

Western Power's Asset Management System

Distribution Design Catalogue High Voltage Bare Section 01A (HV)



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Content Owner/Custodian: Distribution Design and Standards

This Revision: 1 – December 2023

Date for Next Review: December 2025

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Document control

Endorsement approvals

	Name	Title	Signature and Date
Compiled by	James Retnarajan	Civil Structural Designer	
Checked by	Chris Omodei	Principal Engineer	
Approved by	Lanka Thabrew	Distribution Design & Standards Manager	

Record of revisions

Revision No.	Date	EDM Version	Compiled by	Description
1	05/12/2023	3	James Retnarajan	First Revision with new Format

This document gives direction to and influences the following documents.

Doc	Title of document
ALL CHAPTERS	DDC - DISTRIBUTION DESIGN CATALOGUE
ALL CHAPTERS	DCSH - DISTRIBUTION CONSTRUCTION STANDARD HANDBOOK
ALL CHAPTERS	DSPM - DISTRIBUTION SUBSTATION PLANT MANUAL

Stakeholders (people that were consulted when document was updated)

Business Unit / Function

Asset Management - Asset Performance

Asset Management – Safety Environment Quality and Training

Asset Management - Grid Transformation

Asset Operations – Network Operations

Asset Operations – Operational Services

Asset Operations – Customer Connection Services

Business and Customer Service – Customer Service

Notification list (people to be notified when document is updated)

Business Unit / Function

Asset Management - Asset Performance

Asset Management – Safety Environment Quality and Training

Asset Management - Grid Transformation

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Asset Operations – Operational Services

Asset Operations – Customer Connection Services

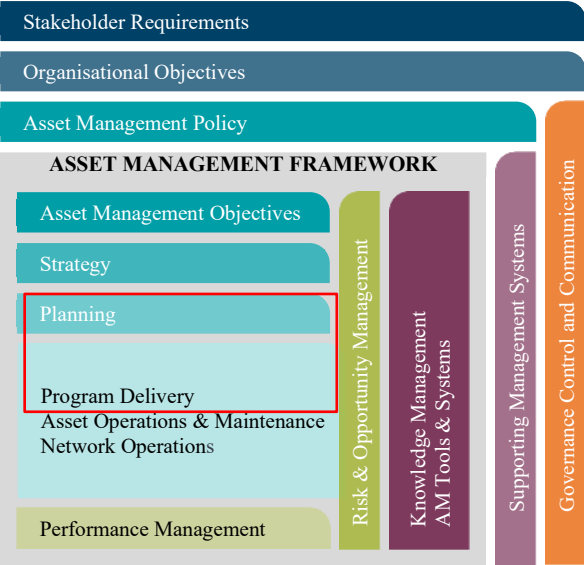
Business and Customer Service – Customer Service

This document must not be made available to personnel outside Western Power without the prior written approval of Western Power.

Document classification and hierarchy

A key requirement of the Western Power Asset Management Policy (AMP) is to develop and maintain an Asset Management System (AMS). This Distribution Substation Plant Manual is defined as a technical document within the AMS document classification and structure and sits within the planning and Program Delivery components of the AMS.

The AMS and the interrelationships between the collection of documents, tools and systems that are used for asset management are described in the AMS document EDM# [40304923](#).



Revision List

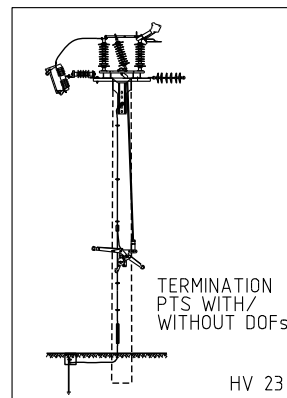
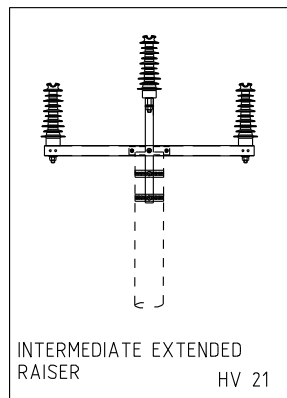
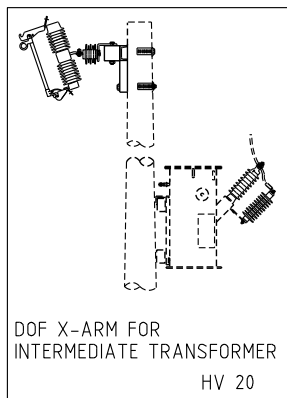
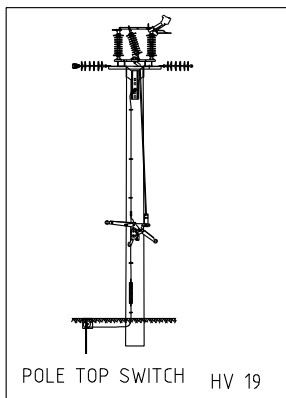
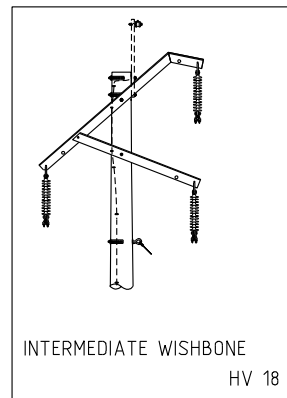
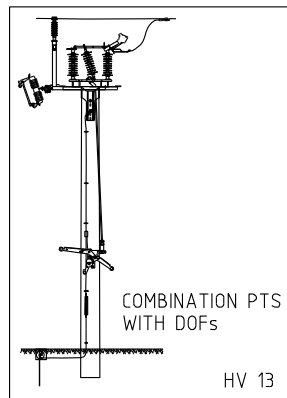
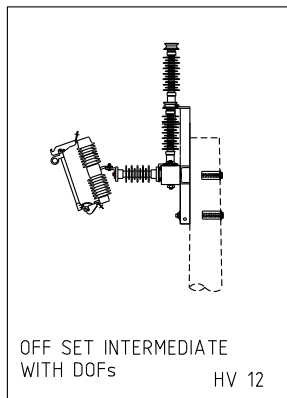
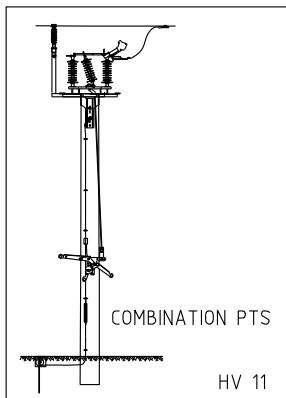
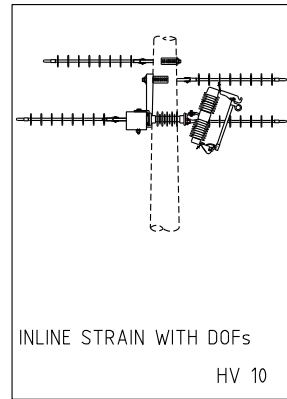
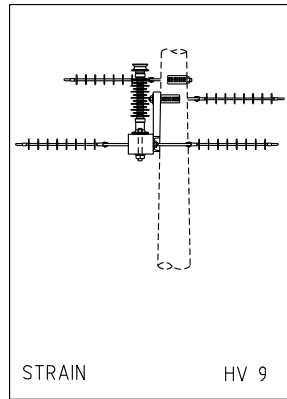
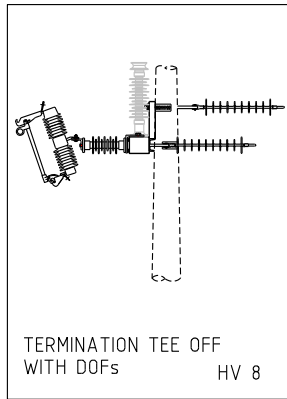
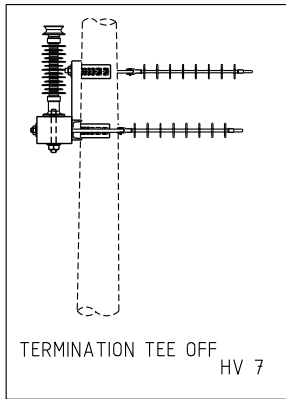
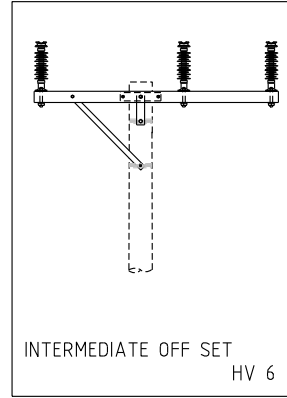
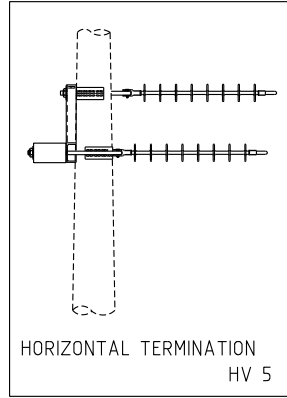
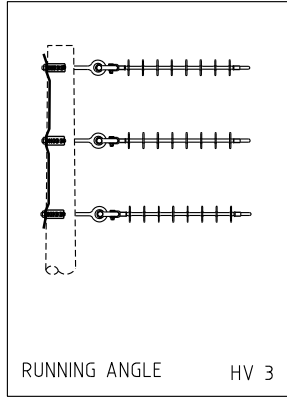
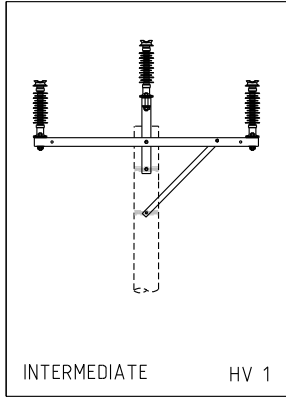
For drawing revisions please refer to the DDC Amendment list EDM# 24803827

General Notes

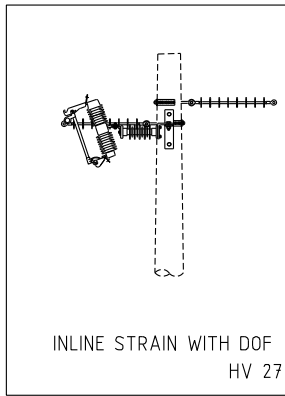
NOTE #	DESCRIPTION
1	Driving point is not required for normal ground conditions including small coffee rocks and shale. For harder ground condition, a driving point is recommended. (It is unlikely the driving point will be suitable for granite rock)
2	Expulsion Dropout Fuse (EDO) base and links as well as K-Mate fuse current limiters are not included in CUs but listed in HV51. Fault Tamer fuse base and links are listed in HV52. Fault Tamer fuse are not to be used on 33kV networks and have a maximum rating of 20A. EDOs are used on 33kV networks and for current rating greater than 20A.
3	For the physical dimension tables the uppermost king bolt / eye bolt is the reference point with coordinates X=0.0, Y=0.0 (Datum)
4	The conductor location in the Y axis of the physical dimension tables lists the height of the conductor on the top of the post insulator above the datum. This dimension has been rounded down taking equipment differences, manufacturing tolerances and installation variations into account. On angle structures, where the conductor is attached to the side of the insulator head the conductor is located marginally lower than if located on the top of the insulator. No adjustment is considered necessary to the Y dimension in these cases.
5	For conductor clashing calculation, apply the correct Y dimension which may differ from that listed in the dimension table which is used for ground clearance simulation purposes. E.g. HV09 RHS span (centre to outer phase) Ydim to be 230mm and not 310mm.
6	HV isolators to be selected according to HV53.

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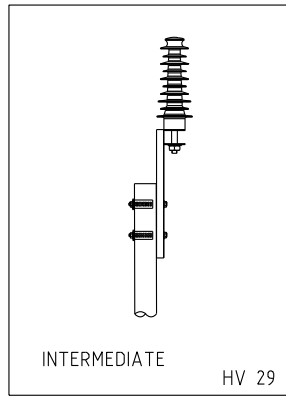
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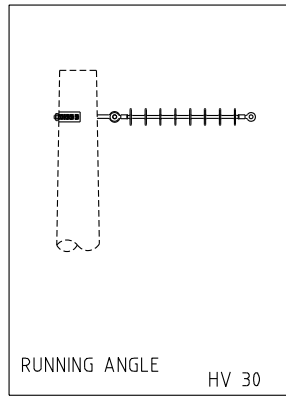
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				HV COMPATIBLE UNITS				DRAWN: JRR DATE: 11-06-2014		ORG. No.	
								ORIGINATED: REE		SCALE: NTS	
								CHECKED: REE		HV INDEX	
								APPROVED: GRANT STACY		REV. G SHT. 1/3	
REV.	DATE	DESCRIPTION	ORGD.	CHKD.	APROD.						



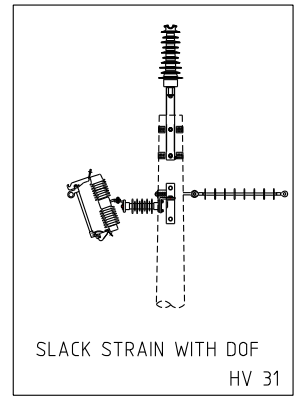
INLINE STRAIN WITH DOF
HV 27



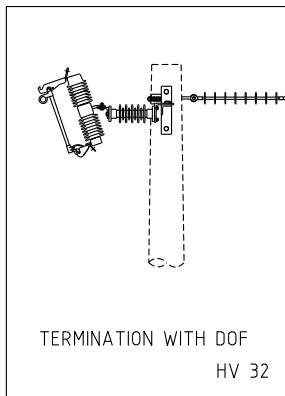
INTERMEDIATE
HV 29



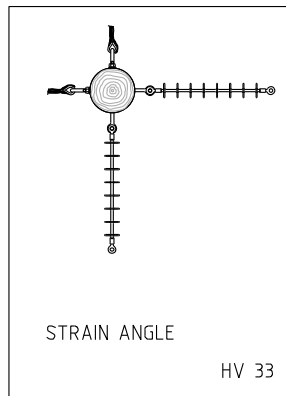
RUNNING ANGLE
HV 30



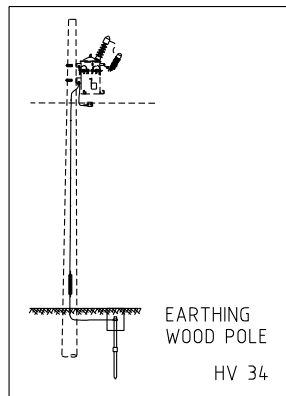
SLACK STRAIN WITH DOF
HV 31



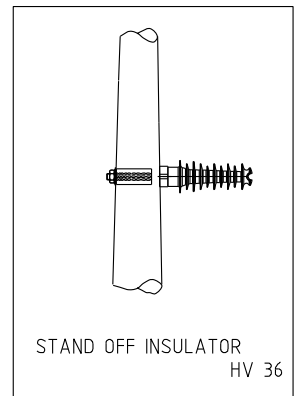
TERMINATION WITH DOF
HV 32



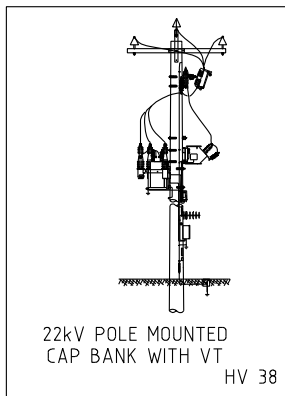
STRAIN ANGLE
HV 33



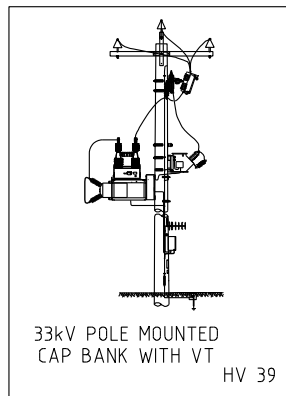
EARTHING
WOOD POLE
HV 34



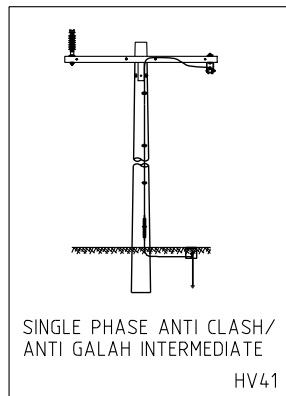
STAND OFF INSULATOR
HV 36



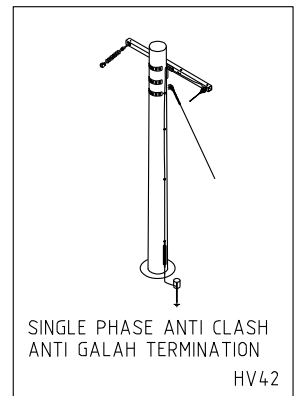
22kV POLE MOUNTED
CAP BANK WITH VT
HV 38



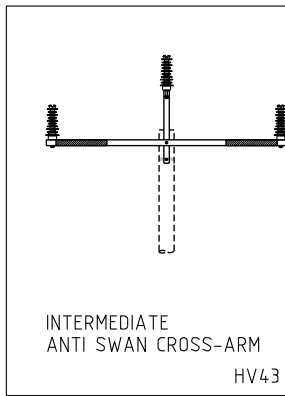
33kV POLE MOUNTED
CAP BANK WITH VT
HV 39



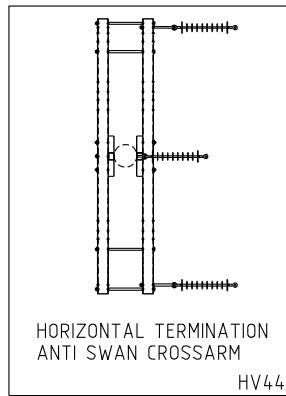
SINGLE PHASE ANTI CLASH/
ANTI GALAH INTERMEDIATE
HV 41



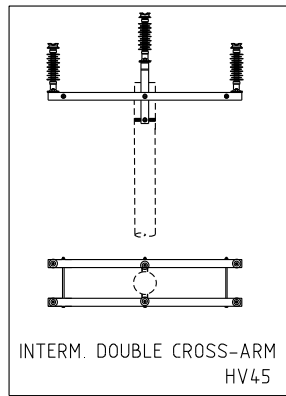
SINGLE PHASE ANTI CLASH
ANTI GALAH TERMINATION
HV 42



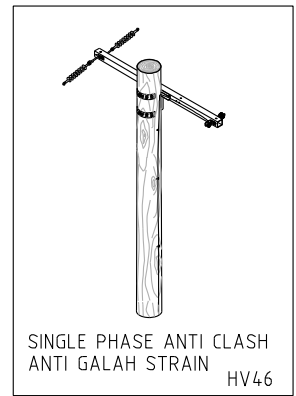
INTERMEDIATE
ANTI SWAN CROSS-ARM
HV 43



HORIZONTAL TERMINATION
ANTI SWAN CROSSARM
HV 44

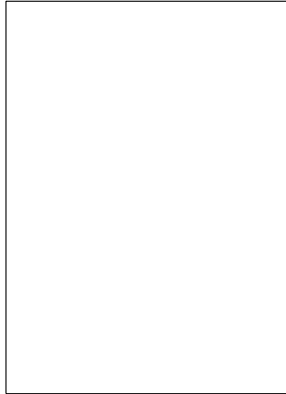
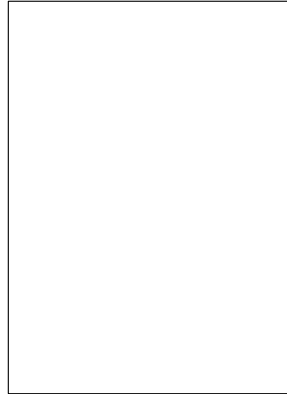
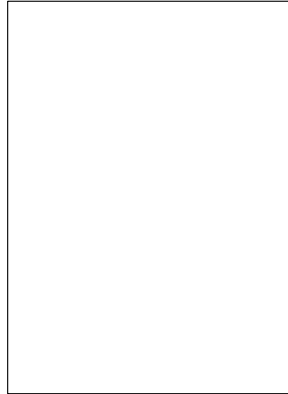
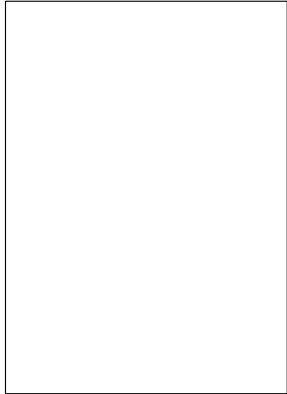
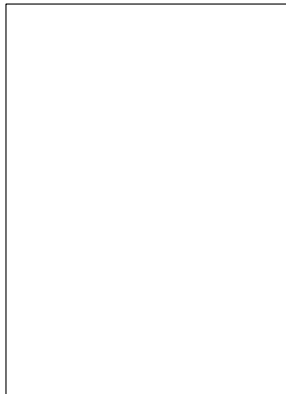
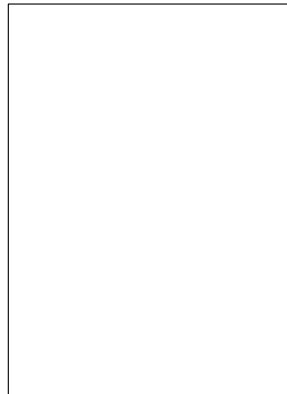
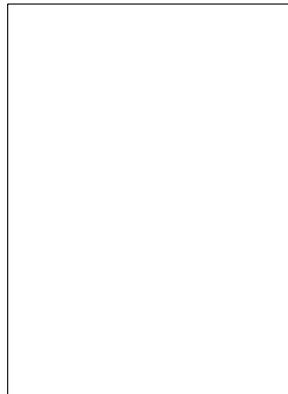
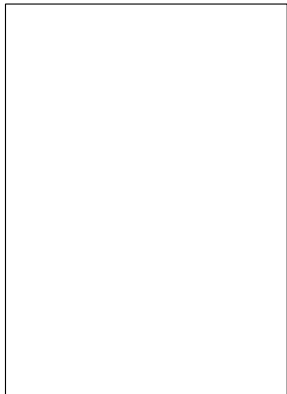
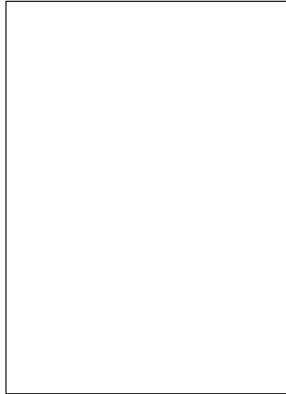
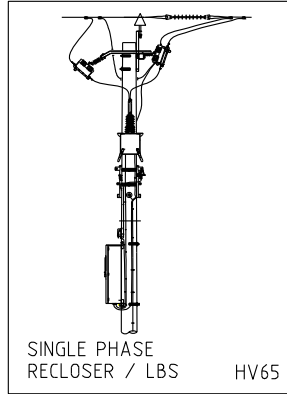
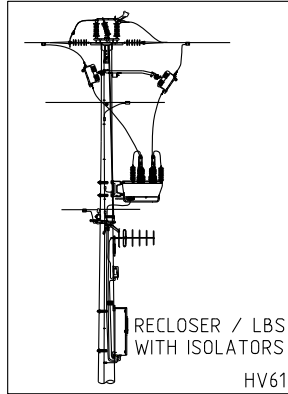
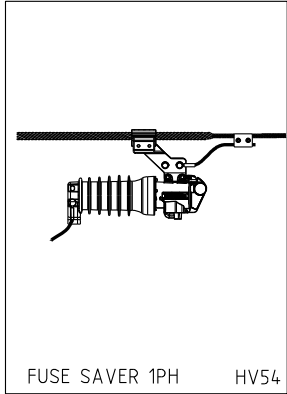
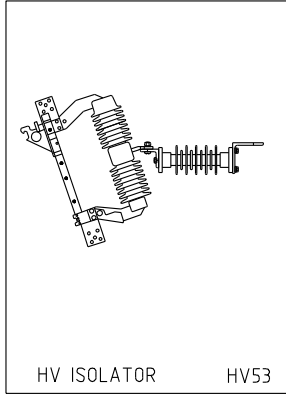
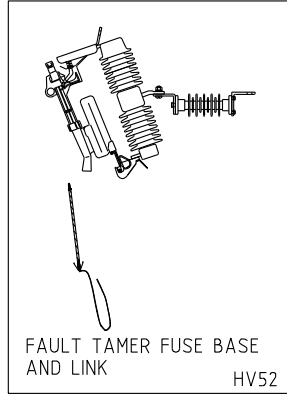
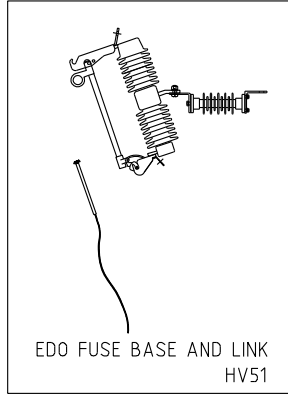
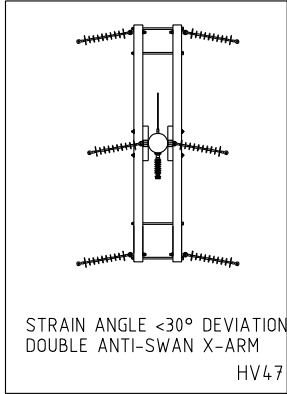


INTERM. DOUBLE CROSS-ARM
HV 45



SINGLE PHASE ANTI CLASH
ANTI GALAH STRAIN
HV 46

				TITLE			DISTRIBUTION DESIGN CATALOGUE		westernpower	
J	22.12.15	HV22 DELETED	REE	REE	GS	COMPATIBLE UNIT		DRAWN: JRR	DATE: 11-04-2014	DRG. No.
H	03.09.15	HV35 DELETED	JC	REE	GS	HV COMPATIBLE UNITS		ORIGINATED:	SCALE: NTS	HV INDEX
G	12.01.15	FORMAT CHANGED DRAWING HV35 ADDED & HV26 DELETED	JC	REE	GS			CHECKED: REE		
F	09.10.13	ORIGINAL ISSUE						APPROVED: GRANT STACY	REV: J	SHT. 2/3
REV.	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					



REV.	DATE	DESCRIPTION	DRG	CHKD.	APRD.	TITLE	DISTRIBUTION DESIGN CATALOGUE		westernpower		
H	15.05.16	HV50, HV60, HV62, HV63 & HV64 DELETED	NMc	CO	GS	HV COMPATIBLE UNITS	DRAWN: JRR	DATE: 11-04-2014	DRG. No.		
G	04.05.15	HV60, HV61, HV62 & HV65 ADDED	REE	REE	GS		ORIGINATED:	SCALE: NTS	HV INDEX		
F	22.12.14	FORMAT CHANGED AND HV51 MOVED TO SHEET 2/3	JC	REE	GS		CHECKED: REE	APPROVED: GRANT STACY		REV. H	SHT. 3/3
E	09.10.13	ORIGINAL ISSUE									

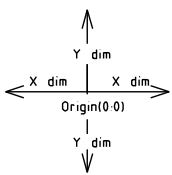
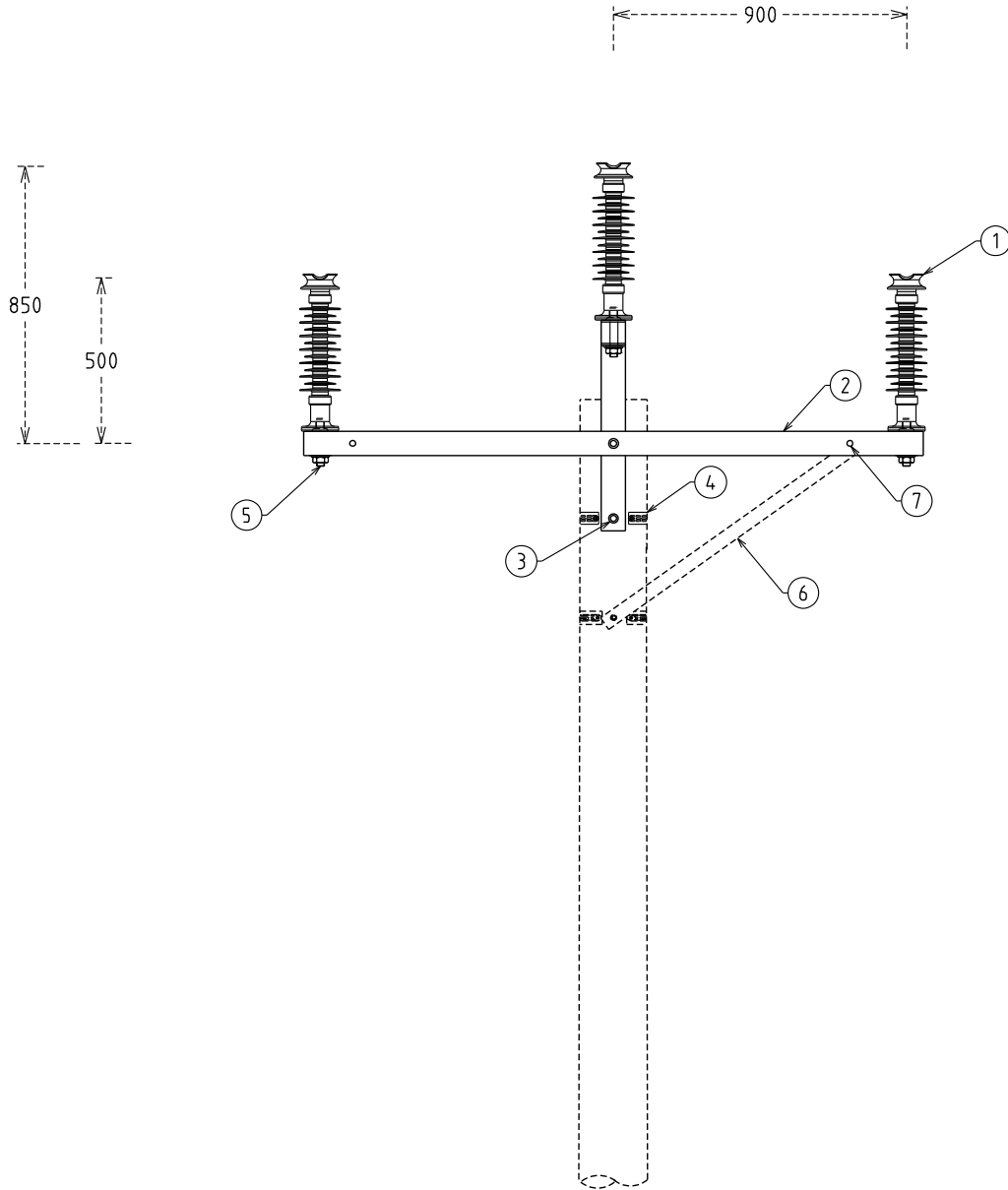
High Voltage Bare CU List

