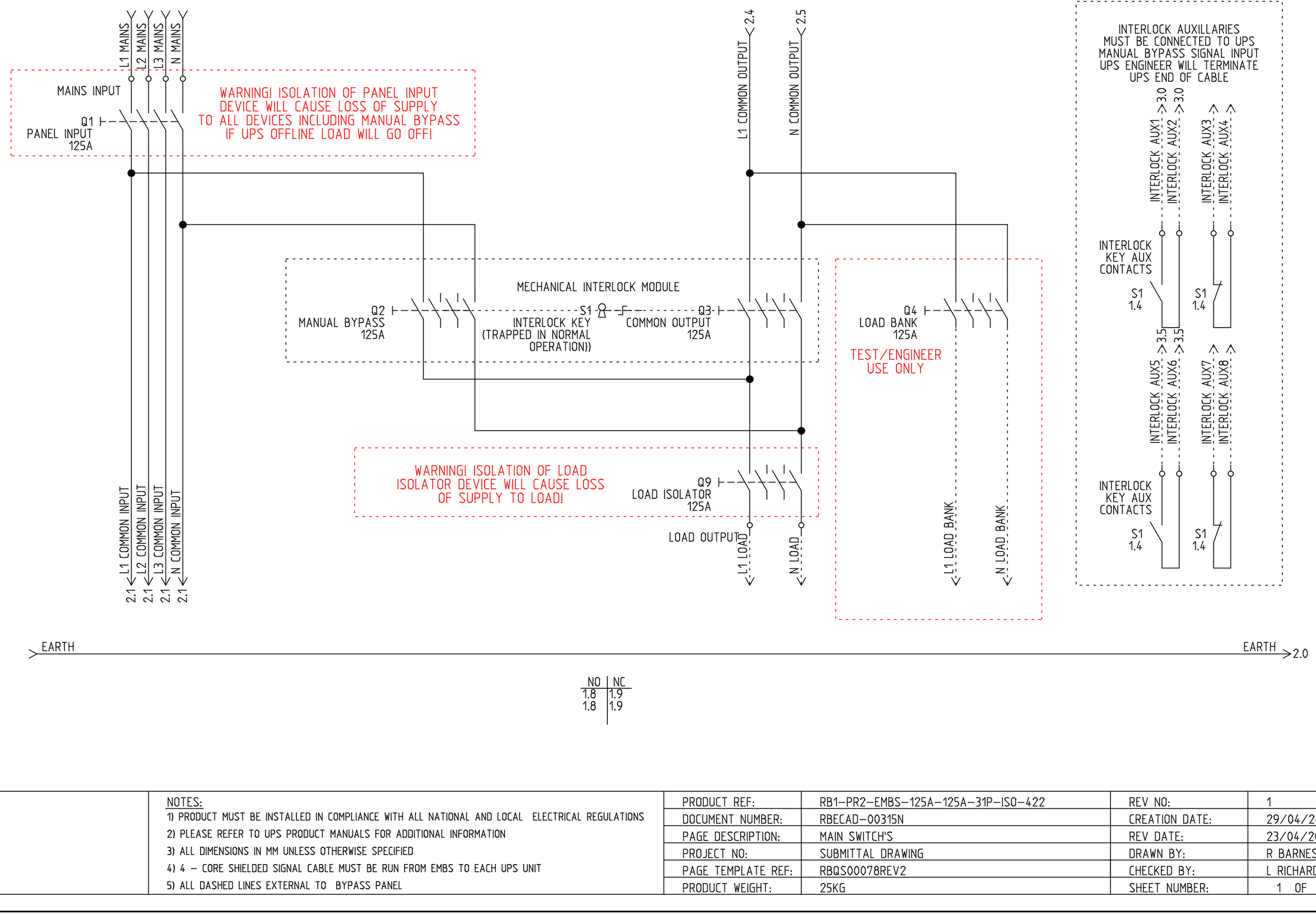


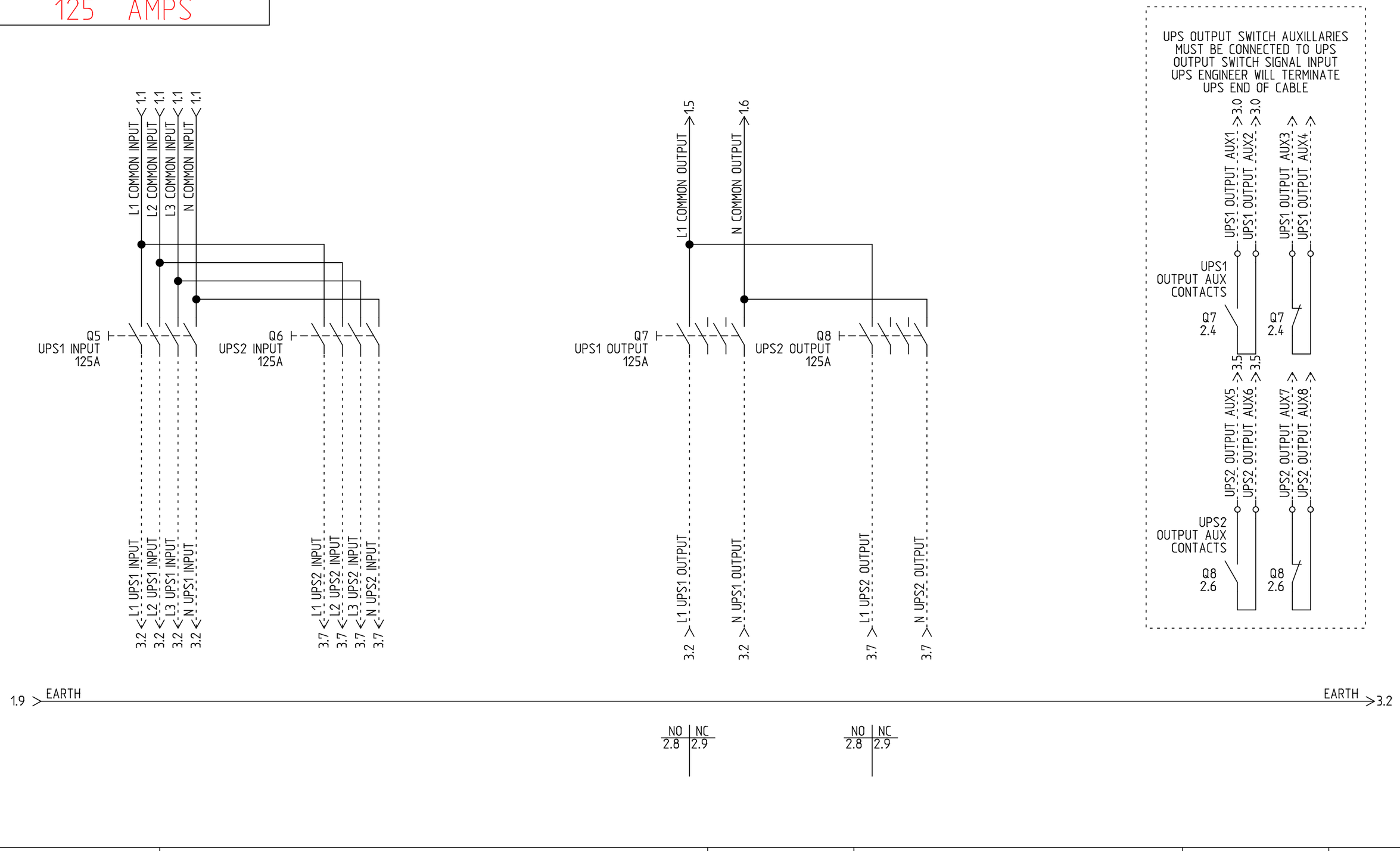
NOTES:

1) PRODUCT MUST BE INSTALLED IN COMPLIANCE WITH ALL NATIONAL AND LOCAL ELECTRICAL REGULATIONS
2) PLEASE REFER TO UPS PRODUCT MANUALS FOR ADDITIONAL INFORMATION
3) ALL DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED
4) 4 – CORE SHIELDED SIGNAL CABLE MUST BE RUN FROM EMBS TO EACH UPS UNIT
5) ALL DASHED LINES EXTERNAL TO BYPASS PANEL

PRODUCT REF:	RB1–PR2–EMBS–125A–125A–31P–ISO–422	REV NO:	1
DOCUMENT NUMBER:	RBECAD–00315N	CREATION DATE:	29/04/2016
PAGE DESCRIPTION:	MAIN SWITCH'S	REV DATE:	23/04/2018
PROJECT NO:	SUBMITTAL DRAWING	DRAWN BY:	R BARNES
PAGE TEMPLATE REF:	RBQS00078REV2	CHECKED BY:	L RICHARDSON
PRODUCT WEIGHT:	25KG	SHEET NUMBER:	1 OF 6

