

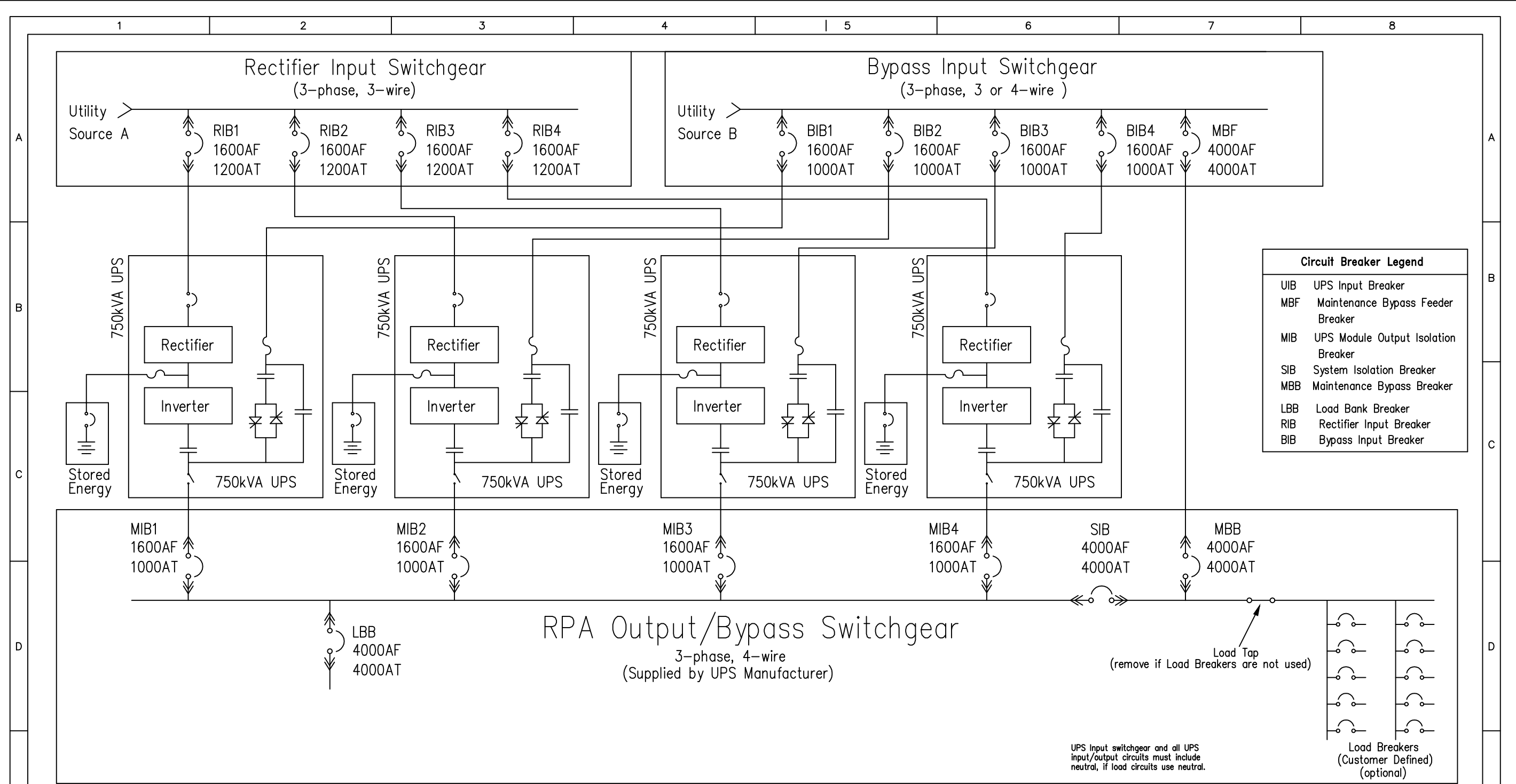
Circuit Breaker Legend	
UIB	UPS Input Breaker
MBF	Maintenance Bypass Feeder Breaker
MIB	UPS Module Output Isolation Breaker
SIB	System Isolation Breaker
MBB	Maintenance Bypass Breaker
LBB	Load Bank Breaker