CU	CU DESCRIPTION
HV1_2NS	intermediate 2 phase normal
HV1_2HS	intermediate 2 phase high
HV1_2ES	Intermediate_2 phase extreme
HV1_3NS	intermediate 3 phase normal
HV1_3HS	intermediate 3phase high
HV1_3ES	intermediate_3 phase extreme
HV3_2N	running disc angle 2 phase normal
HV3_2H	running disc angle 2 phase high
HV3_2E	running disc angle _2 phase extreme
HV3_3N	running disc angle 3 phase normal
HV3_3H	running disc angle 3 phase high
HV3_3E	running disc angle _3 phase extreme
HV5_3MN	horizontal termination 3 phase metro normal
HV5_3MH	horizontal termination 3 phase metro high
HV5_2RN	horizontal termination 2 phase rural normal
HV5_2RH	horizontal termination 2 phase rural high
HV5_3RN	horizontal termination 3 phase rural normal
HV5_3RH	horizontal termination 3 phase rural high
HV5_2E	horizontal termination_2ph extreme
HV5_3E	horizontal termination_3ph extreme
HV6_2N	intermediate off set 2 phase normal
HV6_2H	intermediate off set 2 phase high
HV6_2E	intermediate offset_ 2 phase extreme
HV6_3N	intermediate off set 3 phase normal
HV6_3H	intermediate off set 3 phase high
HV6_3E	intermediate offset_ 3 phase extreme
HV7_3MN	termination tee off 3 phase metro normal
HV7_3MH	termination tee off 3 phase metro high
HV7_2RN	termination tee off 2 phase rural normal
HV7_2E	termination tee off_2ph extreme
HV7_2RH	termination tee off 2 phase rural high
HV7_3RN	termination tee off 3 phase rural normal
HV7_3RH	termination tee off 3 phase rural high
HV7_3E	termination tee off_3ph extreme
HV8_3N	termination tee off / DOF 3 phase normal
HV8_3H	termination tee off / DOF 3 phase high
HV8_3E	termination tee off DOF_3ph extreme
HV8_2N	termination tee off / DOF 2 phase normal
HV8_2H	termination tee off / DOF 2 phase high
HV8_2E	termination tee off DOF_2ph extreme
HV9_2N	in line strain 2 phase normal
HV9_2H	in line strain 2 phase high
HV9_2E	In line strain_2 phase extreme
HV9_3N	in line strain 3 phase normal
HV9_3H	in line strain 3 phase high

CU	CU DESCRIPTION
HV9_3E	In line strain_3 phase extreme
HV10_2N	in line strain / DOF 2 phase normal
HV10_2H	in line strain / DOF 2 phase high
HV10_2E	In line strain / DOF's_2 phase extreme
HV10_3N	in line strain / DOF 3 phase normal
HV10_3H	in line strain / DOF 3 phase high
HV10_3E	In line strain / DOF's_ 3 phase extreme
HV11	combination PTS normal & high
HV11_E	combination PTS extreme
HV12_2N	offset intermediate / DOF's 2 phase normal
HV12_2H	offset intermediate / DOF's 2 phase high
HV12_2E	offset intermediate / DOF_2 ph extreme
HV12_3N	offset intermediate / DOF's 3 phase normal
HV12_3H	offset intermediate / DOF's 3 phase high
HV12_3E	offset intermediate / DOF_3 ph extreme
HV13	combination PTS with DOF's normal & high
HV13_E	combination PTS with DOF's extreme
HV18	Intermediate Wishbone normal and high
HV18_E	Intermediate Wishbone extreme
HV19	Pole Top Switch normal and high
HV19_E	Pole Top Switch extreme
HV20_2H	DOF xarm for interm TX 2phase high
HV20_3H	DOF xarm for interm TX 3phase high
HV21_2N	intermediate extended raiser 2 phase normal
HV21_2H	intermediate extended raiser 2 phase high
HV21_2E	Intermediate extended raiser_2ph extreme
HV21_3N	intermediate extended raiser 3 phase normal
HV21_3H	intermediate extended raiser 3 phase high
HV21_3E	Intermediate extended raiser_3ph extreme
HV23_W	termination PTS with DOF's normal and high
HV23_WE	termination PTS with DOF's extreme
HV23_WO	termination PTS w/o DOF's normal and high
HV23_WOE	termination PTS w/o DOF's extreme
HV27_N	1 phase in line strain with DOF's normal
HV27_H	1 phase in line strain with DOF's high
HV27_E	1 phase in line strain / DOF's extreme
HV29_N	1 phase intermediate normal
HV29_H	1 phase intermediate high
HV29_E	1 phase intermediate extreme
HV30_N	1 phase running disc angle normal
HV30_H	1 phase running disc angle high
HV30_E	1 phase RDA / Tee-off extreme
HV31_N	1 phase slack/strain with DOF's normal
HV31_H	1 phase slack/strain with DOF's high
HV31_E	1 phase slack strain / DOF's extreme
HV32_N	1 phase termination with DOF's normal
HV32_H	1 phase termination with DOF's high
HV32_E	1 phase termination / DOF's extreme

CU	CU DESCRIPTION
HV33_N	1 phase strain angle normal
HV33_H	1 phase strain angle high
HV33_E	1 phase strain angle extreme
HV34_N	Earthing of wood pole – Normal
HV34_T	Earthing of 10 & 25kVA TX (Maintenance)
HV34_VANPTS	Falcon Pole top switch Cu Earth Vandalism/Repair
HV34_VAN70	70mm ² Cu Pole Earth Vandalism/Repair
HV34_VAN25	25mm ² Cu Pole Earth Vandalism/Repair
HV36	stand off insulator normal & high
HV36_E	stand off insulator extreme
HV38_1000_M	(New) 22kV 1000kVAr Capacitor Bank Metro 1 bushing VT
HV38_1000_R	(New) 22kV 1000kVAr Capacitor Bank Rural 1 bushing VT
HV38_500_M	(New) 22kV 500kVAr Capacitor Bank Metro 1 bushing VT
HV38_500_R	(New) 22kV 500kVAr Capacitor Bank Rural 1 bushing VT
HV39_1000_R	(New) 33kV 1000kVAr Capacitor Bank Rural 1 bushing VT
HV39_500_R	(New) 33kV 500kVAr Capacitor Bank Rural 1 bushing VT
HV41_IN	1 Phase Intermediate normal & high
HV41_E	1 Phase Intermediate extreme
HV42_IT	1 Phase Termination normal & high
HV42_IE	1 Phase Termination extreme
HV43_3NAS	intermediate 3phase anti-swan xarm normal
HV43_3HAS	intermediate 3phase anti-swan xarm high
HV43_3EAS	intermediate 3phase anti-swan xarm extreme
HV43_3NM	intermediate 3phase Maintenance – Short Riser – normal
HV43_3HM	intermediate 3phase Maintenance – Short Riser high
HV43_3EM	intermediate 3phase Maintenance– Short Riser extreme
HV44_3NAS	horizontal 3phase anti-swan xarm normal
HV44_3HAS	horizontal 3phase anti-swan xarm high
HV44_3EAS	horizontal termination 3ph Anti-swan extreme
HV45_2S	Intermediate 2 phase double cross-arm normal & high
HV45_2E	Intermediate 2 phase double xarm extreme
HV45_3S	Intermediate 3 phase double cross-arm normal & high
HV45_3E	Intermediate 3 phase double xarm extreme
HV46_1S	1 phase strain Normal & High
HV46_1E	1 Phase Strain extreme
HV47_3NAS	Strain angle Deviation 3ph anti-swan normal
HV47_3HAS	Strain angle Deviation 3ph anti-swan high
HV47_3EAS	Strain Angle Deviation 3ph Anti-swan extreme
HV51_3.15EDO	Expulsion Drop-Out Fuse_ 3.15 Amp
HV51_5EDO	Expulsion Drop-Out Fuse_ 5 Amp
HV51_8EDO	Expulsion Drop-Out Fuse_ 8 Amp
HV51_10 EDO	Expulsion Drop-Out Fuse_ 10 Amp
HV51_16 EDO	Expulsion Drop-Out Fuse._ 16 Amp
HV51_20EDO	Expulsion Drop-Out Fuse._ 20 Amp
HV51_25EDO	Expulsion Drop-Out Fuse._ 25 Amp
HV51_31.5EDO	Expulsion Drop-Out Fuse._ 31.5 Amp
HV51_40EDO	Expulsion Drop-Out Fuse _ 40 Amp
HV51_63EDO	Expulsion Drop-Out Fuse _ 63 Amp
HV51_80 EDO	Expulsion Drop-Out Fuse _ 80 Amp
HV52_3FT	Standard Speed Fault Tamer Drop-Out Fuse_ 3 Amp (max 22kV)

CU	CU DESCRIPTION
HV52_5FT	Standard Speed Fault Tamer Drop-Out Fuse_ 5 Amp (max 22kV)
HV52_7FT	Standard Speed Fault Tamer Drop-Out Fuse_ 7 Amp (max 22kV)
HV52_10FT	Standard Speed Fault Tamer Drop-Out Fuse_ 10 Amp (max 22kV)
HV52_15FT	Standard Speed Fault Tamer Drop-Out Fuse_ 15 Amp (max 22kV)
HV52_20FT	Standard Speed Fault Tamer Drop-Out Fuse_ 20 Amp (max 22kV)
HV53_HC	Disconnect switch 600 Amp Cross-arm
HV53_HB	Disconnect switch 600 Amp Bracket
HV54_1PH	Fuse saver – single phase
HV61_22W	(New) 3 phase recloser with PTS & isolators 22kV wood one bushing TX supply
HV61_33W	(New) 3 phase recloser with PTS & isolators 33kV wood one bushing TX supply
HV61_22W_M	(New) 3 phase recloser with PTS & isolators 22kV wood two bushing TX supply
HV61_22W_LV	3 phase recloser with PTS & isolators 22kV wood, LV aerial supply
HV61_33W_LV	3 phase recloser with PTS & isolators 33kV wood, LV aerial supply
HV65_12_TX	(New) 12.7kV single phase recloser with bypass
HV65_19_TX	(New) 19.1kV single phase recloser with bypass



Physical Design Dimensions

Phase	X dim	Y dim
left	900	500
centre	0	850
right	900	500

Origin - King bolt (0:0)

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.	TITLE	DISTRIBUTION DESIGN CATALOGUE	westernpower
H	01.10.24	CROSSARM STRAP ADDED	JG	VS	CO	COMPATIBLE UNIT INTERMEDIATE STANDARD CROSS-ARM	DRAWN: JRR	DATE: 10-04-2014
G	22.12.17	PHYSICAL DESIGN DIMENSION REVISED	NMc	REE	GS		ORIGINATED:	SCALE: NTS
F	02.07.15	FORMAT & TITLE CHANGED, ANTI-SWAN CROSS-ARM MOVED TO HV43 AND LIMITATIONS TABLE DELETED	REE	REE	GS		CHECKED: REE	DRG. No. HV01
E	18.07.13	ORIGINAL ISSUE			GS		APPROVED: GRANT STACY	REV. H
								SHT.

CU	CU Description
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HV1_2HS		Intermediate_2 phase high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	Line post insulator	2	ea	
2	CB0109	Unitized xarm	1	ea	
3	AB6732	Pole bolt – M16 x 550	2	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	2	ea	

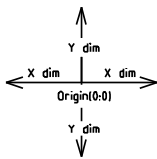
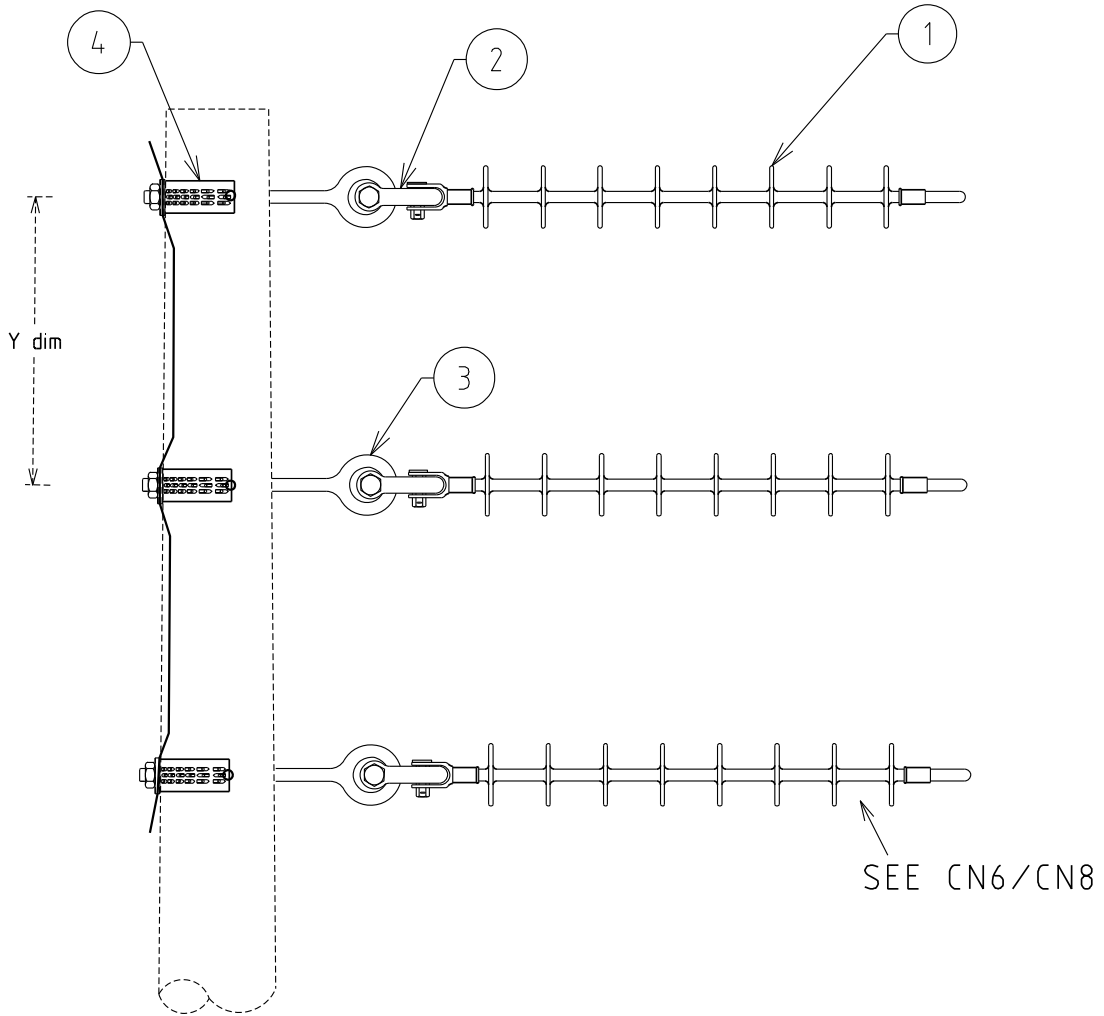
HV1_2ES		Intermediate_2 phase extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	Line post insulator	2	ea	
2	CB0109	Unitized xarm	1	ea	
3	AB6732	Pole bolt – M16 x 550	2	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	2	ea	

HV1_3HS		Intermediate_3 phase high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	Line post insulator	3	ea	
2	CB0109	Unitized xarm	1	ea	
3	AB6732	Pole bolt – M16 x 550	2	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	3	ea	

HV1_3ES		Intermediate_3 phase extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	Line post insulator	3	ea	
2	CB0109	Unitized xarm	1	ea	
3	AB6732	Pole bolt – M16 x 550	2	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	3	ea	

HV1_CS		Intermediate_ crossarm strap			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
3	AB6732	Pole bolt – M16 x 550	1	ea	
4	CE7541	Dispersion plate	1	ea	
6	CB0485	Crossarm strap	1	ea	
7	AB4567	Pole bolt – M12 x 550	1	ea	





Physical Design Dimensions
H6 (DCSH)

Phase	X dim	Y dim
Top	0	0
Centre	0	900
Bottom	0	1800

Origin - Top eye bolt (0:0)

Physical Design Dimensions
H7 (DCSH)

Phase	X dim	Y dim
Top	0	0
Centre	0	1200
Bottom	0	2400

Origin - Top eye bolt (0:0)
Reminder: 2 stays required

				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE			
				TITLE		DRAWN: JRR		DATE: 10-04-2014	
				RUNNING DISC ANGLE		ORIGINATED:		SCALE: NTS	
						CHECKED: REE		DRG. No. HV03	
						APPROVED: GRANT STACY			
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.	REV. G		SHT.	

CU	CU Description
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HV3_2N Running disc angle _2 phase normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	2	ea	
2	OS0055	bow shackle	2	ea	
3	AB6025	eye bolt 16mm dia x 400mm lg	2	ea	
4	CE7542	bonding kit	1	ea	

HV3_2H Running disc angle _2 phase high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	2	ea	
2	OS0055	bow shackle	2	ea	
3	AB6025	eye bolt 16mm dia x 400mm lg	2	ea	
4	CE7542	bonding kit	1	ea	

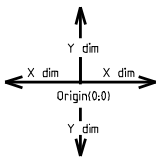
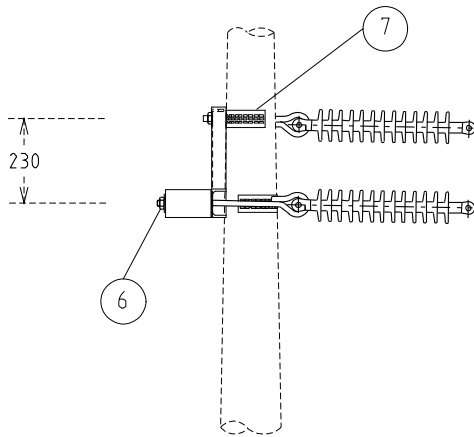
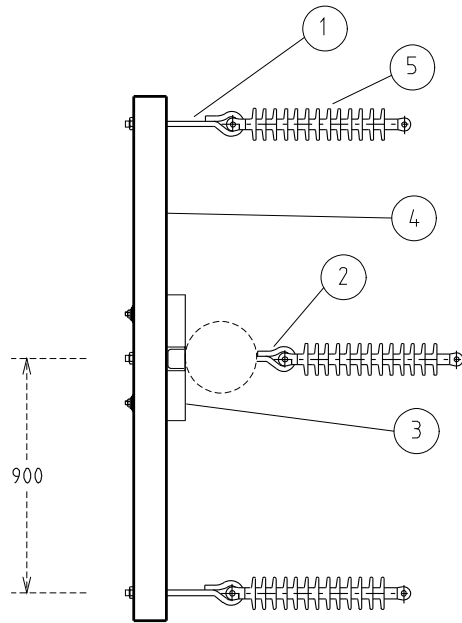
HV3_2E Running disc angle _2 phase extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0031	strain insulator	2	ea	
2	OS0055	bow shackle	2	ea	
3	AB6025	eye bolt 16mm dia x 400mm lg	2	ea	
4	CE7542	bonding kit	1	ea	

HV3_3N Running disc angle _3 phase normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	3	ea	
2	OS0055	bow shackle	3	ea	
3	AB6025	eye bolt 16mm dia x 400mm lg	3	ea	
4	CE7542	bonding kit	1	ea	

HV3_3H Running disc angle _3 phase high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	3	ea	
2	OS0055	bow shackle	3	ea	
3	AB6025	eye bolt 16mm dia x 400mm lg	3	ea	
4	CE7542	bonding kit	1	ea	

CU	CU Description
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HV3_3E Running disc angle _3 phase extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0031	strain insulator	3	ea	
2	OS0055	bow shackle	3	ea	
3	AB6025	eye bolt 16mm dia x 400mm lg	3	ea	
4	CE7542	bonding kit	1	ea	



Physical Design Dimensions

Phase	X dim	Y dim
left	900	230
centre	0	0
right	900	230

Origin - Top eye bolt (0:0)

				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR		DATE: 10-04-2014	
				HORIZONTAL TERMINATION STANDARD CROSS-ARM			ORIGINATED: REE		SCALE: NTS	
							CHECKED: REE		ORG. No.	
							APPROVED: GRANT STACY		REV. C	
									SHT.	
R No	DATE	DESCRIPTION	DRG.	CHED.	APRO.					
C	02.07.15	FORMAT & TITLE CHANGED, DOUBLE ANTI-SWAN CROSS-ARM AND LIMITATION TABLE DELETED	REE	REE	GS					
B	15.08.13	ORIGINAL ISSUE			GS					

CU	CU Description
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HV5_3MN		Horizontal termination_3ph metro normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4	CB0116	xarm metal metro	1	ea	
5	IC0041	strain insulator	3	ea	
6	AB6732	Pole bolt – M16 x 550	1	ea	
7	CE7541	dispersion plate	2	ea	

HV5_3MH		Horizontal termination_3ph metro high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4	CB0116	xarm metal metro	1	ea	
5	IC0041	strain insulator	3	ea	
6	AB6732	Pole bolt – M16 x 550	1	ea	
7	CE7541	dispersion plate	2	ea	

HV5_2RN		Horizontal termination_2ph rural normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	IC0041	strain insulator	2	ea	
6	AB6732	Pole bolt – M16 x 550	2	ea	
7	CE7541	dispersion plate	2	ea	

HV5_2RH		Horizontal termination_2ph rural high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	IC0041	strain insulator	2	ea	
6	AB6732	Pole bolt – M16 x 550	2	ea	
7	CE7541	dispersion plate	2	ea	

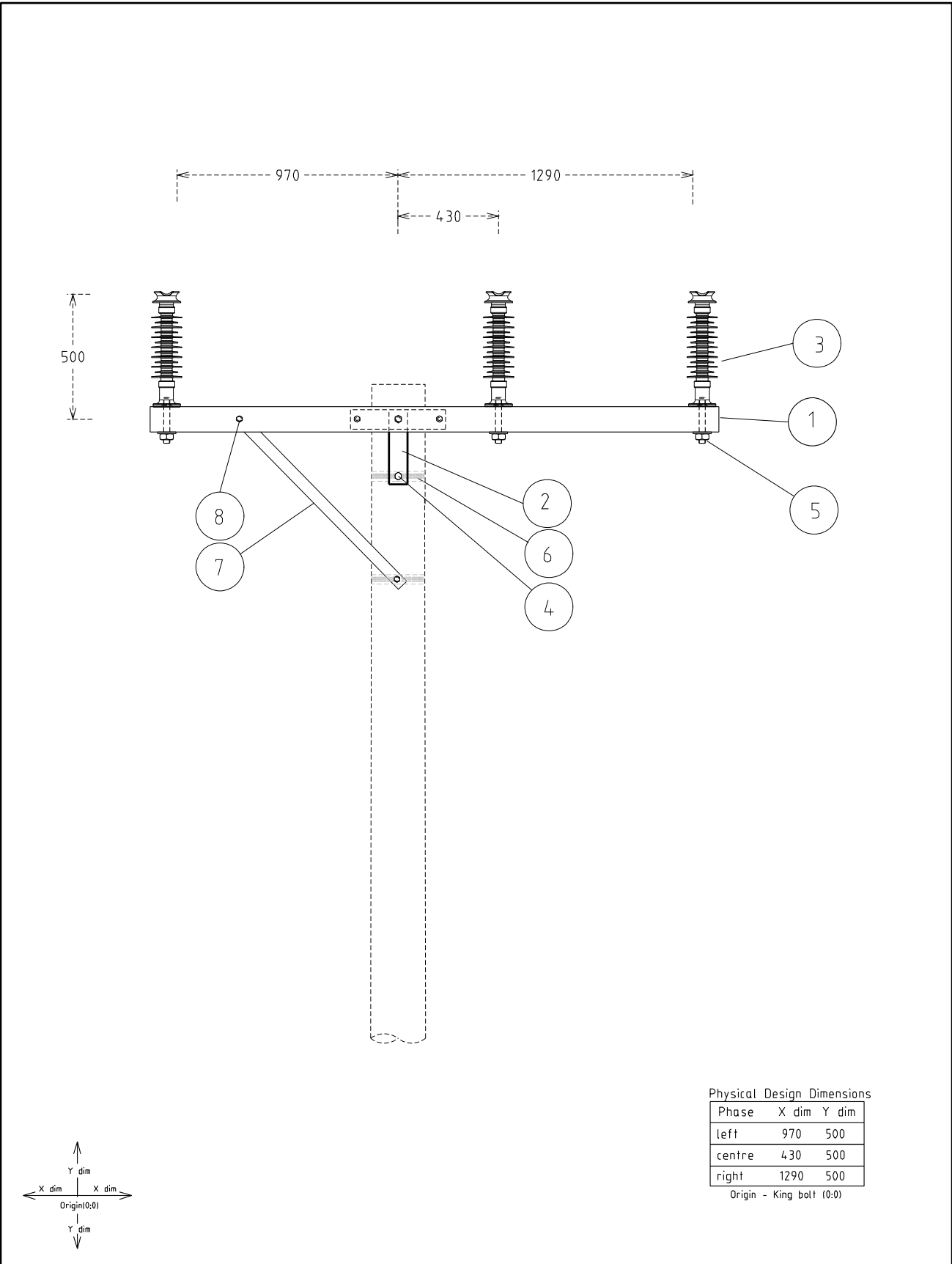
CU	CU Description
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HV5_2E Horizontal termination_2ph extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	IC0031	strain insulator	2	ea	
6	AB6732	Pole bolt – M16 x 550	2	ea	
7	CE7541	dispersion plate	2	ea	

HV5_3RN Horizontal termination_3ph rural normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	IC0041	strain insulator	3	ea	
6	AB6732	Pole bolt – M16 x 550	1	ea	
7	CE7541	dispersion plate	2	ea	

HV5_3RH Horizontal termination_3ph rural high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	IC0041	strain insulator	3	ea	
6	AB6732	Pole bolt – M16 x 550	1	ea	
7	CE7541	dispersion plate	2	ea	

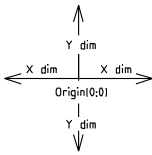
HV5_3E Horizontal termination_3ph extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	IC0031	strain insulator	3	ea	
6	AB6732	Pole bolt – M16 x 550	1	ea	
7	CE7541	dispersion plate	2	ea	



Physical Design Dimensions

Phase	X dim	Y dim
left	970	500
centre	430	500
right	1290	500

Origin - King bolt (0:0)



				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR		DATE: 10-04-2014	
				INTERMEDIATE OFFSET			ORIGINATED: REE		SCALE: NTS	
							CHECKED: REE		DRG. No. HV06	
							APPROVED: GRANT STACY		REV. C	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APPR.			SHT.		
C	22.12.17	PHYSICAL DESIGN DIMENSION REVISED		NMc	REE	GS				
B	10.04.13	ORIGINAL ISSUE								

CU	CU Description
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HV6_2N Intermediate offset_2 phase normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	2	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5	AB4822	insulator stud	2	ea	
6	CE7541	dispersion plate	3	ea	
7	CB0485	bracing strap	1	ea	
8	AB4614	bolt – M16 x 150mm	1	ea	

HV6_2H Intermediate offset_2 phase high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	2	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5	AB4822	insulator stud	2	ea	
6	CE7541	dispersion plate	3	ea	
7	CB0485	bracing strap	1	ea	
8	AB4614	bolt – M16 x 150mm	1	ea	