MAX PANEL SUPPLY PROTECTIVE DEVICE RATING:

125 AMPS



NOTES:

1) PRODUCT MUST BE INSTALLED IN COMPLIANCE WITH ALL NATIONAL AND LOCAL ELECTRICAL REGULATIONS
2) PLEASE REFER TO UPS PRODUCT MANUALS FOR ADDITIONAL INFORMATION
3) ALL DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED
4) 4 – CORE SHIELDED SIGNAL CABLE MUST BE RUN FROM EMBS TO EACH UPS UNIT
5) ALL DASHED LINES EXTERNAL TO BYPASS PANEL

PRODUCT REF:	RB1–PR2–EMBS–125A–125A–31P–ISO–422	REV NO:	1
DOCUMENT NUMBER:	RBECAD–00315N	CREATION DATE:	03/05/2016
PAGE DESCRIPTION:	N+1 SECTION	REV DATE:	23/04/2018
PROJECT NO:	SUBMITTAL DRAWING	DRAWN BY:	R BARNES
PAGE TEMPLATE REF:	RBQS00075REV2	CHECKED BY:	L RICHARDSON
PRODUCT WEIGHT:	25KG	SHEET NUMBER:	2 OF 6

EXAMPLE UPS UNIT – CHECK WITH UPS UNIT SUPPLIER FOR EXACT CONNECTION CONFIGURATION FOR THE AC, DC AND AUXILLARY CONNECTIONS

3 PHASE EXAMPLE UPS UNIT

UPS INPUT CONNECTIONS (CHECK WITH UPS SUPPLIER FOR ACTUAL CONNECTION DETAILS)

L1 UPS1 INPUT 2.1
L2 UPS1 INPUT 2.1
L3 UPS1 INPUT 2.1
N UPS1 INPUT 2.1
EARTH 3.2

L1 IN
L2 IN
L3 IN
N IN
E IN

UPS INTERLOCK CONNECTIONS (CHECK WITH UPS SUPPLIER FOR EXACT CONNECTION DETAILS)

1.8 INTERLOCK AUX1 MB AUX
1.8 INTERLOCK AUX2 MB AUX
2.8 UPS1 OUTPUT AUX1 OCB AUX
2.8 UPS1 OUTPUT AUX2 OCB AUX

DC CONNECTIONS (CHECK WITH UPS SUPPLIER FOR ACTUAL CONNECTION DETAILS)

+ DC
N DC
– DC

L1 OUT
N OUT
E OUT

L1 UPS1 OUTPUT 2.4
N UPS1 OUTPUT 2.5
EARTH 3.7
PARALLEL A 3.7
PARALLEL B 3.7

UPS OUTPUT CONNECTIONS (CHECK WITH UPS SUPPLIER FOR ACTUAL CONNECTION DETAILS)

EXAMPLE UPS UNIT – CHECK WITH UPS UNIT SUPPLIER FOR EXACT CONNECTION CONFIGURATION FOR THE AC, DC AND AUXILLARY CONNECTIONS

3 PHASE EXAMPLE UPS UNIT

UPS INPUT CONNECTIONS (CHECK WITH UPS SUPPLIER FOR ACTUAL CONNECTION DETAILS)

L1 UPS2 INPUT 2.2
L2 UPS2 INPUT 2.2
L3 UPS2 INPUT 2.2
N UPS2 INPUT 2.2
EARTH 3.7

L1 IN
L2 IN
L3 IN
N IN
E IN

UPS INTERLOCK CONNECTIONS (CHECK WITH UPS SUPPLIER FOR EXACT CONNECTION DETAILS)

1.8 INTERLOCK AUX5 MB AUX
1.8 INTERLOCK AUX6 MB AUX
2.8 UPS2 OUTPUT AUX5 OCB AUX
2.8 UPS2 OUTPUT AUX6 OCB AUX

DC CONNECTIONS (CHECK WITH UPS SUPPLIER FOR ACTUAL CONNECTION DETAILS)

