

Notes:

3-brk Maintenance Bypass Cabinet with SKRU (floor mount)

1. Floor mount **Make-Before-Break** Maintenance Bypass Cabinet (MBC), with SKRU for LP33 series (S2) UPS module, 208/120Vac, 3Ø/4W/G.
2. Main Breakers: MIB & MBB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
3. UPS Input Breaker: UIB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
4. Bus: Copper
5. Neutral: 200%
6. Aux Contact: 2A/B on MBB breaker only
7. Control: SKRU with Kirk Key on MBB and MIB breakers.
8. Equipment ground
9. Refer to national electric code for acceptable external wiring practice.
10. An upstream overcurrent protection with a maximum rating of 125% of the UPS rectifier input must be installed at the MBC input (A1,B1,&C1).
11. The external wiring is rated at 75°C or 90°C.
12. The external wiring material and labor to be provided and paid by others.
13. Maintenance Bypass Input must come from a 3Ø/4W/G (wye), solidly grounded electrical system.
14. The control and power wirings must be installed in separate conduits.
15. Refer to **Table 2** for control wiring from MBC to UPS module.
16. A Customer Interface Card, p/n: 1026645 (IM0268), is required in the UPS module.
17. To avoid a load dump or damage to the equipment, the transfer sequence instruction nameplate mounted to the MBC's door must be followed

Table 1: 3-brk Maintenance Bypass Cabinet (MBC) with SKRU (Electrical Control) Breaker Schedule

UPS (KVA) (Series 2)	MBC PART NUMBER	BREAKER MODEL (EATON-C)	MBB/MIB (Trip)	UIB (Trip)	kAIC@ 240Vac	MBC Dimensions (W x D x H)
15	MBC0122060600-K100	EHD3060	60A	60A	18	18.0" x 32.8" x 52.0"
	MBC0122060600-K600	ED3060	60A	60A	65	
20	MBC0222070700-K100	EHD3070	70A	70A	18	18.0" x 32.8" x 52.0"
	MBC0222070700-K600	FD3070	70A	70A	65	
30	MBC0322121200-K200	EDB3125	125A	125A	22	12.0" x 32.8" x 75.0"
	MBC0322121200-K600	ED3125	125A	125A	65	
50	MBC0522172000-K200	EDB3175	175A	200A	22	12.0" x 32.8" x 75.0"
	MBC0522172000-K600	ED3175	175A	200A	65	
	MBC0522172000-K600	ED3200	175A	200A	65	
60	MBC0622222500-K600	JDB3225 JDB3250	225A	250A	65	12.0" x 32.8" x 75.0"
80	MBC0822303500-K600	KDB3300 KDB3350	300A	350A	65	
100	MBC1022354000-K600	KDB3350 KDB3400	350A	400A	65	

Table 2- SKRU Control Wiring From MBC to UPS module

Terminating point In MBC	Terminating point In UPS	Wire Size	Maximum Voltage & Current	Circuit Function	Note
TB2-1	J6-2 (CIC card)	18AWG	250Vac	SKRU control (Key can be removed if UPS is on bypass)	Twisted pair
TB2-2	J6-3 (CIC card)				
TB2-4	J2-1 (CIC card)	18AWG	24V 1.25A	UPS control (UPS transfer is prohibited during testing)	Twisted pair
TB2-5	J2-3 (CIC card)				