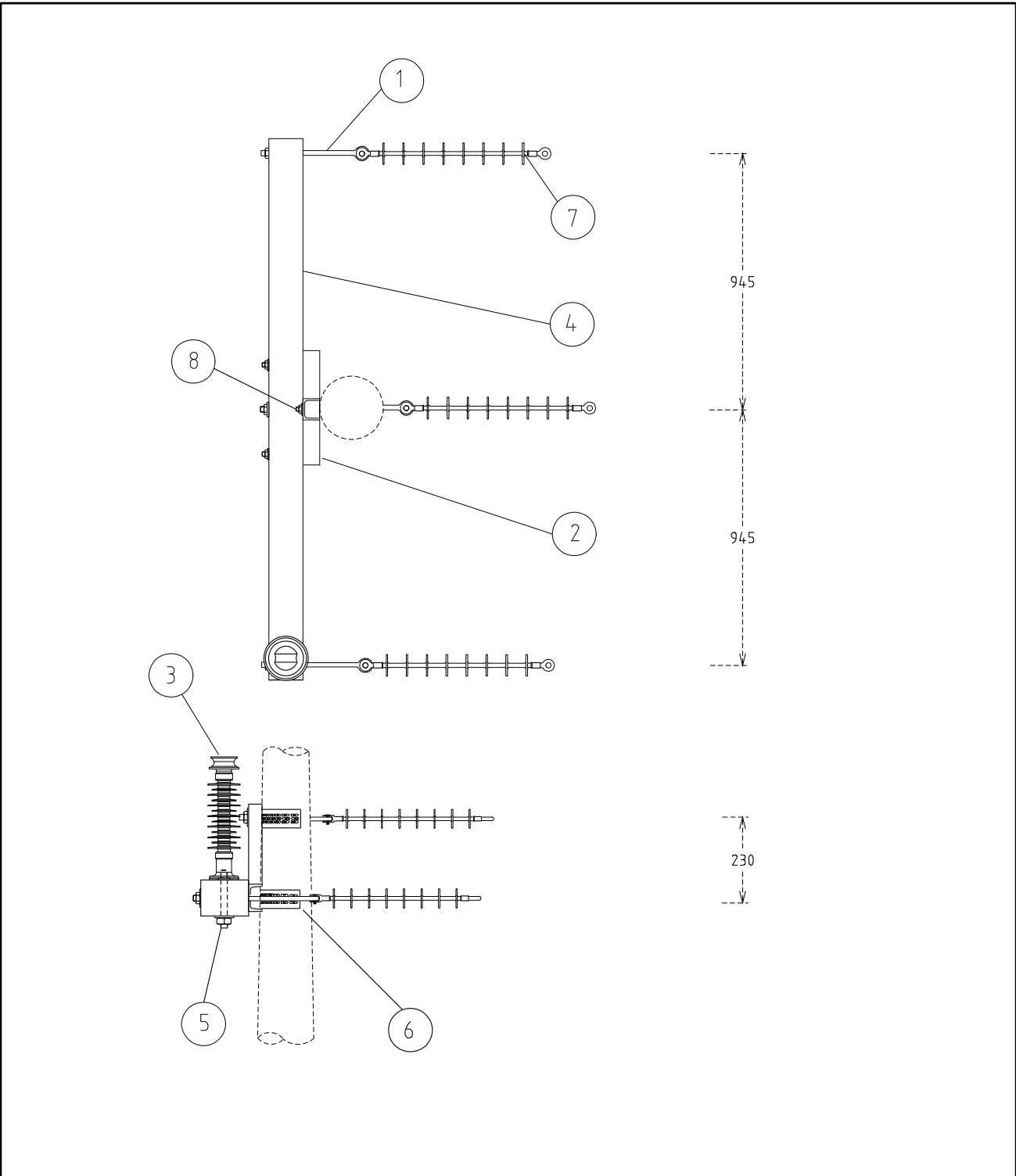
HV6_2E Intermediate offset_2 phase extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IF0001	Line post insulator	2	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5	AB4822	insulator stud	2	ea	
6	CE7541	dispersion plate	3	ea	
7	CB0485	bracing strap	1	ea	
8	AB4614	bolt – M16 x 150mm	1	ea	

CU	CU Description
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HV6_3N Intermediate offset_3 phase normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	3	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5	AB4822	insulator stud	3	ea	
6	CE7541	dispersion plate	3	ea	
7	CB0485	bracing strap	1	ea	
8	AB4614	bolt – M16 x 150mm	1	ea	

HV6_3H Intermediate offset_3 phase high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	3	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5	AB4822	insulator stud	3	ea	
6	CE7541	dispersion plate	3	ea	
7	CB0485	bracing strap	1	ea	
8	AB4614	bolt – M16 x 150mm	1	ea	

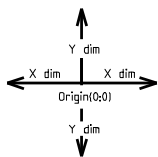
HV6_3E Intermediate offset_3 phase extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IF0001	Line post insulator	3	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5	AB4822	insulator stud	3	ea	
6	CE7541	dispersion plate	3	ea	
7	CB0485	bracing strap	1	ea	
8	AB4614	bolt – M16 x 150mm	1	ea	



Physical Design Dimensions

Phase	X dim	Y dim
left	945	230
centre	0	0
right	945	230

Origin - Top eye bolt (0:0)



				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE			
				TITLE		DRAWN: JRR		DATE: 10-04-2014	
				TERMINATION TEE OFF		ORIGINATED: REE		SCALE: NTS	
						CHECKED: REE		DRG. No. HV07	
						APPROVED: GRANT STACY		REV. B	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APPRD.			SHT.	
B	10.04.13	ORIGINAL ISSUE							

CU	CU Description
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HV7_3MN		Termination tee off_3ph metro normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
1	AB6025	16dia eyebolt 400 long	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	1	ea	
4	CB0116	xarm metal metro	1	ea	
5	AB4822	insulator stud	1	ea	
6	CE7541	dispersion plate	2	ea	
7	IC0041	strain insulator	3	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	

HV7_3MH		Termination tee off_3ph metro high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
1	AB6025	16dia eyebolt 400 long	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	1	ea	
4	CB0116	xarm metal metro	1	ea	
5	AB4822	insulator stud	1	ea	
6	CE7541	dispersion plate	2	ea	
7	IC0041	strain insulator	3	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	

HV7_2RN		Termination tee off_2ph rural normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
1	AB6025	16dia eyebolt 400 long	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	AB4822	insulator stud	1	ea	
6	CE7541	dispersion plate	2	ea	
7	IC0041	strain insulator	2	ea	
8	AB6732	Pole bolt – M16 x 550	2	ea	

CU	CU Description
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HV7_2RH		Termination tee off_2ph rural high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
1	AB6025	16dia eyebolt 400 long	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	AB4822	insulator stud	1	ea	
6	CE7541	dispersion plate	2	ea	
7	IC0041	strain insulator	2	ea	
8	AB6732	Pole bolt – M16 x 550	2	ea	

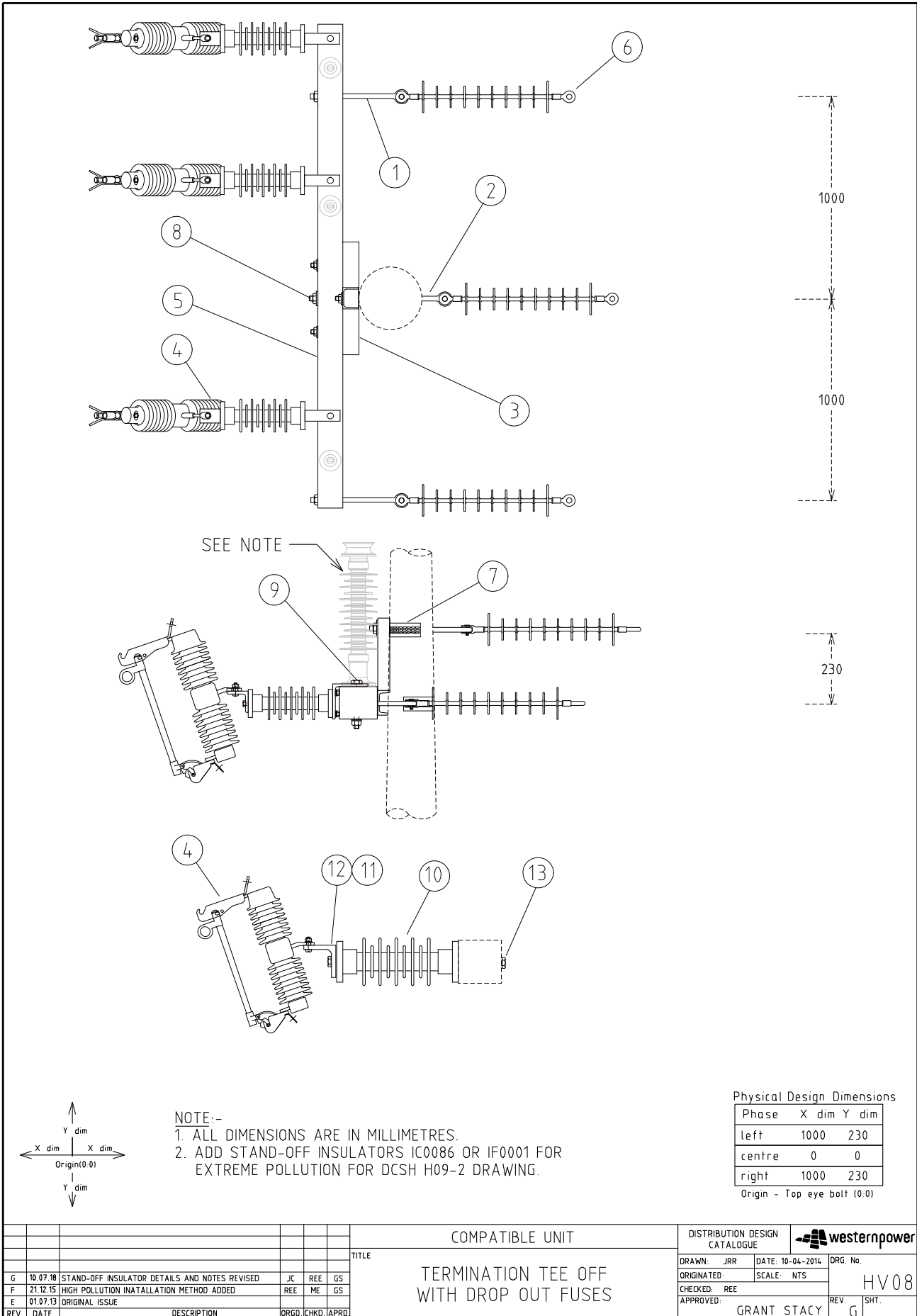
HV7_2E		Termination tee off_2ph extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
1	AB6025	16dia eyebolt 400 long	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IF0001	Line post insulator	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	AB4822	insulator stud	1	ea	
6	CE7541	dispersion plate	2	ea	
7	IC0031	strain insulator	2	ea	
8	AB6732	Pole bolt – M16 x 550	2	ea	

HV7_3RN		Termination tee off_3ph rural normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
1	AB6025	16dia eyebolt 400 long	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	AB4822	insulator stud	1	ea	
6	CE7541	dispersion plate	2	ea	
7	IC0041	strain insulator	3	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	

CU	CU Description
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HV7_3RH		Termination tee off_3ph rural high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
1	AB6025	16dia eyebolt 400 long	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	AB4822	insulator stud	1	ea	
6	CE7541	dispersion plate	2	ea	
7	IC0041	strain insulator	3	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	

HV7_3E		Termination tee off_3ph extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
1	AB6025	16dia eyebolt 400 long	1	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IF0001	Line post insulator	1	ea	
4	CB0118	xarm metal rural	1	ea	
5	AB4822	insulator stud	1	ea	
6	CE7541	dispersion plate	2	ea	
7	IC0031	strain insulator	3	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	



CU	CU Description
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HV8_3N Termination tee off DOF_3ph normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
5	CB0117	xarm metal	1	ea	
6	IC0041	strain insulator	3	ea	
7	CE7541	dispersion plate	2	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	
9	AB4677	20dia bolt 150 long	3	ea	

HV8_3H Termination tee off DOF_3ph high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
5	CB0117	xarm metal	1	ea	
6	IC0041	strain insulator	3	ea	
7	CE7541	dispersion plate	2	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	
10	IC0083	Stand-off insulator	3	ea	
11	AB2957	Bolt M12 x 30	6	ea	
12	CB0481	DOF Line post bracket	3	ea	
13	AB4567	12dia bolt 150 long	6	ea	

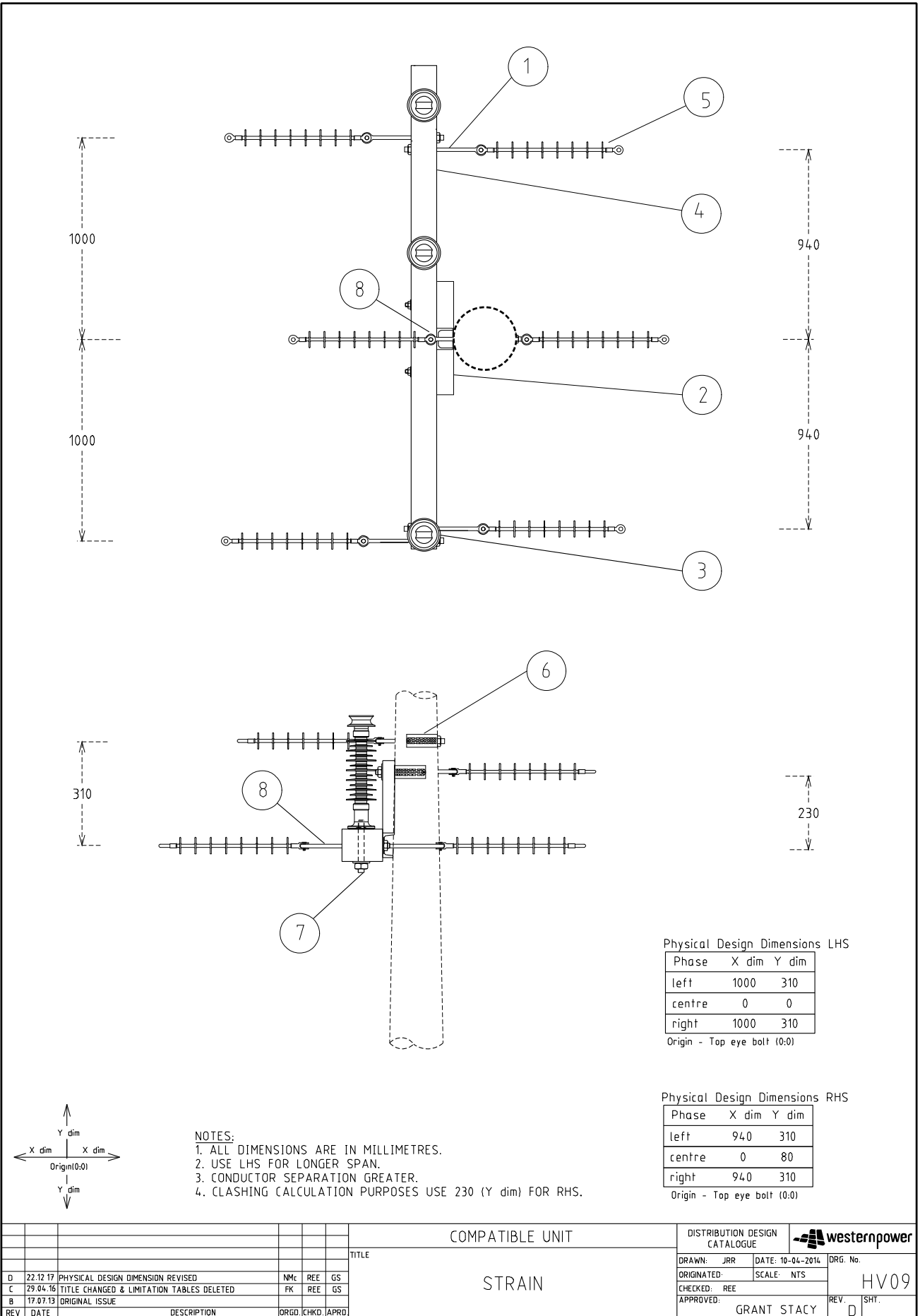
HV8_3E Termination tee off DOF_3ph extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
5	CB0117	xarm metal	1	ea	
6	IC0031	strain insulator	3	ea	
7	CE7541	dispersion plate	2	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	
10	IC0083	Stand-off Insulator	3	ea	
11	AB2957	Bolt M12 x 30	6	ea	
12	CB0481	DOF Line post bracket	3	ea	
13	AB4567	12dia bolt 150 long	6	ea	

CU	CU Description
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HV8_2N Termination tee off DOF_2ph normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
5	CB0117	xarm metal	1	ea	
6	IC0041	strain insulator	2	ea	
7	CE7541	dispersion plate	2	ea	
8	AB6732	Pole bolt – M16 x 550	2	ea	
9	AB4677	20dia bolt 150 long	2	ea	

HV8_2H Termination tee off DOF_2ph high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
5	CB0117	xarm metal	1	ea	
6	IC0041	strain insulator	2	ea	
7	CE7541	dispersion plate	2	ea	
8	AB6732	Pole bolt – M16 x 550	2	ea	
10	IC0083	Stand-off Insulator	2	ea	
11	AB2957	Bolt M12 x 30	4	ea	
12	CB0481	DOF Line post bracket	2	ea	
13	AB4567	12dia bolt 150 long	4	ea	

HV8_2E Termination tee off DOF_2ph extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
5	CB0117	xarm metal	1	ea	
6	IC0031	strain insulator	2	ea	
7	CE7541	dispersion plate	2	ea	
8	AB6732	Pole bolt – M16 x 550	2	ea	
9	AB4677	20dia bolt 150 long	2	ea	
10	IC0083	Stand-off Insulator	2	ea	
11	AB2957	Bolt M12 x 30	4	ea	
12	CB0481	DOF Line post bracket	2	ea	
13	AB4567	12dia bolt 150 long	4	ea	



CU	CU Description
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HV9_2N In line strain_2 phase normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	2	ea	
4	CB1121	xarm metal	1	ea	
5	IC0041	strain insulator	4	ea	
6	CE7541	dispersion plate	2	ea	
7	AB4822	insulator stud	2	ea	
8	AB6732	Pole bolt – M16 x 550	2	ea	

HV9_2H In line strain_2 phase high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	2	ea	
4	CB1121	xarm metal	1	ea	
5	IC0041	strain insulator	4	ea	
6	CE7541	dispersion plate	2	ea	
7	AB4822	insulator stud	2	ea	
8	AB6732	Pole bolt – M16 x 550	2	ea	

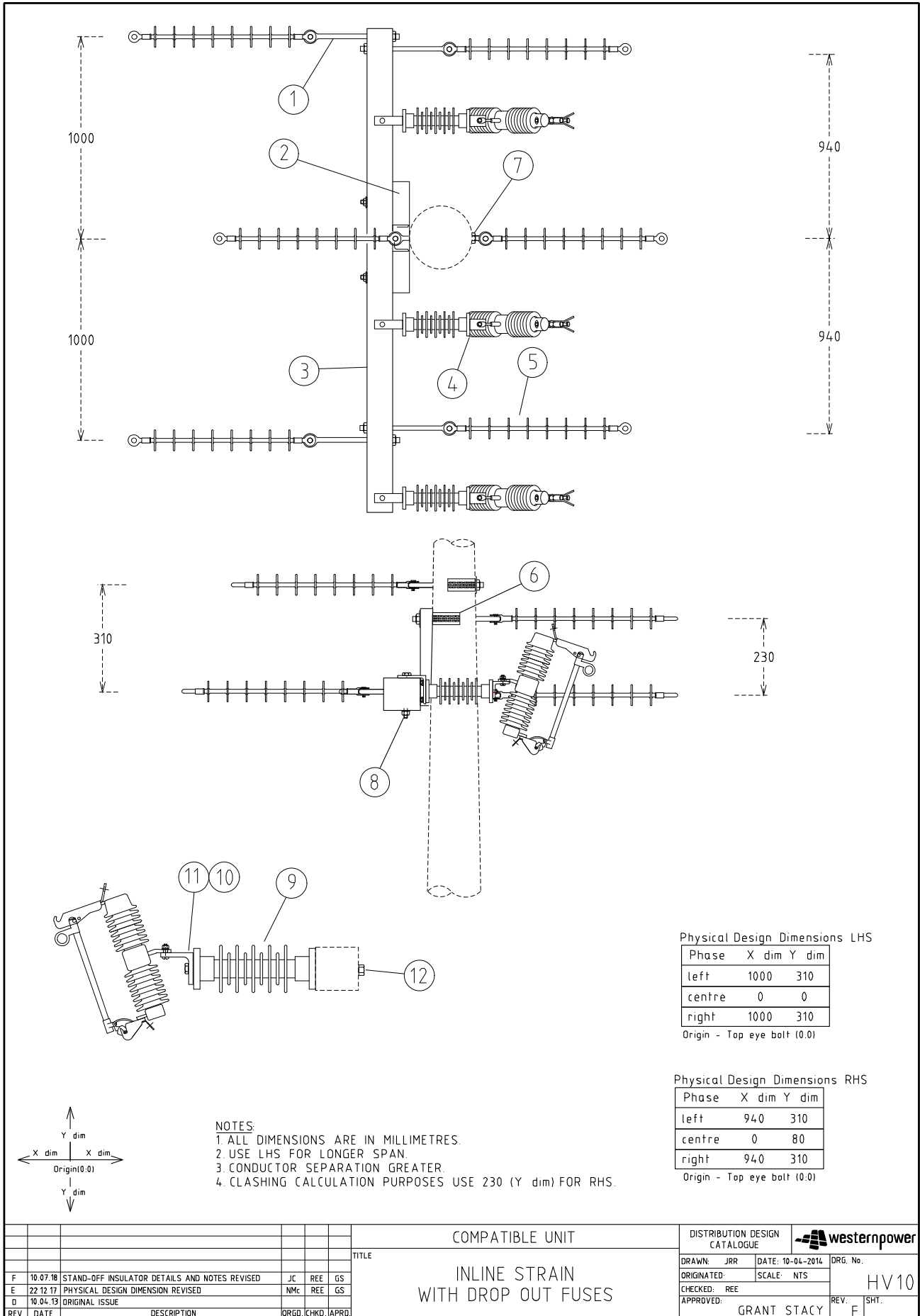
HV9_2E In line strain_2 phase extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IF0001	Line post insulator	2	ea	
4	CB1121	xarm metal	1	ea	
5	IC0031	strain insulator	4	ea	
6	CE7541	dispersion plate	2	ea	
7	AB4822	insulator stud	2	ea	
8	AB6732	Pole bolt – M16 x 550	2	ea	

CU	CU Description
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HV9_3N In line strain_3 phase normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
1	AB6025	16dia eyebolt 400 long	2	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	3	ea	
4	CB1121	xarm metal	1	ea	
5	IC0041	strain insulator	6	ea	
6	CE7541	dispersion plate	2	ea	
7	AB4822	insulator stud	3	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	

HV9_3H In line strain_3 phase high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
1	AB6025	16dia eyebolt 400 long	2	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IC0086	Line post insulator	3	ea	
4	CB1121	xarm metal	1	ea	
5	IC0041	strain insulator	6	ea	
6	CE7541	dispersion plate	2	ea	
7	AB4822	insulator stud	3	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	

HV9_3E In line strain_3 phase extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
1	AB6025	16dia eyebolt 400 long	2	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	IF0001	Line post insulator	3	ea	
4	CB1121	xarm metal	1	ea	
5	IC0031	strain insulator	6	ea	
6	CE7541	dispersion plate	2	ea	
7	AB4822	insulator stud	3	ea	
8	AB6732	Pole bolt – M16 x 550	1	ea	



CU	CU Description
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HV10_2N		In line strain / DOF's_2 phase normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	CB1121	xarm metal	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
5	IC0041	strain insulator	4	ea	
6	CE7541	dispersion plate	2	ea	
7	AB6732	Pole bolt – M16 x 550	2	ea	
8	AB4677	20dia bolt 150 long	3	ea	

HV10_2H		In line strain / DOF's_2 phase high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	CB1121	xarm metal	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
5	IC0041	strain insulator	4	ea	
6	CE7541	dispersion plate	2	ea	
7	AB6732	Pole bolt – M16 x 550	2	ea	
8	AB4677	20dia bolt 150 long	3	ea	
9	IC0083	standoff insulator	2	ea	
10	AB2957	Bolt M12 x 30	4	ea	
11	CB0481	DOF Line post bracket	2	ea	
12	AB4567	12dia bolt 150 long	4	ea	

HV10_2E		In line strain / DOF's_2 phase extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	CB1121	xarm metal	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
5	IC0031	strain insulator	4	ea	
6	CE7541	dispersion plate	2	ea	
7	AB6732	Pole bolt – M16 x 550	2	ea	
8	AB4677	20dia bolt 150 long	3	ea	
9	IC0083	standoff insulator	3	ea	
10	AB2957	Bolt M12 x 30	6	ea	
11	CB0481	DOF Line post bracket	3	ea	
12	AB4567	12dia bolt 150 long	6	ea	

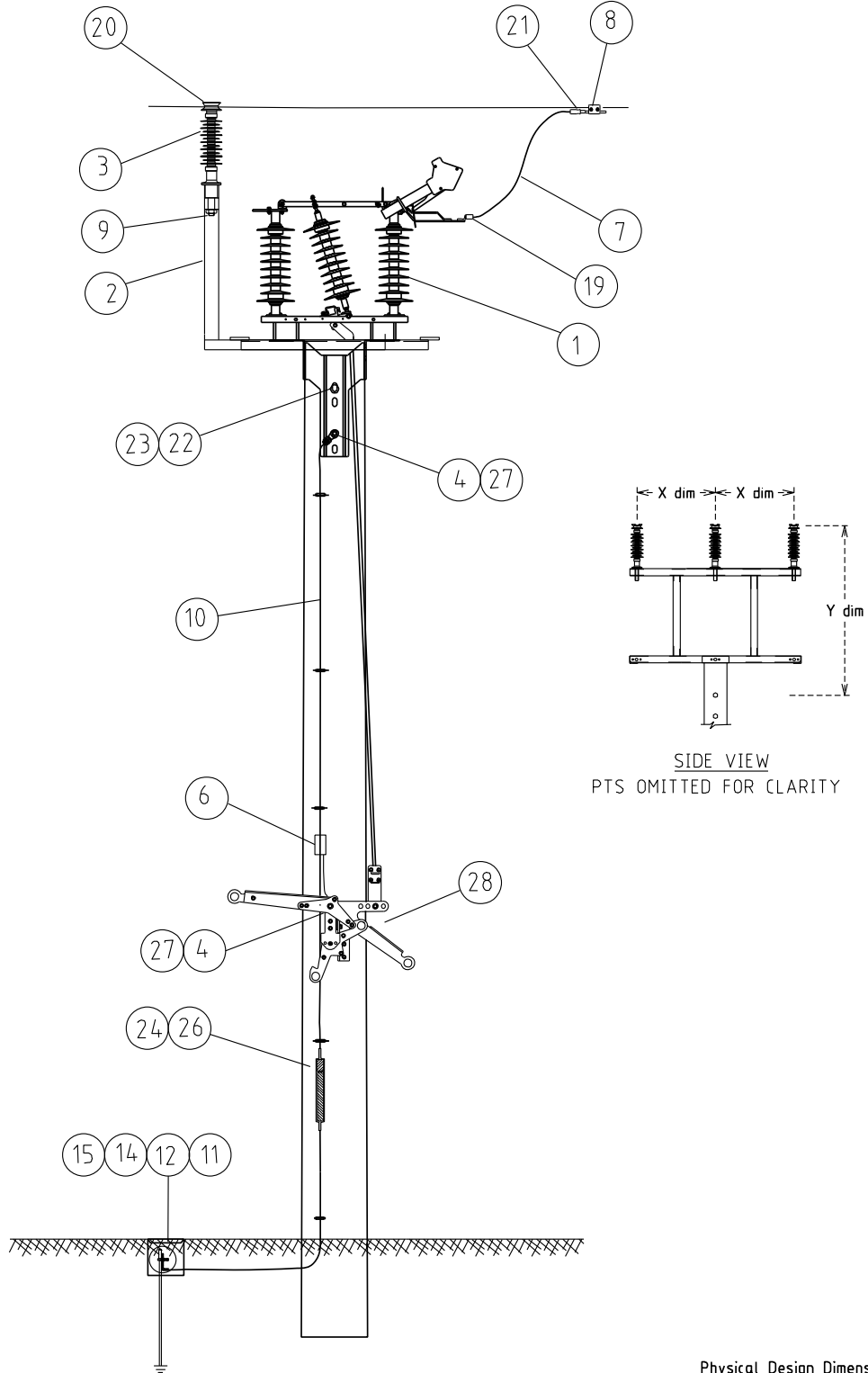
CU	CU Description
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HV10_3N		In line strain / DOF's_ 3 phase normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
1	AB6025	16dia eyebolt 400 long	2	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	CB1121	xarm metal	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
5	IC0041	strain insulator	6	ea	
6	CE7541	dispersion plate	2	ea	
7	AB6732	Pole bolt – M16 x 550	1	ea	
8	AB4677	20dia bolt 150 long	3	ea	

HV10_3H		In line strain / DOF's_ 3 phase high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
1	AB6025	16dia eyebolt 400 long	2	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	CB1121	xarm metal	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
5	IC0041	strain insulator	6	ea	
6	CE7541	dispersion plate	2	ea	
7	AB6732	Pole bolt – M16 x 550	1	ea	
8	AB4677	20dia bolt 150 long	3	ea	
9	IC0083	standoff insulator	3	ea	
10	AB2957	Bolt M12 x 30	6	ea	
11	CB0481	DOF Line post bracket	3	ea	
12	AB4567	12dia bolt 150 long	6	ea	

CU	CU Description
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HV10_3E		In line strain / DOF's_ 3 phase extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	4	ea	
1	AB6025	16dia eyebolt 400 long	2	ea	
2	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
3	CB1121	xarm metal	1	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
5	IC0031	strain insulator	6	ea	
6	CE7541	dispersion plate	2	ea	
7	AB6732	Pole bolt – M16 x 550	1	ea	
8	AB4677	20dia bolt 150 long	3	ea	
9	IC0083	standoff insulator	3	ea	
10	AB2957	Bolt M12 x 30	6	ea	
11	CB0481	DOF Line post bracket	3	ea	
12	AB4567	12dia bolt 150 long	6	ea	



SIDE VIEW
PTS OMITTED FOR CLARITY

- NOTES:-
 1. FOR PTS ROD EXTENSION APPROX. 1200mm LONG
 STOCK CODE: CB7563 IF REQUIRED FIT MID POLE MECH TO CLEAR.
 2. FOR CONCRETE POLES USE CB7570 BRACKET KIT.

