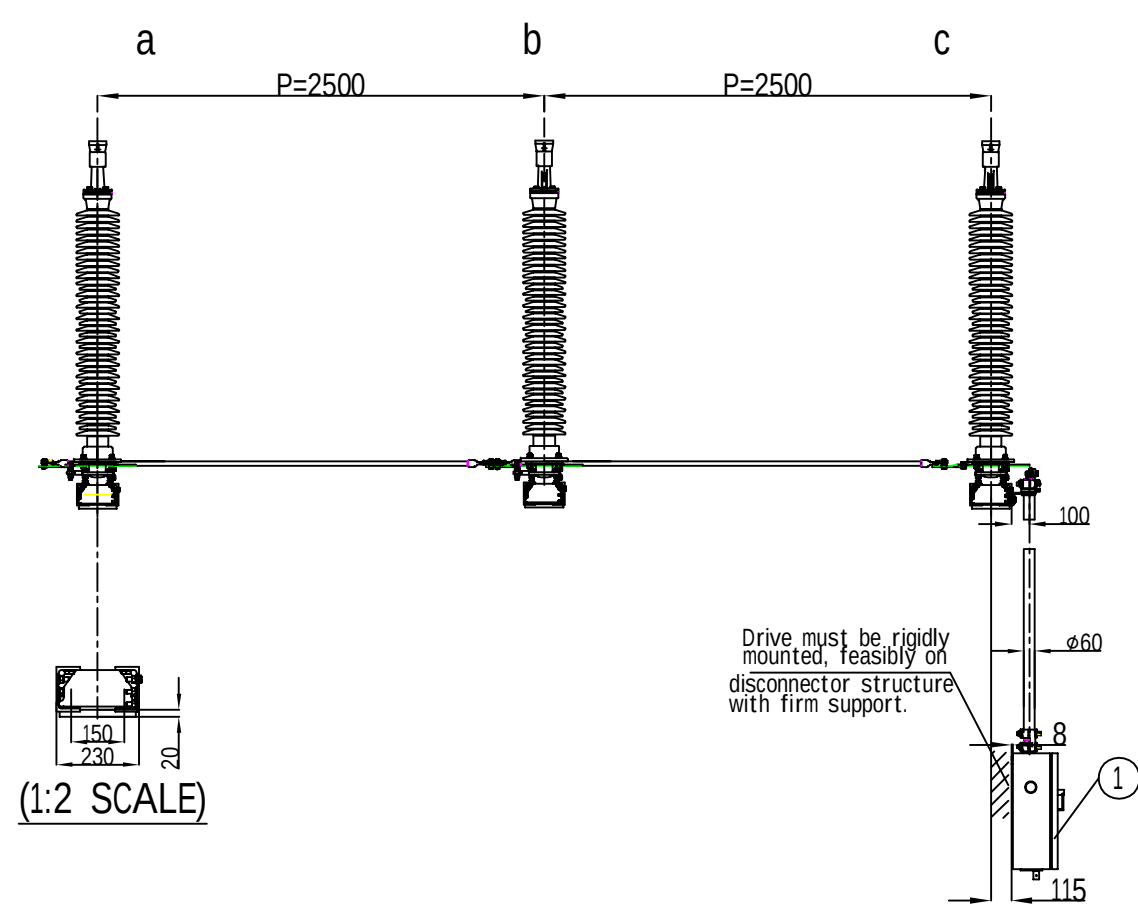
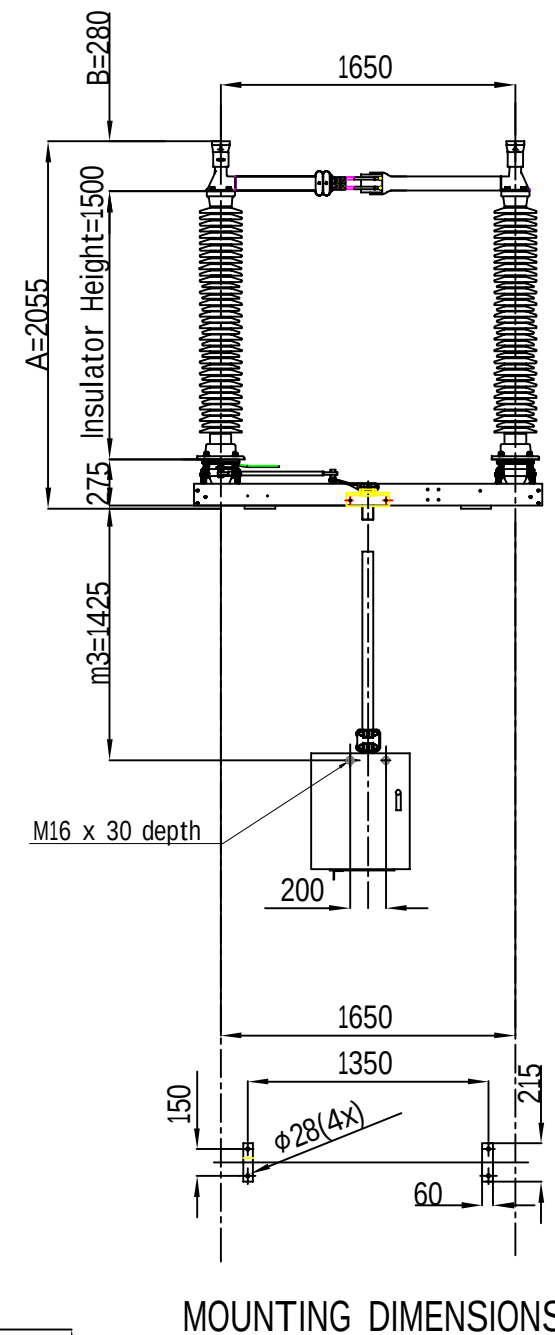
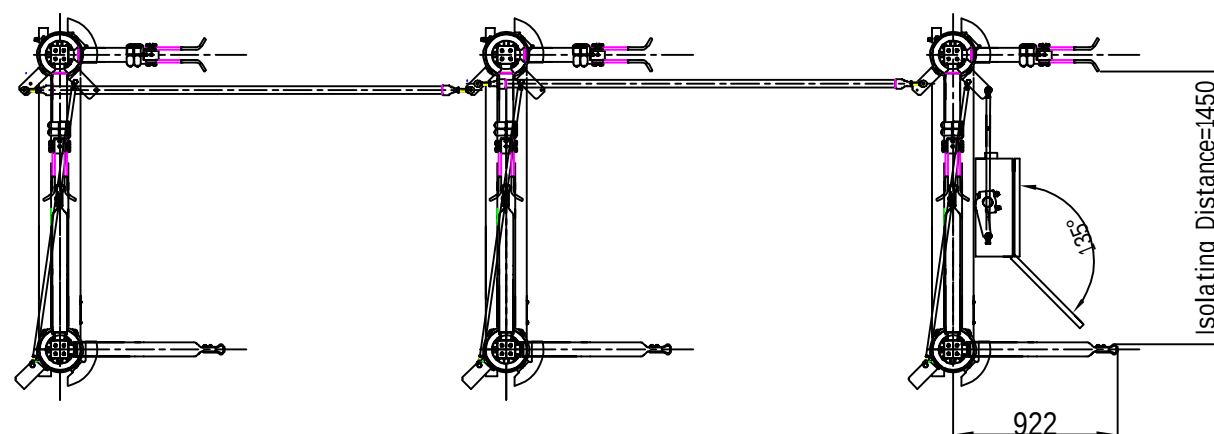


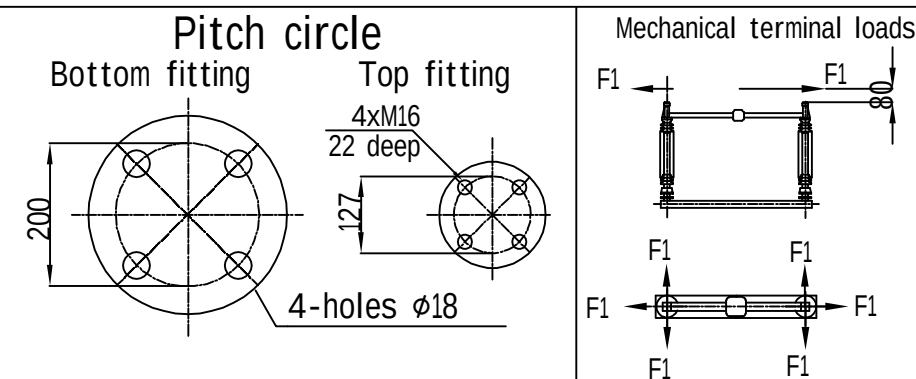
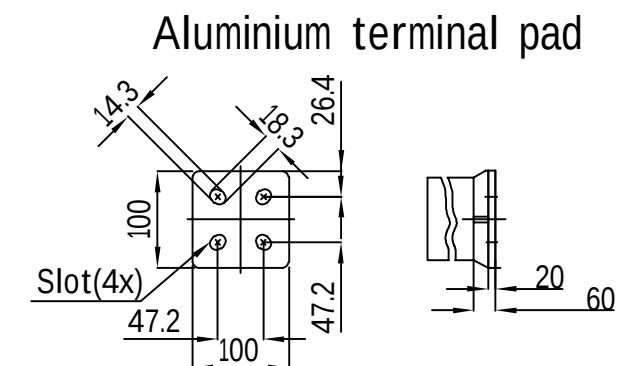
1		2	3	4	5	6	7	8	
A	COMPUTER ORIGINAL	CUSTOMER : Hitachi Energy Spain, S.A.U.							A
B		CUSTOMER PO NO. : 6310034056, DTD : 2022/02/23							B
C		ABB (PGHV-DC) REF : 5000083432							C
D		END CUSTOMER : DOMINION ENERGY, Dominican Rep							D
E		LIST OF DRAWINGS.							E
F		We reserve all rights in this document and in the information contained there in Reproduction, use or disclosure to third parties without express authority is strictly for bidden © ABB.							F
Revision				COVER SHEET FOR DISCONNECTOR TYPE-SDF145		DRAWN: SBG	CHECKED: KRP	APPRD. RS	TOTAL SH. 1
A 2022/02/28						ABB APPSIL ABB Power Products & Systems India Ltd.		1HYD903403-100	Sh. NO. 1
1		2	3	4	5	6	7	8	



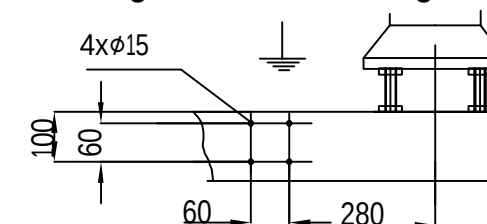
Operating mechanisms are to be mounted at pole a, b, c optionally.