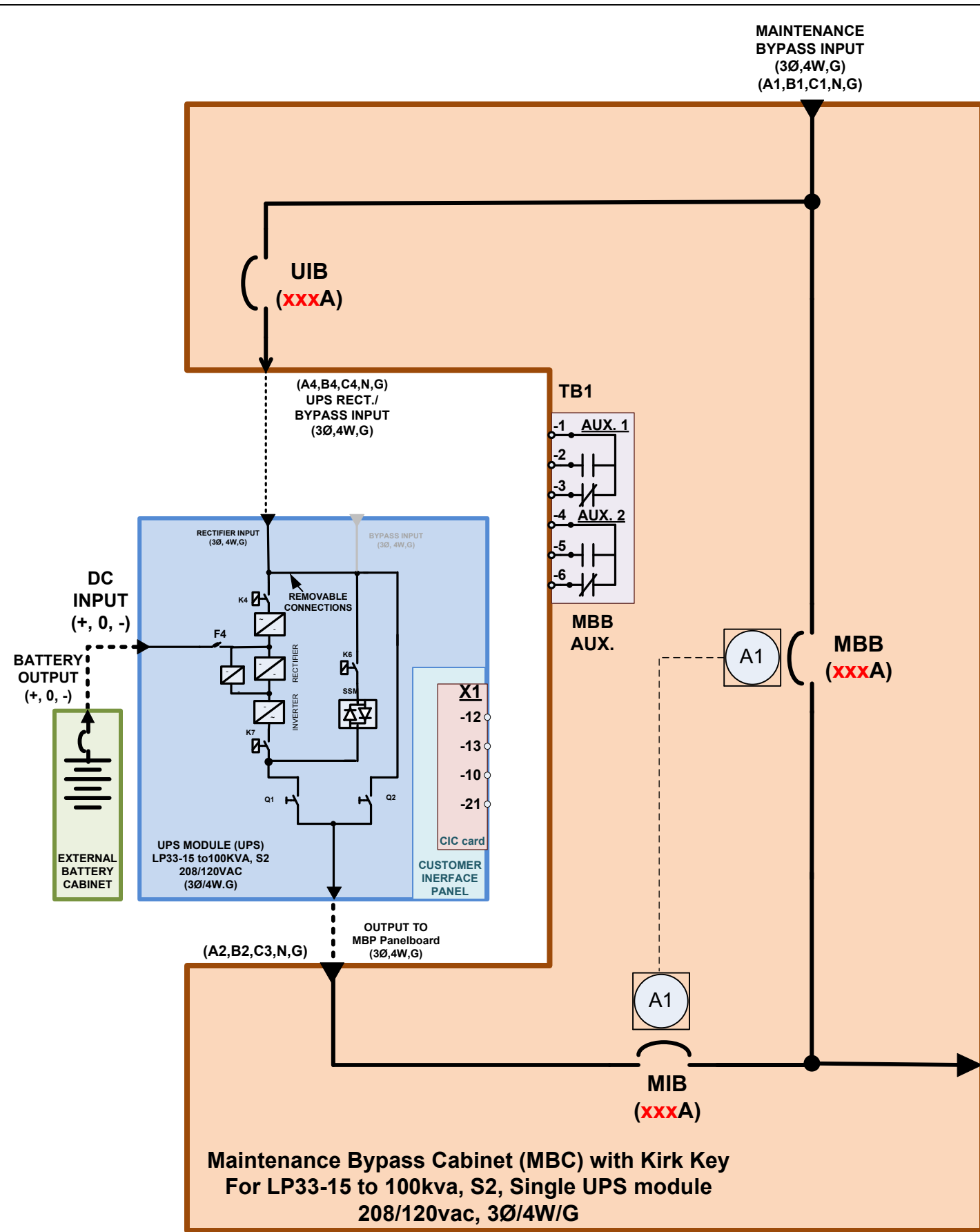
LEGEND:
MIB: UPS MODULE ISOLATION BREAKER
MBB: MAINTENANCE BYPASS BREAKER
UIB: UPS INPUT BREAKER

LEGEND:
A1,B1,&C1: MBP Input from Utility, Phase-A, B, & C
A2,B2,&C2: MBP Input from UPS output, Phase A,B, & C
A3,B3,&C3: MBP Output to Critical Load, Phase A, B, & C
A4,B4,&C4: MBP Output to UPS rect./By., Phase A, B, & C
N: Neutral
G: Ground

Project Name: STD

Point of Contact:
Issued by: PH
Issued date: 07/13/15
Scale: NONE
Revised by: PH
Revised date: 11/17/15
Rev. No.: 2.0

Equipment Part Number: See table 1
Drawing Title: System 1L for LP33-15 to 100kva, S2, (208vac) & 3-brk, floor mount MBP w/ SKRU
Drawing No.: **1-C3421LxxSU02S00C**
Sheet No.: 1 of 1



- Notes:**
- 3-brk Maintenance Bypass Cabinet with Kirk Key (Floor Mount)**
1. Floor mount **Make-Before-Break** Maintenance Bypass Cabinet (MBC), with Kirk Key for LP33 series 2 (S2) UPS module, 208/120Vac, 3Ø/4W/G.
 2. Main Breakers: MIB & MBB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
 3. UPS Input Breaker: UIB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
 4. Bus: Copper
 5. Neutral: 200%
 6. Aux Contact: 2A/B on MBB breaker only
 7. Control: Kirk Key interlocked on MBB and MIB breakers.
 8. Equipment ground
 9. Refer to national electric code for acceptable external wiring practice.
 10. An upstream overcurrent protection with a maximum rating of 125% of the UPS rectifier input must be installed at the MBC input (A1,B1,&C1).
 11. The external wiring is rated at 75°C or 90°C.
 12. The external wiring material and labor to be provided and paid by others.
 13. Maintenance Bypass Input must come from a 3Ø/4W/G (wye), solidly grounded electrical system.
 14. The control, if any, and power wirings must be installed in separate conduits.
 15. To avoid a load dump or damage to the equipment, the transfer sequence instruction nameplate mounted to the MBC's door must be followed