Notes:

- GE's RPA technology allows up to (8) eight UPS modules to be paralleled for redundancy or capacity. Four (4) UPS modules are shown. Size output switchgear accordingly.
- Output switchgear rated @ 100KAIC.
- Ratings shown for 100% rated circuit breakers.
- UPS system must be fed from a solidly grounded-wye source (no delta or high resistance ground).
- UPS modules require optional 3-wire kit if input feeder circuits are 3-wire (no neutral).
- A neutral must be brought to the bypass input if load circuit uses neutral.
- Bypass & rectifier inputs must be connected with clockwise phase rotation.
- Output switchgear includes a neutral bus. UPS neutrals must be tied at this bus for proper current sharing.
- See UPS mechanical & electrical drawings for recommended cable sizing & current ratings.
- See individual control wiring drawings for connection detail.

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		GENERAL ELECTRIC COMPANY	
4 Module Single Input RPA System One Line DIGITAL ENERGY SG SERIES 750kVA UPS			
FIRST MADE FOR: ---			
SIZE A	DRAWN BY: K. PORTER	DWG NO 2020006401	Revision
SCALE: -	DWG Date 9/24/08	SHEET 1 of 7	A



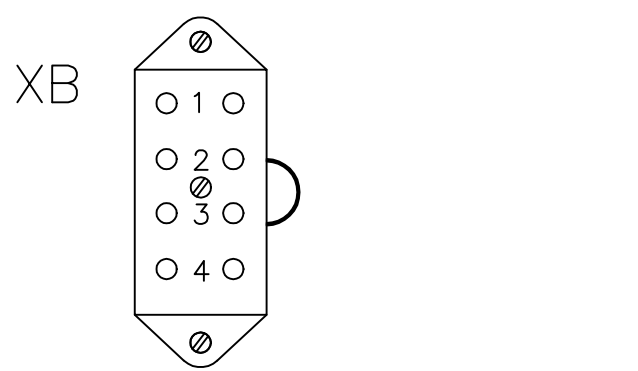
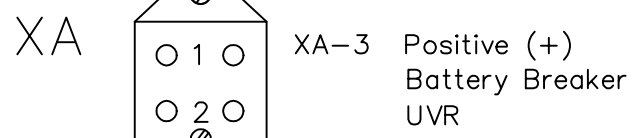
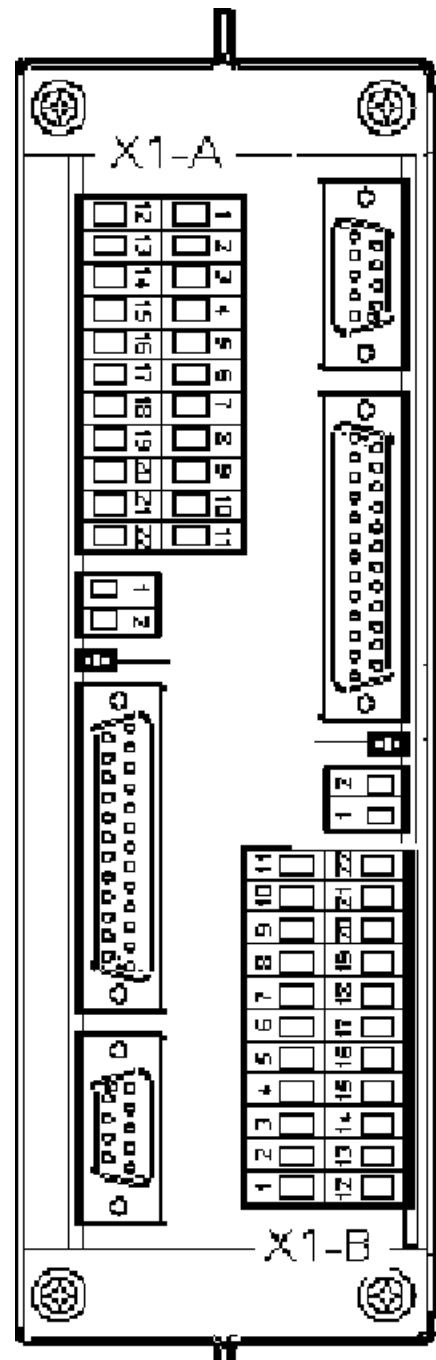
Circuit Breaker Legend	
UIB	UPS Input Breaker
MBF	Maintenance Bypass Feeder Breaker
MIB	UPS Module Output Isolation Breaker
SIB	System Isolation Breaker
MBB	Maintenance Bypass Breaker
LBB	Load Bank Breaker
RIB	Rectifier Input Breaker
BIB	Bypass Input Breaker