Physical Design Dimensions
PTS

Phase	X dim	Y dim
left	1050	2100
centre	0	2100
right	1050	2100

Origin - Top bolt (0:0)

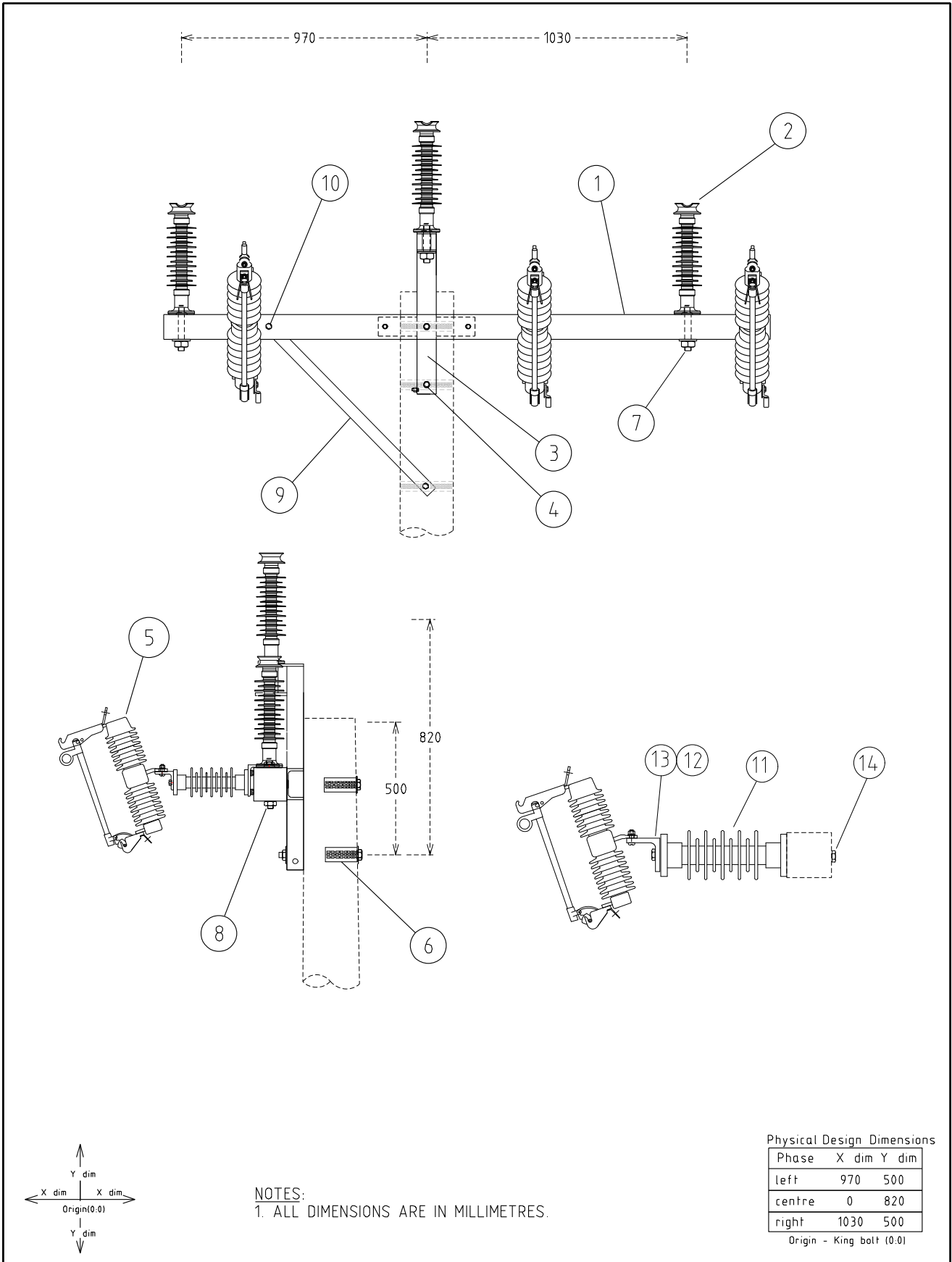
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				COMBINATION P.T.S.			DRAWN: JRR		DATE: 10-04-2014	
							ORIGINATED:		SCALE: NTS	
							CHECKED: JC		DRG. No. HV11	
							APPROVED:		REV. P	
							GRANT STACY		SHY.	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD					
P	31.10.18	NOTE 2 ADDED	REE	NN	GS					
N	09.01.18	22kV PTS DETAILS DELETED	REE	JC	GS					
M	21.12.17	EARTHING SYSTEM REVISED	REE	JC	GS					
L	01.12.17	ROD EXTENSION DETAILS REVISED	REE	NMc	GS					

CU	CU Description
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HV11 Combination PTS normal & high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0130	pole top switch supplied with nuts & bolts	1	ea	
2	CB0474	raiser frame	1	ea	
3	IC0086	line post insulator	3	ea	
4	FL0401	Bimetal lug 95mm	2	ea	
6	CC0081	IPC	1	ea	
7	FT0150	150 ABC 3m long	1	ea	
8	CC0138	parallel groove clamp	3	ea	
9	AB4822	insulator stud	3	ea	
10	FM0915	earthing kit	1	ea	
11	CE0058	earthing rod clamp	1	ea	
12	CE0078	earthing coupling	5	ea	
14	CE0135	earthing rod section	6	ea	
15	CE0201	earthing terminal box	1	ea	
19	FL0402	lug bi metal 12dia hole 150ABC	3	ea	
20	CT0164	wire tie aluminium	3	ea	
21	CJ0496	splice 150 ABC	3	ea	
22	AB6742	Pole bolt – M20 x 550	2	ea	
23	CE7541	dispersion plate	2	ea	
24	CJ0498	Stalk lug copper	1	ea	
26	FE0055	Heat shrink	1	ea	
27	AB2958	Bolt M12 x 35mm stn steel	2	ea	
	AN1495	Nut M12	2	ea	
	AW2429	Split Washer	2	ea	
	AW2607	Washer	2	ea	
28	AB6741	Bolt M12 x 400	2	ea	

CU	CU Description
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HV11_E		Combination PTS extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0130	pole top switch supplied with nuts & bolts	1	ea	
2	CB0474	raiser frame	1	ea	
3	IF0001	line post insulator	3	ea	
4	FL0401	Bimetal lug 95mm	2	ea	
6	CC0081	IPC	1	ea	
7	FT0150	150 ABC 3m long	1	ea	
8	CC0138	parallel groove clamp	3	ea	
9	AB4822	insulator stud	3	ea	
10	FM0915	earthing kit	1	ea	
11	CE0058	earthing rod clamp	1	ea	
12	CE0078	earthing coupling	5	ea	
14	CE0135	earthing rod section	6	ea	
15	CE0201	earthing terminal box	1	ea	
19	FL0402	lug bi metal 12dia hole 150ABC	3	ea	
20	CT0164	wire tie aluminium	3	ea	
21	CJ0496	splice 150 ABC	3	ea	
22	AB6742	Pole bolt – M20 x 550	2	ea	
23	CE7541	dispersion plate	2	ea	
24	CJ0498	Stalk lug copper	1	ea	
26	FE0055	Heat shrink	1	ea	
27	AB2958	Bolt M12 x 35mm stn steel	2	ea	
	AN1495	Nut M12	2	ea	
	AW2429	Split Washer	2	ea	
	AW2607	Washer	2	ea	
28	AB6741	Bolt M12 x 400	2	ea	

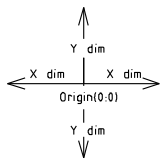


NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES.

Physical Design Dimensions

Phase	X dim	Y dim
left	970	500
centre	0	820
right	1030	500

Origin - King bolt (0:0)



				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR DATE: 10-04-2014		DRG. No.	
				OFFSET INTERMEDIATE WITH DROP OUT FUSES			ORIGINATED: SCALE: NTS		HV12	
							CHECKED: REE		REV. J	
							APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRD.					
J	10.07.18	STAND-OFF INSULATOR DETAILS AND NOTES REVISED	JC	REE	GS					
H	22.12.17	PHYSICAL DESIGN DIMENSION REVISED	NMc	REE	GS					
G	10.04.13	ORIGINAL ISSUE								



CU	CU Description
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HV12_2N	Intermediate off set / DOF_2 ph normal
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ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	IC0086	line post insulator	2	ea	
3	CR1039	raiser bracket	1	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
6	CE7541	dispersion plate	3	ea	
7	AB4822	insulator stud	2	ea	
8	AB4677	20dia bolt 150 long	3	ea	
9	CB0485	Bracing Strap	1	ea	
10	AB4614	Bolt M16x150mm	1	ea	

HV12_2H	Intermediate off set / DOF_2 phase high
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ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	IC0086	line post insulator	2	ea	
3	CR1039	raiser bracket supplied with nuts & bolts	1	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
6	CE7541	dispersion plate	3	ea	
7	AB4822	insulator stud	2	ea	
8	AB4677	20dia bolt 150 long	3	ea	
9	CB0485	Bracing Strap	1	ea	
10	AB4614	Bolt M16x150mm	1	ea	
11	IC0083	standoff insulator	2	ea	
12	AB2957	Bolt M12 x 30	4	ea	
13	CB0481	DOF Line post bracket	2	ea	
14	AB4567	12dia bolt 150 long	4	ea	

CU	CU Description
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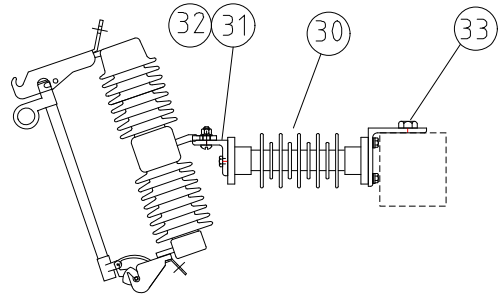
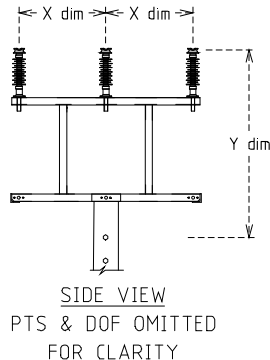
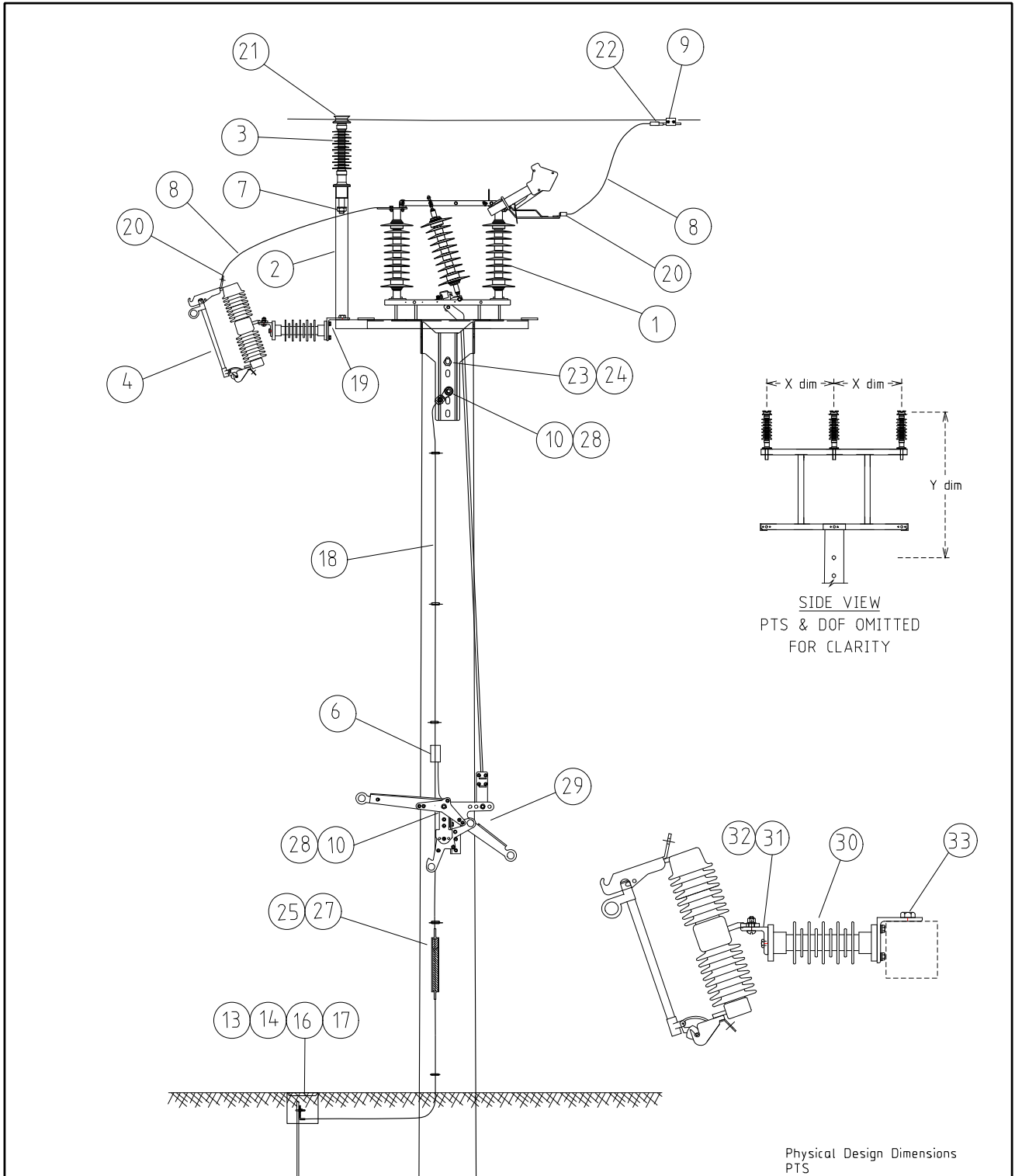
HV12_2E Intermediate off set / DOF_2 ph extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	IF0001	line post insulator	2	ea	
3	CR1039	raiser bracket supplied with nuts & bolts	1	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
6	CE7541	dispersion plate	3	ea	
7	AB4822	insulator stud	2	ea	
8	AB4677	20dia bolt 150 long	3	ea	
9	CB0485	Bracing Strap	1	ea	
10	AB4614	Bolt M16x150mm	1	ea	
11	IC0083	standoff insulator	2	ea	
12	AB2957	Bolt M12 x 30	4	ea	
13	CB0481	DOF Line post bracket	2	ea	
14	AB4567	12dia bolt 150 long	4	ea	

HV12_3N Intermediate off set / DOF_3ph normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	IC0086	line post insulator	3	ea	
3	CR1039	raiser bracket supplied with nuts & bolts	1	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
6	CE7541	dispersion plate	3	ea	
7	AB4822	insulator stud	3	ea	
8	AB4677	20dia bolt 150 long	3	ea	
9	CB0485	Bracing Strap	1	ea	
10	AB4614	Bolt M16x150mm	1	ea	

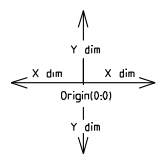
CU	CU Description
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HV12_3H		Intermediate off set / DOF_3 phase high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	IC0086	line post insulator	3	ea	
3	CR1039	raiser bracket supplied with nuts & bolts	1	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
6	CE7541	dispersion plate	3	ea	
7	AB4822	insulator stud	3	ea	
8	AB4677	20dia bolt 150 long	3	ea	
9	CB0485	Bracing Strap	1	ea	
10	AB4614	Bolt M16x150mm	1	ea	
11	IC0083	standoff insulator	3	ea	
12	AB2957	Bolt M12 x 30	6	ea	
13	CB0481	DOF Line post bracket	3	ea	
14	AB4567	12dia bolt 150 long	6	ea	

HV12_3E		Intermediate off set / DOF_3ph extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm metal	1	ea	
2	IF0001	line post insulator	3	ea	
3	CR1039	raiser bracket supplied with nuts & bolts	1	ea	
4	AB6732	Pole bolt – M16 x 550	3	ea	
5		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
6	CE7541	dispersion plate	3	ea	
7	AB4822	insulator stud	3	ea	
8	AB4677	20dia bolt 150 long	3	ea	
9	CB0485	Bracing Strap	1	ea	
10	AB4614	Bolt M16x150mm	1	ea	
11	IC0083	standoff insulator	3	ea	
12	AB2957	Bolt M12 x 30	6	ea	
13	CB0481	DOF Line post bracket	3	ea	
14	AB4567	12dia bolt 150 long	6	ea	



- NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. FOR PTS ROD EXTENSION APPROX. 1200mm LONG STOCK CODE: CB7563 IF REQUIRED FIT MID POLE MECH TO CLEAR.
 3. RAISER FRAME INSTALLED ON THE OPPOSITE SIDE OF THE LOAD BREAK HEAD.
 4. FOR CONCRETE POLES USE CB7570 BRACKET KIT.



Physical Design Dimensions
PTS

Phase	X dim	Y dim
left	1050	2100
centre	0	2100
right	1050	2100

Origin - Top bolt (0-0)

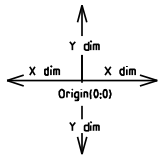
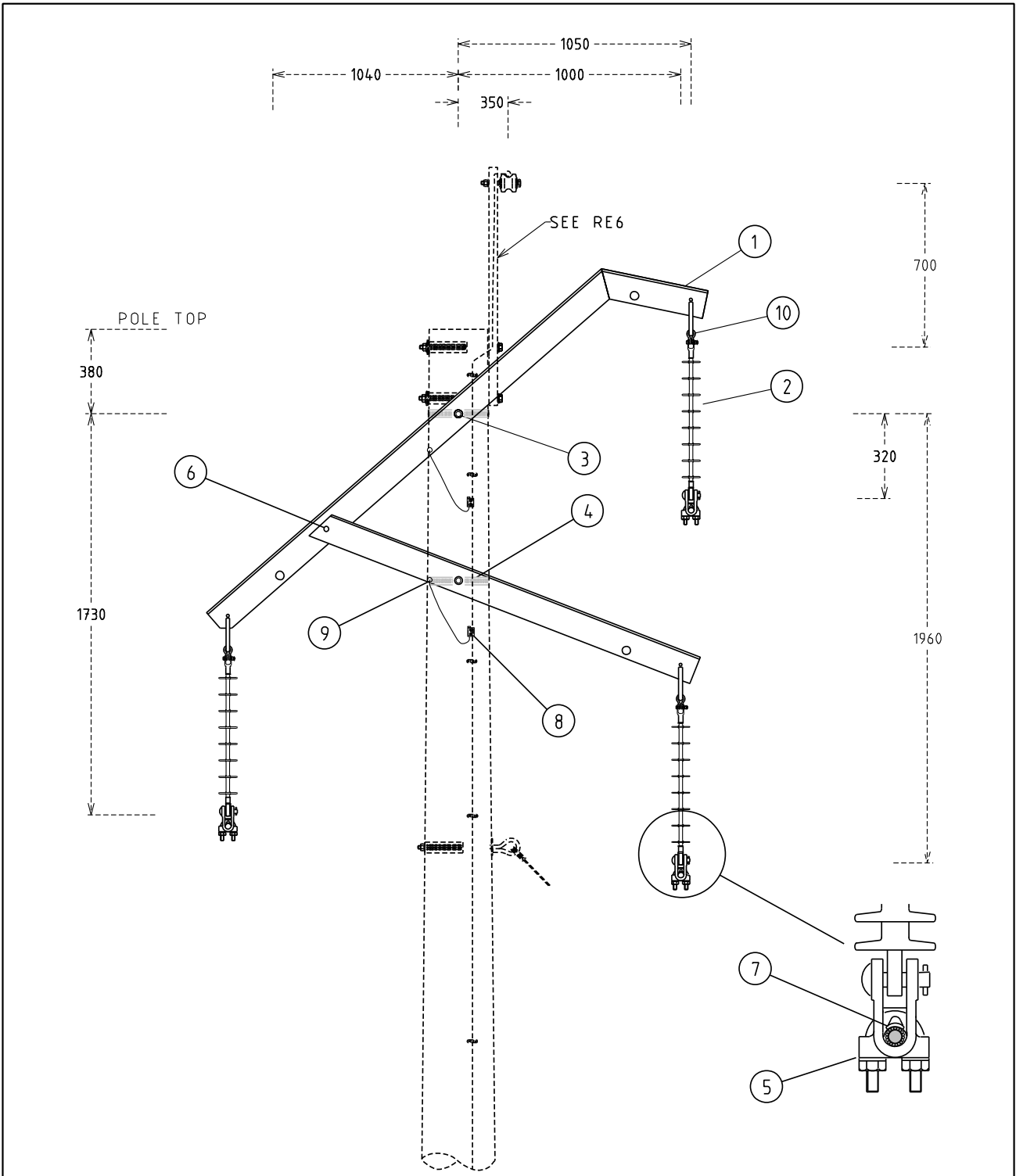
				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE		westernpower		
Q	31.10.18	NOTE 4 ADDED	REE	NN	GS	TITLE	DRAWN: JRR	DATE: 10-04-2014	DRG. No.	HV13	
P	10.07.18	STAND-OFF INSULATOR DETAILS AND NOTES REVISED	JC	REE	GS	COMBINATION P.T.S WITH DROP OUT FUSES	ORIGINATED: REE	SCALE: NTS	REV. Q		
N	09.01.18	22kV PTS DELETED	REE	JC	GS		CHECKED: REE	GRANT STACY			SHT.
M	21.12.17	EARTHING SYSTEM REVISED	REE	JC	GS		APPROVED: REE				
L	01.12.17	ROD EXTENSION DETAILS REVISED	REE	JC	GS						
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.						

CU	CU Description
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HV13		Combination PTS with DOF's normal & high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0130	pole top switch supplied with nuts & bolts	1	ea	
2	CB0474	raiser frame	1	ea	
3	IC0086	line post insulator	3	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
6	CC0081	IPC	1	ea	
7	AB4822	insulator stud	3	ea	
8	FT0150	lead 150 ABC 3m long	2	ea	
9	CC0138	parallel groove clamp	3	ea	
10	FL0401	Bimetal lug 95mm	2	ea	
13	CE0058	earthing rod clamp	1	ea	
14	CE0078	earthing coupling rod	5	ea	
16	CE0135	earthing rod section	6	ea	
17	CE0201	earthing terminal box	1	ea	
18	FM0915	earthing kit	1	ea	
19	AB4562	M12 bolt 100mm	3	ea	
19	AB4677	M20 bolt 150mm	3	ea	
20	FL0402	lug bi metal 150 ABC	9	ea	
21	CT0164	wire tie aluminium	3	ea	
22	CJ0496	splice aluminium 150 ABC	3	ea	
23	AB6742	Pole bolt – M20 x 550	2	ea	
24	CE7541	dispersion plate	2	ea	
25	CJ0498	Stalk lug copper	1	ea	
27	FE0055	Heat shrink	1	ea	
28	AB2958	Bolt M12 x 35mm stn steel	2	ea	
	AN1495	Nut M12	2	ea	
	AW2429	Split Washer	2	ea	
	AW2607	Washer	2	ea	
29	AB6741	Bolt M12 x 400	2	ea	

CU	CU Description
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HV13_E		Combination PTS with DOF's extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0130	pole top switch supplied with nuts & bolts	1	ea	
2	CB0474	raiser frame	1	ea	
3	IF0001	line post insulator	3	ea	
4		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
6	CC0081	IPC	1	ea	
7	AB4822	insulator stud	3	ea	
8	FT0150	lead 150 ABC 3m long	2	ea	
9	CC0138	parallel groove clamp	3	ea	
10	FL0401	Bimetal lug 95mm	2	ea	
13	CE0058	earthing rod clamp	1	ea	
14	CE0078	earthing coupling rod	5	ea	
16	CE0135	earthing rod section	6	ea	
17	CE0201	earthing terminal box	1	ea	
18	FM0915	earthing kit	1	ea	
19	AB4562	M12 bolt 100mm	3	ea	
19	AB4677	M20 bolt 150mm	3	ea	
20	FL0402	lug bi metal 150 ABC	9	ea	
21	CT0164	wire tie aluminium	3	ea	
22	CJ0496	splice aluminium 150 ABC	3	ea	
23	AB6742	Pole bolt – M20 x 550	2	ea	
24	CE7541	dispersion plate	2	ea	
25	CJ0498	Stalk lug copper	1	ea	
27	FE0055	Heat shrink	1	ea	
28	AB2958	Bolt M12 x 35mm stn steel	2	ea	
	AN1495	Nut M12	2	ea	
	AW2429	Split Washer	2	ea	
	AW2607	Washer	2	ea	
29	AB6741	Bolt M12 x 400	2	ea	
30	IC0083	standoff insulator	3	ea	
31	AB2957	Bolt M12 x 30	12	ea	
32	CB0481	DOF Line post bracket	6	ea	
33	AB4567	12dia bolt 150 long	3	ea	



Running Earth Dimensions

	X dim	Y dim
Overhead	350	700

Origin - Top bracket bolt (0:0)

Physical Design Dimensions

Phase	X dim	Y dim
left	1040	1730
top	1050	320
right	1000	1960

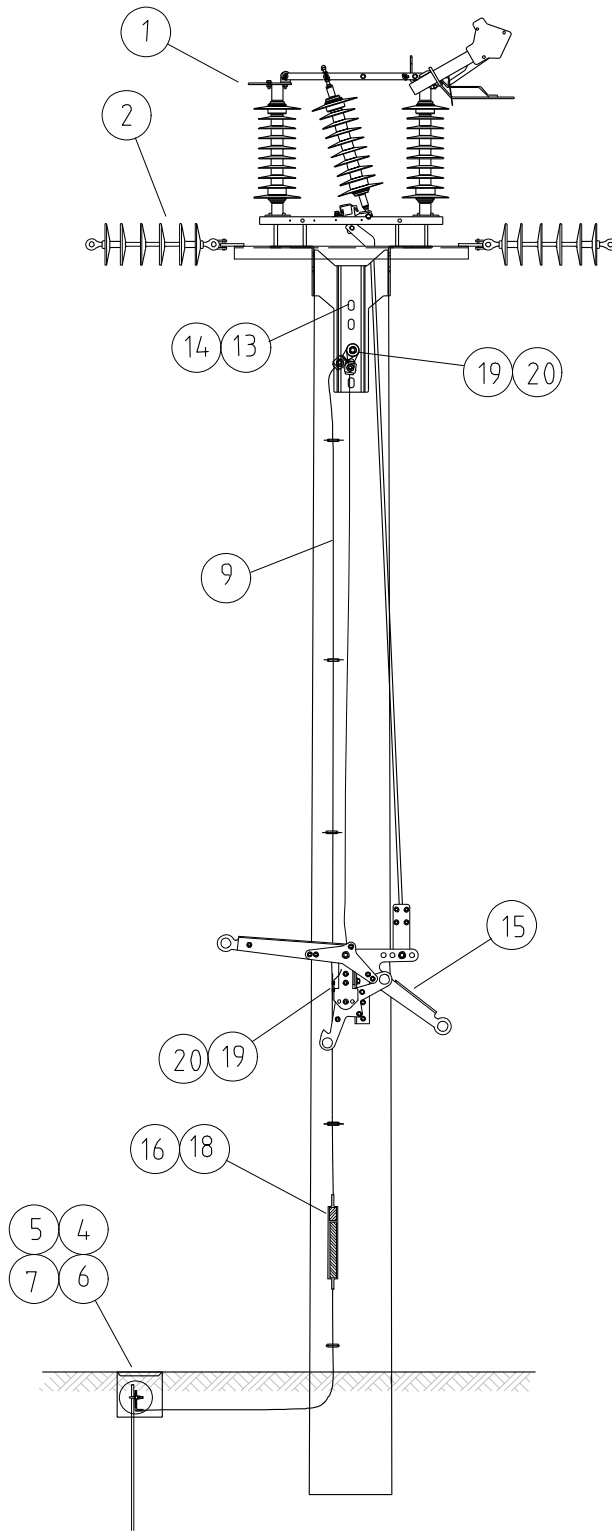
Origin - Top X-arm bolt (0:0)

COMPATIBLE UNIT				DISTRIBUTION DESIGN CATALOGUE		westernpower	
TITLE				DRAWN: JRR		DATE: 10-04-2014	
INTERMEDIATE WISHBONE				ORIGINATED:		SCALE: NTS	
REV				CHECKED: REE		DRG. No. HV18	
DATE				APPROVED: GRANT STACY		REV. G	
DESCRIPTION				ORGO		CHKD	
APRO							

CU	CU Description
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HV18 Intermediate wishbone normal & high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB0110	xarm wishbone supplied with nuts and bolts	1	ea	
2	IC0041	strain insulator	3	ea	
3	AB6737	Pole bolt – M20 x 400mm	2	ea	
4	CE7541	dispersion plate	2	ea	
5	CC0175	Suspension clamp	3	ea	
6	AB4663	Bolt M20X50mm	1	ea	
7		Armour rod to match conductor	3	ea	Select from CN 18
8	CC0081	IPC	2	ea	Order by Designer/construction crew if down earth on the pole
9	CJ0494	Al Tail stalk lug 95	2	ea	
10	OS0055	Shackle	3	ea	

HV18_E Intermediate wishbone extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB0110	xarm wishbone supplied with nuts and bolts	1	ea	
2	IC0031	strain insulator	3	ea	
3	AB6737	Pole bolt – M20 x 400mm	2	ea	
4	CE7541	dispersion plate	2	ea	
5	CC0175	Suspension clamp	3	ea	
6	AB4663	Bolt M20X50mm	1	ea	
7		Armour rod to match conductor	3	ea	Select from CN 18
8	CC0081	IPC	2	ea	Order by Designer/construction crew if down earth on the pole
9	CJ0494	Al Tail stalk lug 95	2	ea	
10	OS0055	Shackle	3	ea	



NOTES:-
 1. FOR PTS HANDLE EXTENSION APPROX. 1.2m LONG
 STOCK CODE: CB7568 IF REQUIRED, FIT MID POLE MECH TO CLEAR.
 2. FOR CONCRETE POLES USE CB7570 BRACKET KIT.