+ DC
N DC
– DC

L1 OUT
N OUT
E OUT

L1 UPS2 OUTPUT 2.6
N UPS2 OUTPUT 2.6
EARTH 3.7
PARALLEL A 3.2
PARALLEL B 3.3

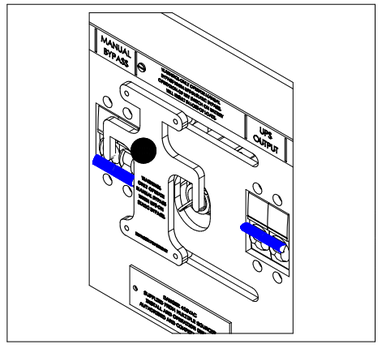
UPS OUTPUT CONNECTIONS (CHECK WITH UPS SUPPLIER FOR ACTUAL CONNECTION DETAILS)

NOTES:
1) PRODUCT MUST BE INSTALLED IN COMPLIANCE WITH ALL NATIONAL AND LOCAL ELECTRICAL REGULATIONS
2) PLEASE REFER TO UPS PRODUCT MANUALS FOR ADDITIONAL INFORMATION
3) ALL DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED
4) 4 – CORE SHIELDED SIGNAL CABLE MUST BE RUN FROM EMBS TO EACH UPS UNIT
5) ALL DASHED LINES EXTERNAL TO BYPASS PANEL

PRODUCT REF:	RB1–PR2–EMBS–125A–125A–31P–ISO–422	REV NO:	1
DOCUMENT NUMBER:	RBECAD–00315N	CREATION DATE:	03/05/2016
PAGE DESCRIPTION:	UPS UNITS	REV DATE:	23/04/2018
PROJECT NO:	SUBMITTAL DRAWING	DRAWN BY:	R BARNES
PAGE TEMPLATE REF:	RBQS00078REV2	CHECKED BY:	L RICHARDSON
PRODUCT WEIGHT:	25KG	SHEET NUMBER:	3 OF 6

DO NOT USE THIS PROCEDURE IF THE MAINS IS NOT AVAILABLE. IF IN ANY DOUBT CONTACT YOUR UPS SERVICE PROVIDER.

STEP A (NORMAL POSITION)