Notes:

- GE's RPA technology allows up to (8) eight UPS modules to be paralleled for redundancy or capacity. Four (4) UPS modules are shown. Size output switchgear accordingly.
- Output switchgear rated @ 100KAIC.
- Ratings shown for 100% rated circuit breakers.
- UPS system must be fed from a solidly grounded-wye source (no delta or high resistance ground).
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- Bypass & rectifier inputs must be connected with clockwise phase rotation.
- Output switchgear includes a neutral bus. UPS neutrals must be tied at this bus for proper current sharing.
- See UPS mechanical & electrical drawings for recommended cable sizing & current ratings.
- See individual control wiring drawings for connection detail.

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		GENERAL ELECTRIC COMPANY	
4 Module Dual Input RPA System One Line DIGITAL ENERGY SG SERIES 750kVA UPS			
FIRST MADE FOR: ---			
SIZE A	DRAWN BY: K. PORTER	DWG NO 2020006401	Revision
SCALE: -	DWG Date 9/24/08	SHEET 2 of 7	A



X1-A (card one) – Output signals to PLC on voltage free contacts			
XI/4, 5	- NO, C	- Load on Inverter	To PLC
XI/12, 13	- NO, C	- Load on Utility	To PLC
XI/7, 8	- NO, C	- Inverter ON	To PLC
XI/15, 16	- NO, C	- General Alarm	To PLC
Common terminals 5,13,8,16 must be jumpered together at UPS and brought to PLC from terminal 2			
X1-A (card one) - Input Signals from PLC			
XI/10, 21	Inverter ON	From PLC	
XI/11, 22	Inverter OFF	From PLC	
X1-B (card two) - Input Signals from PLC and DC Breaker			
XI/10, 21	External Battery Breaker Open	From DC Aux Contacts (1)	
XI/11, 22	External Bypass On	From PLC	
XA – Output Signals to DC Breaker			
XA/3,4	24V Under Voltage Release	To DC UVR	
DC Breaker – Output Signals to PLC			
Aux Contacts (2)	External Battery Breaker Open	To PLC	

NOTES:

1. NO = Normally Open, C = Common
2. Voltage free contacts; Max. DC / AC: 24V / 1.25A
Min. Signal Level: 5VDC/50mA
3. Each signal above requires 2 wires (total 21 wires), 16AWG, Multi-Strand, insulated.
4. Recommend pulling spare control wires (25% extra).
5. Terminal block XB used for external EPO connections (2 wires).
6. See output switchgear drawings for PLC connection points.