Physical Design Dimensions
 PTS

Phase	X dim	Y dim
left	946	230
centre	0	230
right	946	230

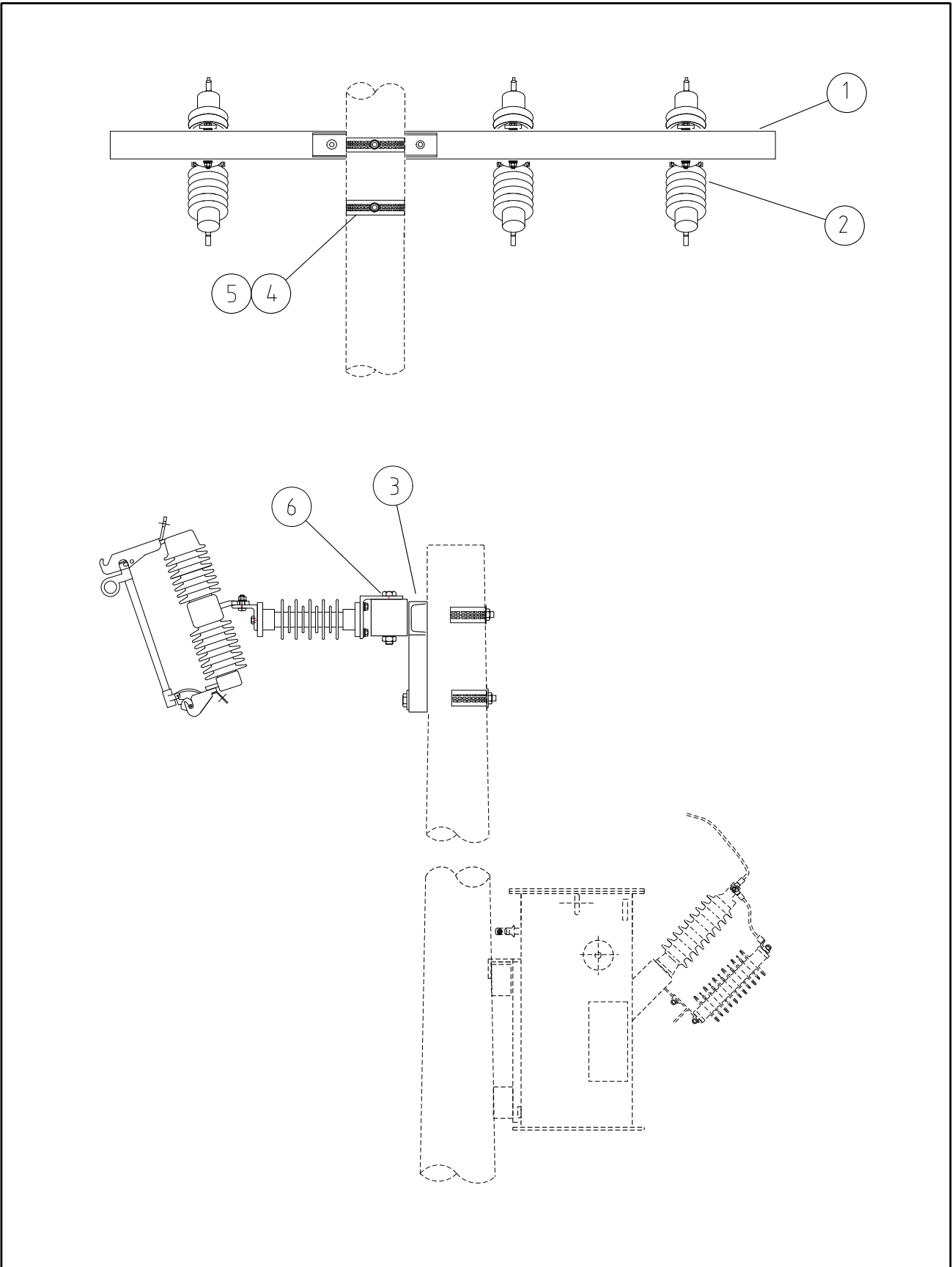
Origin - Top bolt (0:0)

REV	DATE	DESCRIPTION	ORGO	CHKD	APRD	TITLE	DISTRIBUTION DESIGN CATALOGUE		westernpower	
R	29.11.18	EARTHING SYSTEM CHANGED	REE	NN	GS	COMPATIBLE UNIT POLE TOP SWITCH	DRAWN: JRR	DATE: 10-04-2014	DRG. No.	
Q	31.10.18	NOTE 2 ADDED	REE	NN	GS		ORIGINATED:	SCALE: NTS	HV19	
P	09.01.18	22kV PTS DELETED	REE	JC	GS		CHECKED: REE	REV. R		SHT.
N	22.12.17	EARTHING SYSTEM MODIFIED	REE	JC	GS		APPROVED: GRANT STACY			
M	20.11.17	TABLES REVISED	REE	JC	GS					

CU	CU Description
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HV19 Pole Top Switch normal and high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0130	pole top switch	1	ea	
2	IC0018	strain insulator	6	ea	
4	CE0058	earthing rod clamp	1	ea	
5	CE0078	earthing rod coupling	5	ea	
6	CE0135	earthing rod section	6	ea	
7	CE0201	earthing terminal box	1	ea	
9	FM0915	earthing kit	2	ea	
13	AB6742	Pole bolt - M20 x 550	2	ea	
14	CE7541	Dispersion plate	2	ea	
15	AB6741	Bolt M12 x 400	2	ea	
16	CJ0498	Stalk lug	1	ea	
18	FE0055	Heat shrink	1	ea	
19	FL0401	Bimetal lug	3	ea	
20	AB2958	Bolt M12 x 35mm stn steel	2	ea	
	AN1495	Nut M12	2	ea	
	AW2429	Split Washer	2	ea	
	AW2607	Washer	2	ea	

HV19_E Pole Top Switch extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0130	pole top switch	1	ea	
2	IC0031	strain insulator	6	ea	
4	CE0058	earthing rod clamp	1	ea	
5	CE0078	earthing rod coupling	5	ea	
6	CE0135	earthing rod section	6	ea	
7	CE0201	earthing terminal box	1	ea	
9	FM0915	earthing kit	2	ea	
13	AB6742	Pole bolt - M20 x 550	2	ea	
14	CE7541	Dispersion plate	2	ea	
15	AB6741	Bolt M12 x 400	2	ea	
16	CJ0498	Stalk lug	1	ea	
18	FE0055	Heat shrink	1	ea	
19	FL0401	Bimetal lug	3	ea	
20	AB2958	Bolt M12 x 35mm stn steel	2	ea	
	AN1495	Nut M12	2	ea	
	AW2429	Split Washer	2	ea	
	AW2607	Washer	2	ea	

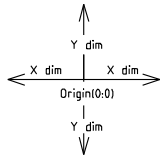
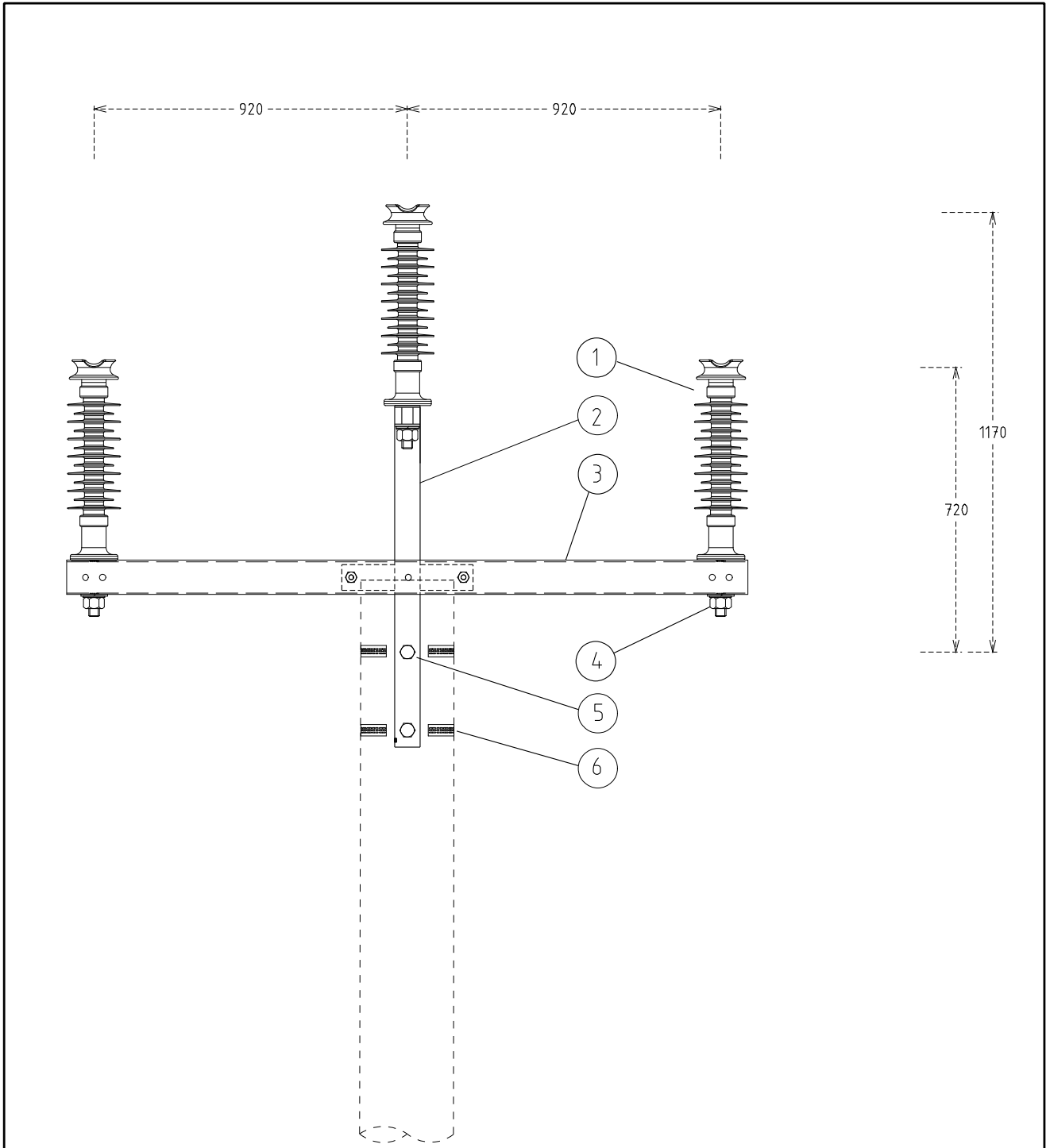


				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE			
				TITLE		DRAWN: JRR DATE: 10-04-2014 DRG. No.		HV20	
				D.O.FUSE CROSSARM FOR INTERMEDIATE TRANSFORMER		ORIGINATED: SCALE: NTS			
						CHECKED: REE		REV. SHT.	
						APPROVED: GRANT STACY		B	
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRD.				
B	12.02.19	STAND-OFF INSULATOR REVISED	NMc	NN	GS				
A	13.07.09	ORIGINAL ISSUE							

CU	CU Description
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HV20_2H		DOF xarm for interm TX_2phase high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm steel	1	ea	
2		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4	AB6732	M16x550 pole bolt	2	ea	
5	CE7541	dispersion plate	2	ea	
6	AB4677	M20x150 bolt	3	ea	

HV20_3H		DOF xarm for interm TX_3phase high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB1121	xarm steel	1	ea	
2		select from HV51 (EDO) or HV52 (Fault Tamer)	3	ea	See Note 2, Page 4
3	CB3025	xarm bracket supplied with nuts & bolts	1	ea	
4	AB6732	M16x550 pole bolt	2	ea	
5	CE7541	dispersion plate	2	ea	
6	AB4677	M20x150 bolt	3	ea	



NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES.

Physical Design Dimensions

Phase	X dim	Y dim
left	920	720
centre	0	1170
right	920	720

Origin - King bolt (0:0)

				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR		DATE: 11-04-2014	
				INTERMEDIATE EXTENDED RAISER			ORIGINATED:		SCALE: NTS	
							CHECKED: REE		DRG. No. HV21	
							APPROVED: GRANT STACY		REV. D	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					
D	22.12.17	PHYSICAL DESIGN DIMENSION REVISED	NMc	REE	GS					
C	30.11.15	BRACKET DETAILS REVISED & LIMITATION TABLE DELETED	AK	REE	GS					
B	10.04.13	ORIGINAL ISSUE								

CU	CU Description
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HV21_2N Intermediate extended raiser_2ph normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	Line post insulator	2	ea	
2	CR1038	extended raiser channel with nuts and bolts	1	ea	
3	CB0116	xarm metal	1	ea	
4	AB4822	insulator stud	2	ea	
5	AB6732	Pole bolt - M16 x 550	2	ea	
6	CE7541	dispersion plate	2	ea	

HV21_2H Intermediate extended raiser_2ph high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	Line post insulator	2	ea	
2	CR1038	extended raiser channel with nuts and bolts	1	ea	
3	CB0116	xarm metal metro	1	ea	
4	AB4822	insulator stud	2	ea	
5	AB6732	Pole bolt - M16 x 550	2	ea	
6	CE7541	dispersion plate	2	ea	

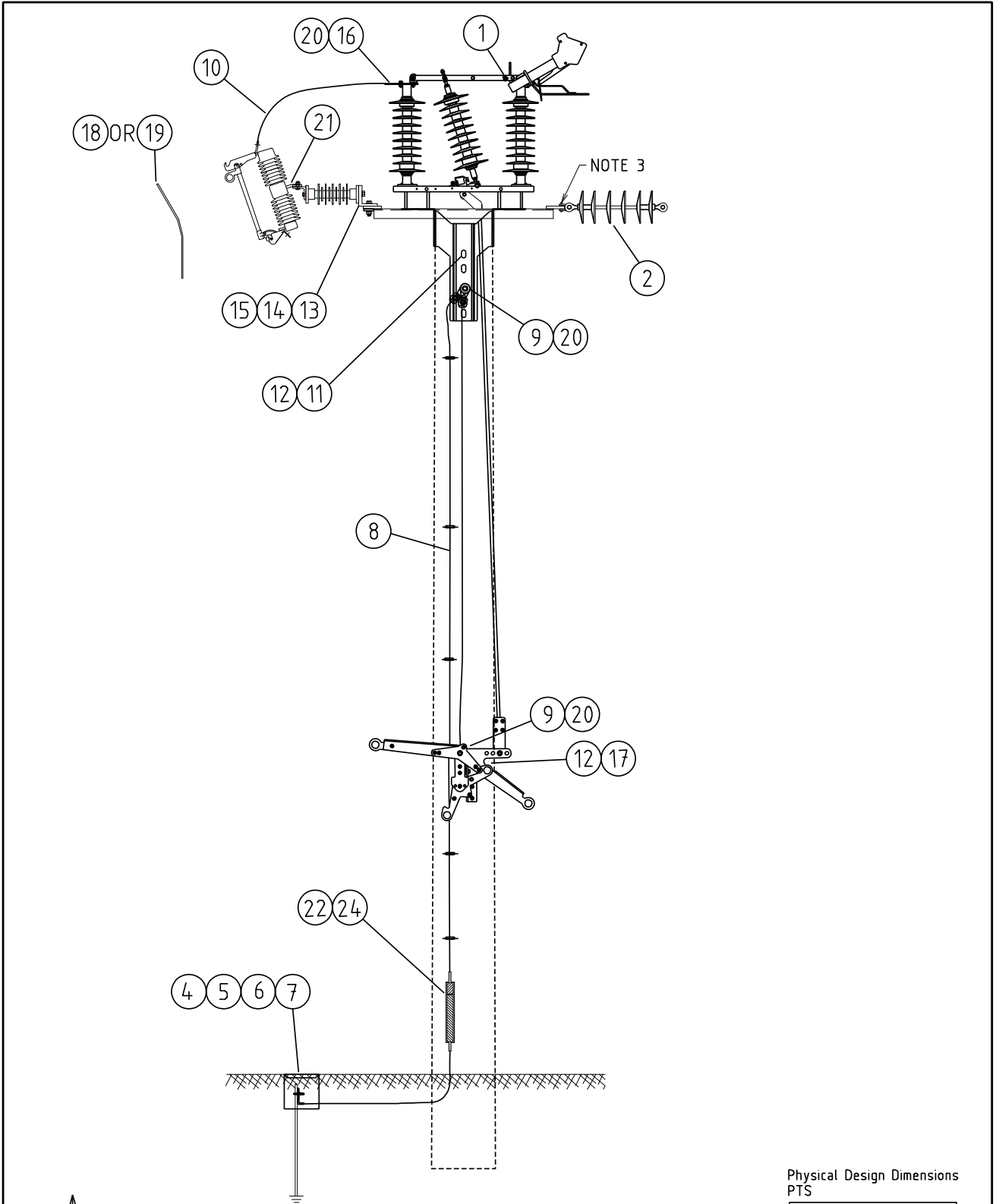
HV21_2E Intermediate extended raiser_2ph extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	Line post insulator	2	ea	
2	CR1038	extended raiser channel with nuts and bolts	1	ea	
3	CB0116	xarm metal metro	1	ea	
4	AB4822	insulator stud	2	ea	
5	AB6732	Pole bolt - M16 x 550	2	ea	
6	CE7541	dispersion plate	2	ea	

HV21_3N Intermediate extended raiser_3ph normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	Line post insulator	3	ea	
2	CR1038	extended raiser channel with nuts and bolts	1	ea	
3	CB0116	xarm metal	1	ea	
4	AB4822	insulator stud	3	ea	
5	AB6732	Pole bolt - M16 x 550	2	ea	
6	CE7541	dispersion plate	2	ea	

CU	CU Description
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HV21_3H		Intermediate extended raiser_3ph high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	Line post insulator	3	ea	
2	CR1038	extended raiser channel with nuts and bolts	1	ea	
3	CB0116	xarm metal metro	1	ea	
4	AB4822	insulator stud	3	ea	
5	AB6732	Pole bolt - M16 x 550	2	ea	
6	CE7541	dispersion plate	2	ea	

HV21_3E		Intermediate extended raiser_3ph extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	Line post insulator	3	ea	
2	CR1038	extended raiser channel with nuts and bolts	1	ea	
3	CB0116	xarm metal	1	ea	
4	AB4822	insulator stud	3	ea	
5	AB6732	Pole bolt - M16 x 550	2	ea	
6	CE7541	dispersion plate	2	ea	

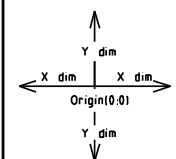


NOTES:-
 1 FOR PTS HANDLE EXTENSION APPROX 1200mm LONG
 STOCK CODE: CB7568 IF REQUIRED FIT MID POLE MECH TO CLEAR.
 2 FOR CONCRETE POLES USE CB7570 BRACKET KIT.
 3 "D" SHACKLE SUPPLIED WITH PTS.

Physical Design Dimensions
PTS

Phase	X dim	Y dim
left	946	230
centre	0	230
right	946	230

Origin - Top bolt (0:0)



REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRD.	TITLE	DISTRIBUTION DESIGN CATALOGUE	westernpower	
N	29.11.18	STAND-OFF INSULATOR LOCATION REVISED	NMc	REE	GS	COMPATIBLE UNIT TERMINATION POLE TOP SWITCH WITH / WITHOUT D.O.F	DRAWN: JRR	DATE: 10-04-2014	DRG. No.
M	09.01.18	22kV PTS DETAILS DELETED	REE	JC	GS		ORIGINATED: SCALE: NTS	HV23	
L	22.12.17	EARTHING SYSTEM REVISED	JC	REE	GS		CHECKED: REE		
K	30.11.17	NEW PTS INSTALLATION DETAILS ADDED	REE	JC	GS		APPROVED: GRANT STACY		
J	05.11.15	DROPOUT FUSE INSTALLATION METHOD REVISED	JC	REE	GS		REV. N	SHT.	



CU	CU Description
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HV23_W		Termination PTS with DOF normal & high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0130	pole top switch	1	ea	
2	IC0018	strain insulator	3	ea	
4	CE0058	earthing rod clamp	1	ea	
5	CE0078	earthing rod coupling	5	ea	
6	CE0135	earthing rod section	6	ea	
7	CE0201	earthing terminal box	1	ea	
8	FM0915	earthing kit	1	ea	
9	FL0401	lug bi metal 95 ABC	3	ea	
10	FT0150	lead 150 ABC 3m long	1	ea	
11	AB6742	Pole bolt - M20 x 550	2	ea	
12	CE7541	dispersion plate	4	ea	
13	AB2958	Bolt M12x35 S/S	12	ea	
14	IC0083	Stand-off insulator	3	ea	
15	CB0486	clamp	3	ea	
16	FL0402	lug bimetal 150 ABC	6	ea	
17	AB6741	Bolt M12 x 400	2	ea	
18		select from HV51_HIGH or HV52_HIGH	3	ea	See Note 2, Page 4
20	AB2958	Bolt M12 x 35mm stn steel	8	ea	
	AN1495	Nut M12	8	ea	
	AW2429	Split Washer	8	ea	
	AW2607	Washer	8	ea	
21	CB0481	DOF Line post bracket	3	ea	
22	CJ0498	Stalk lug copper	1	ea	
24	FE0055	Heat shrink	1	ea	

CU	CU Description
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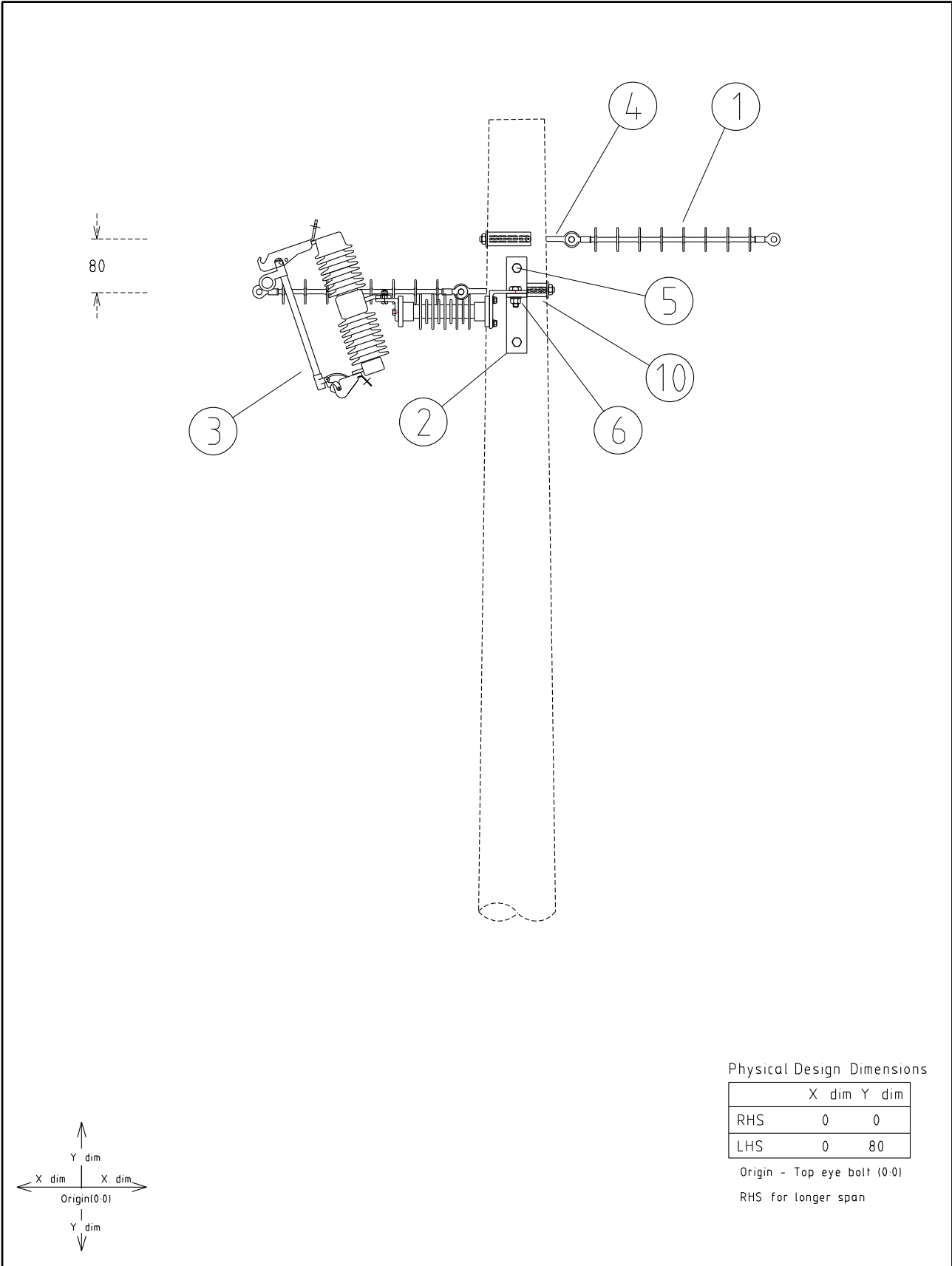
HV23_WE		Termination PTS with DOF extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0130	pole top switch	1	ea	
2	IC0031	strain insulator	3	ea	
4	CE0058	earthing rod clamp	1	ea	
5	CE0078	earthing rod coupling	5	ea	
6	CE0135	earthing rod section	6	ea	
7	CE0201	earthing terminal box	1	ea	
8	FM0915	earthing kit	1	ea	
9	FL0401	lug bi metal 95 ABC	3	ea	
10	FT0150	lead 150 ABC 3m long	1	ea	
11	AB6742	Pole bolt - M20 x 550	2	ea	
12	CE7541	dispersion plate	4	ea	
13	AB2958	Bolt M12x35 S/S	12	ea	
14	IC0083	Stand-off insulator	3	ea	
15	CB0486	clamp	3	ea	
16	FL0402	lug bimetal 150 ABC	6	ea	
17	AB6741	Bolt M12 x 400	2	ea	
18		select from HV51_HIGH or HV52_HIGH	3	ea	See Note 2, Page 4
20	AB2958	Bolt M12 x 35mm stn steel	8	ea	
	AN1495	Nut M12	8	ea	
	AW2429	Split Washer	8	ea	
	AW2607	Washer	8	ea	
21	CB0481	DOF Line post bracket	3	ea	
22	CJ0498	Stalk lug copper	1	ea	
24	FE0055	Heat shrink	1	ea	

CU	CU Description
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HV23_WO		Termination PTS without DOF normal & high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0130	pole top switch	1	ea	
2	IC0018	strain insulator	3	ea	
4	CE0058	earthing rod clamp	1	ea	
5	CE0078	earthing rod coupling	5	ea	
6	CE0135	earthing rod section	6	ea	
7	CE0201	earthing terminal box	1	ea	
8	FM0915	earthing kit	1	ea	
9	FL0401	lug bi metal 95 ABC	3	ea	
10	FT0150	lead 150 ABC 3m long	1	ea	
11	AB6742	Pole bolt - M20 x 550	2	ea	
12	CE7541	dispersion plate	4	ea	
13	AB2958	Bolt M12x35 S/S	12	ea	
14	IC0083	Stand-off insulator	3	ea	
15	CB0486	clamp	3	ea	
16	FL0402	lug bimetal 150 ABC	6	ea	
17	AB6741	Bolt M12 x 400	2	ea	
19	GF2134	Connector plate	3	ea	
20	AB2958	Bolt M12 x 35mm stn steel	8	ea	
	AN1495	Nut M12	8	ea	
	AW2429	Split Washer	8	ea	
	AW2607	Washer	8	ea	
22	CJ0498	Stalk lug copper	1	ea	
24	FE0055	Heat shrink	1	ea	