MOUNTING DIMENSIONS



2-Earthing terminals diagonal on the frame



Rated voltage	(kV) 145
Rated current	(A) 1250
Weight of disconnector without insulator(1 Pole)	(kg) 140
Minimum failing load of insulator	(kN) 4
Mechanical terminal load	
F1 static terminal load	(kN) 1.2
F1 static+dynamic	(kN) 3.0
Weight of insulator(approx.)	(kg) 86
Minimum creepage distance	(mm/kV) 31
Grey porcelain insulator	

① Operating mechanism of Disconnector (Motorised)

Notes:

- 1) Galvanizing thickness is 100 microns on all ferrous parts except hardware.
- 2) Stainless Steel hardware to be supplied.
- 3) Current path to be painted with RED color.
- 4) All dimension are in mm.

Revision		
A	2022/02/28	

General Arrangement
Three Phase Horizontal Centre Break
Disconnector Without Earthing Switch

DRAWN: SBG

CHECKED: KRP

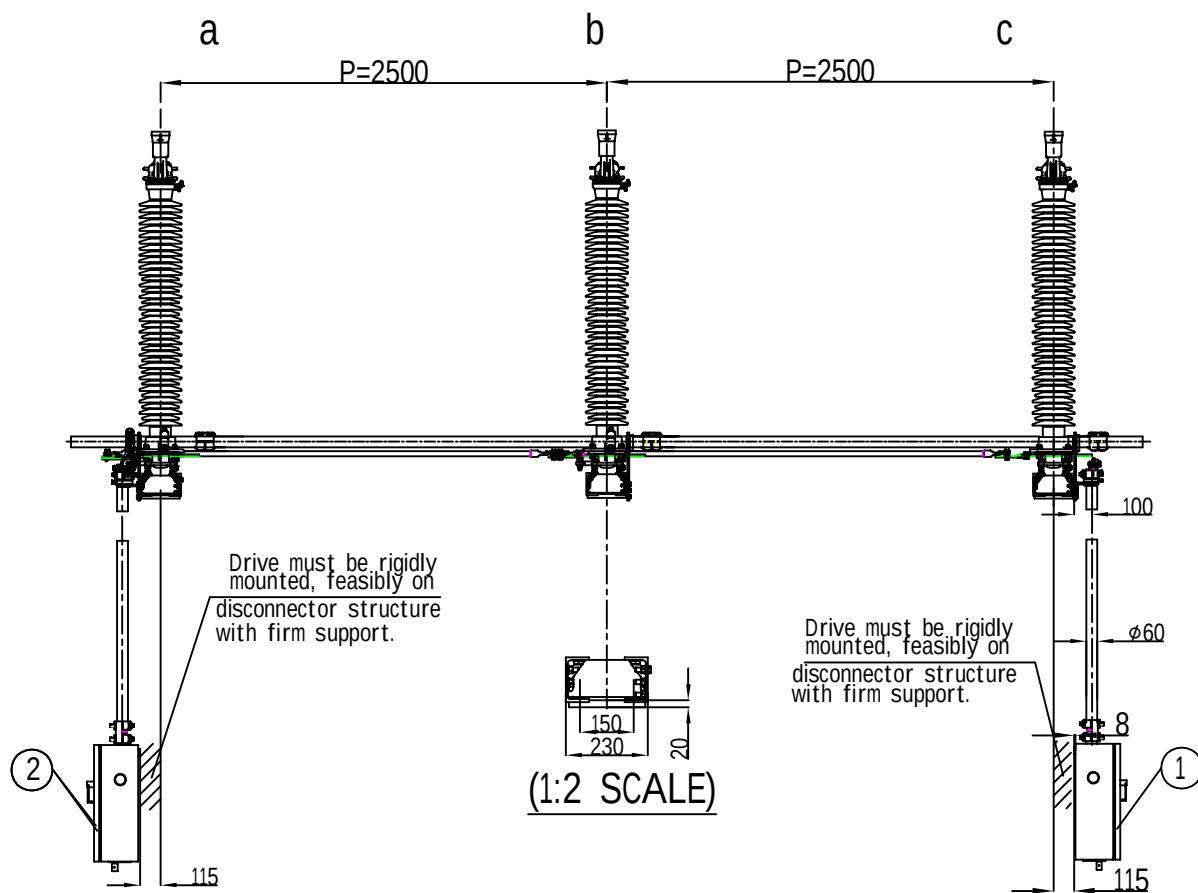
APPRD. RS

SDF145

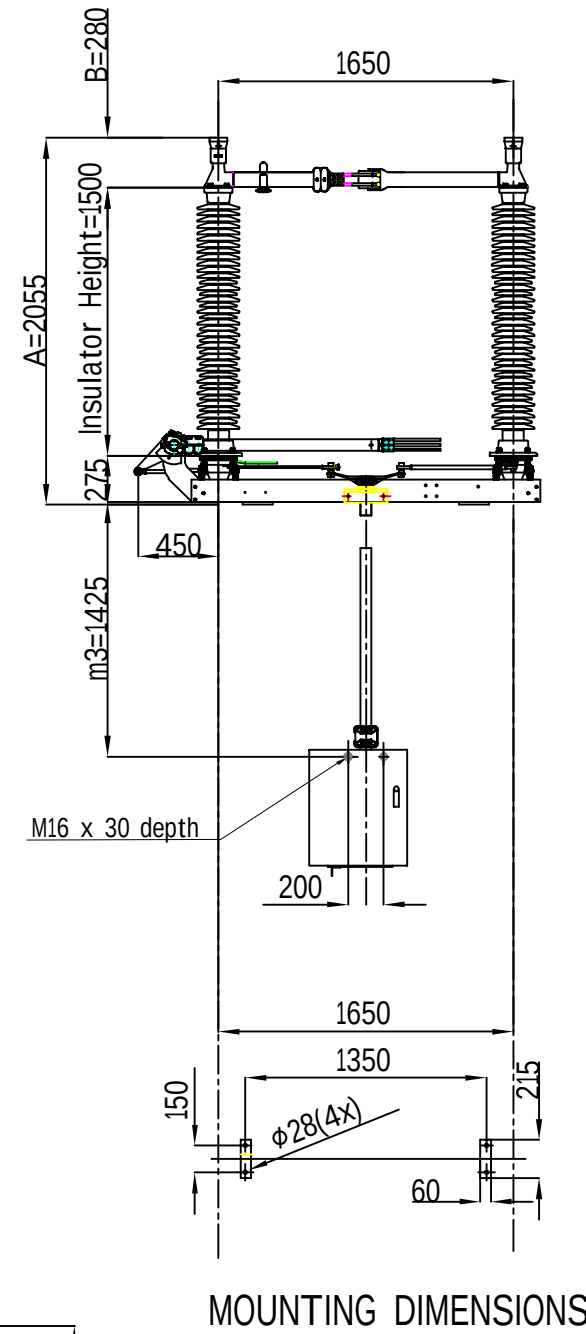
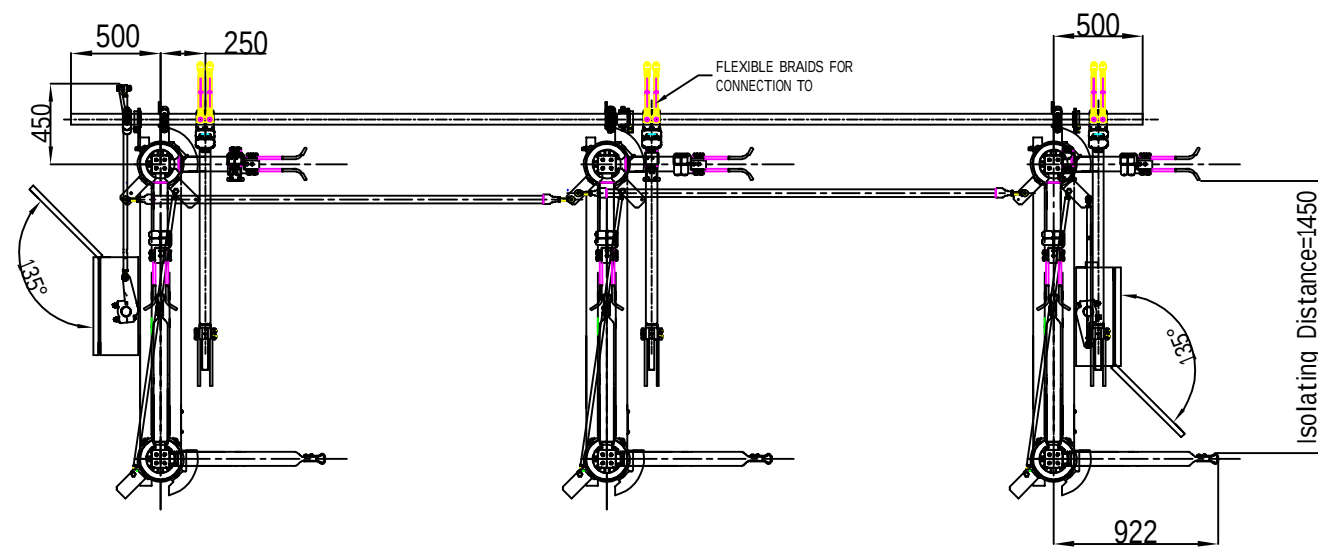
ABB APPSIL ABB Power Products & Systems India Ltd.

1HYD903403-301

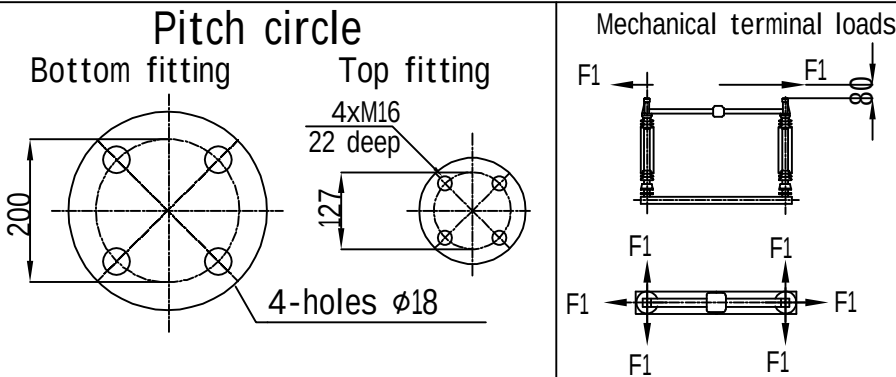
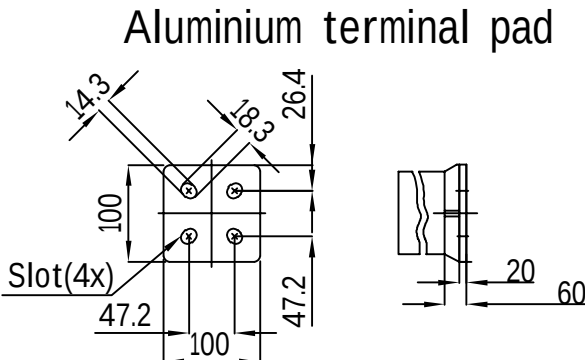
TOTAL SH.
1
Sh. NO.
1



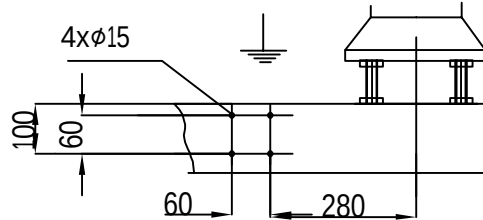
Operating mechanisms are to be mounted at pole a, b, c optionally.