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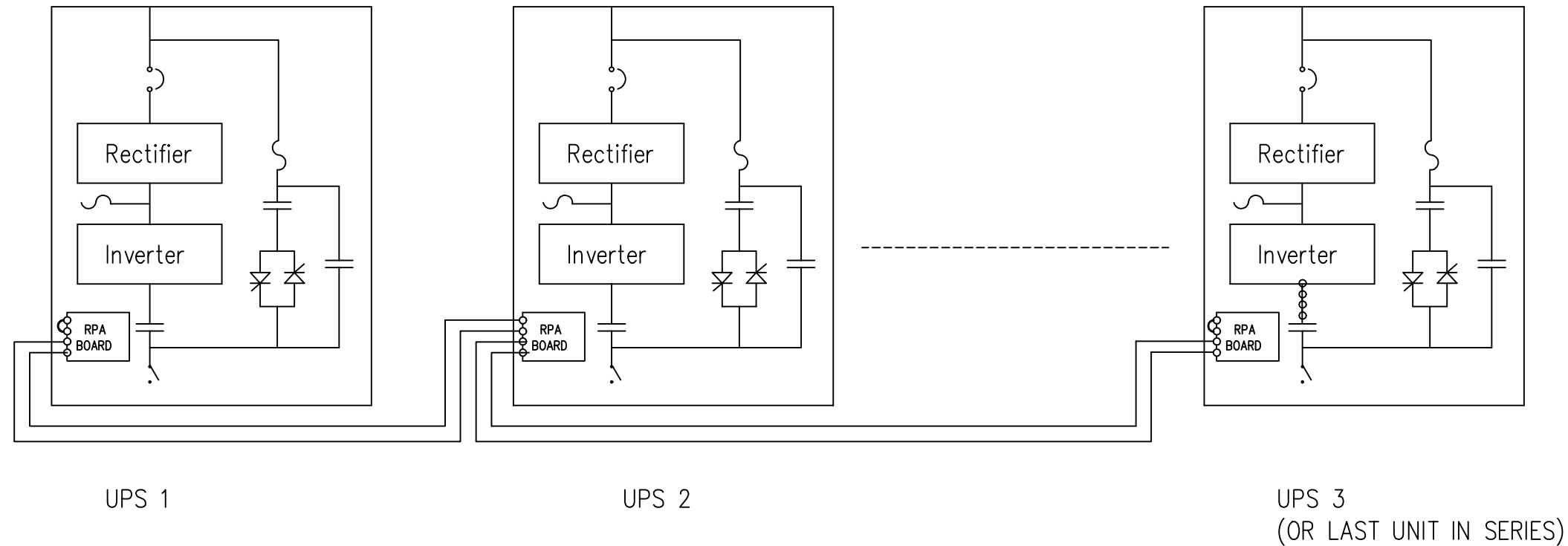


GENERAL ELECTRIC COMPANY

UPS / Output Switchgear Control Wire Terminations
DIGITAL ENERGY
SG SERIES 750kVA UPS

FIRST MADE FOR: ----

SIZE A	DRAWN BY: K. PORTER	DWG NO 2020006401	Revision
SCALE: -	DWG Date 9/24/08	SHEET 3 of 7	A



NOTES:

1. Qty 2- Redundant RPA communication cables supplied by GE for each UPS.
2. Standard communication cable length is 30 ft. If longer cable is needed contact GE.
3. Max. RPA distance from first to last UPS is 274 ft.
4. RPA cable should be run in conduit for protection.
5. See UPS installation manual for detail connections.