CU	CU Description
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HV23_WOE		Termination PTS without DOF extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0130	pole top switch	1	ea	
2	IC0031	strain insulator	3	ea	
4	CE0058	earthing rod clamp	1	ea	
5	CE0078	earthing rod coupling	5	ea	
6	CE0135	earthing rod section	6	ea	
7	CE0201	earthing terminal box	1	ea	
8	FM0915	earthing kit	1	ea	
9	FL0401	lug bi metal 95 ABC	3	ea	
10	FT0150	lead 150 ABC 3m long	1	ea	
11	AB6742	Pole bolt - M20 x 550	2	ea	
12	CE7541	dispersion plate	4	ea	
13	AB2958	Bolt M12x35 S/S	12	ea	
14	IC0083	Stand-off insulator	3	ea	
15	CB0486	clamp	3	ea	
16	FL0402	lug bimetal 150 ABC	6	ea	
17	AB6741	Bolt M12 x 400	2	ea	
19	GF2134	Connector plate	3	ea	
20	AB2958	Bolt M12 x 35mm stn steel	8	ea	
	AN1495	Nut M12	8	ea	
	AW2429	Split Washer	8	ea	
	AW2607	Washer	8	ea	
22	CJ0498	Stalk lug copper	1	ea	
24	FE0055	Heat shrink	1	ea	



Physical Design Dimensions

	X dim	Y dim
RHS	0	0
LHS	0	80

Origin - Top eye bolt (0-0)

RHS for longer span

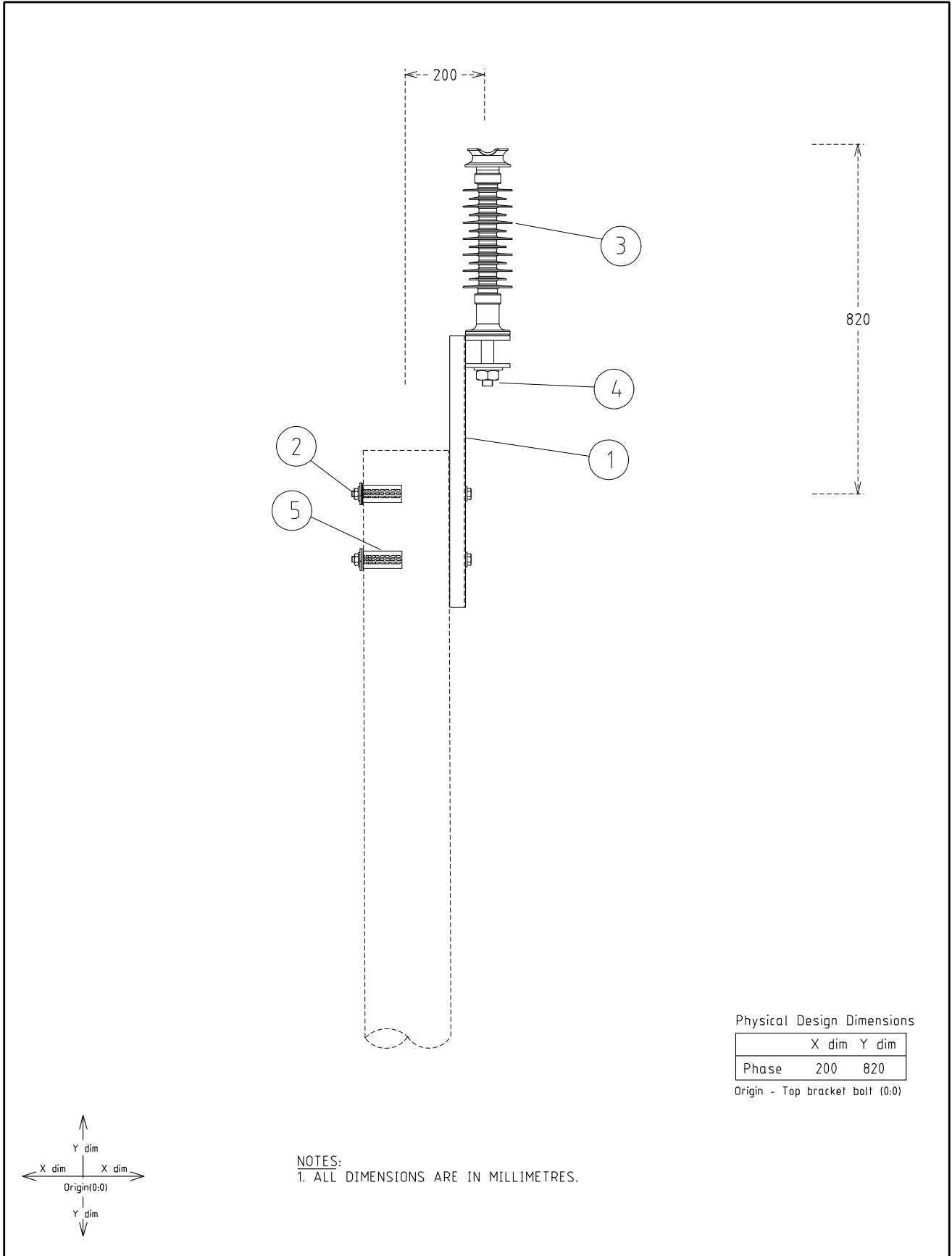
				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE			
				TITLE		DRAWN: JRR		DATE: 10-04-2014	
				1 PHASE IN LINE STRAIN WITH D.O. FUSES		ORIGINATED: SCALE: NTS		DRG. No. HV27	
						CHECKED: REE		REV. C	
						APPROVED: GRANT STACY		SHT.	
C	04.07.13	ORIGINAL ISSUE		ORGO.	CHKD.	APRD.			
REV	DATE	DESCRIPTION							

CU	CU Description
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HV27_N 1 phase in line strain / DOF's normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	2	ea	
2	CB0240	DOF support bracket rural	1	ea	
3		select from HV51 (EDO) or HV52 (Fault Tamer)	1	ea	See Note 2, Page 4
4	AB6025	16dia eyebolt 400 long	2	ea	
5	AB6732	Pole bolt - M16 x 550	2	ea	
6	AB4596	Bolt M16 x 30	1	ea	
10	CE7541	dispersion plate	2	ea	

HV27_H 1 phase in line strain / DOF's high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	2	ea	
2	CB0240	DOF support bracket rural	1	ea	
3		select from HV51 (EDO) or HV52 (Fault Tamer)	1	ea	See Note 2, Page 4
4	AB6025	16dia eyebolt 400 long	2	ea	
5	AB6732	Pole bolt - M16 x 550	2	ea	
6	AB4596	bolt M16 x 30	1	ea	
10	CE7541	dispersion plate	2	ea	

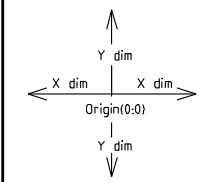
HV27_E 1 phase in line strain / DOF's extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0031	strain insulator	2	ea	
2	CB0240	DOF support bracket rural	1	ea	
3		select from HV51 (EDO) or HV52 (Fault Tamer)	1	ea	See Note 2, Page 4
4	AB6025	16dia eyebolt 400 long	2	ea	
5	AB6732	Pole bolt - M16 x 550	2	ea	
6	AB4596	bolt M16 x 30	1	ea	
10	CE7541	dispersion plate	2	ea	



Physical Design Dimensions

	X dim	Y dim
Phase	200	820
Origin - Top bracket bolt (0:0)		

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES.



				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR		DATE: 10-04-2014	
				1 PHASE INTERMEDIATE			ORIGINATED:		SCALE: NTS	
							CHECKED: REE		DRG. No. HV29	
							APPROVED: GRANT STACY		REV. D	
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRD.			SHT.		
D	22.12.17	PHYSICAL DESIGN DIMENSION REVISED	NMc	REE	GS					
C	21.03.16	FORMAT CHANGED	JC	REE	GS					
B	04.07.13	ORIGINAL ISSUE								

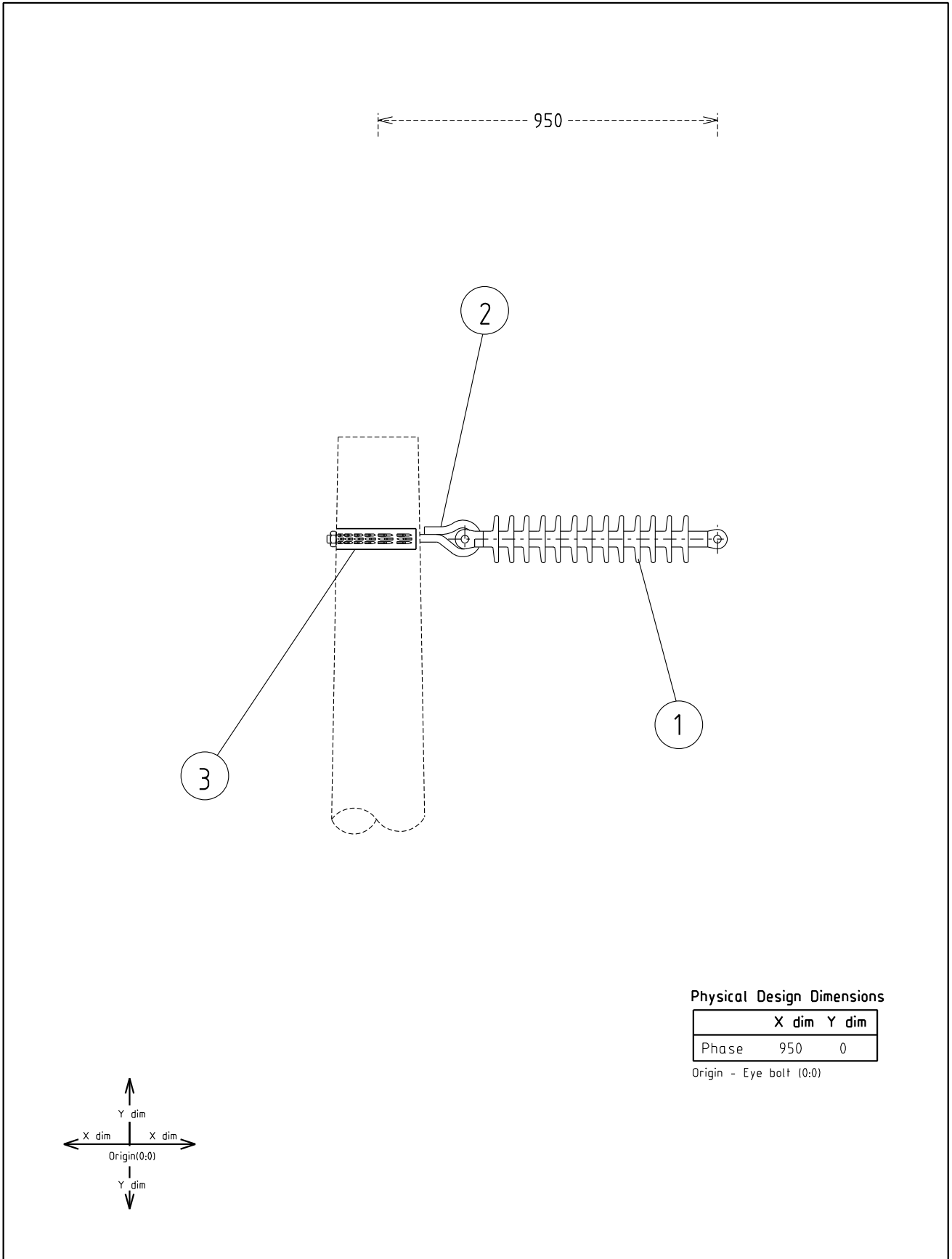


CU	CU Description
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HV29_N 1 phase intermediate normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CR1036	raiser bracket	1	ea	
2	AB6733	pole bolt – 16 dia x 400mm lg with nut and washers	2	ea	
3	IC0086	line post insulator	1	ea	
4	AB4822	insulator stud	1	ea	
5	CE7541	dispersion plate	2	ea	

HV29_H 1 phase intermediate high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CR1036	raiser bracket	1	ea	
2	AB6733	pole bolt – 16 dia x 400mm lg with nut and washers	2	ea	
3	IC0086	line post insulator	1	ea	
4	AB4822	insulator stud	1	ea	
5	CE7541	dispersion plate	2	ea	

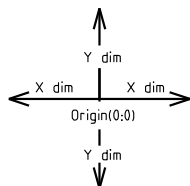
HV29_E 1 phase intermediate extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CR1036	raiser bracket	1	ea	
2	AB6733	pole bolt – 16 dia x 400mm lg with nut and washers	2	ea	
3	IF0001	line post insulator	1	ea	
4	AB4822	insulator stud	1	ea	
5	CE7541	dispersion plate	2	ea	



Physical Design Dimensions

	X dim	Y dim
Phase	950	0

Origin - Eye bolt (0:0)



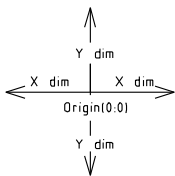
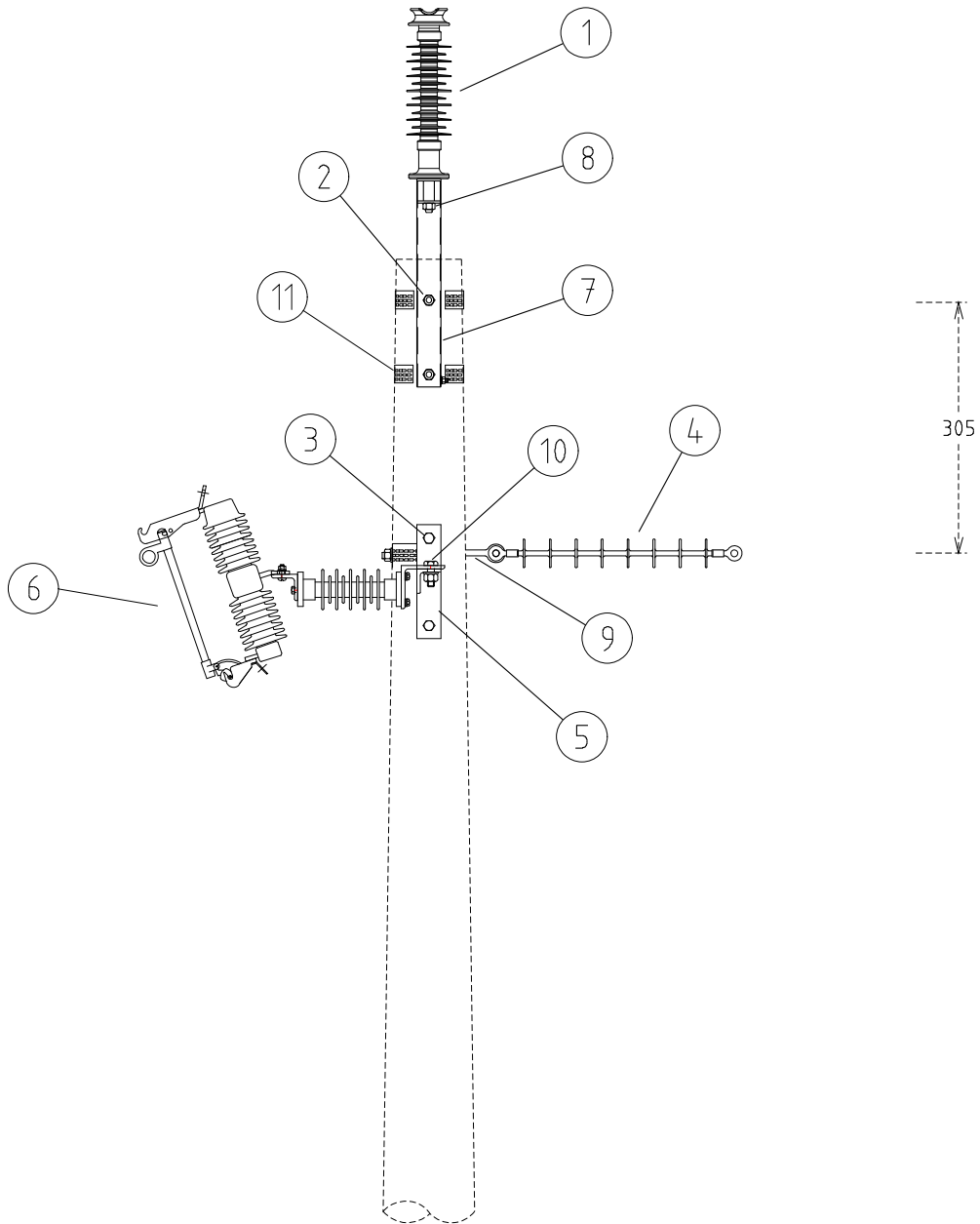
				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR		DATE: 10-04-2014	
				1 PHASE RUNNING DISC ANGLE/ TEE-OFF (INC. SLACK)			ORIGINATED:		SCALE: NTS	
							CHECKED: REE		ORG. No. HV30	
							APPROVED: GRANT STACY		REV. D	
									SHT.	
R. No.	DATE	DESCRIPTION	ORGO.	CHED.	APRD.					
B	19.12.14	FORMAT AND TITLE CHANGED	JC	REE	GS					
A	04.07.13	ORIGINAL ISSUE								

CU	CU Description
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HV30_N 1 phase RDA / Tee-off normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	1	ea	
2	AB6025	eye bolt 16mm dia 400mm	1	ea	
3	CE7541	dispersion plate	1	ea	

HV30_H 1 phase RDA / Tee-off high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	1	ea	
2	AB6025	eye bolt 16mm dia 400mm	1	ea	
3	CE7541	dispersion plate	1	ea	

HV30_E 1 phase RDA / Tee-off extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0031	strain insulator	1	ea	
2	AB6025	eye bolt 16mm dia 400mm	1	ea	
3	CE7541	dispersion plate	1	ea	



Physical Design Dimensions

	X dim	Y dim
Phase	0	305

Origin - Top bracket bolt (0.0)

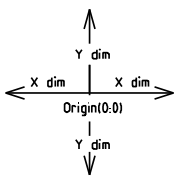
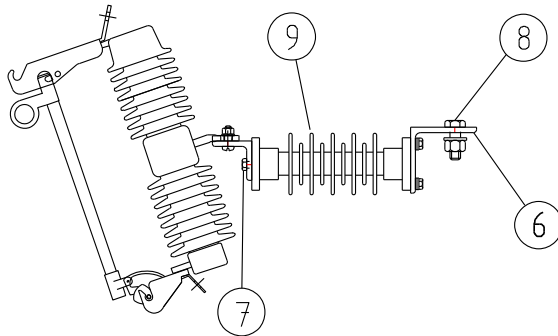
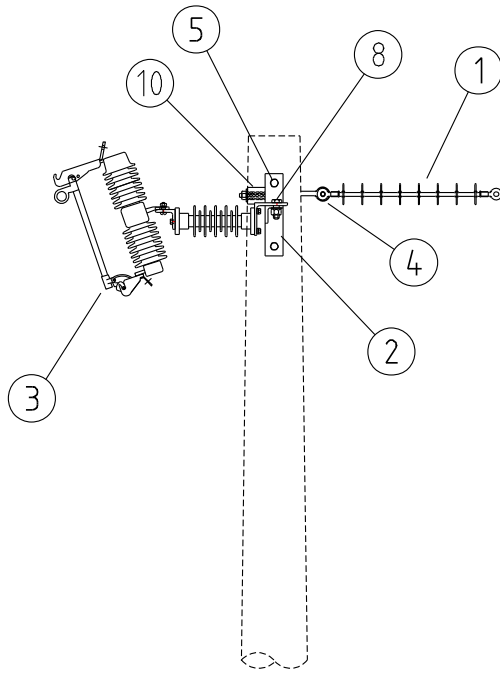
				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE		westernpower	
				TITLE		DRAWN: JRR		DATE: 10-04-2014	
				1 PHASE SLACK/STRAIN WITH DROP-OUT FUSE		ORIGINATED:		SCALE: NTS	
						CHECKED: REE		ORG. No.	
						APPROVED: GRANT STACY		REV. D	
								HV31	
								SHT.	
D	16.10.12	ORIGINAL ISSUE		DRG.	CHKD.	APRD.			
REV	DATE	DESCRIPTION							

CU	CU Description
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HV31_N 1 phase slack strain / DOF's_normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	line post insulator	1	ea	
2	AB6733	Pole bolt – 16 dia x 400mm lg with nut and washers	2	ea	
3	AB6732	Pole bolt – 16 dia x 550 lg with nut and washers	2	ea	
4	IC0041	strain insulator	1	ea	
5	CB0240	DOF support bracket rural	1	ea	
6		select from HV51 (EDO) or HV52 (Fault Tamer)	1	ea	See Note 2, Page 4
7	CR1036	Raiser bracket	1	ea	
8	AB4822	insulator stud	1	ea	
9	AB6025	16dia eyebolt 400 long	1	ea	
10	AB4596	Bolt M16 x 30	1	ea	
11	CE7541	dispersion plate	5	ea	

HV31_H 1 phase slack strain / DOF's_high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	line post insulator	1	ea	
2	AB6733	Pole bolt – 16 dia x 400mm lg with nut and washers	2	ea	
3	AB6732	Pole bolt – 16 dia x 550 lg with nut and washers	2	ea	
4	IC0041	strain insulator	1	ea	
5	CB0240	DOF support bracket	1	ea	
6		select from HV51 (EDO) or HV52 (Fault Tamer)	1	ea	See Note 2, Page 4
7	CR1036	Raiser bracket	1	ea	
8	AB4822	insulator stud	1	ea	
9	AB6025	16dia eyebolt 400 long	1	ea	
10	AB4596	Bolt M16 x 30	1	ea	
11	CE7541	dispersion plate	5	ea	

HV31_E 1 phase slack strain / DOF's_extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	line post insulator	1	ea	
2	AB6733	Pole bolt – 16 dia x 400mm lg with nut and washers	2	ea	
3	AB6732	Pole bolt – 16 dia x 550 lg with nut and washers	2	ea	
4	IC0031	strain insulator	1	ea	
5	CB0240	DOF support bracket	1	ea	
6		select from HV51 (EDO) or HV52 (Fault Tamer)	1	ea	See Note 2, Page 4
7	CR1036	Raiser bracket	1	ea	
8	AB4822	insulator stud	1	ea	
9	AB6025	16dia eyebolt 400 long	1	ea	
10	AB4596	Bolt M16 x 30	1	ea	
11	CE7541	dispersion plate	5	ea	



Physical Design Dimensions

	X dim	Y dim
Phase	0	0

Origin - Eye bolt (0:0)

				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR DATE: 10-04-2014		DRG. No.	
				1 PHASE TERMINATION WITH DROP-OUT FUSE			ORIGINATED: SCALE: NTS		HV32	
							CHECKED: REE		REV. F	
							APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRO					
F	09.04.19	STAND-OFF INSULATOR CHANGED	NMc	REE	GS					
E	10.07.18	SUB TITLE CHANGED	JC	REE	GS					
D	04.07.13	ORIGINAL ISSUE								

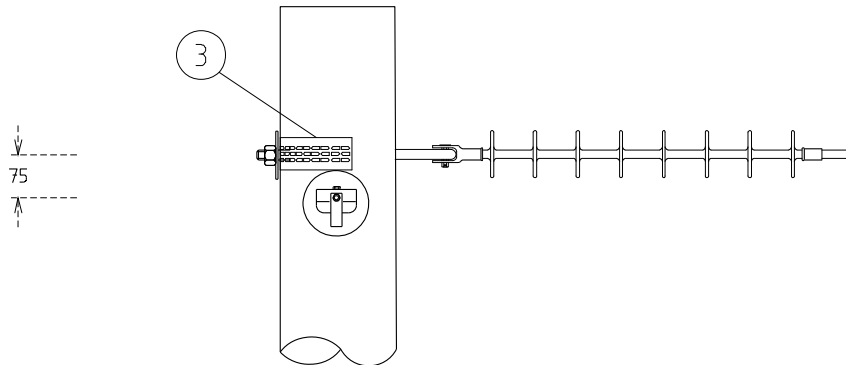
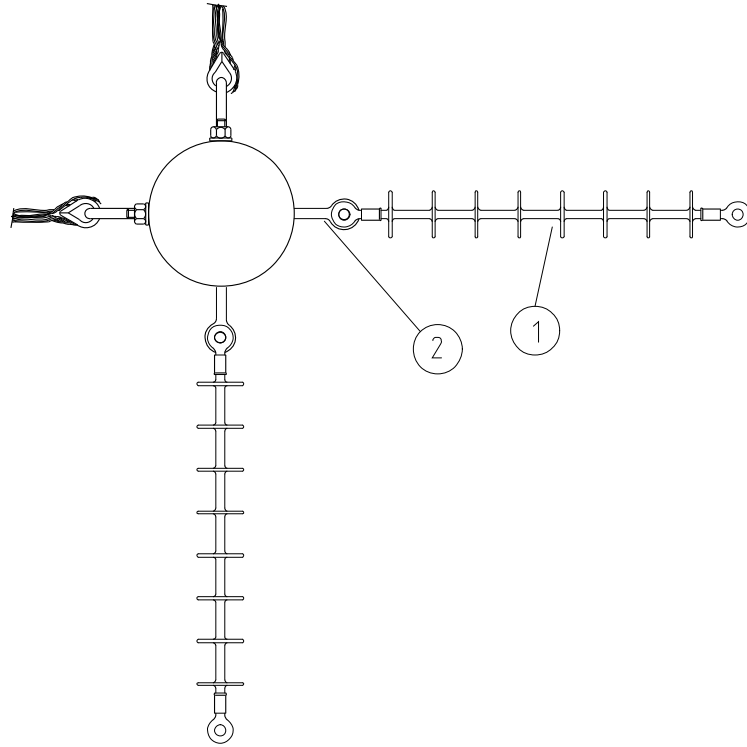
CU	CU Description
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HV32_N 1 phase termination / DOF's_normal					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	1	ea	
2	CB0240	DOF support bracket rural	1	ea	
3		select from HV51 (EDO) or HV52 (Fault Tamer)	1	ea	See Note 2, Page 4
4	AB6025	16dia eyebolt 400 long	1	ea	
5	AB6732	Pole bolt – 16 dia x 550 lg with nut and washers	2	ea	
8	AB4661	Bolt M20 x 40	1	ea	
10	CE7541	dispersion plate	3	ea	

HV32_H 1 phase termination / DOF's_high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	1	ea	
2	CB0240	DOF support bracket rural	1	ea	
3		select from HV51 (EDO) or HV52 (Fault Tamer)	1	ea	See Note 2, Page 4
4	AB6025	16dia eyebolt 400mm	1	ea	
5	AB6732	Pole bolt – 16 dia x 550 lg with nut and washers	2	ea	
6	CB0481	DOF Line post bracket	2	ea	
7	AB2957	Bolt M12x30	4	ea	
8	AB4661	Bolt M20 x 40	1	ea	
9	IC0083	standoff insulator	1	ea	
10	CE7541	dispersion plate	3	ea	

HV32_E 1 phase termination / DOF's_extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0031	strain insulator	1	ea	
2	CB0240	DOF support bracket rural	1	ea	
3		select from HV51 (EDO) or HV52 (Fault Tamer)	1	ea	See Note 2, Page 4
4	AB6025	16dia eyebolt 400mm	1	ea	
5	AB6732	Pole bolt – 16 dia x 550 lg with nut and washers	2	ea	
6	CB0481	DOF Line post bracket	2	ea	
7	AB2957	Bolt M12x30	4	ea	
8	AB4661	Bolt M20 x 40	1	ea	
9	IC0083	standoff insulator	1	ea	
10	CE7541	dispersion plate	3	ea	



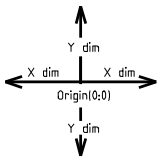


Design Dimensions

	X dim	Y dim
Front	0	75
RHS	0	0

Origin - Top eye bolt (0:0)

Use RHS for longer span



				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR		DATE: 10-04-2014	
				1 PHASE STRAIN ANGLE			ORIGINATED: REE		SCALE: NTS	
							CHECKED: REE		ORG. No.	
							APPROVED: GRANT STACY		REV. B	
									SHT.	
REV	DATE	DESCRIPTION	DRGO	CHKD	APRD					
B	04.04.13	ORIGINAL ISSUE								HV33