MOUNTING DIMENSIONS

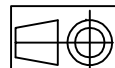


2-Earthing terminals diagonal on the frame



Rated voltage	(kV) 145
Rated current	(A) 1250
Weight of disconnector without insulator(1 Pole)	(kg) 140
Weight of earthing switch (1 Pole)	(kg) 20
Minimum failing load of insulator	(kN) 4
Mechanical terminal load	
F1 static terminal load	(kN) 1.2
F1 static+dynamic	(kN) 3.0
Weight of insulator(approx.)	(kg) 86
Minimum creepage distance	(mm/kV) 31
Grey porcelain insulator	

- ① Operating mechanism of Disconnector (Motorised)
- ② Operating mechanism of Earthing switch (Motorised)



- Notes:
- 1) Galvanizing thickness is 100 microns on all ferrous parts except hardware.
 - 2) Stainless Steel hardware to be supplied.
 - 3) Current path to be painted with RED color.
 - 4) Earth switch to be painted with green-yellow strips of 150mm width.
 - 5) All dimension are in mm.

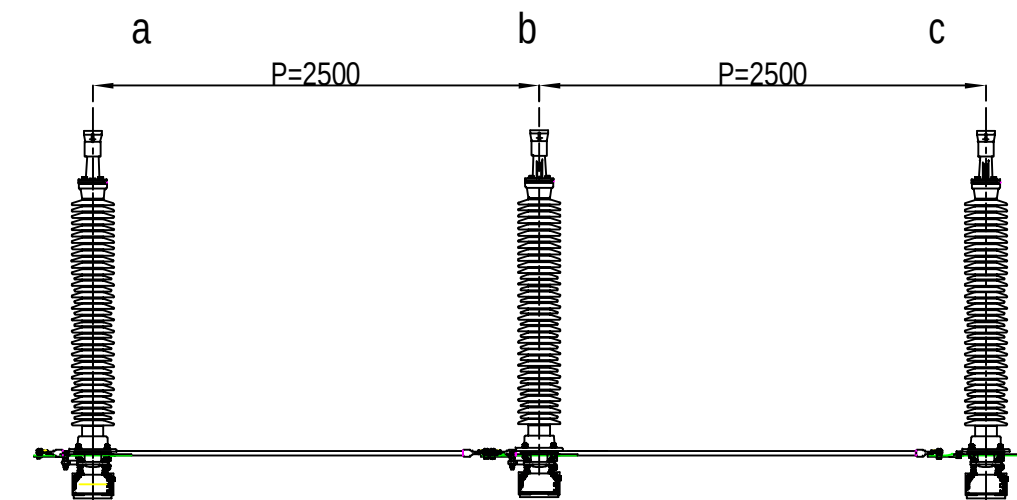
Revision	
A	2022/02/28

General Arrangement
Three Phase Horizontal Centre Break
Disconnector With one Earthing Switch

DRAWN: SBG
CHECKED: KRP
APPRD. RS
ABB APPSIL ABB Power Products & Systems India Ltd.

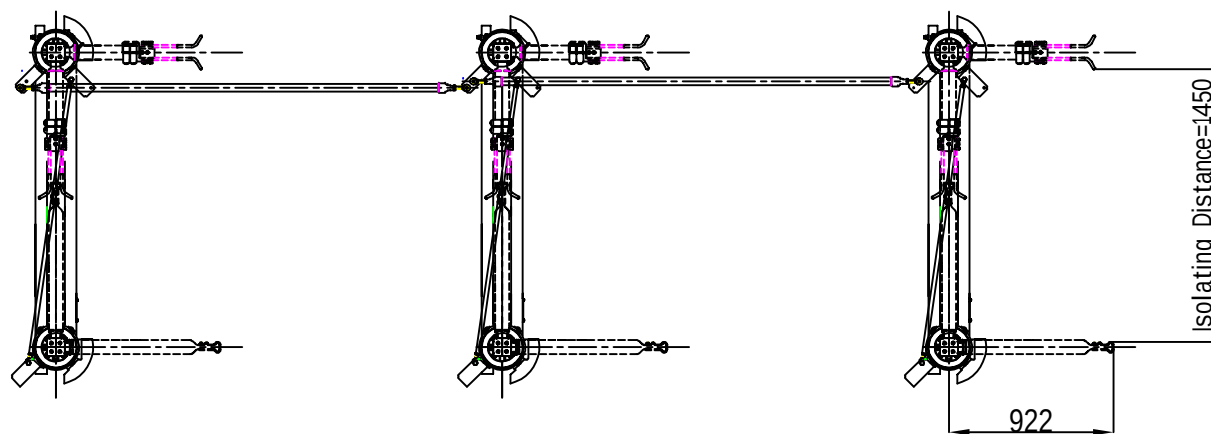
SDF145
TOTAL SH. 1
Sh. NO. 1
1HYD903403-302

COMPUTER ORIGINAL

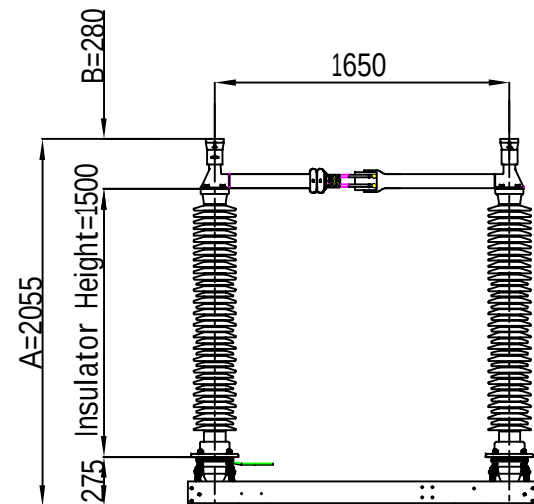


(1:2 SCALE)

Operating mechanisms are to be mounted at pole a, b, c optionally.

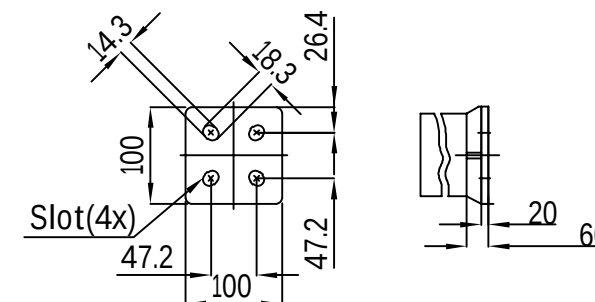


All dimension are in mm

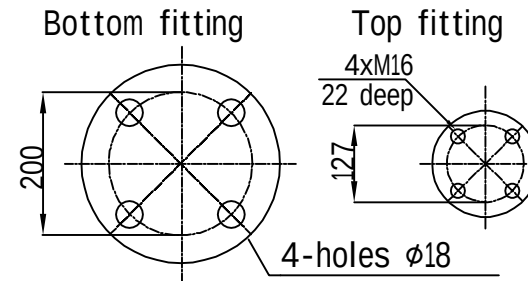


MOUNTING DIMENSIONS

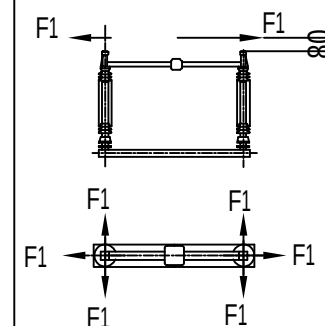
Aluminium terminal pad



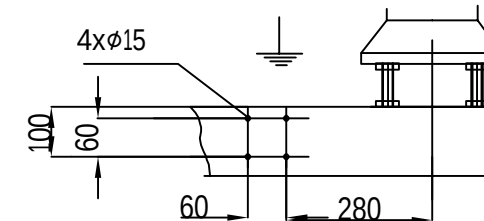
Pitch circle



Mechanical terminal loads



2-Earthing terminals diagonal on the frame



Rated voltage	(kV) 145
Rated current	(A) 1250
Weight of disconnector without insulator(1 Pole)	(kg) 140
Minimum failing load of insulator	(kN) 4
Mechanical terminal load	
F1 static terminal load	(kN) 1.2
F1 static+dynamic	(kN) 3.0
Weight of insulator(approx.)	(kg) 86
Minimum creepage distance	(mm/kV) 31
Grey porcelain insulator	

① Operating mechanism of Disconnector (Motorised)

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NEW DRG. PREPARED.