Table 1: 3-brk Maintenance Bypass Cabinet (MBC) with Kirk Key Interlocked Breaker Schedule

UPS (KVA) (Series 2)	MBC PART NUMBER	BREAKER MODEL (EATON-C)	MBB/MIB (Trip)	UIB (Trip)	kAIC@ 240Vac	MBC Dimensions (W x D x H)
15	MBC0122060600-L100	EHD3060	60A	60A	18	18.0" x 32.8" x 52.0"
	MBC0122060600-L600	ED3060	60A	60A	65	
20	MBC0222070700-L100	EHD3070	70A	70A	18	18.0" x 32.8" x 52.0"
	MBC0222070700-L600	FD3070	70A	70A	65	
30	MBC0322121200-L200	EDB3125	125A	125A	22	12.0" x 32.8" x 75.0"
	MBC0322121200-L600	ED3125	125A	125A	65	
50	MBC0522172000-L200	EDB3175	175A	200A	22	12.0" x 32.8" x 75.0"
	MBC0522172000-L600	ED3175	175A	200A	65	
60	MBC0622222500-L600	JDB3225	225A	250A	65	12.0" x 32.8" x 75.0"
80	MBC0822303500-L600	KDB3300	300A	350A	65	
100	MBC1022354000-L600	KDB3350	350A	400A	65	12.0" x 32.8" x 75.0"

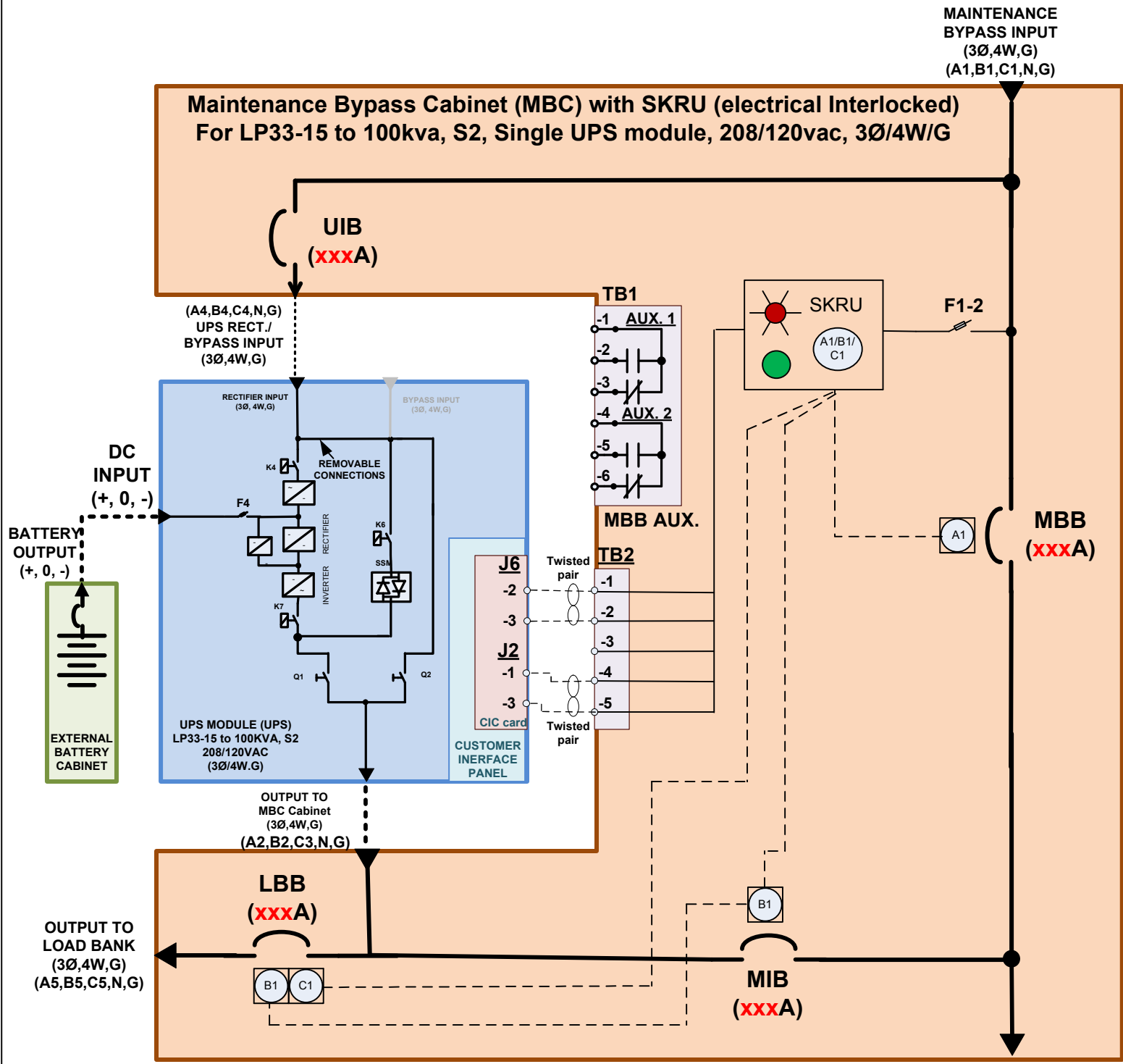
LEGEND:
MIB: UPS MODULE ISOLATION BREAKER
MBB: MAINTENANCE BYPASS BREAKER
UIB: UPS INPUT BREAKER

