSE – 10A	
D24	F16	MINI FUSE – 10A	

Connector 1 Pinout	
Pin	Function
1A	CCS VOLTAGE SENSOR
1B	VCU PIN K84
1C	CCS CONTACTORS
1D	VCU PIN K88
1E	VCU PIN K57
1F	MAIN NEG CNTR
1G	VCU PIN K36
1H	BMS WAKE

Connector 2 Pinout	
Pin	Function
2A	Not Connected
2B	Not Connected
2C	BATTERY HEATER
2D	VCU PIN K20
2E	VCU PIN K12
2F	Not Connected
2G	CABIN HEATER
2H	Not Connected

Connector 4 Pinout	
Pin	Function
4A	VCU PIN K37
4B	PRE-CHARGE RELAY
4C	Not Connected
4D	Not Connected
4E	HV DISCHARGE RELAY
4F	VCU PIN K73
4G	Not Connected
4H	Not Connected



## REVISION HISTORY

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Version	Description of Version/Changes	Updated by	Date
1.0	New document reformatting PDU Layouts into Tables.	Blakely Fabiani	6/5/2023