CU	CU Description
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HV33_N	1 phase strain angle normal
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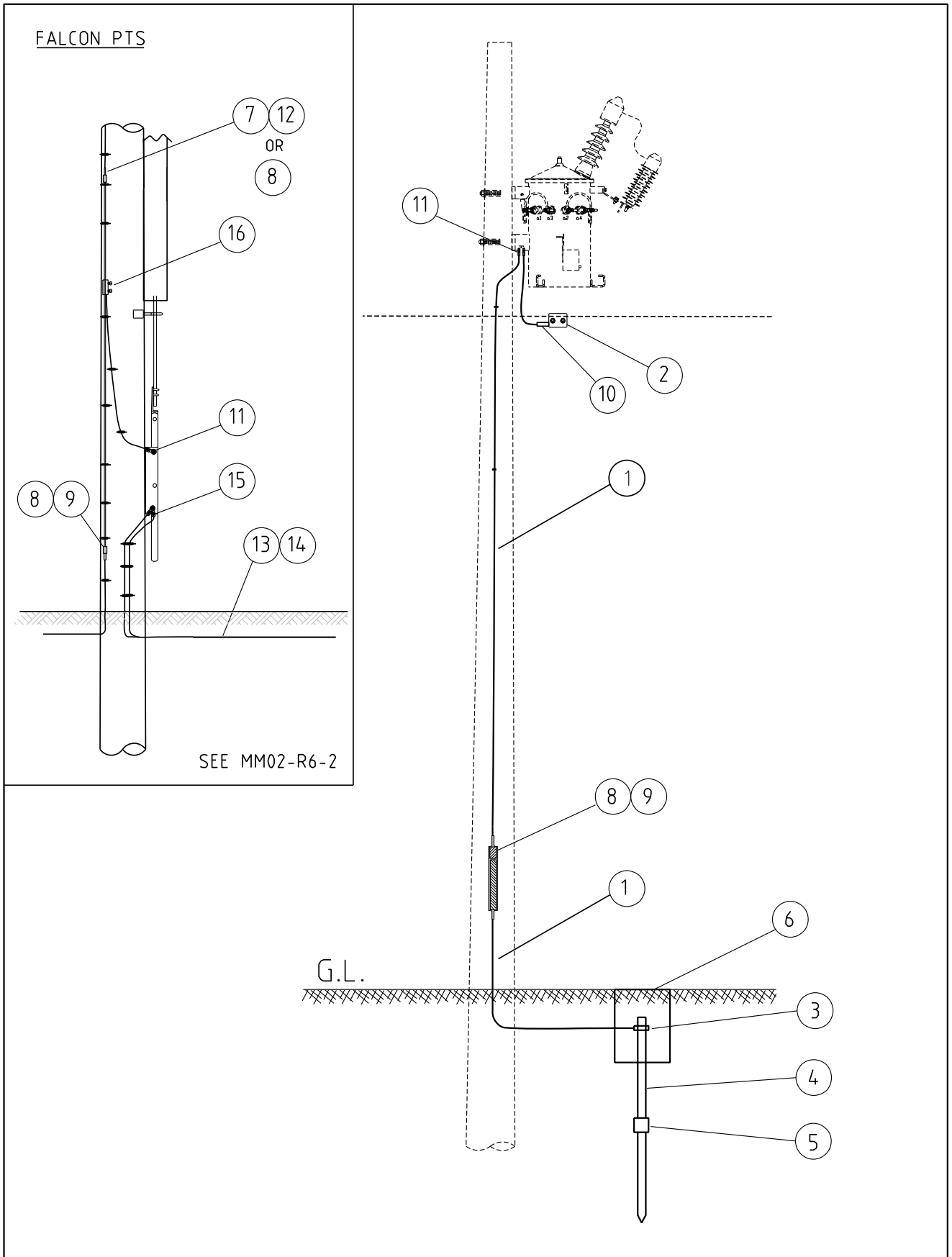
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	2	ea	
2	AB6025	eye bolt 16mm x 400 long	2	ea	
3	CE7541	dispersion plate	2	ea	

HV33_H	1 phase strain angle high
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ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	strain insulator	2	ea	
2	AB6025	eye bolt 16mm x 400 long	2	ea	
3	CE7541	dispersion plate	2	ea	

HV33_E	1 phase strain angle extreme
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ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0031	strain insulator	2	ea	
2	AB6025	eye bolt 16mm x 400 long	2	ea	
3	CE7541	dispersion plate	2	ea	



				TITLE			COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			westernpower		
				EARTHING WOOD POLE						DRAWN: JRR			DATE: 10-04-2014		
										ORIGINATED:			SCALE: NTS		
										CHECKED: REE			DRG. No. HV34		
										APPROVED: GRANT STACY			REV. G		
													SHT.		
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRO										
F	20.03.18	FALCON PTS ITEMS ADDED	REE	JC	GS										
E	08.12.17	ITEMS 7 TO 10 ADDED	JC	NMc	GS										
D	03.01.13	ORIGINAL ISSUE													

CU	CU Description
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HV34_N		Earthing of wood pole			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FM0915	earthing kit (95mm ²)	1	ea	
2		select the right size clamp	1	ea	From CN_9
3	CE0058	earthing rod clamp	1	ea	
4	CE0135	earth rod section	4	ea	
5	CE0078	earth rod coupler	3	ea	
6	CE0201	earthing terminal box	1	ea	
8	CJ0498	Compression sleeve	1	ea	
9	FE0055	Heat shrink tube	1	ea	
10	CJ0494	Stalk lug Al tail	1	ea	

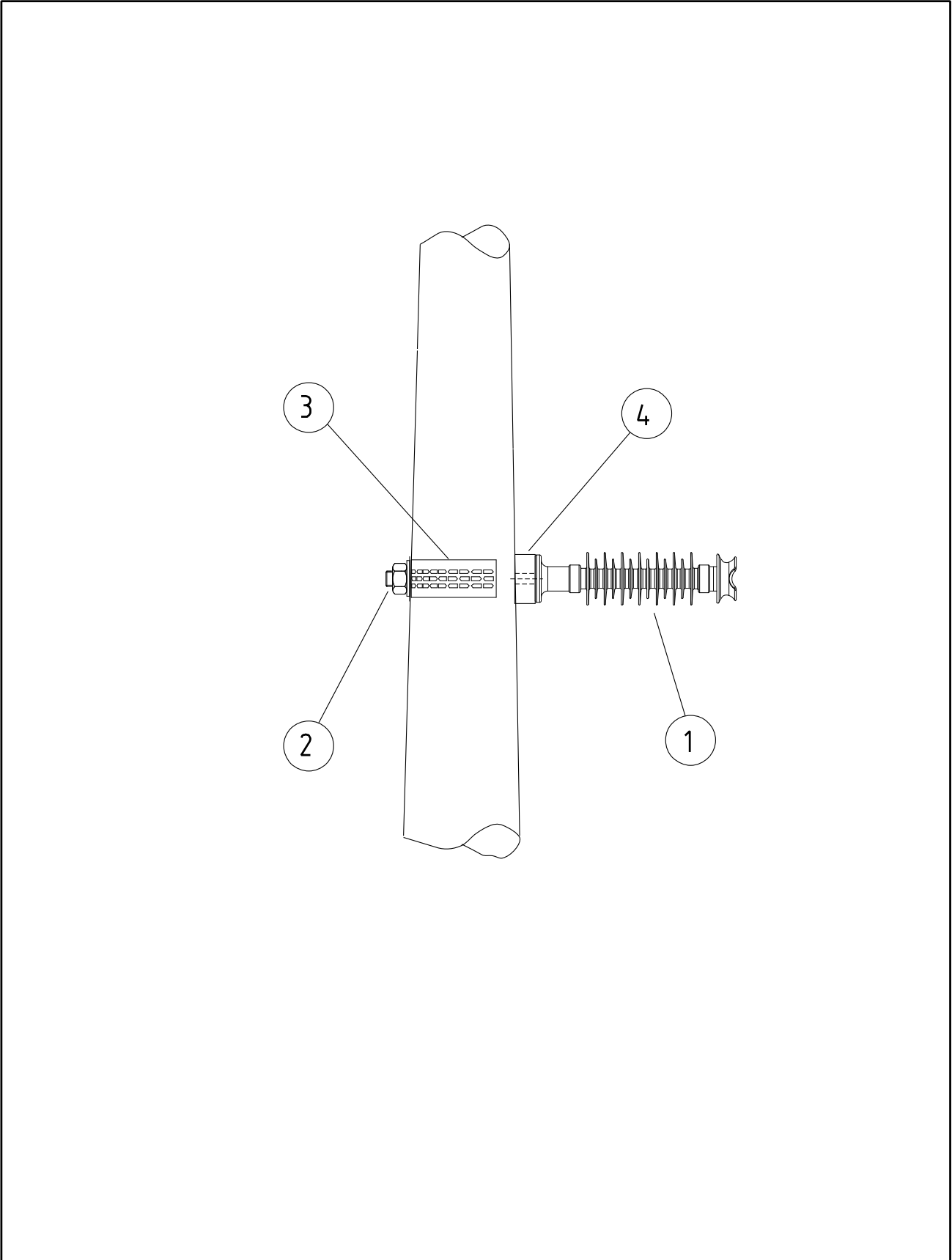
HV34_T		Earthing of 10 & 25kVA TX (Maintenance)			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FM0915	earthing kit (95mm ²)	1	ea	
2		select the right size clamp	1	ea	From CN_9
3	CE0058	earthing rod clamp	1	ea	
4	CE0135	earth rod section	4	ea	
5	CE0078	earth rod coupler	3	ea	
6	CE0201	earthing terminal box	1	ea	
8	CJ0498	Compression sleeve	1	ea	
9	FE0055	Heat shrink tube	1	ea	
10	CJ0494	Stalk lug Al tail	1	ea	
11	FL0401	Lug bi-metal crimp	2	ea	

HV34_VANPTS		Falcon Pole top switch Cu Earth Vandalism/Repair			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FM0916	earthing kit (95mm ²) 5m long	1	ea	
8	CJ0498	Compression sleeve	2	ea	
9	FE0055	Heat shrink tube	1	ea	
11	FL0401	Lug bi-metal crimp	1	ea	
13	EC1111	Stainless Steel rope 6m length	2	ea	
14	OG0352	Rope Grip	2	ea	
15	FL1468	Lug Cu Tinned	2	ea	
16	CC0081	Insulation piercing clamp	1	ea	

CU	CU Description
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HV34_VAN70		70mm² Cu Pole Earth Vandalism/Repair			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FM0916	earthing kit (95mm ²) 5m long	1	ea	
8	CJ0498	Compression sleeve	2	ea	
9	FE0055	Heat shrink tube	1	ea	

HV34_VAN25		25mm² Cu Pole Earth Vandalism/Repair			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FM0916	earthing kit (95mm ²) 5m long	1	ea	
7	CJ0492	Stalk lug Cu tail	2	ea	
9	FE0055	Heat shrink tube	1	ea	
12	CC0130	PG Clamp	2	ea	

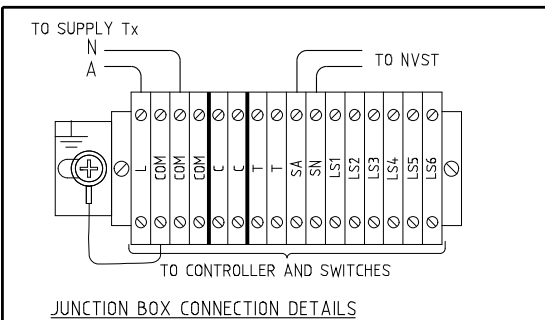
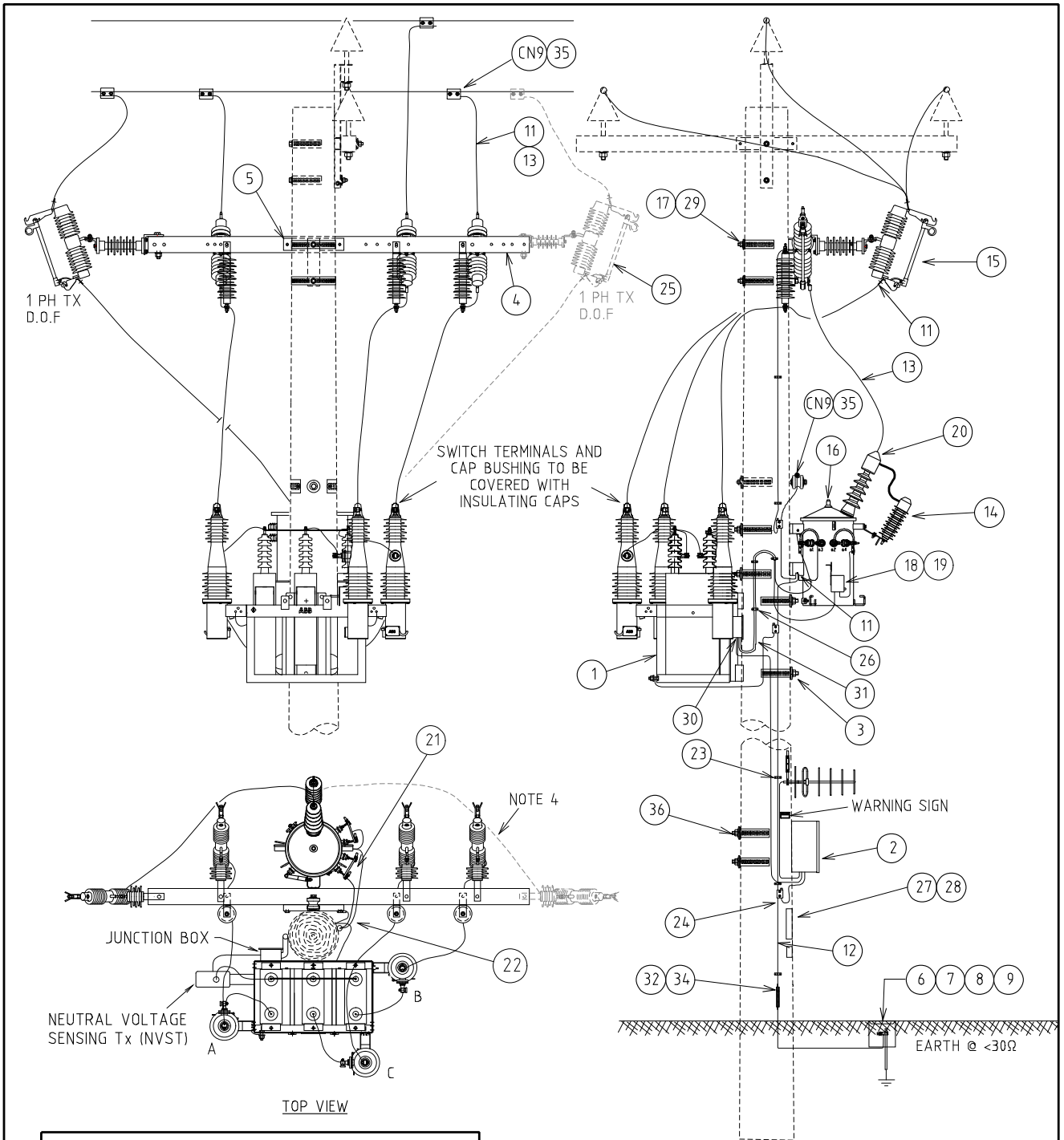


				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE			
				TITLE		DRAWN: JRR		DATE: 10-04-2014	
				STAND-OFF INSULATOR		ORIGINATED:		SCALE: NTS	
						CHECKED: REE		DRG. No. HV36	
						APPROVED: GRANT STACY		REV. B	
B	16.12.09	ORIGINAL ISSUE							
REV	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.				

CU	CU Description
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HV36 Line post insulator normal & high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	line post insulator	1	ea	
2	CZ0075	Insulator stud M24 500mm	1	ea	
3	CE7541	Dispersion plate	1	ea	
4	CB0120	Bracket - stand-off insulator	1	ea	

HV36_E Line post insulator extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	line post insulator	1	ea	
2	CZ0075	Insulator stud M24 500mm	1	ea	
3	CE7541	Dispersion plate	1	ea	
4	CB0120	Bracket - stand-off insulator	1	ea	



NOTES:-

1. LV ABC CABLE TO BE USED FOR PHASE CONNECTIONS
2. 1000kVA BANKS REQUIRE 40A DOFs
500kVA BANKS REQUIRE 25A DOFs
3. LV FUSE ON TX - 32A
4. ADDITIONAL DOF REQUIRED FOR DOUBLE BUSHING TRANSFORMERS.
5. FOR CAPACITOR BANK RE-INSTALLATION, ALL HV38 COMPATIBLE UNITS WITHOUT CAPACITOR BANK, CONTROL BOX, SURGE ARRESTERS AND TRANSFORMER ARE SHOWN IN DQM WITH 'X' AT THE END OF THE COMPATIBLE UNIT NAME.

DESIGN DIMENSIONS USE HV1, HV6, HV9 OR HV21

COMPATIBLE UNIT					DISTRIBUTION DESIGN CATALOGUE		westernpower		
N	12.02.19	EARTHING SYSTEM & CU DESCRIPTION REVISED	NMc	NN	GS	DRAWN: JRR		DATE: 11-04-2014	DRG. No.
M	21.12.17	EARTHING SYSTEM REVISED	REE	JC	GS	ORIGINATED:		SCALE: NTS	HV38
L	17.11.17	TRANSFORMER TYPE AND CU DESCRIPTION CHANGED	JC	NMc	GS	CHECKED: REE			
K	21.12.16	NOTE 3 ADDED	JC	REE	GS	APPROVED: GRANT STACY		REV. N	
J	14.10.16	ITEM NUMBERS 18 & 30 DELETED	JC	REE	GS			SHT.	
REV	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.	TITLE 22kV POLE MOUNTED CAPACITOR BANK WITH (NEW) 10kVA TRANSFORMER CONNECTION DETAILS			

CU	CU Description
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HV38_1000_M (New) 1000kVA, 22kV capacitor bank Metro 2 bushing VT					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RC0011	capacitor bank	1	ea	
2	RC0015	Control box	1	ea	
3	AB6742	Pole bolt - M20 x 550	2	ea	
4	CB1121	x-arm metal	1	ea	
5	CB3025	x-arm bracket	1	ea	
6	CE0058	earth rod clamp	1	ea	
7	CE0078	earth rod coupling	5	ea	
8	CE0135	earth rod	6	ea	
9	CE0201	earthing terminal box	1	ea	
11	FL0401	bi-metal lug 95 LV ABC	30	ea	
12	FM0915	earthing kit	1	ea	
13	FT0095	lead 95 LV ABC 4m long	3	ea	
14	GA4002	surge arrester	5	ea	
15		select HV51_40EDO only (Capacitor)	3	ea	See Note 2, Page 4
16	XT0203	10kVA 22kV 2 bushing transformer	1	ea	
17	AB6732	Pole bolt - M16 x 550	4	ea	
18	GF1801	Fuse holder 100A	1	ea	
19	GF1940	Fuse 32A	1	ea	
20	GT0353	Wild life cover	2	ea	
21	FL0142	Lug copper	2	ea	
22	EE1120	2c 6sqmm service cable	3	mr	
23	GC7192	25mm saddle	10	ea	
	AS2513	Wood screws	32	ea	
24	CC0081	IPC	2	ea	
25		select from HV51 (EDO) or HV52 (Fault Tamer) (TX)	2	ea	
26	GC7191	20mm conduit saddles	6	ea	
27	UA3149	Warning Sign	1	ea	
28	CZ5005	Transformer Tap position sign	2	ea	
29	CE7541	dispersion plate	8	ea	
30	GC7846	20mm corrugated conduit gland	1	ea	
31	GC7872	20mm flexible conduit grey (10m)	1	roll	
32	CJ0498	Stalk lug copper	1	ea	
34	FE0055	Heat shrink	1	mr	
35	CJ0494	Stalk lug 95 LV ABC Al	5	ea	
36	AB6741	Pole bolt M12x550	2	ea	

CU	CU Description
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HV38_1000_R					
(New) 1000kVAr, 22kV capacitor bank Rural 1 bushing VT					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RC0011	capacitor bank	1	ea	
2	RC0015	Control box	1	ea	
3	AB6742	Pole bolt - M20 x 550	2	ea	
4	CB1121	x-arm metal	1	ea	
5	CB3025	x-arm bracket	1	ea	
6	CE0058	earth rod clamp	1	ea	
7	CE0078	earth rod coupling	5	ea	
8	CE0135	earth rod	6	ea	
9	CE0201	earthing terminal box	1	ea	
11	FL0401	bi-metal lug 95 LV ABC	21	ea	
12	FM0915	earthing kit	1	ea	
13	FT0095	lead 95 LV ABC 4m long	2	ea	
14	GA4002	surge arrester	4	ea	
15		select HV51_40EDO only (Capacitor)	3	ea	See Note 2, Page 4
16	XT0206	10kVA 12.7kV 1 bushing transformer	1	ea	
17	AB6732	Pole bolt - M16 x 550	4	ea	
18	GF1801	Fuse holder 100A	1	ea	
19	GF1940	Fuse 32A	1	ea	
20	GT0353	Wild life cover	1	ea	
21	FL0142	Lug copper	2	ea	
22	EE1120	2c 6sqmm service cable	3	mr	
23	GC7192	25mm saddle	10	ea	
	AS2513	Wood screws	32	ea	
24	CC0081	IPC	3	ea	
25		select from HV51 (EDO) or HV52 (Fault Tamer) (TX)	1	ea	
26	GC7191	20mm conduit saddles	6	ea	
27	UA3149	Warning Sign	1	ea	
28	CZ5005	Transformer Tap position sign	2	ea	
29	CE7541	dispersion plate	8	ea	
30	GC7846	20mm corrugated conduit gland	1	ea	
31	GC7872	20mm flexible conduit grey (10m)	1	roll	
32	CJ0498	Stalk lug copper	1	ea	
34	FE0055	Heat shrink	1	mr	
35	CJ0494	Stalk lug 95 LV ABC Al	4	ea	
36	AB6741	Pole bolt M12x550	2	ea	

CU	CU Description
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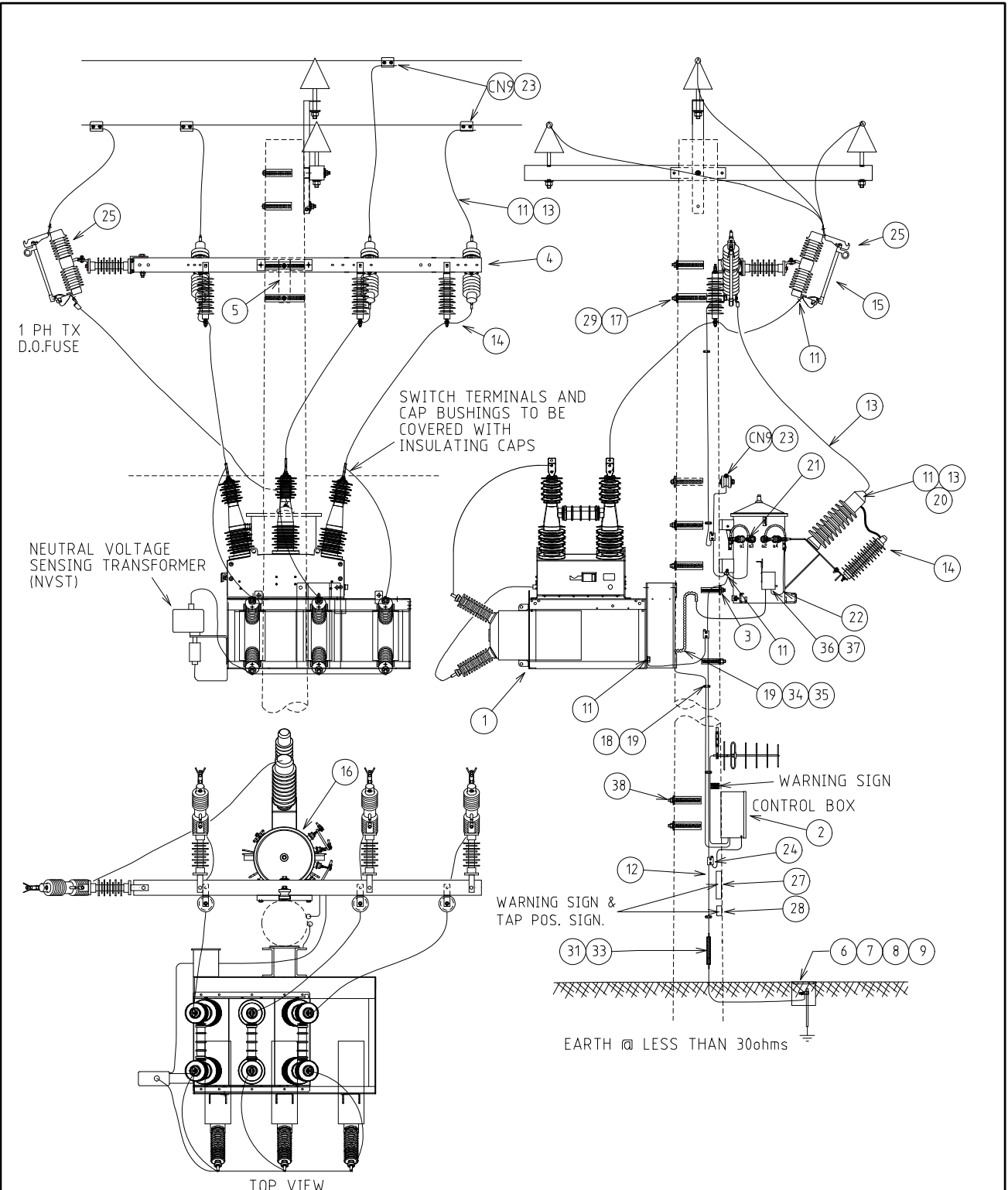
HV38_500_M (New) 500kVAr, 22kV capacitor bank Metro 2 bushing VT					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RC0012	capacitor bank	1	ea	
2	RC0015	Control Box	1	ea	
3	AB6742	Pole bolt - M20 x 550	2	ea	
4	CB1121	x-arm metal	1	ea	
5	CB3025	x-arm bracket	1	ea	
6	CE0058	earth rod clamp	1	ea	
7	CE0078	earth rod coupling	5	ea	
8	CE0135	earth rod	6	ea	
9	CE0201	earthing terminal box	1	ea	
11	FL0401	bi-metal lug 95 LV ABC	30	ea	
12	FM0915	earthing kit	1	ea	
13	FT0095	lead 95 LV ABC 4m long	3	ea	
14	GA4002	surge arrester	5	ea	
15		select HV51_25EDO only (Capacitor)	3	ea	See Note 2, Page 4
16	XT0203	10kVA 22kV 2 bushing transformer	1	ea	
17	AB6732	Pole bolt - M16 x 550	4	ea	
18	GF1801	Fuse holder 100A	1	ea	
19	GF1940	Fuse 32A	1	ea	
20	GT0353	Wild life cover	2	ea	
21	FL0142	Lug copper	2	ea	
22	EE1120	2c 6sqmm service cable	3	mr	
23	GC7192	25mm saddle	10	ea	
	AS2513	Wood screws	32	ea	
24	CC0081	IPC	2	ea	
25		select from HV51 (EDO) or HV52 (Fault Tamer) (TX)	2	ea	
26	GC7191	20mm conduit saddles	6	ea	
27	UA3149	Warning Sign	1	ea	
28	CZ5005	Transformer Tap position sign	2	ea	
29	CE7541	dispersion plate	8	ea	
30	GC7846	20mm corrugated conduit gland	1	ea	
31	GC7872	20mm flexible conduit grey (10m)	1	roll	
32	CJ0498	Stalk lug copper	1	ea	
34	FE0055	Heat shrink	1	mr	
35	CJ0494	Stalk lug 95 LV ABC Al	5	ea	
36	AB6741	Pole bolt M12x550	2	ea	

CU	CU Description
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HV38_500_R	(New) 500kVA_r, 22kV capacitor bank Rural 1 bushing VT
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ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RC0012	capacitor bank	1	ea	
2	RC0015	Control Box	1	ea	
3	AB6742	Pole bolt - M20 x 550	2	ea	
4	CB1121	x-arm metal	1	ea	
5	CB3025	x-arm bracket	1	ea	
6	CE0058	earth rod clamp	1	ea	
7	CE0078	earth rod coupling	5	ea	
8	CE0135	earth rod	6	ea	
9	CE0201	earthing terminal box	1	ea	
11	FL0401	bi-metal lug 95 LV ABC	21	ea	
12	FM0915	earthing kit	1	ea	
13	FT0095	lead 95 LV ABC 4m long	2	ea	
14	GA4002	surge arrester	4	ea	
15		select HV51_25EDO only (Capacitor)	3	ea	See Note 2, Page 4
16	XT0206	10kVA 12.7kV 1 bushing transformer	1	ea	
17	AB6732	Pole bolt - M16 x 550	4	ea	
18	GF1801	Fuse holder 100A	1	ea	
19	GF1940	Fuse 32A	1	ea	
20	GT0353	Wild life cover	1	ea	
21	FL0142	Lug copper	2	ea	
22	EE1120	2c 6sqmm service cable	3	mr	
23	GC7192	25mm saddle	10	ea	
	AS2513	Wood screws	32	ea	
24	CC0081	IPC	3	ea	
25		select from HV51 (EDO) or HV52 (Fault Tamer) (TX)	1	ea	See Note 2, Page 4
26	GC7191	20mm conduit saddles	6	ea	
27	UA3149	Warning Sign	1	ea	
28	CZ5005	Transformer Tap position sign	2	ea	
29	CE7541	dispersion plate	8	ea	
30	GC7846	20mm corrugated conduit gland	1	ea	
31	GC7872	20mm flexible conduit grey (10m)	1	roll	
32	CJ0498	Stalk lug copper	1	ea	
34	FE0055	Heat shrink	1	mr	
35	CJ0494	Stalk lug 95 LV ABC Al	4	ea	
36	AB6741	Pole bolt M12x550	2	ea	





NOTES:-

1. 1000kVA BANKS REQUIRE 25A DOFs
500kVA BANKS REQUIRE 16A DOFs.
2. LV FUSE ON Tx 32A.
3. FOR CAPACITOR BANK RE-INSTALLATION, ALL HV39 COMPATIBLE UNITS WITHOUT CAPACITOR BANK, CONTROL BOX, SURGE ARRESTERS AND TRANSFORMER ARE SHOWN IN DQM WITH 'X' AT THE END OF THE COMPATIBLE UNIT NAME.