Revision		
A	2022/02/28	

General Arrangement
Three Phase Horizontal Centre Break
Disconnector Without Earthing Switch

DRAWN: SBG

CHECKED: KRP

APPRD. RS

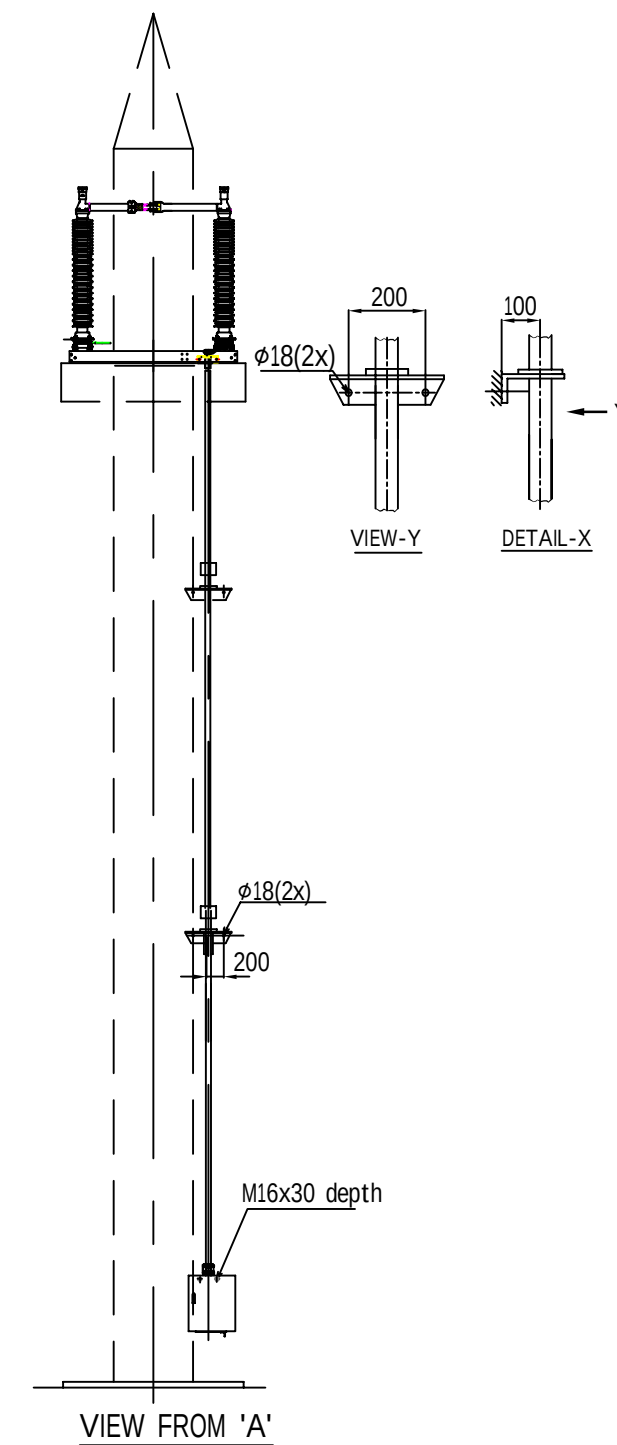
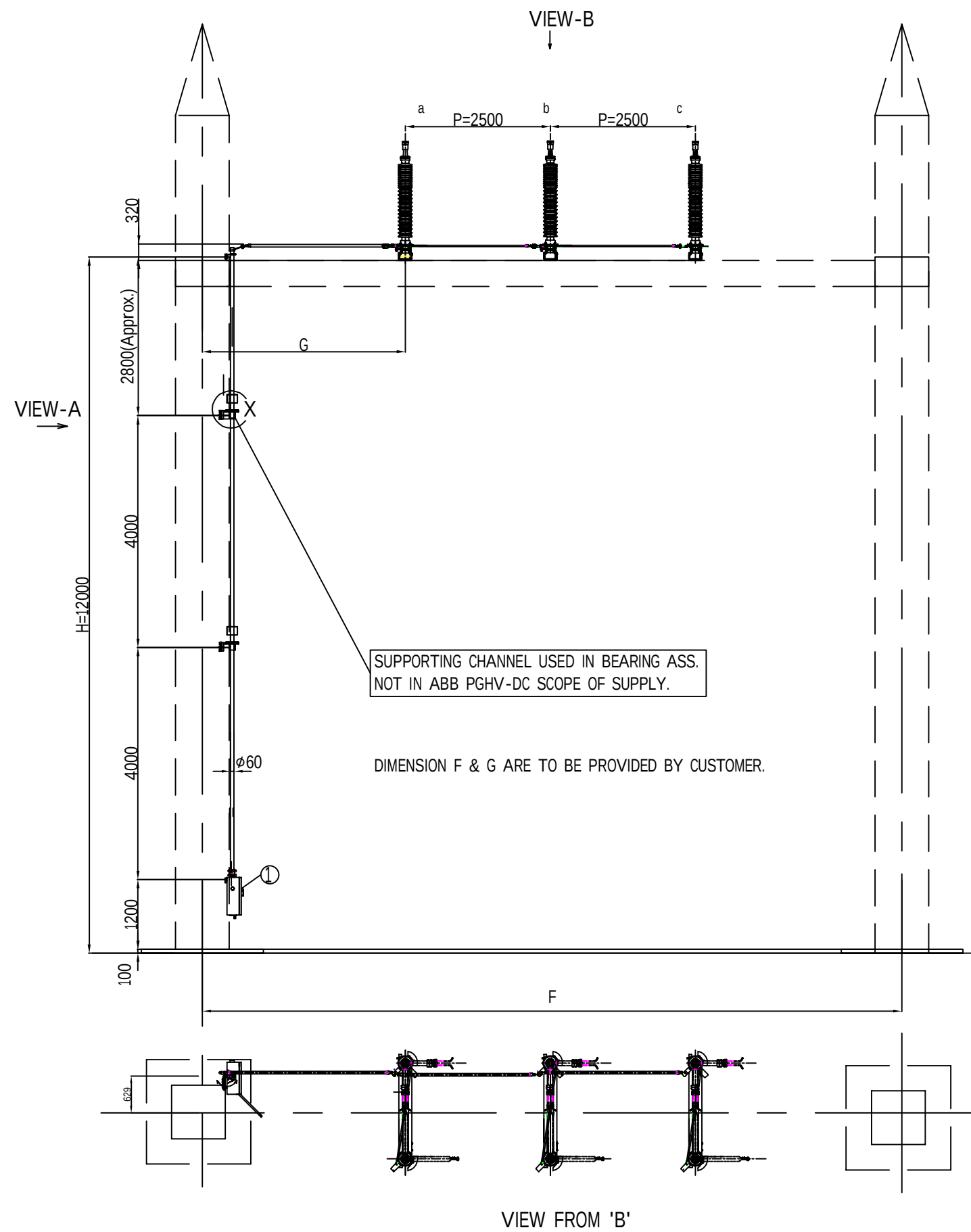
SDF145

ABB APPSIL ABB Power Products & Systems India Ltd.

1HYD903403-303

TOTAL SH.
2
Sh. NO.
1

COMPUTER ORIGINAL



- ① Op.Mechanism for Disconnecter(Motorised)
② Remaining details shall be as per Drg.No.1HYD903403-303 (SH-1)

All Dimensions are in mm.

Revision			
A	2022/02/28		

General Arrangement
Three phase Horizontal Centre Break
Disconnecter without Earthing Switch
(Gantry Mounted)

DRAWN: SBG

CHECKED: KRP

APPRD. RS

SDF145

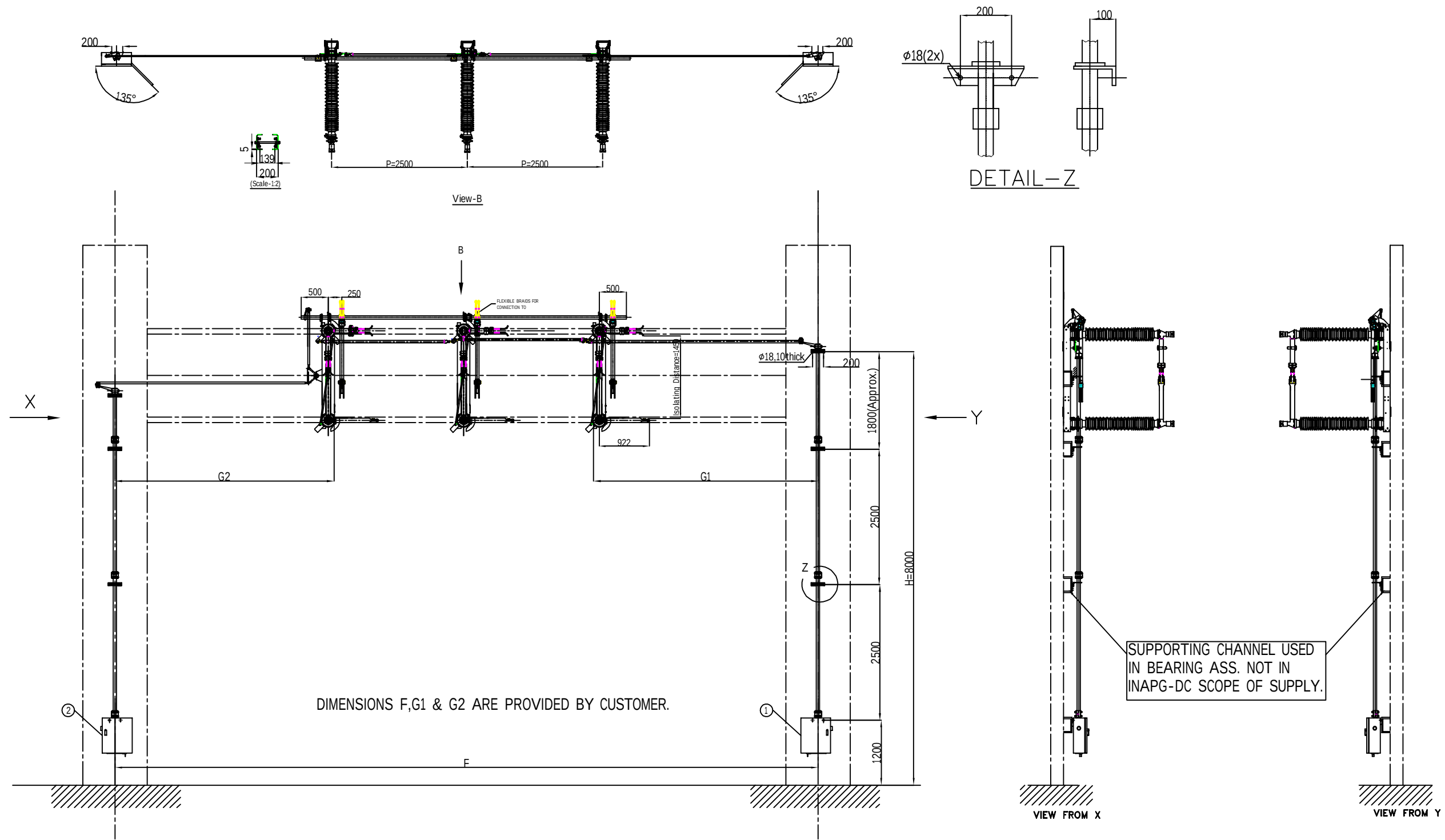
TOTAL SH.
2



APPSIL ABB Power Products & Systems India Ltd.