LEGEND:
A1,B1,&C1: MBP Input from Utility, Phase-A, B, & C
A2,B2,&C2: MBP Input from UPS output, Phase A, B, & C
A3,B3,&C3: MBP Output to Critical Load, Phase A, B, & C
A4,B4,&C4: MBP Output to UPS rect./By., Phase A, B, & C
N: Neutral
G: Ground

Point of Contact:
STD
 GE Critical Power

Issued by: PH
Issued date: 07/13/15
Scale: NONE
Revised by: PH
Revised date: 11/17/15
Rev. No.: 2.0

Equipment Part Number: See table 1
Drawing Title: System 1L for LP33-15 to 100kva, S2, (208vac) & 3-brk, floor mount MBC w/ Kirk Key
Drawing No.: **1-C3421LxxSU02K00C**
Sheet No.: 1 of 1



- Notes:**
- 3-brk Maintenance Bypass Cabinet (MBC) with SKRU & LBB (Lin-up & match)**
1. Floor mount **Make-Before-Break** Maintenance Bypass Cabinet (MBC), with SKRU & LBB for LP33 series 2 (S2) UPS module, 208/120Vac, 3Ø/4W/G.
 2. Main Breakers: MIB, MBB, & LBB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
 3. UPS Input Breaker: UIB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
 4. Bus: Copper
 5. Neutral: 200%
 6. Aux Contact: 2A/B on MBB breaker only
 7. Control: SKRU with Kirk Key on MBB and MIB breakers.
 8. Equipment ground
 9. Refer to national electric code for acceptable external wiring practice.
 10. An upstream overcurrent protection with a maximum rating of 125% of the UPS rectifier input must be installed at the MBC input A1,B1,&C1).
 11. The external wiring is rated at 75°C or 90°C.
 12. The external wiring material and labor to be provided and paid by others.
 13. Maintenance Bypass Input must come from a 3Ø/4W/G (wye), solidly grounded electrical system.
 14. The control and power wirings must be installed in separate conduits.
 15. Refer to **Table 2** for control wiring from MBC to UPS module.
 16. A Customer Interface Card, p/n: 1026645 (IM0268), is required in the UPS module.
 17. To avoid a load dump or damage to the equipment, the transfer sequence instruction nameplate mounted to the MBP's door must be followed

Table 1: 3-brk Maintenance Bypass Cabinet (MBC) with SKRU (Electrical Control) and LBB Breaker Schedule