MANUAL BYPASS:
–IN THE OFF POSITION

INTERLOCK KEY :
–INSERTED + TURNED CLOCKWISE

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–ONLINE – LOAD ON UPS
–UPS INVERTER NOT BLOCKED

STEP B

REFER TO UPS USER MANUAL TO SWITCH THE UPS UNIT (OR UNITS) TO STATIC BYPASS

ONCE UPS UNIT (OR UNITS) ARE IN STATIC BYPASS CONTINUE THE SWITCHING SEQUENCE

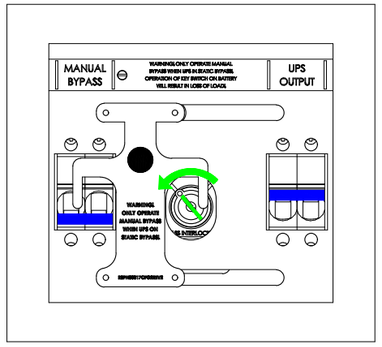
MANUAL BYPASS:
–IN THE OFF POSITION

INTERLOCK KEY :
–INSERTED + TURNED CLOCKWISE

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER NOT BLOCKED

STEP C



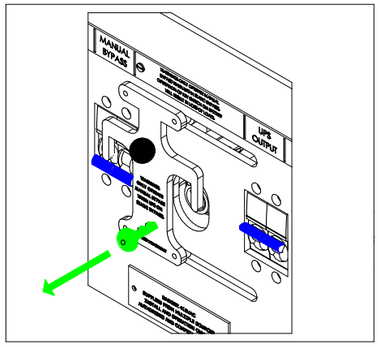
MANUAL BYPASS:
–IN THE OFF POSITION

INTERLOCK KEY :
–INSERTED + TURNED ANTI–CLOCKWISE

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP D



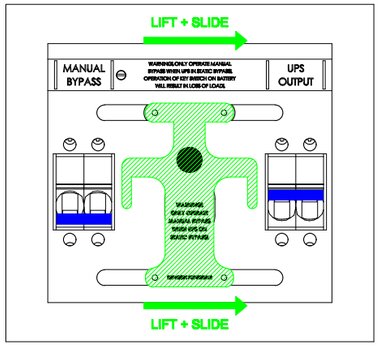
MANUAL BYPASS:
–IN THE OFF POSITION

INTERLOCK KEY :
–REMOVED

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP E



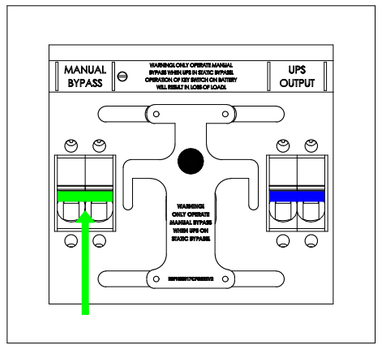
MANUAL BYPASS:
–IN THE OFF POSITION

INTERLOCK KEY :
–REMOVED

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP F



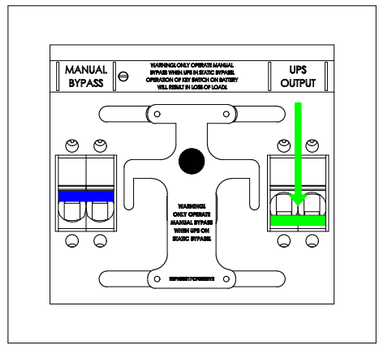
MANUAL BYPASS:
–IN THE ON POSITION

INTERLOCK KEY :
–REMOVED

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP G



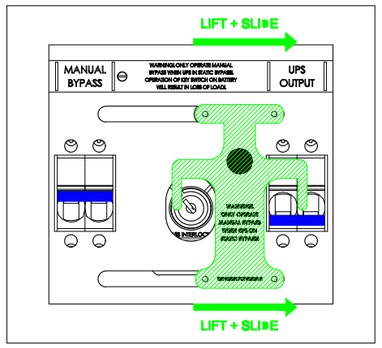
MANUAL BYPASS:
–IN THE ON POSITION

INTERLOCK KEY :
–REMOVED

UPS OUTPUT:
–IN THE OFF POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP H



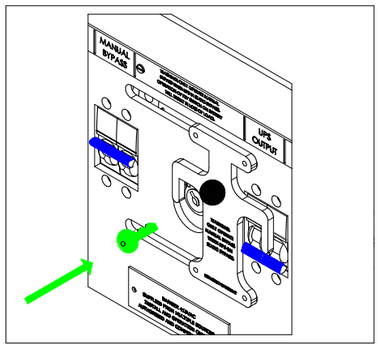
MANUAL BYPASS:
–IN THE ON POSITION

INTERLOCK KEY :
–REMOVED

UPS OUTPUT:
–IN THE OFF POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP I



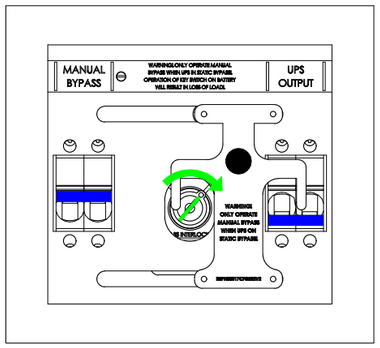
MANUAL BYPASS:
–IN THE ON POSITION

INTERLOCK KEY :
–INSERTED + TURNED ANTI–CLOCKWISE

UPS OUTPUT:
–IN THE OFF POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP J



MANUAL BYPASS:
–IN THE ON POSITION

INTERLOCK KEY :
–INSERTED + TURNED CLOCKWISE

UPS OUTPUT:
–IN THE OFF POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER NOT BLOCKED

NOTES:

1) PRODUCT MUST BE INSTALLED IN COMPLIANCE WITH ALL NATIONAL AND LOCAL ELECTRICAL REGULATIONS
2) PLEASE REFER TO UPS PRODUCT MANUALS FOR ADDITIONAL INFORMATION
3) ALL DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED
4) 4 – CORE SHIELDED SIGNAL CABLE MUST BE RUN FROM EMBS TO EACH UPS UNIT
5) ALL DASHED LINES EXTERNAL TO BYPASS PANEL

PRODUCT REF:	RB1–PR2–EMBS–125A–125A–31P–ISO–422	REV NO:	1
DOCUMENT NUMBER:	RBECAD–00315N	CREATION DATE:	29/04/2016
PAGE DESCRIPTION:	INTERLOCK OPERATION PAGE 1	REV DATE:	23/04/2018
PROJECT NO:	SUBMITTAL DRAWING	DRAWN BY:	R BARNES
PAGE TEMPLATE REF:	RBQS00078REV2	CHECKED BY:	L RICHARDSON
PRODUCT WEIGHT:	25KG	SHEET NUMBER:	4 OF 6

DO NOT USE THIS PROCEDURE IF THE MAINS IS NOT AVAILABLE. IF IN ANY DOUBT CONTACT YOUR UPS SERVICE PROVIDER.