1HYD903403-303

Sh. NO.
2



General Arrangement
Three pole vertically mounted center break Disconnecter With one Earthing Switch (Gantry Mounted)

DRAWN: SBG

CHECKED: KRP

APPRD.	RS
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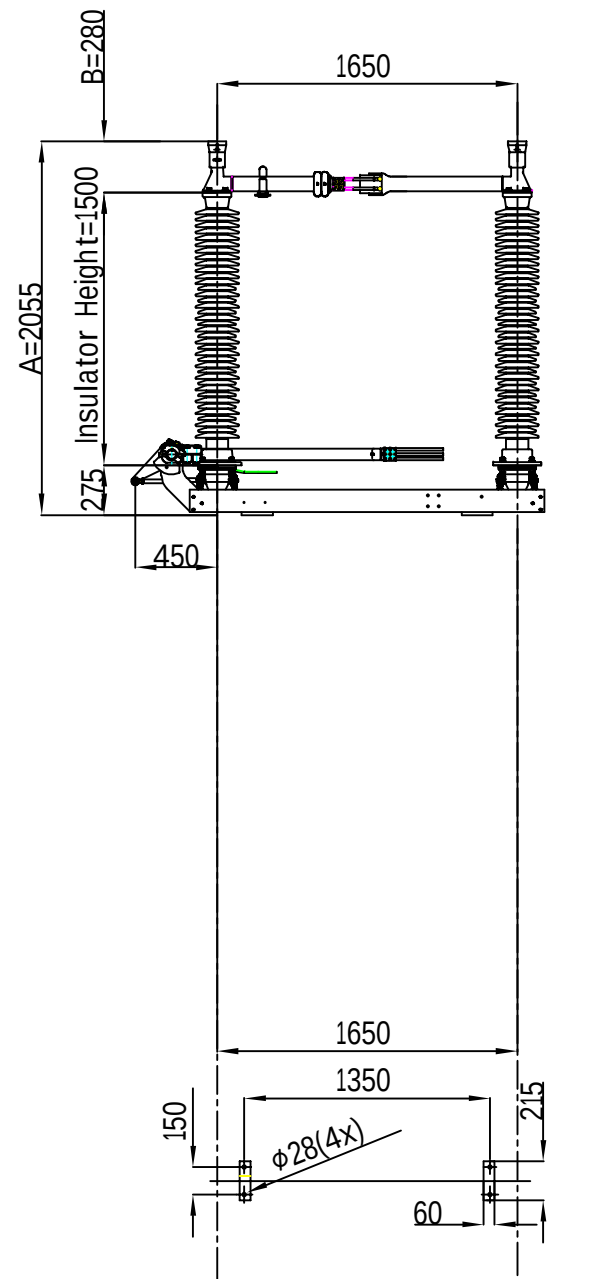
SDF145	T
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TOTAL SH.	
2	

ABB APPSIL ABB Power Products & Systems India Ltd.

d.	1HYD903403-304
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Sh. NO.
1



MOUNTING DIMENSIONS

Notes:

- 1) Galvanizing thickness is 100 microns on all ferrous parts except hardware.
- 2) Stainless Steel hardware to be supplied.
- 3) Current path to be painted with RED color.
- 4) Earth switch to be painted with green-yellow strips of 150mm width.
- 5) All dimension are in mm.

Revision			
A	2022/02/28		

General Arrangement
Three pole vertically mounted centre break
Disconnector With one Earthing Switch
(Gantry Mounted)

DRAWN: SBG

CHECKED: KRP

APPRD. RS

ABB APPSIL ABB Power Products & Systems India Ltd.

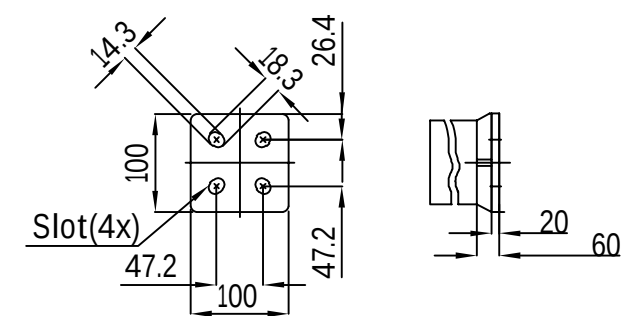
1HYD903403-304

SDF145

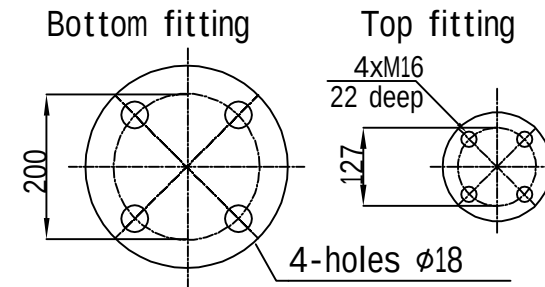
TOTAL SH.	2
Sh. NO.	2

Rated voltage	(kV) 145
Rated current	(A) 1250
Weight of disconnector without insulator(1 Pole)	(kg) 140
Weight of earthing switch (1 Pole)	(kg) 20
Minimum failing load of insulator	(kN) 4
Mechanical terminal load	
F1 static terminal load	(kN) 1.2
F1 static+dynamic	(kN) 3.0
Weight of insulator(approx.)	(kg) 86
Minimum creepage distance	(mm/kV) 31
Grey porcelain insulator	

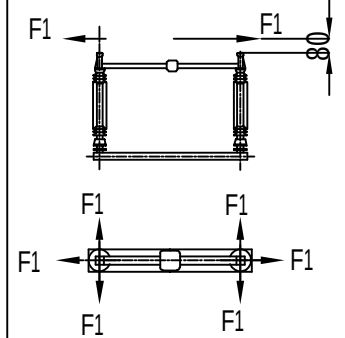
Aluminium terminal pad



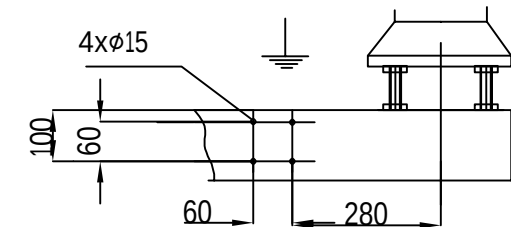
Pitch circle

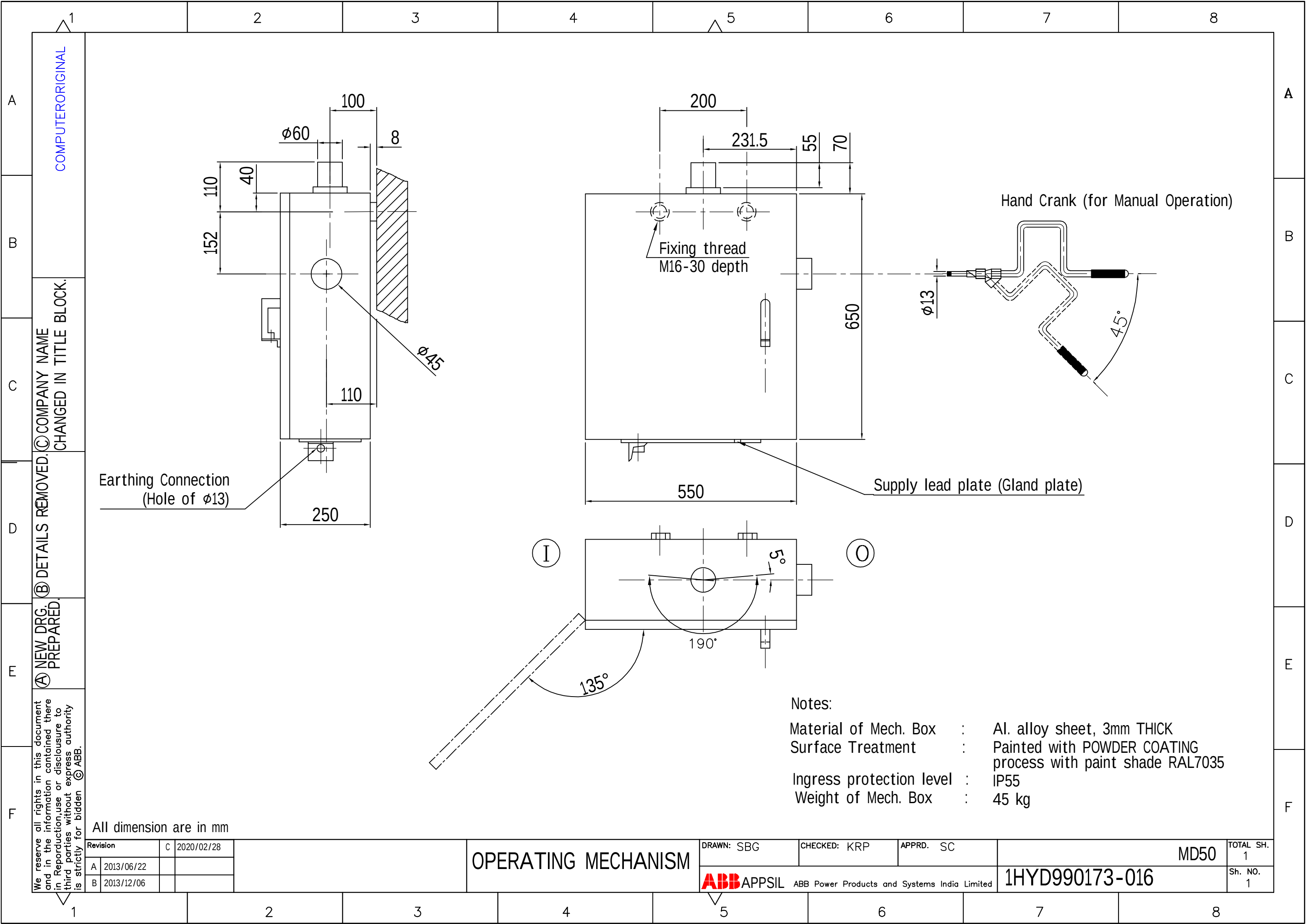


Mechanical terminal loads



2-Earthing terminals diagonal on the frame





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DETAILS REMOVED.

COMPANY NAME CHANGED IN TITLE BLOCK.