UPS (KVA) (Series 2)	MBC PART NUMBER	BREAKER MODEL (EATON-C)	MBB/MIB/LBB (Trip)	UIB (Trip)	kAIC@ 240Vac	MBC Dimensions (W x D x H)
15	MBC01220606L0-K100	EHD3060	60A	60A	18	TBD
	MBC01220606L0-K600	ED3060	60A	60A	65	
20	MBC02220707L0-K100	EHD3070	70A	70A	18	TBD
	MBC02220707L0-K600	FD3070	70A	70A	65	
30	MBC03221212L0-K200	EDB3125	125A	125A	22	TBD
	MBC03221212L0-K600	ED3125	125A	125A	65	
50	MBC05221720L0-K200	EDB3175	175A	200A	22	TBD
	MBC05221720L0-K600	ED3175	175A	200A	65	
60	MBC06222225L0-K600	JDB3225	225A	250A	65	TBD
80	MBC08223035L0-K600	KDB3300	300A	350A	65	TBD
100	MBC10223540L0-K600	KDB3350	350A	400A	65	TBD

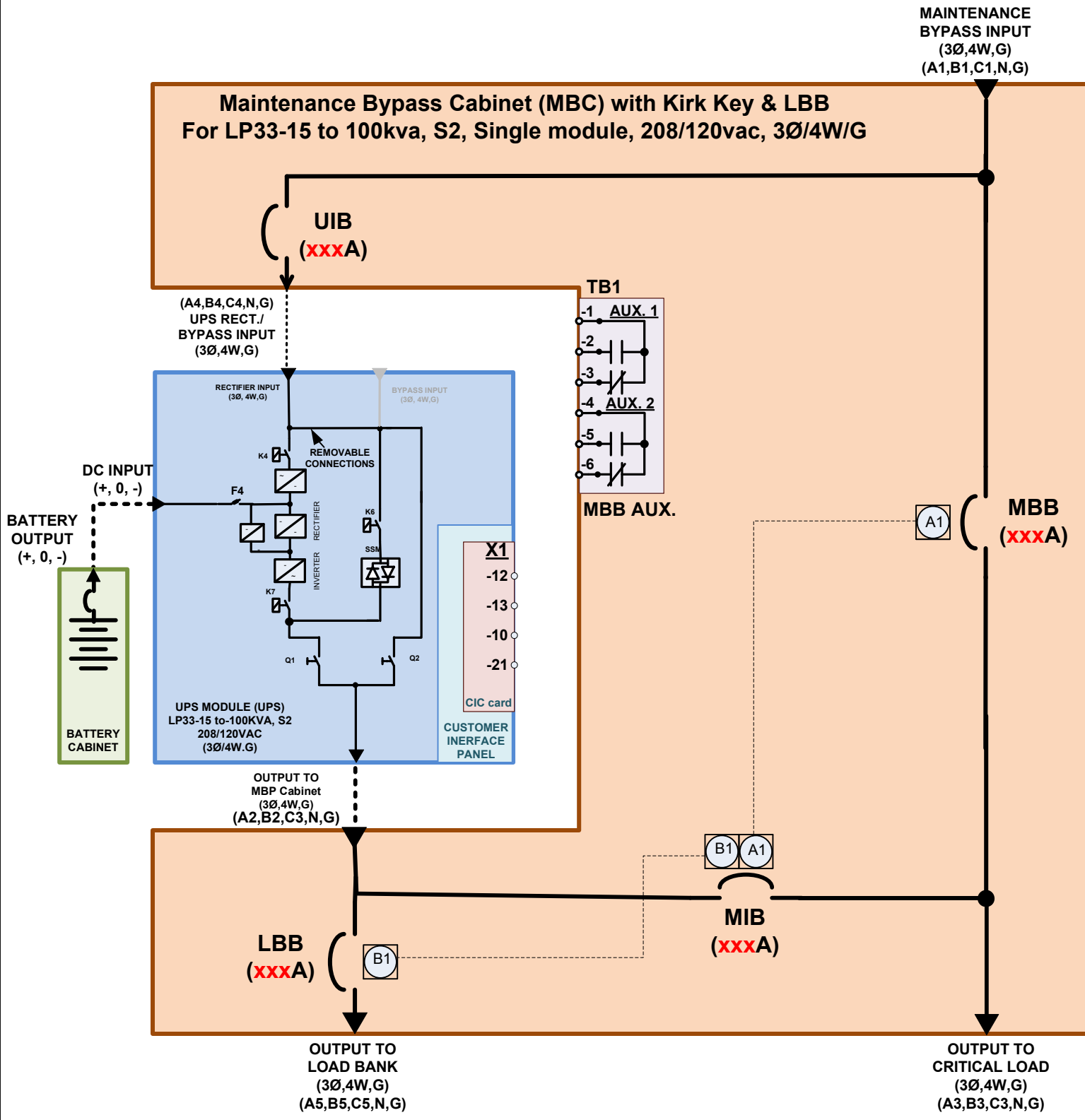
Table 2- SKRU Control Wiring From MBC to UPS module