STEP K (ON BYPASS POSITION)

THIS PROCEDURE ASSUMES:

ALL SWITCH'S ON THE EMBS AND ON THE UPS UNIT SHOULD STILL BE AS PER STEP J ON THE PREVIOUS PAGE PRIOR TO PROCEDING

THE UPS UNIT SHOULD BE IN STATIC BYPASS AND SHOULD BE READY TO ACCEPT THE SYSTEM LOAD

IF IN ANY DOUBT CONTACT YOUR UPS SYSTEM SERVICE PROVIDER BEFORE PROCEDING

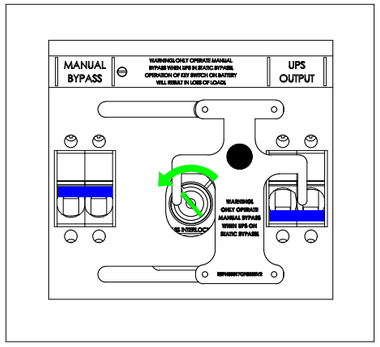
MANUAL BYPASS:
–IN THE ON POSITION

INTERLOCK KEY :
–INSERTED + TURNED CLOCKWISE

UPS OUTPUT:
–IN THE OFF POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER NOT BLOCKED

STEP L



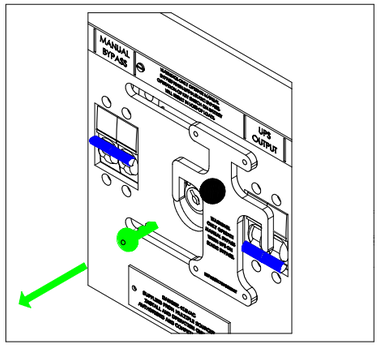
MANUAL BYPASS:
–IN THE ON POSITION

INTERLOCK KEY :
–INSERTED + TURNED ANTI–CLOCKWISE

UPS OUTPUT:
–IN THE OFF POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP M



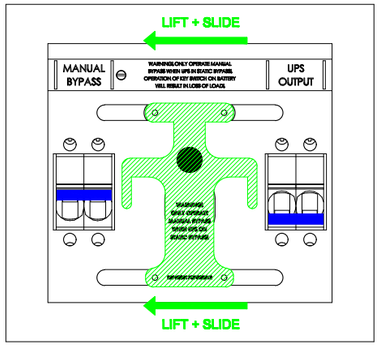
MANUAL BYPASS:
–IN THE ON POSITION

INTERLOCK KEY :
–REMOVED

UPS OUTPUT:
–IN THE OFF POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP N



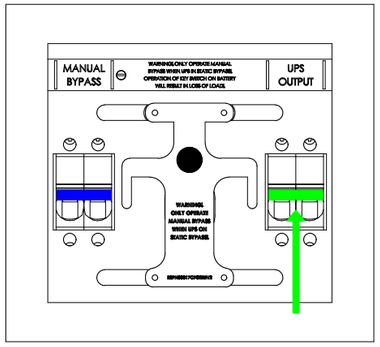
MANUAL BYPASS:
–IN THE ON POSITION

INTERLOCK KEY :
–REMOVED

UPS OUTPUT:
–IN THE OFF POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP O