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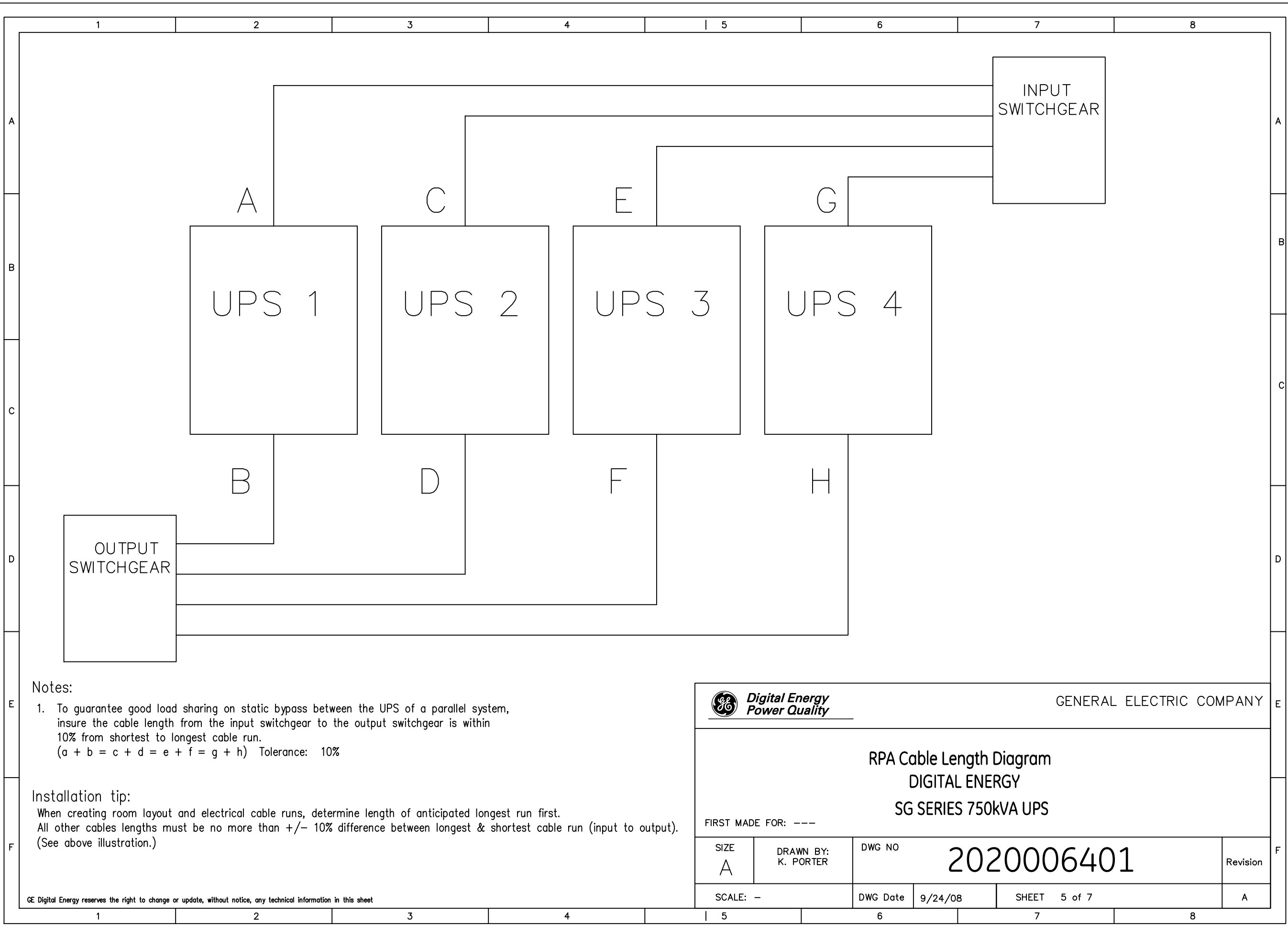


GENERAL ELECTRIC COMPANY

UPS RPA CABLE CONNECTIONS
DIGITAL ENERGY
SG SERIES 750kVA UPS

FIRST MADE FOR: ---

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SCALE: -	DWG Date 9/24/08	SHEET 4 of 7	A



Notes:

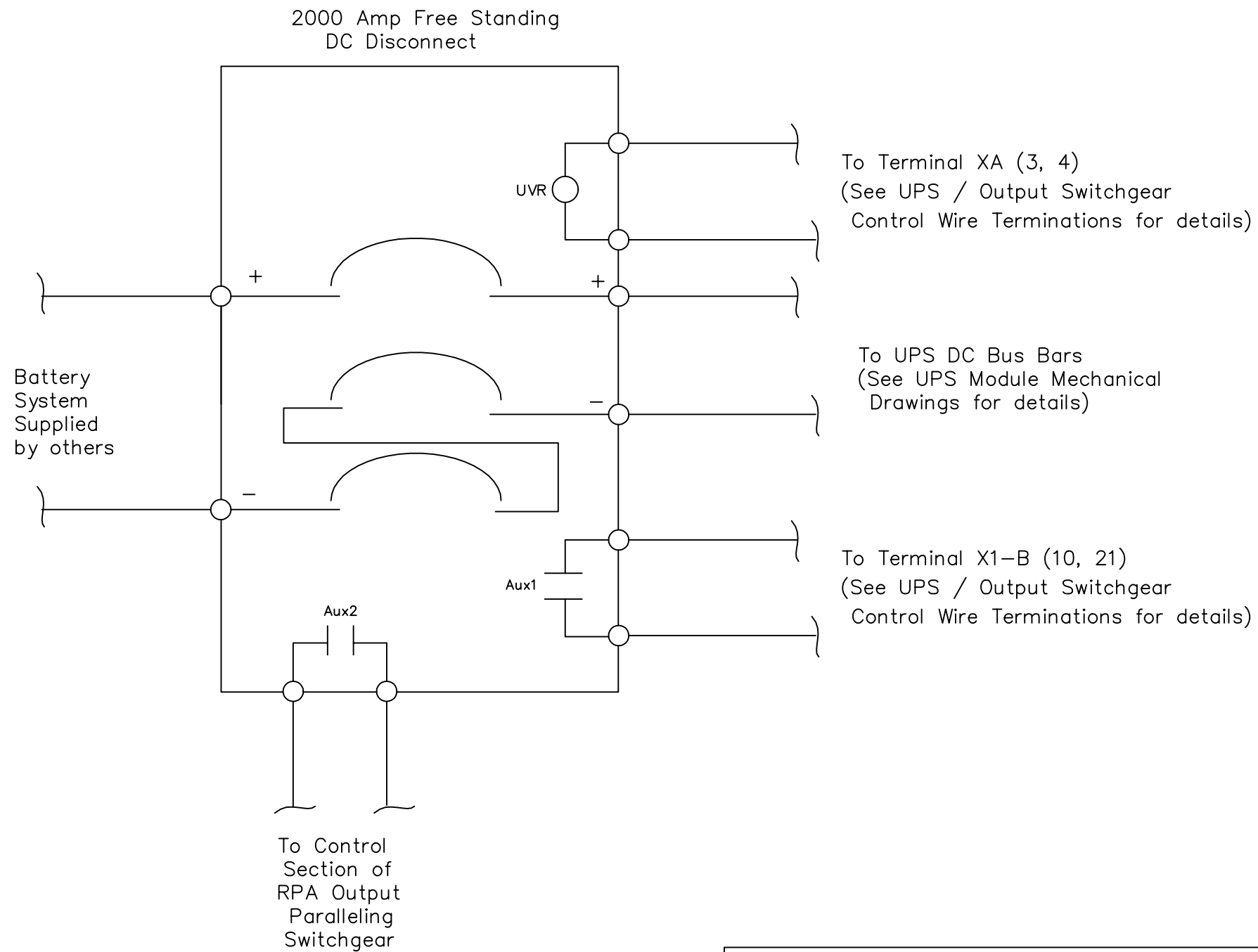
- 1. To guarantee good load sharing on static bypass between the UPS of a parallel system, insure the cable length from the input switchgear to the output switchgear is within 10% from shortest to longest cable run.
(a + b = c + d = e + f = g + h) Tolerance: 10%

Installation tip:

When creating room layout and electrical cable runs, determine length of anticipated longest run first. All other cables lengths must be no more than +/- 10% difference between longest & shortest cable run (input to output). (See above illustration.)

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		GENERAL ELECTRIC COMPANY	
RPA Cable Length Diagram DIGITAL ENERGY SG SERIES 750kVA UPS			
FIRST MADE FOR: ---			
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NOTES:

1. Use 16 AWG multi-strand insulated wire.
2. Ground cable must be run from UPS chassis to rack or battery cabinet chassis.