Terminating point In MBC	Terminating point In UPS	Wire Size	Maximum Voltage & Current	Circuit Function	Note
TB2-1	J6-2 (CIC card)	18AWG	250Vac	SKRU control (Key can be removed if UPS is on bypass)	Twisted pair
TB2-2	J6-3 (CIC card)				
TB2-4	J2-1 (CIC card)	18AWG	24V 1.25A	UPS control (UPS transfer is prohibited during testing)	Twisted pair
TB2-5	J2-3 (CIC card)				

LEGEND:
 MIB: UPS MODULE ISOLATION BREAKER
 MBB: MAINTENANCE BYPASS BREAKER
 UIB: UPS INPUT BREAKER
 A1,B1,&C1: MBP Input from Utility, Phase-A, B, & C

LEGEND, CONTINUED
 A2,B2,&C2: MBP Input from UPS output, Phase A,B, & C
 A3,B3,&C3: MBP Output to Critical Load, Phase A, B, & C
 A4,B4,&C4: MBP Output to UPS rect./By., Phase A, B, & C
 N: Neutral; G: Ground

Project Name: STD		Point of Contact:			Equipment Part Number: See table 1	
Digital Energy Power Quality	Issued by: PH	Issued date: 07/13/15	Scale: NONE	Drawing Title: System 1L for LP33-15 to 100kva, S2, (208vac) & 3-brk,FM MBC w/ SKRU & LBB		
	Revised by: PH	Revised date: 11/17/15	Rev. No.: 2.0	Drawing No.: 1-C3421LxxSU2LS00C		Sheet No.: 1 of 1



Notes:

3-brk Maintenance Bypass Cabinet (MBC) with Kirk Key & LBB (Line-up-& match)