COMPUTER ORIGINAL

All dimension are in mm

Revision	C	2020/02/28
A	2013/06/22	
B	2013/12/06	

OPERATING MECHANISM

DRAWN: SBG	CHECKED: KRP	APPRD. SC	MD50	TOTAL SH. 1
ABB APPSIL ABB Power Products and Systems India Limited			1HYD990173-016	Sh. NO. 1

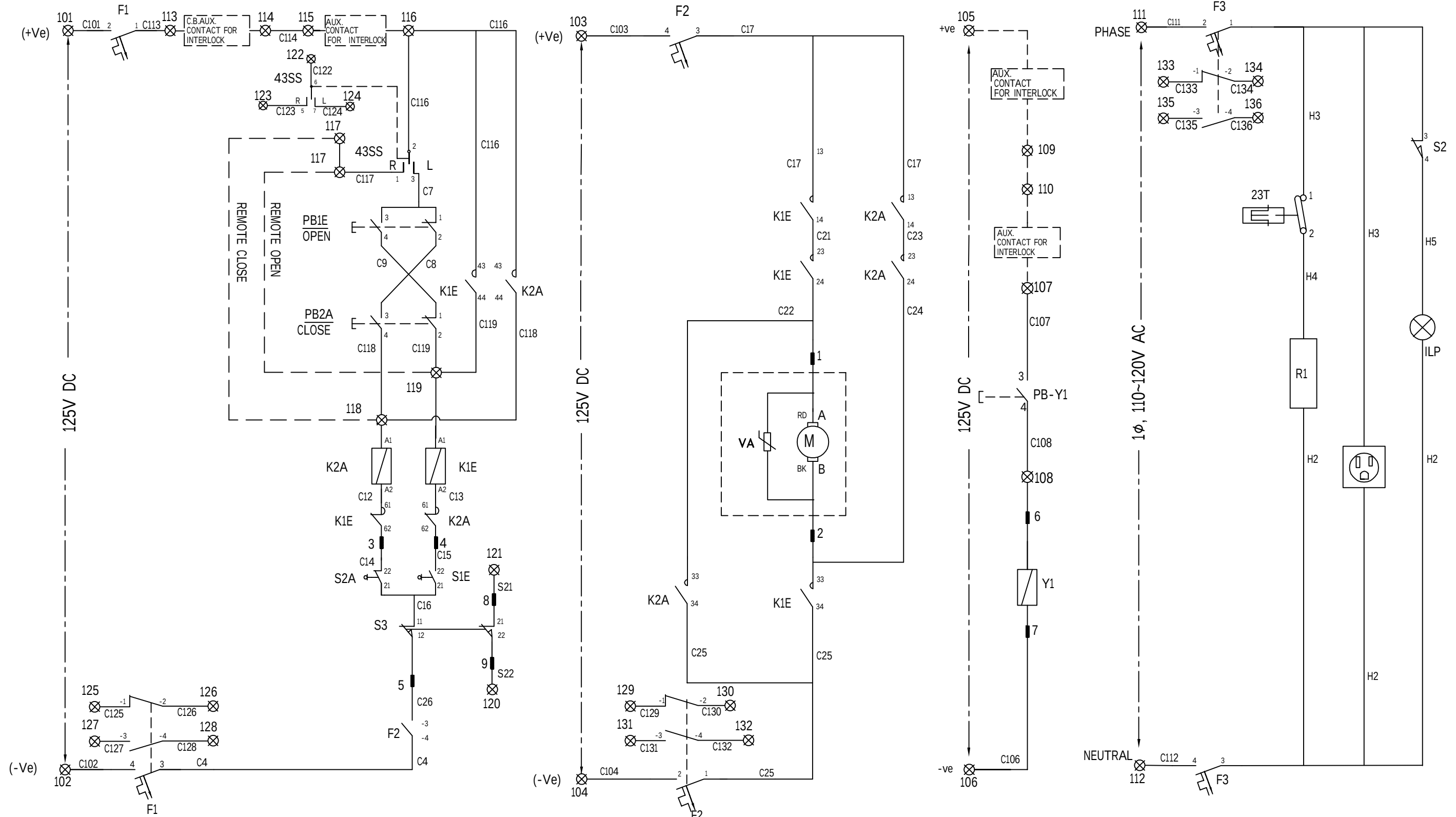
[illegible]

CONTROL CIRCUIT

MOTOR CONTROL

INTERLOCKING CIRCUIT

HEATER CIRCUIT



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Revision		C	2018/11/21
A	2017/12/19	D	2020/07/22
B	2018/07/09	D	2021/08/24

SCHEMATIC DIAGRAM
MOTOR OPERATED MECHANISM

DRAWN: SBG

CHECKED: KRP

APPRD. SC

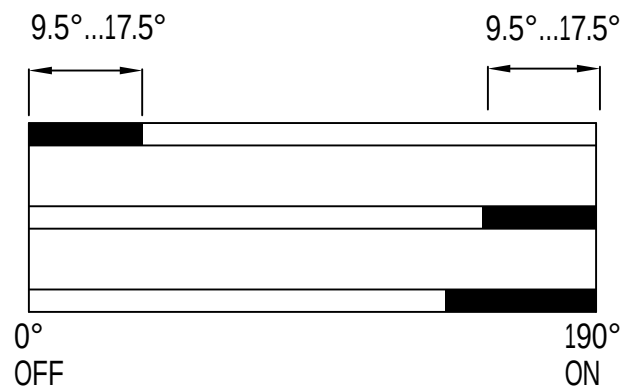
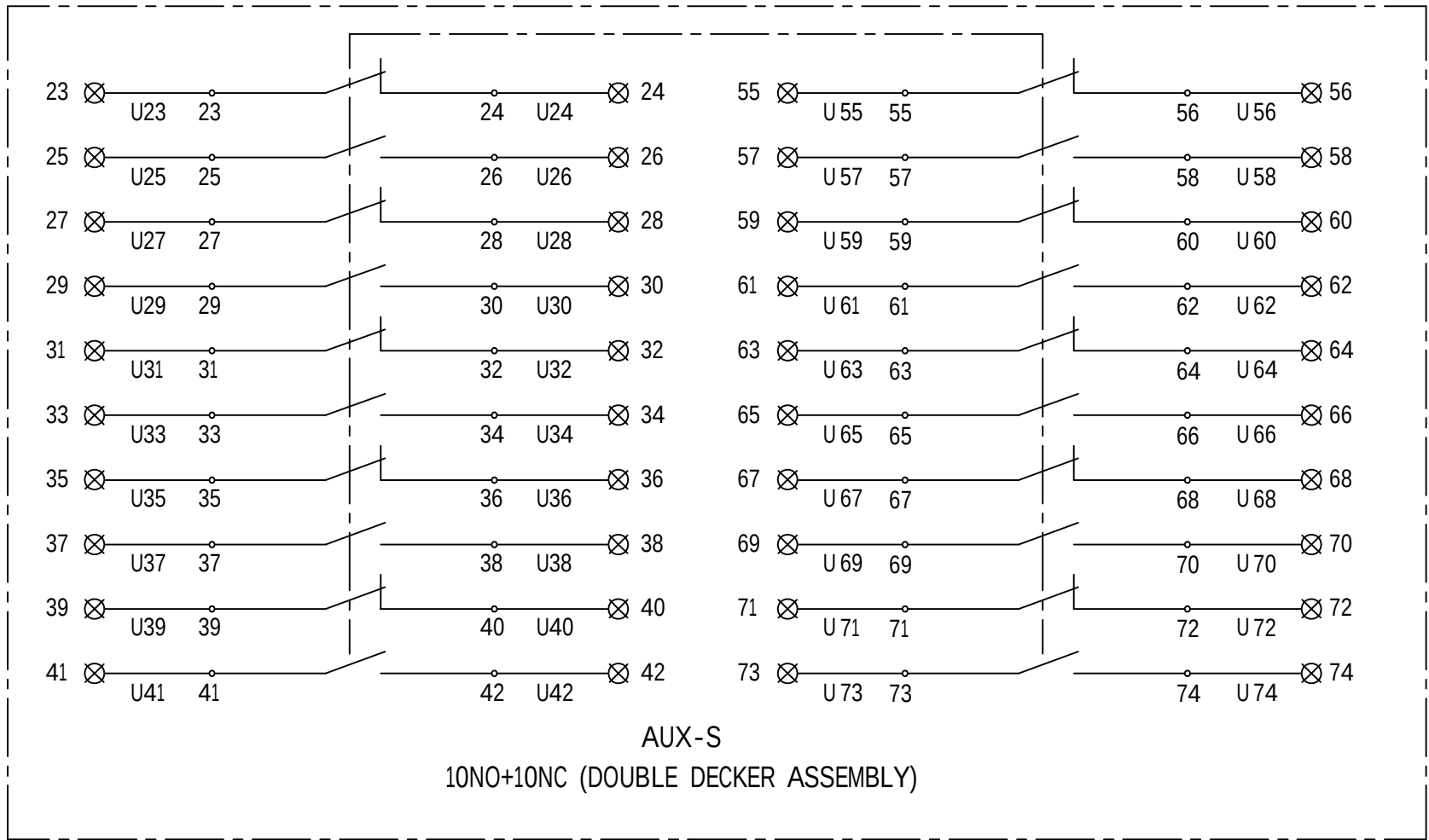
(Without Reduction Kit)

TOTAL SH.
4

ABB APPSIL ABB Power Products and Systems India Limited

1HYD902518-500

Sh. NO.
2



Terminal of Aux. Switch Contacts

23-24/27-28/31-32/35-36/39-40
55-56/59-60/63-64/67-68/71-72
25-26/29-30/33-34/37-38/41-42
57-58/61-62/65-66/69-70/73-74

Main contact of applicable blade(Disconnecter or Earth switch)

FUNCTIONAL DIAGRAM

Auxiliary Switch contacts (10NO+10NC)

Rating:

Breaking current

1 Contact 2A at 220V.DC, T=20ms

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Revision		C	2018/11/21
A	2017/12/19	D	2020/07/22
B	2018/07/09	D	2021/08/24

SCHEMATIC DIAGRAM
MOTOR OPERATED MECHANISM

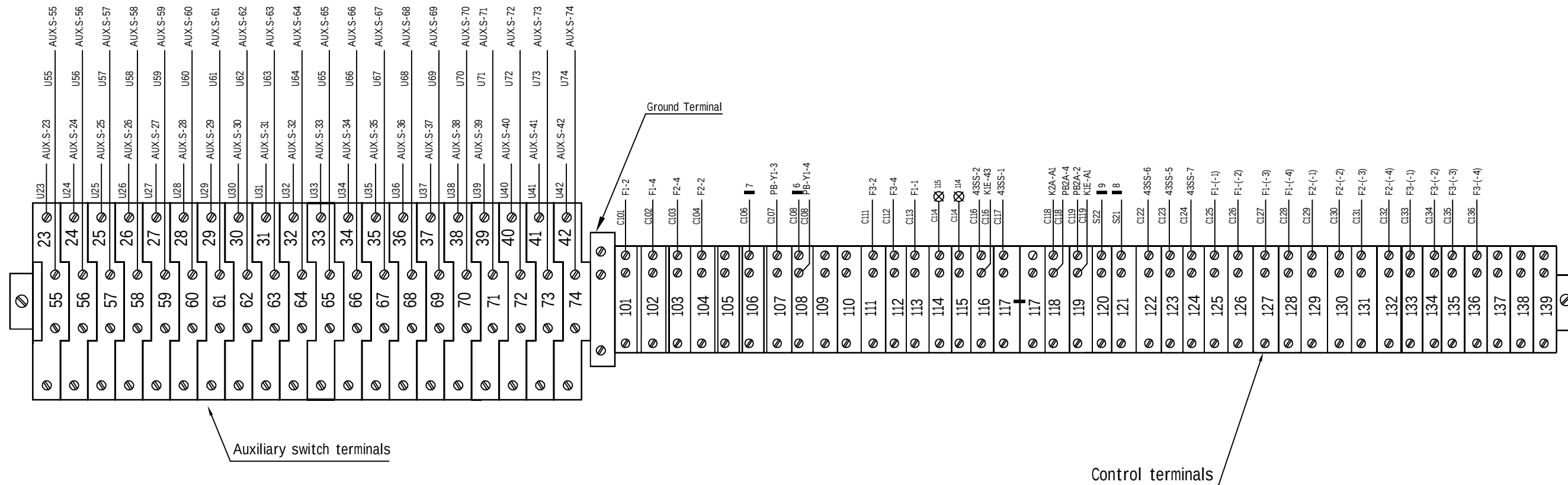
DRAWN: SBG	CHECKED: KRP	APPRD. SC
ABB APPSIL ABB Power Products and Systems India Limited		