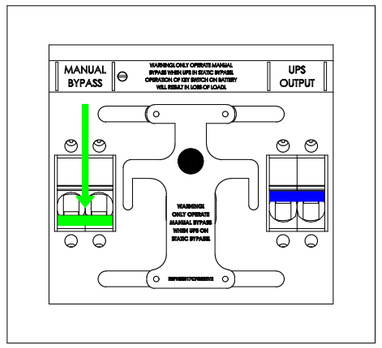
MANUAL BYPASS:
–IN THE ON POSITION

INTERLOCK KEY :
–REMOVED

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP P



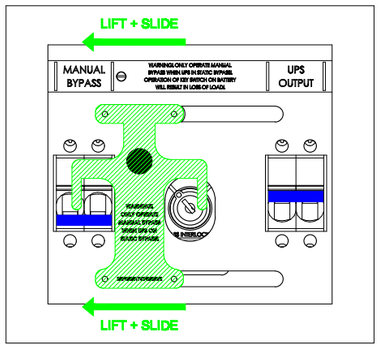
MANUAL BYPASS:
–IN THE OFF POSITION

INTERLOCK KEY :
–REMOVED

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP Q



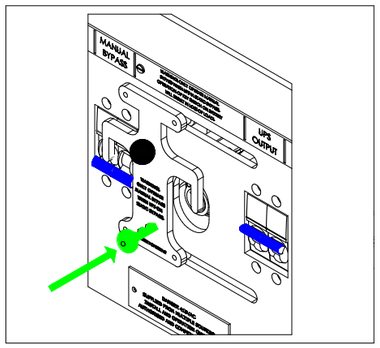
MANUAL BYPASS:
–IN THE OFF POSITION

INTERLOCK KEY :
–REMOVED

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP R



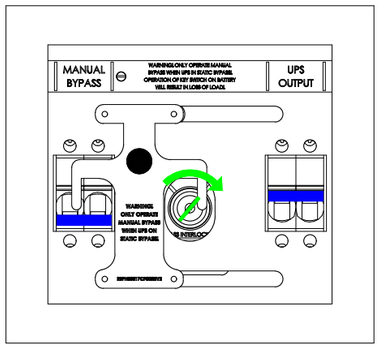
MANUAL BYPASS:
–IN THE OFF POSITION

INTERLOCK KEY :
–INSERTED + TURNED ANTI–CLOCKWISE

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER BLOCKED

STEP S



MANUAL BYPASS:
–IN THE OFF POSITION

INTERLOCK KEY :
–INSERTED + TURNED CLOCKWISE

UPS OUTPUT:
–IN THE ON POSITION

UPS UNIT:
–STATIC BYPASS – LOAD ON MAINS
–UPS INVERTER NOT BLOCKED

STEP T

REFER TO UPS USER MANUAL TO SWITCH THE UPS UNIT (OR UNITS) TO ONLINE MODE

ONCE UPS UNIT (OR UNITS) ARE ONLINE THE SEQUENCE IS COMPLETE AND THE LOAD IS NOW BACKED UP BY UPS

IF IN ANY DOUBT CONTACT YOUR UPS SERVICE PROVIDER

MANUAL BYPASS:
–IN THE OFF POSITION

INTERLOCK KEY :
–INSERTED + TURNED CLOCKWISE

UPS OUTPUT:
–IN THE ON POSITION

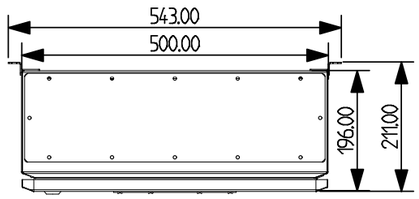
UPS UNIT:
–ONLINE – LOAD ON UPS
–UPS INVERTER NOT BLOCKED

NOTES:
1) PRODUCT MUST BE INSTALLED IN COMPLIANCE WITH ALL NATIONAL AND LOCAL ELECTRICAL REGULATIONS
2) PLEASE REFER TO UPS PRODUCT MANUALS FOR ADDITIONAL INFORMATION
3) ALL DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED
4) 4 – CORE SHIELDED SIGNAL CABLE MUST BE RUN FROM EMBS TO EACH UPS UNIT
5) ALL DASHED LINES EXTERNAL TO BYPASS PANEL

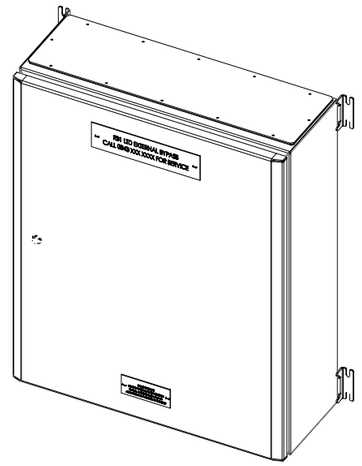
PRODUCT REF:	RB1–PR2–EMBS–125A–125A–31P–ISO–422	REV NO:	1
DOCUMENT NUMBER:	RBECAD–00315N	CREATION DATE:	29/04/2016
PAGE DESCRIPTION:	INTERLOCK OPERATION PAGE 2	REV DATE:	23/04/2018
PROJECT NO:	SUBMITTAL DRAWING	DRAWN BY:	R BARNES
PAGE TEMPLATE REF:	RBQS00078REV2	CHECKED BY:	L RICHARDSON
PRODUCT WEIGHT:	25KG	SHEET NUMBER:	5 OF 6