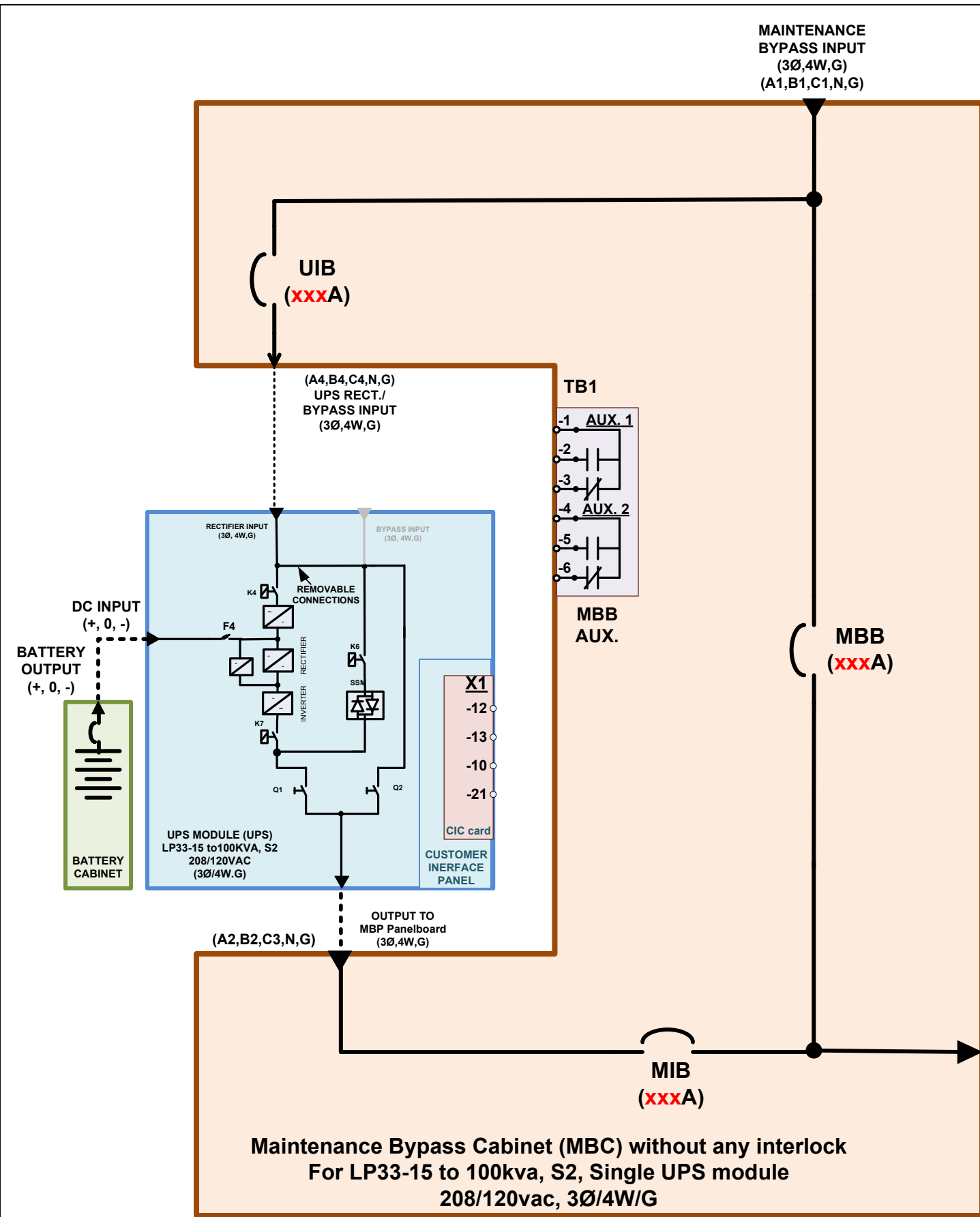
1. Floor mount **Make-Before-Break** Maintenance Bypass Cabinet (MBC), with Kirk Key & LBB for LP33 series 2 (S2) UPS module, 208/120Vac, 3Ø/4W/G.
2. Main Breakers: MIB & MBB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
3. UPS Input Breaker: UIB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
4. Load Bank Breaker: LBB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
5. Bus: Copper
6. Neutral: 200%
7. Aux Contact: 2A/B on MBB breaker only
8. Control: Single Kirk Key interlocked on MBB (A1) and LBB (B1). Dual Kirk Key on MIB (A1 & B1) breaker.
9. Equipment ground
10. Refer to national electric code for acceptable external wiring practice.
11. An upstream overcurrent protection with a maximum rating of 125% of the UPS rectifier input must be installed at the MBC input (A1,B1,&C1).
12. The external wiring is rated at 75°C or 90°C.
13. The external wiring material and labor to be provided and paid by others.
14. Maintenance Bypass Input must come from a 3Ø/4W/G (wye), solidly grounded electrical system.
15. The control, if any, and power wirings must be installed in separate conduits.
16. To avoid a load dump or damage to the equipment, the transfer sequence instruction nameplate mounted to the MBC's door must be followed

UPS (KVA) (Series 2)	MBC PART NUMBER	BREAKER MODEL (EATON-C)	MBB/MIB (Trip)	UIB (Trip)	kAIC@ 240Vac	MBC Dimensions (W x D x H)
15	MBC01220606L0-L100	EHD3060	60A	60A	18	TBD
	MBC01220606L0-L600	ED3060	60A	60A	65	
20	MBC02220707L0-L100	EHD3070	70A	70A	18	TBD
	MBC02220707L0-L600	FD3070	70A	70A	65	
30	MBC03221212L0-L200	EDB3125	125A	125A	22	TBD
	MBC03221212L0-L600	ED3125	125A	125A	65	
50	MBC05221720L0-L200	EDB3175 EDB3200	175A	200A	22	TBD
	MBC05221720L0-L600	ED3175 ED3200	175A	200A	65	
60	MBC06222225L0-L600	JDB3225 JDB3250	225A	250A	65	TBD
80	MBC08223035L0-L600	KDB3300 KDB3350	300A	350A	65	TBD
100	MBC10223540L0-L600	KDB3350 KDB3400	350A	400A	65	TBD

LEGEND:
MIB: UPS MODULE ISOLATION BREAKER
MBB: MAINTENANCE BYPASS BREAKER
UIB: UPS INPUT BREAKER
LBB: LOAD BANK BREAKER

LEGEND CONTINUED
A1,B1,&C1: MBP Input from Utility, Phase-A, B, & C
A2,B2,&C2: MBP Input from UPS output, Phase A,B, & C
A3,B3,&C3: MBP Output to Critical Load, Phase A, B, & C
A4,B4,&C4: MBP Output to UPS rect./By., Phase A, B, & C
A5,B5,&C5: MBP Output to Critical Load, Phase A, B, & C
N: Neutral; G: Ground