(Without Reduction Kit)

1HYD902518-500

TOTAL SH.	4
Sh. NO.	3

Sh. NO.
4



DRAWN: SBG	CHECKED: KRP	APPRD. RS		TOTAL SH. 1
 APPSIL ABB Power Products & Systems India Ltd.			1HYD903403-400	Sh. NO. 1

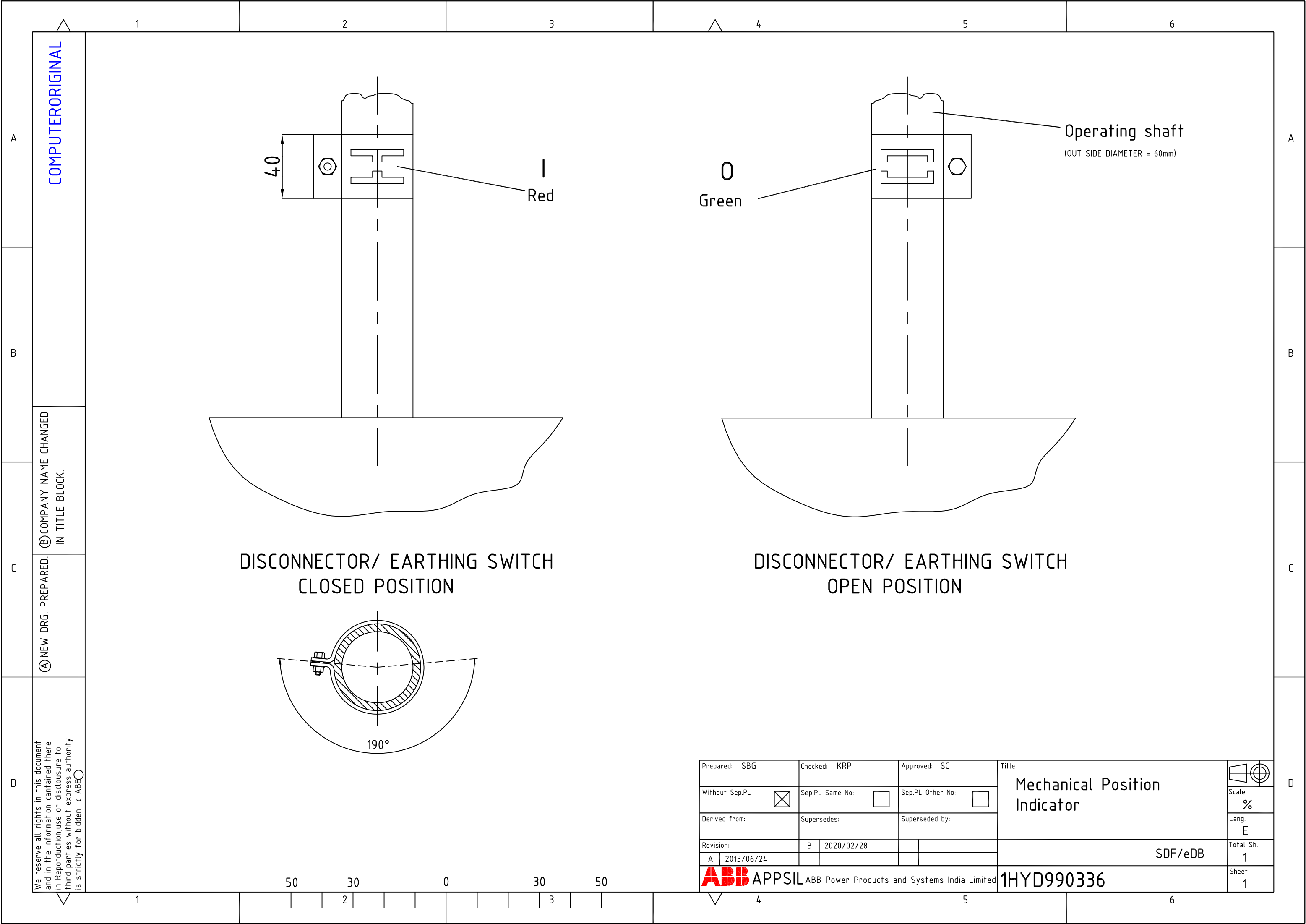
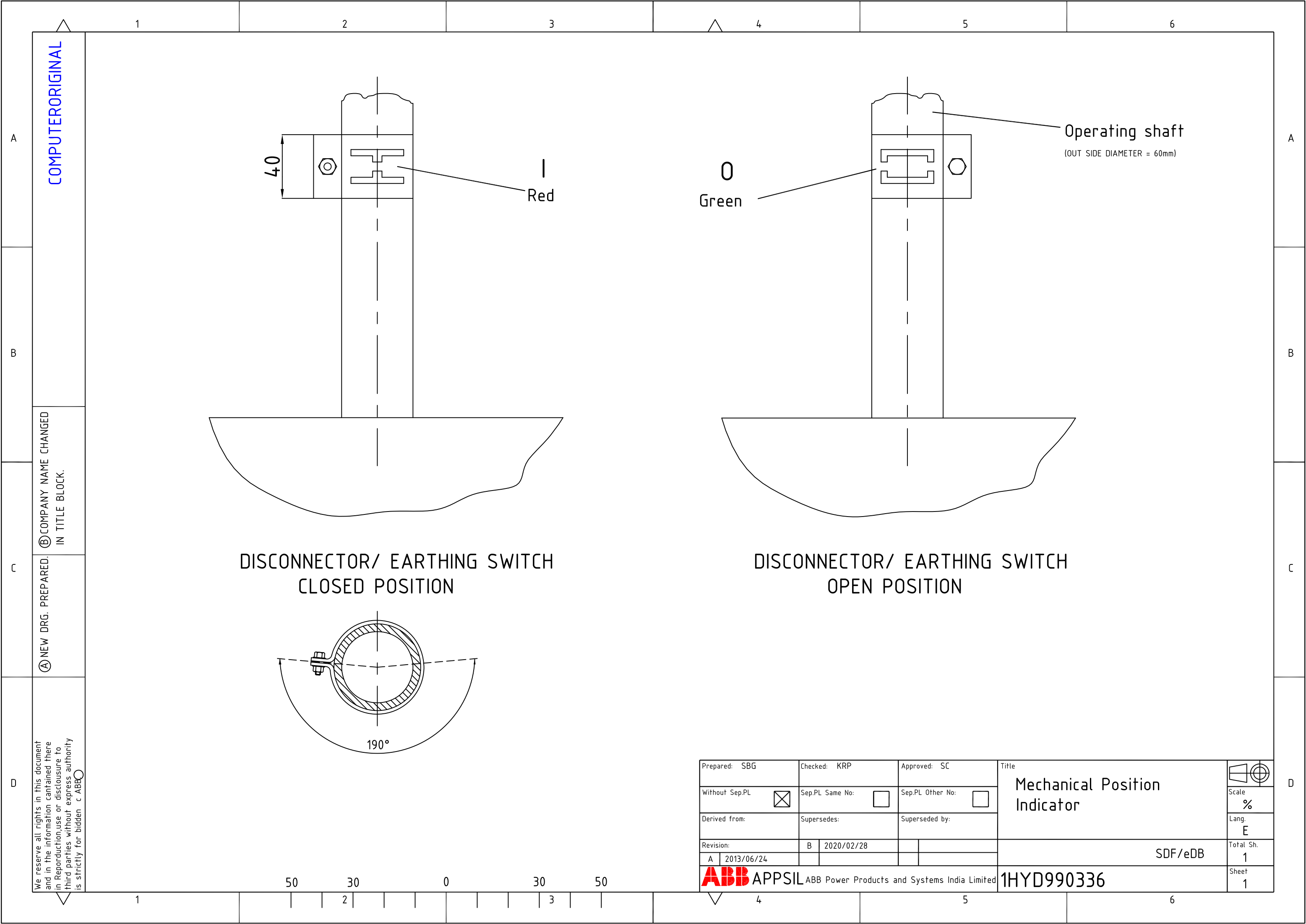
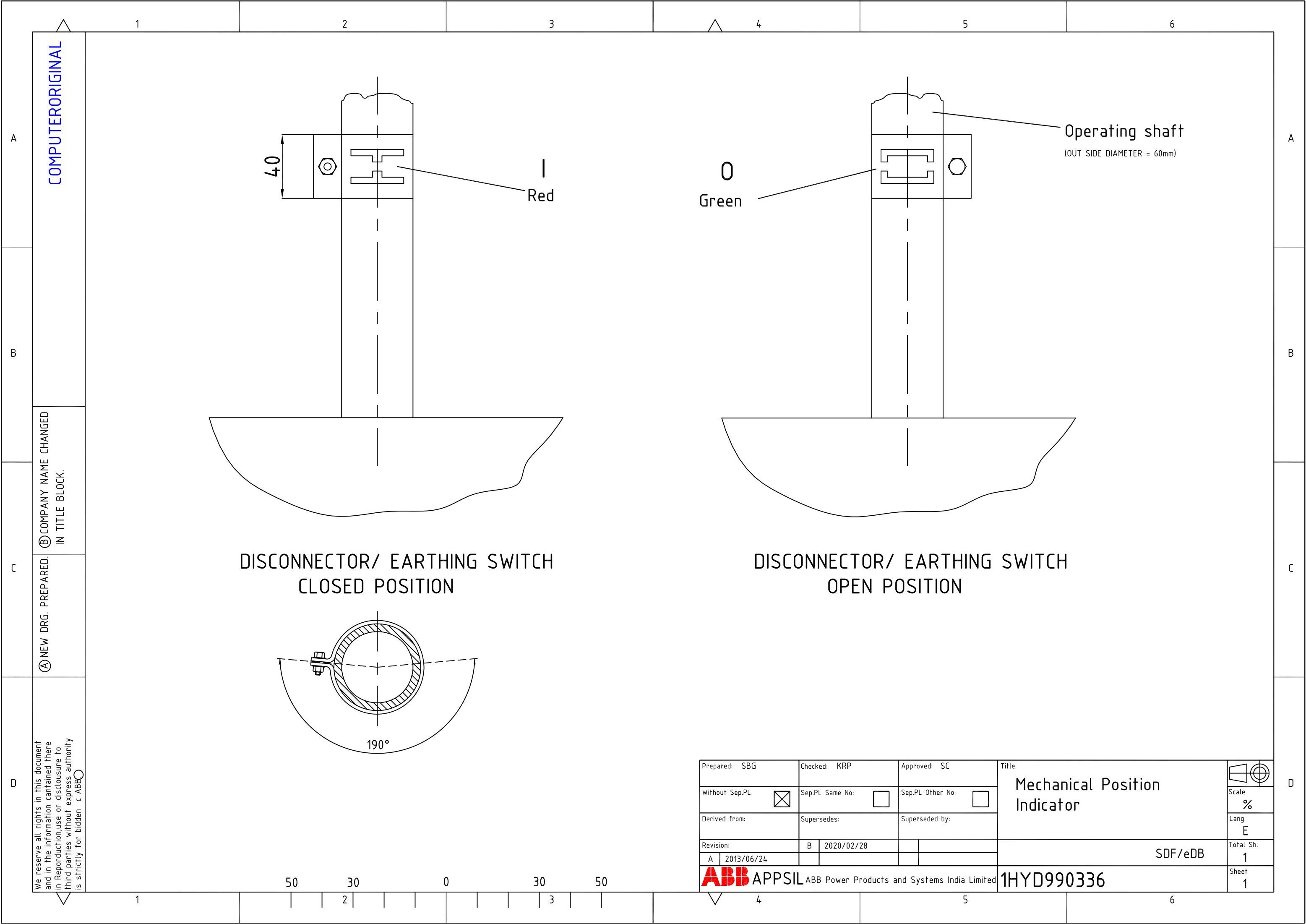
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	1	2	3	△	4	5	6
A	COMPUTER ORIGINAL						
B							
C	⑥ COMPANY NAME CHANGED IN TITLE BLOCK. ① NEW DRG. PREPARED:						
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	1	2	3	△	4	5	6