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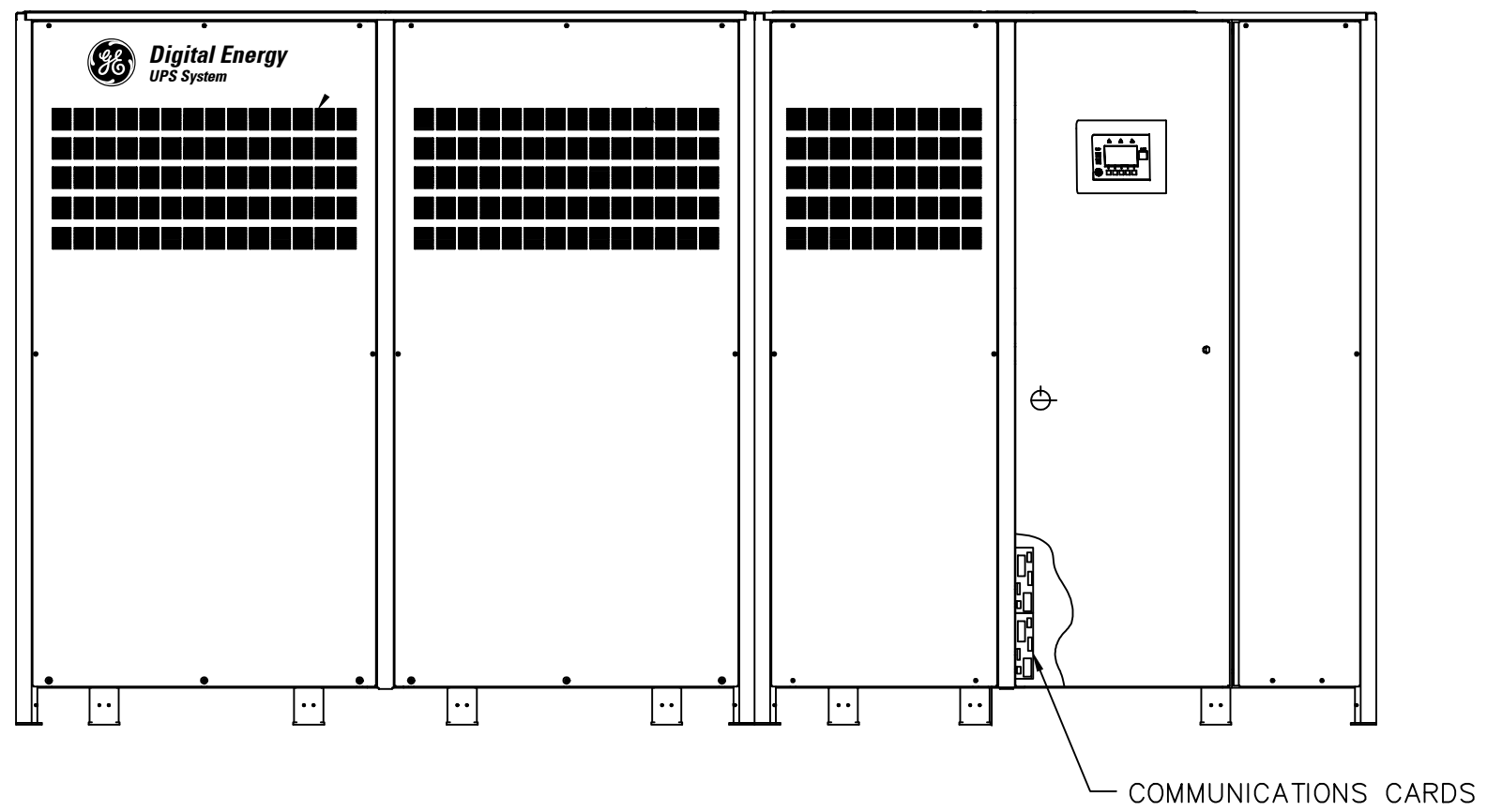


GENERAL ELECTRIC COMPANY

UPS DC Breaker Connections
DIGITAL ENERGY
SG SERIES 750kVA UPS

FIRST MADE FOR: ----

SIZE A	DRAWN BY: K. PORTER	DWG NO 2020006401	Revision
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NOTES:

1. Cable entry is located directly underneath cardcage.
2. All Mod Bus / SNMP communication cables provided by others.
3. SNMP: Requires Cat 5 or 6 cable with RJ-45 connector. Only one SNMP required per parallel system. Additional cards can be added for redundancy.
4. Mod Bus: Requires RS-232 or RS-485 cable depending on option provided. Only one Mod Bus RTU required per parallel system. Additional RTUs can be added for redundancy.



GENERAL ELECTRIC COMPANY

UPS COMMUNICATION CONNECTIONS
DIGITAL ENERGY
SG SERIES 750kVA UPS

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