Project Name: STD		Point of Contact:			Equipment Part Number: See table 1	
GE Critical Power	Issued by: PH	Issued date: 07/14/15	Scale: NONE	Drawing Title: System 1L for LP33-15 to 100kva, S2, (208vac) & 3-brk, FM MBC w/ KK & LBB		
	Revised by: PH	Revised date: 11/17/15	Rev. No.: 2.0	Drawing No.: 1-C3421LxxSUL2K00C	Sheet No.: 1 of 1	



- Notes:**
- 3-brk Maintenance Bypass Cabinet without any interlock (Floor Mount)**
1. Floor mount **Make-Before-Break** Maintenance Bypass Cabinet (MBC) for LP33 series 2 (S2) UPS module, 208/120Vac, 3Ø/4W/G.
 2. Main Breakers: MIB & MBB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
 3. UPS Input Breaker: UIB (xxxAT), 80% molded case, manually operated breaker. Refer to **Table 1** for breaker current rating.
 4. Bus: Copper
 5. Neutral: 200%
 6. Aux Contact: 2A/B on MBB breaker only
 7. Control: None
 8. Equipment ground
 9. Refer to national electric code for acceptable external wiring practice.
 10. An upstream overcurrent protection with a maximum rating of 125% of the UPS rectifier input must be installed at the MBC input (A1,B1,&C1).
 11. The external wiring is rated at 75°C or 90°C.
 12. The external wiring material and labor to be provided and paid by others.
 13. Maintenance Bypass Input must come from a 3Ø/4W/G (wye), solidly grounded electrical system.
 14. The control, if any, and power wirings must be installed in separate conduits.
 15. To avoid a load dump or damage to the equipment, the transfer sequence instruction nameplate mounted to the MBC's door must be followed

Table 1: 3-brk Maintenance Bypass Cabinet (MBC) without any Interlock Breaker Schedule

UPS (KVA) (Series 2)	MBC PART NUMBER	BREAKER MODEL (EATON-C)	MBB/MIB (Trip)	UIB (Trip)	kAIC@ 240Vac	MBC Dimensions (W x D x H)
15	MBC0122060600-0100	EHD3060	60A	60A	18	18.0" x 32.8" x 52.0"
	MBC0122060600-0600	ED3060	60A	60A	65	
20	MBC0222070700-0100	EHD3070	70A	70A	18	18.0" x 32.8" x 52.0"
	MBC0222070700-0600	FD3070	70A	70A	65	
30	MBC0322121200-0200	EDB3125	125A	125A	22	12.0" x 32.8" x 75.0"
	MBC0322121200-0600	ED3125	125A	125A	65	
50	MBC0522172000-0200	EDB3175 EDB3200	175A	200A	22	12.0" x 32.8" x 75.0"
	MBC0522172000-0600	ED3175 ED3200	175A	200A	65	
60	MBC0622222500-0600	JDB3225 JDB3250	225A	250A	65	12.0" x 32.8" x 75.0"
80	MBC0822303500-0600	KDB3300 KDB3350	300A	350A	65	
100	MBC1022354000-0600	KDB3350 KDB3400	350A	400A	65	12.0" x 32.8" x 75.0"

Maintenance Bypass Cabinet (MBC) without any interlock For LP33-15 to 100kva, S2, Single UPS module 208/120vac, 3Ø/4W/G

LEGEND:
MIB: UPS MODULE ISOLATION BREAKER
MBB: MAINTENANCE BYPASS BREAKER
UIB: UPS INPUT BREAKER

LEGEND:
A1,B1,&C1: MBP Input from Utility, Phase-A, B, & C
A2,B2,&C2: MBP Input from UPS output, Phase A, B, & C
A3,B3,&C3: MBP Output to Critical Load, Phase A, B, & C
A4,B4,&C4: MBP Output to UPS rect./By., Phase A, B, & C
N: Neutral
G: Ground

Point of Contact:
STD
 GE Critical Power

Equipment Part Number: See table 1

Issued by: PH
Issued date: 11/17/15
Scale: NONE

Revised by: PH
Revised date:
Rev. No.: 1.0

Drawing Title:
System 1L for LP33-15 to 100kva, S2, (208vac) & 3-brk, floor mount MBC w/o Interlock

Drawing No.: **1-C3421LxxSU02000C**
Sheet No.: 1 of 1