DISCONNECTOR/ EARTHING SWITCH CLOSED POSITION		DISCONNECTOR/ EARTHING SWITCH OPEN POSITION	
The diagram shows a vertical shaft passing through a horizontal base. The shaft has a central section labeled 'Red' with a dimension of 40. Below the shaft, a circular arc indicates a rotation of 190°.		The diagram shows a vertical shaft passing through a horizontal base. The shaft has a central section labeled 'Green'. To the right of the shaft, a label points to the 'Operating shaft' with the note '(OUT SIDE DIAMETER = 60mm)'.	

Prepared: SBG	Checked: KRP	Approved: SC	Title	
Without Sep.PL ☒	Sep.PL Same No: ☐	Sep.PL Other No: ☐	Mechanical Position Indicator	
Derived from:	Supersedes:	Superseded by:	E	
Revision: A 2013/06/24	B 2020/02/28		Total Sh. 1	
ABB APPSIL ABB Power Products and Systems India Limited			SDF/eDB	Sheet 1

1HYD990336		6
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[illegible]

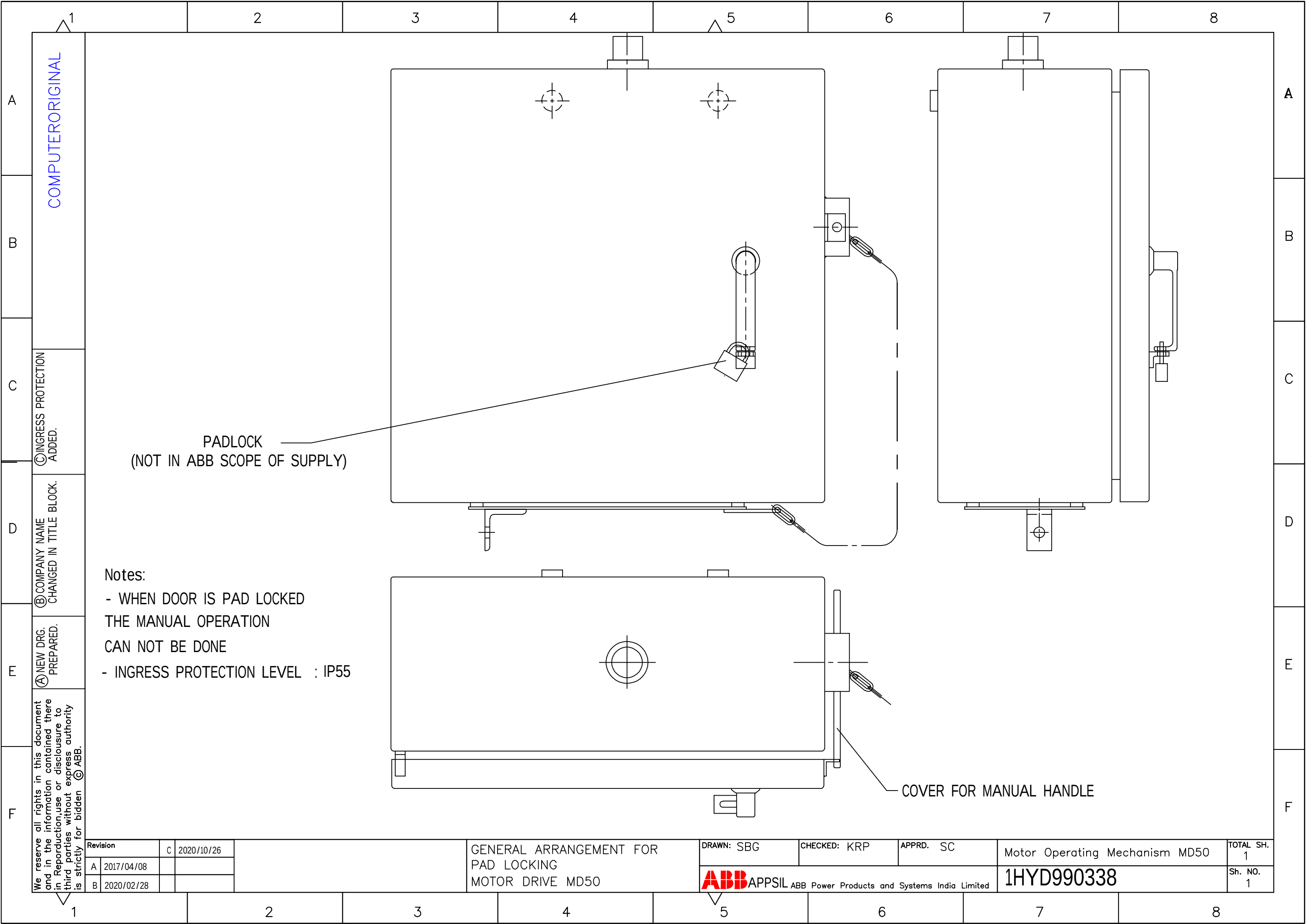
	1	2	3	4	5	6
A	COMPUTER ORIGINAL					
B						
C	⑥ COMPANY NAME CHANGED IN TITLE BLOCK. ⑤ NEW DRG. PREPARED:					
D	We reserve all rights in this document and in the information contained there in Reproduction,use or disclosure to third parties without express authority is strictly for bidden c ABB					
	1	2	3	4	5	6

DISCONNECTOR/ EARTHING SWITCH CLOSED POSITION		DISCONNECTOR/ EARTHING SWITCH OPEN POSITION	
The diagram shows a vertical shaft passing through a horizontal base. The shaft has a central section labeled 'Red' with a dimension of 40. Below the shaft, a circular arc indicates a rotation of 190°.		The diagram shows a vertical shaft passing through a horizontal base. The shaft has a central section labeled 'Green'. To the right of the shaft, a label points to the 'Operating shaft' with the note '(OUT SIDE DIAMETER = 60mm)'.	

Prepared: SBG	Checked: KRP	Approved: SC	Title	
Without Sep.PL ☒	Sep.PL Same No: ☐	Sep.PL Other No: ☐	Mechanical Position Indicator	
Derived from:	Supersedes:	Superseded by:	SDF/eDB	
Revision: A 2013/06/24	B 2020/02/28		Total Sh. 1	
ABB APPSIL ABB Power Products and Systems India Limited				Sheet 1

1HYD990336		6			
1	2	3	4	5	6

	1	2	3	4	5	6
A	COMPUTER ORIGINAL					
B						
C	⑥ COMPANY NAME CHANGED IN TITLE BLOCK. ⑤ NEW DRG. PREPARED: DISCONNECTOR/ EARTHING SWITCH CLOSED POSITION DISCONNECTOR/ EARTHING SWITCH OPEN POSITION Operating shaft (OUT SIDE DIAMETER = 60mm) Red Green 0 40 190°					
D	We reserve all rights in this document and in the information contained there in Reproduction,use or disclosure to third parties without express authority is strictly for bidden c ABB 50 30 0 30 50 50 30 0 30 50 ABB APPSIL ABB Power Products and Systems India Limited 1HYD990336 SDF/eDB Mechanical Position Indicator Scale % Lang. E Total Sh. 1 Sheet 1					
	1	2	3	4	5	6



COMPUTER ORIGINAL

INGRESS PROTECTION ADDED.

COMPANY NAME CHANGED IN TITLE BLOCK.

NEW DRG. PREPARED.

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- Notes:
- WHEN DOOR IS PAD LOCKED THE MANUAL OPERATION CAN NOT BE DONE
 - INGRESS PROTECTION LEVEL : IP55

Revision		C	2020/10/26
A	2017/04/08		
B	2020/02/28		

GENERAL ARRANGEMENT FOR
PAD LOCKING
MOTOR DRIVE MD50

DRAWN: SBG

CHECKED: KRP

APPRD. SC

Motor Operating Mechanism MD50

TOTAL SH.
1

ABB APPSIL ABB Power Products and Systems India Limited

1HYD990338

Sh. NO.
1