MECHANICAL LAYOUT

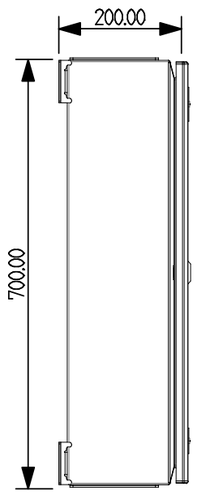
TOP VIEW:



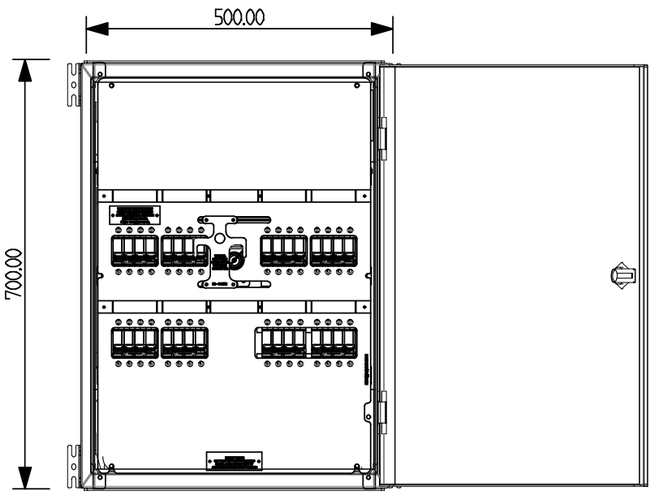
ISO VIEW:



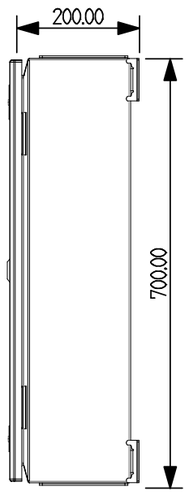
LEFT VIEW:



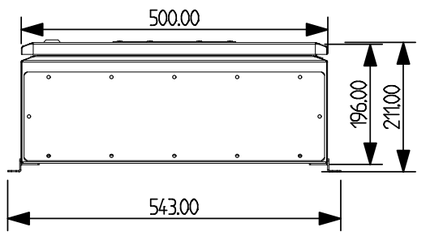
FRONT VIEW:



RIGHT VIEW:



BOTTOM VIEW:



TERMINATION DETAILS:

MAINS INPUT: TERMINAL (ACCESS TOP/BOTTOM)
LOAD OUTPUT: TERMINAL (ACCESS TOP/BOTTOM)

EARTH: 6MM STUD (ACCESS TOP/BOTTOM)

UPS IN/OUT: DIRECT TO DEVICE (ACCESS TOP/BOTTOM)

NOTES:
1) PRODUCT MUST BE INSTALLED IN COMPLIANCE WITH ALL NATIONAL AND LOCAL ELECTRICAL REGULATIONS
2) PLEASE REFER TO UPS PRODUCT MANUALS FOR ADDITIONAL INFORMATION
3) ALL DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED
4) 4 – CORE SHIELDED SIGNAL CABLE MUST BE RUN FROM EMBS TO EACH UPS UNIT
5) ALL DASHED LINES EXTERNAL TO BYPASS PANEL

PRODUCT REF:	RB1–PR2–EMBS–125A–125A–31P–ISO–422	REV NO:	1
DOCUMENT NUMBER:	RBECAD–00315N	CREATION DATE:	29/04/2016
PAGE DESCRIPTION:	MECHANICAL LAYOUT	REV DATE:	23/04/2018
PROJECT NO:	SUBMITTAL DRAWING	DRAWN BY:	R BARNES
PAGE TEMPLATE REF:	RBQS00078REV2	CHECKED BY:	L RICHARDSON
PRODUCT WEIGHT:	25KG	SHEET NUMBER:	6 OF 6