Design Dimensions - Use HV1, HV6, HV9 or HV21

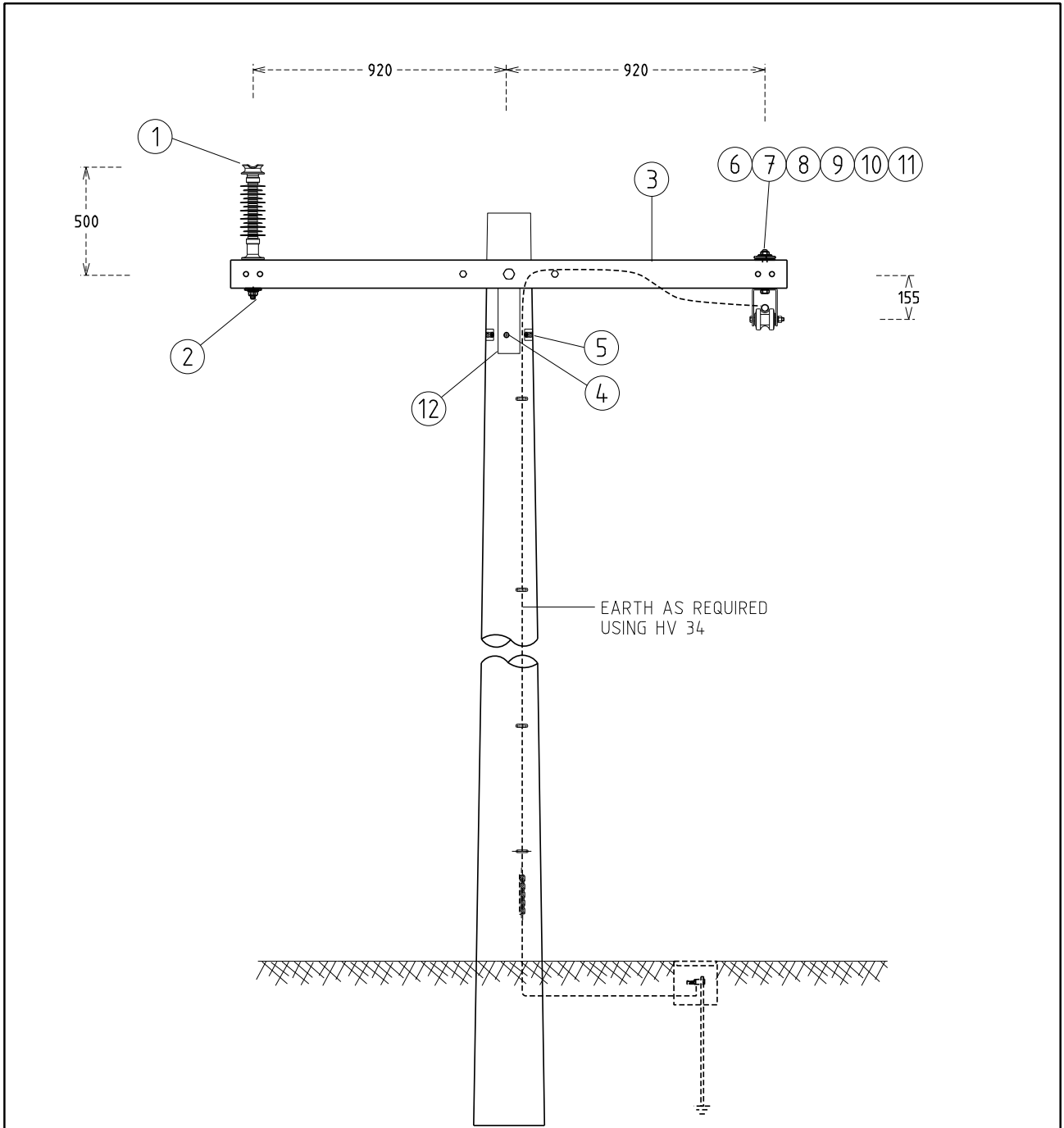
COMPATIBLE UNIT				DISTRIBUTION DESIGN CATALOGUE		westernpower	
J	12.02.19	EARTHING SYSTEM & CU DESCRIPTION CHANGED	NMc	NN	GS	TITLE	
H	21.12.17	EARTHING SYSTEM CHANGED	REE	JC	GS	33kV POLE MOUNTED CAPACITOR BANK WITH (NEW) 10kVA TRANSFORMER	
G	05.12.17	TRANSFORMER TYPE CHANGED	GG	NMc	GS	DRAWN: JRR DATE: 10-04-2014 DRG. No.	
F	12.06.17	REVISED TO SUIT NEW CAPACITOR BANK & REMOVED MCB DESCRIPTION	NMc	JC	GS	ORIGINATED: SCALE: NTS	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.	CHECKED: REE	
						APPROVED: GRANT STACY	
						REV. J SHT.	
						HV39	

CU	CU Description
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HV39_1000_R (New) 1000kVAr, 33kV capacitor bank Rural 1 bushing VT					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RC0013	capacitor bank, switch and frame	1	ea	
2	RC0015	Controller with control cable	1	ea	
3	AB6742	Pole bolt - M20 x 550	2	ea	
4	CB1121	x-arm metal	1	ea	
5	CB3025	x-arm bracket	1	ea	
6	CE0058	earth rod clamp	1	ea	
7	CE0078	earth rod coupling	5	ea	
8	CE0135	earth rod	6	ea	
9	CE0201	earthing terminal box	1	ea	
11	FL0401	bi-metal lug 95 LV ABC	21	ea	
12	FM0915	earthing kit	1	ea	
13	FT0095	lead 95 LV ABC 4m long	3	ea	
14	GA4003	surge arrester	4	ea	
15		select HV51_25EDO only (Capacitor)	3	ea	See Note 2, Page 4
16	XT0208	10kVA 19.1kV 1 bushing transformer	1	ea	
17	AB6732	Pole bolt - M16 x 550	4	ea	
18	GC7192	25mm saddles	10	Ea	
19	AS2513	Wood screws	32	ea	
20	GT0353	Wildlife cover	1	ea	
21	FL0142	Lug copper	2	ea	
22	EE1120	2c 6sqmm service cable	3	mr	
23	CJ0494	Stalk lug 95 LV ABC Al	5	ea	
24	CC0081	IPC	3	ea	
25		Select from HV51-3.15 EDO (TX)	1	ea	See Note 2, Page 4
27	UA3149	Warning Sign	1	ea	
28	CZ5005	Transformer Tap position sign	2	ea	
29	CE7541	dispersion plate	8	ea	
31	CJ0498	Stalk lug copper	1	ea	
33	FE0055	Heat shrink	1	mr	
34	GC7872	70mm flex conduit grey (10m)	1	ea	
35	GC7191	20mm saddles	6	ea	
36	GF1801	Fuse holder 100A	1	ea	
37	GF1940	Fuse 32A	1	ea	
38	AB6741	M12x550 pole bolt	2	ea	

CU	CU Description
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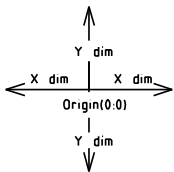
HV39_500_R (New) 500kVAr, 33kV capacitor bank Rural 1 bushing VT					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RC0014	capacitor bank, switch and frame	1	ea	
2	RC0015	controller with control cable	1	ea	
3	AB6742	Pole bolt - M20 x 550	2	ea	
4	CB1121	x-arm metal	1	ea	
5	CB3025	x-arm bracket	1	ea	
6	CE0058	earth rod clamp	1	ea	
7	CE0078	earth rod coupling	5	ea	
8	CE0135	earth rod	6	ea	
9	CE0201	earthing terminal box	1	ea	
11	FL0401	bi-metal lug 95 LV ABC	21	ea	
12	FM0915	earthing kit	1	ea	
13	FT0095	lead 95 LV ABC 4m long	2	ea	
14	GA4003	surge arrester	4	ea	
15		select HV51_16EDO only (Capacitor)	3	ea	See Note 2, Page 4
16	XT0208	10kVA 19.1kV 1 bushing transformer	1	ea	
17	AB6732	Pole bolt - M16 x 550	4	ea	
18	GC7192	25mm saddles	10	Ea	
19	AS2513	Wood screws	32	ea	
20	GT0353	Wildlife cover	1	ea	
21	FL0142	Lug copper	2	ea	
22	EE1120	2c 6sqmm service cable	2	mr	
23	CJ0494	Stalk lug 95 LV ABC Al	5	ea	
24	CC0081	IPC	3	ea	
25		Select from HV51-3.15 EDO (TX)	1	ea	See Note 2, Page 4
27	UA3149	Warning Sign	1	ea	
28	CZ5005	Transformer Tap position sign	2	ea	
29	CE7541	dispersion plate	8	ea	
31	CJ0498	Stalk lug copper	1	ea	
33	FE0055	Heat shrink	1	mr	
34	GC7872	70mm flex conduit grey (10m)	1	ea	
35	GC7191	20mm saddles	6	ea	
36	GF1801	Fuse holder 100A	1	ea	
37	GF1940	Fuse 32A	1	ea	
38	AB6741	M12 x 550 pole bolt	2	ea	



Physical Design Dimensions

	X dim	Y dim
Left	920	500

Origin - Top bracket bolt (0/0)



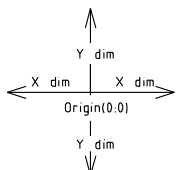
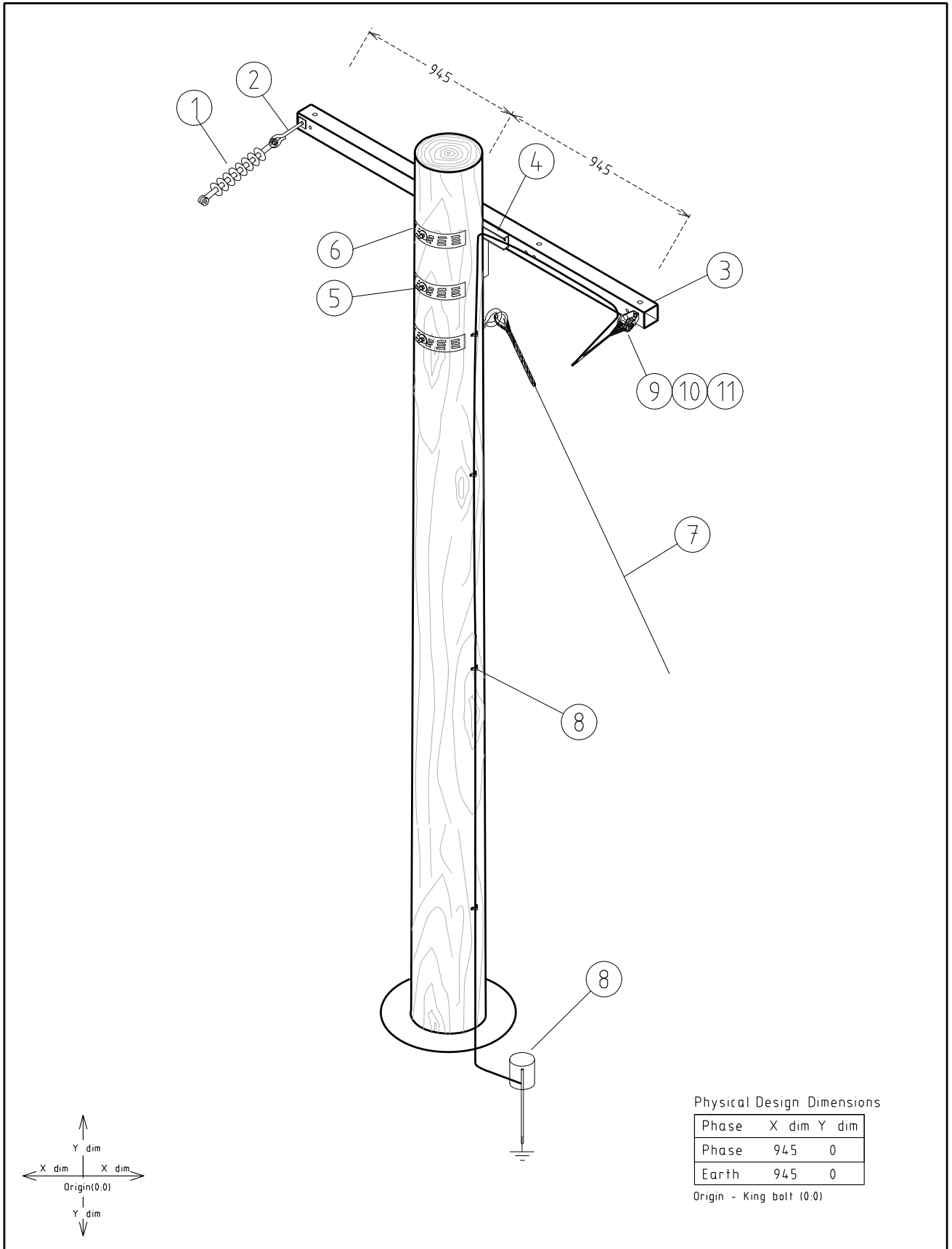
NOTES
1 ALL DIMENSIONS ARE IN MILLIMETRES

REV	DATE	DESCRIPTION	DRGD	CHKD	APRD	TITLE	DISTRIBUTION DESIGN CATALOGUE	westernpower						
G	26.10.20	CROSSARM CHANGED FROM CB0115 TO CB0116	NMc	REE	GS	COMPATIBLE UNIT SINGLE PHASE ANTI CLASH / ANTI GALAH INTERMEDIATE	DRAWN	JRR	DATE	02-07-2015	DRG. No.	HV 41		
F	22.12.17	PHYSICAL DESIGN DIMENSION REVISED	NMc	REE	GS		ORIGINATED:	REE	SCALE:	NTS				
E	12.12.17	DIM 510 CHANGED TO 506	JC	GG	GS		CHECKED:	REE	APPROVED:	GRANT STACY	REV.		G	SHT.
D	20.04.16	ITEM 12 AND ANNOTATION TO EARTH ADDED	REE	JC	GS									
C	21.09.15	CROSS-ARM CHANGED AND DIMENSIONS ADDED	AK	REE	CO									

CU	CU Description
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HV41_IN		1 Phase_Intermediate normal & high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	line post Insulator	1	ea	
2	AB4822	Insulator Stud	1	ea	
3	CB0116	Cross-arm 2m	1	ea	
4	AB6732	Pole Bolt M16x550	2	ea	
5	CE7541	Dispersion Plate	2	ea	
6	CZ0335	Coil Spring	1	ea	
7	IA0256	LV Strain Insulator	1	ea	
8	CB0316	Shackle	1	ea	
9	AB4614	16x150 Bolt	1	ea	
10	AW3563	75x75 square washer	1	ea	
11	AW3545	50x50 square washer	1	ea	
12	CB3025	T-Bracket	1	ea	

HV41_E		1 Phase_Intermediate extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	line post Insulator	1	ea	
2	AB4822	Insulator Stud	1	ea	
3	CB0116	Cross-arm 2m	1	ea	
4	AB6732	Pole Bolt M16x550	2	ea	
5	CE7541	Dispersion Plate	2	ea	
6	CZ0335	Coil Spring	1	ea	
7	IA0256	LV Strain Insulator	1	ea	
8	CB0316	Shackle	1	ea	
9	AB4614	16x150 Bolt	1	ea	
10	AW3563	75x75 square washer	1	ea	
11	AW3545	50x50 square washer	1	ea	
12	CB3025	T-Bracket	1	ea	



Physical Design Dimensions

Phase	X dim	Y dim
Phase	945	0
Earth	945	0

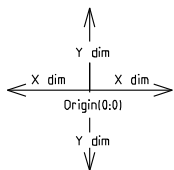
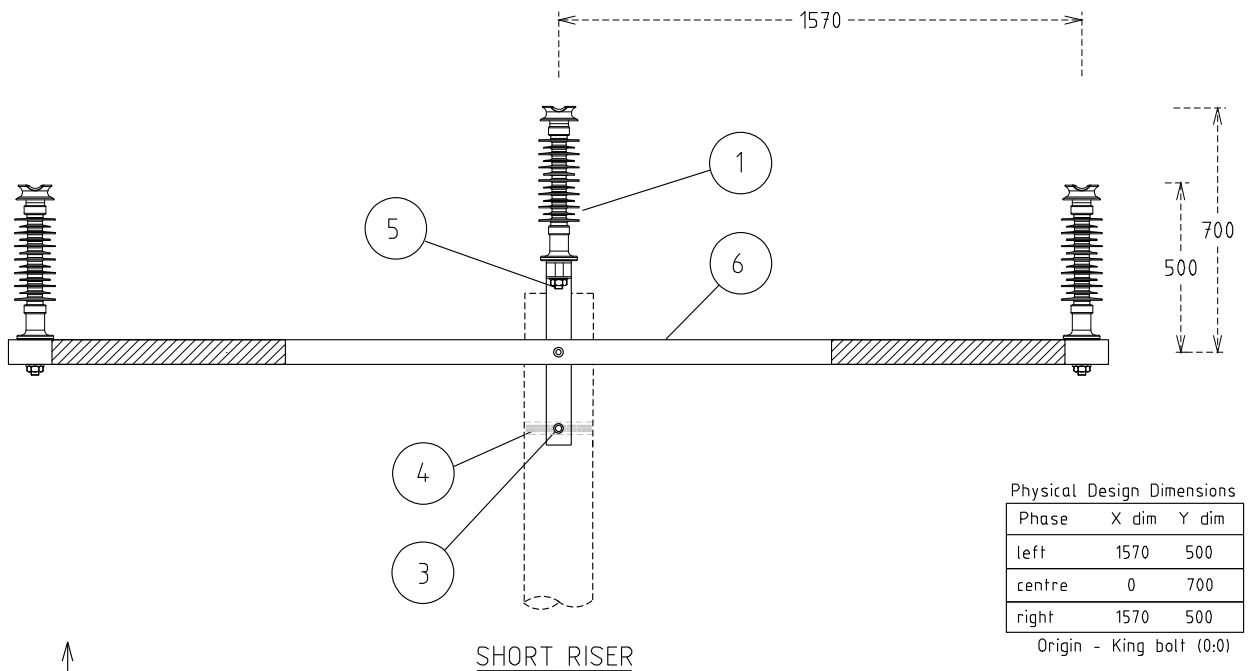
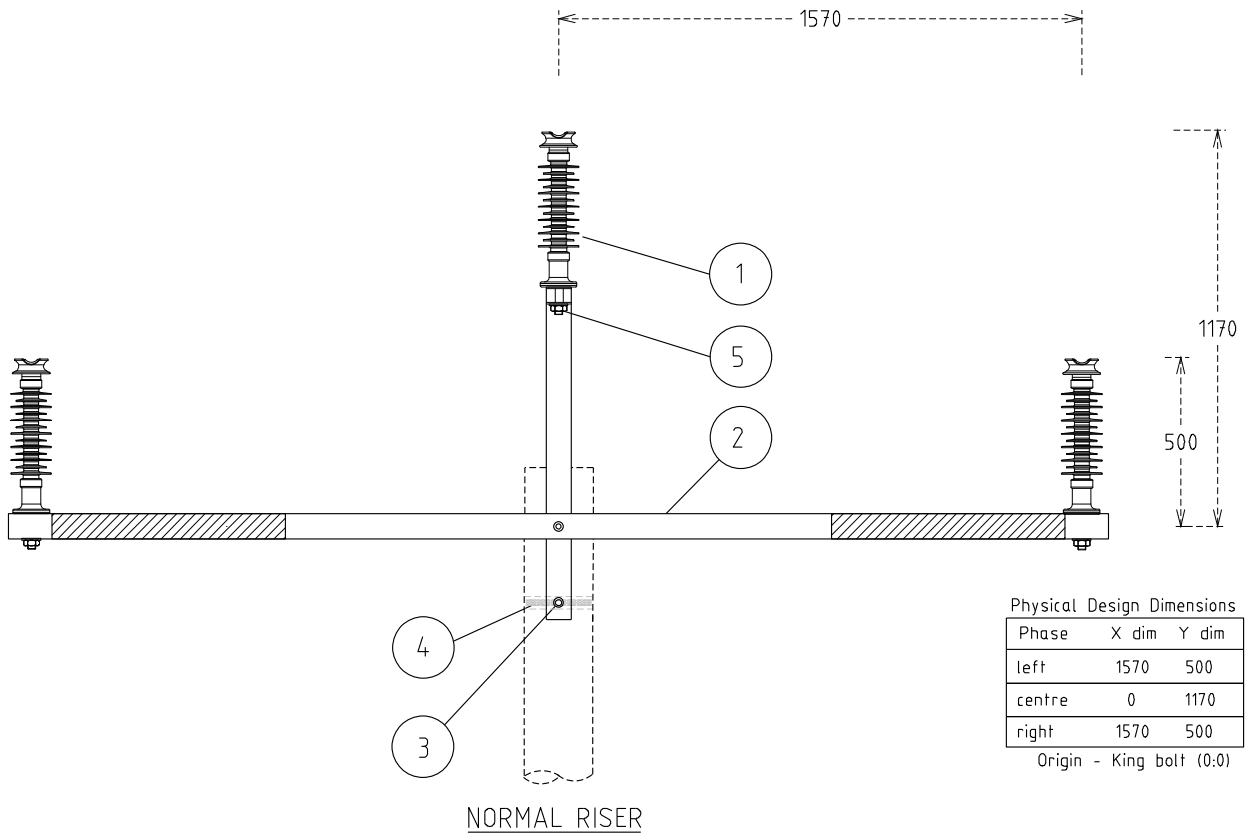
Origin - King bolt (0:0)

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD	TITLE	DISTRIBUTION DESIGN CATALOGUE	westernpower
D	13.09.22	STAY LOCATION CHANGED & TABLE ADDED	DB	NMc	GS	COMPATIBLE UNIT SINGLE PHASE ANTI CLASH / ANTI GALAH TERMINATION	DRAWN: JRR DATE: 01-07-2015 DRG. No. ORIGINATED: REE SCALE: NTS	HV 42
C	07.08.16	CU ITEM NUMBERS REVISED (7, 9, 10, 11)	JC	REE	CO		CHECKED: REE	
B	21.09.15	DIMENSIONS ADDED	AK	REE	CO		APPROVED: GRANT STACY	
A	02.07.15	ORIGINAL ISSUE	REE	REE	GS		REV. D	
							SHT.	

CU	CU Description
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HV42_IT		1 Phase Termination normal & high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	Strain Insulator	1	ea	
2	AB6023	Eyebolt M16x300	1	ea	
3	CB0118	Cross-arm Standard	1	ea	
4	CB3025	Cross-arm Bracket	1	ea	
5	AB6732	Pole Bolt M16x550	2	ea	
6	CE7541	Dispersion Plate	2	ea	
7		See ST01	1	ea	
8		See HV34	1	ea	
9	IA0256	Strain Insulator	1	ea	
10	CB0316	Shackle 'C' Style	1	ea	
11	AB6734	Pole bolt M16x300	1	ea	Cut to length

HV42_IE		1 Phase Termination extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0031	Strain Insulator	1	ea	
2	AB6023	Eyebolt M16x300	1	ea	
3	CB0118	Cross-arm Standard	1	ea	
4	CB3025	Cross-arm Bracket	1	ea	
5	AB6732	Pole Bolt M16x550	2	ea	
6	CE7541	Dispersion Plate	2	ea	
7		See ST01	1	ea	
8		See HV34	1	ea	
9	IA0256	Strain Insulator	1	ea	
10	CB0316	Shackle 'C' Style	1	ea	
11	AB6734	Pole bolt M16x300	1	ea	Cut to length



NOTE:-
 FOR MAINTENANCE OF EXISTING NETWORK NEAR RDA POLES USE SHORT RISER CROSSARM (CB0114) BEFORE RDA IF CENTRE WHITE PHASE IS NOT ON TOP AT RDA POLE.

				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE		westernpower	
				TITLE			DRAWN: JRR	DATE: 02-07-2015	DRG. No.	
C	22.12.17	PHYSICAL DESIGN DIMENSION REVISED		NMc	REE	GS	ORIGINATED:	SCALE: NTS	HV43	
B	18.08.15	NOTES ADDED		REE	REE	GS	CHECKED: REE			
A	02.07.15	ORIGINAL ISSUE		REE	REE	GS	APPROVED:	GRANT STACY	REV. C	SHT.
REV	DATE	DESCRIPTION		ORGD	CHKD	APRD				

CU	CU Description
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HV43_3NAS		Intermediate_3 phase anti-swan xarm normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	line post insulator	3	ea	
2	CB0111	anti-swan xarm	1	ea	
3	AB6732	Pole bolt - M16 x 550	2	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	3	ea	

HV43_3HAS		Intermediate_3 phase anti-swan xarm high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	line post insulator	3	ea	
2	CB0111	anti-swan xarm	1	ea	
3	AB6732	Pole bolt - M16 x 550	2	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	3	ea	

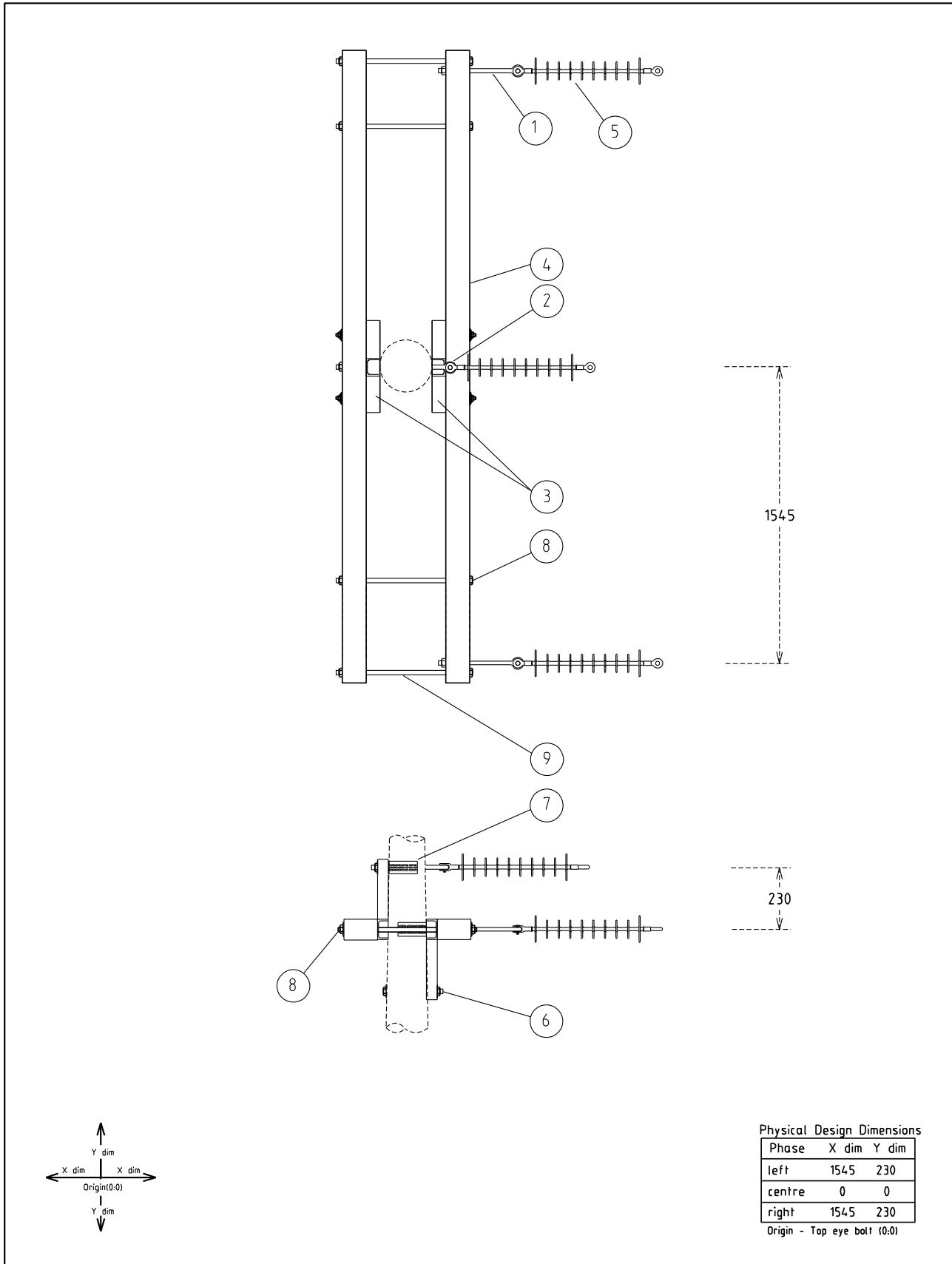
HV43_3EAS		Intermediate_3 phase anti-swan xarm extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	line post insulator	3	ea	
2	CB0111	anti-swan xarm	1	ea	
3	AB6732	Pole bolt - M16 x 550	2	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	3	ea	

HV43_3NM		Intermediate_3 phase Maintenance – Short Riser– normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	line post insulator	3	ea	
3	AB6732	Pole bolt - M16 x 550	2	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	3	ea	
6	CB0114	anti-swan xarm – short riser	1	ea	

HV43_3HM		Intermediate_3 phase Maintenance – Short Riser – high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	line post insulator	3	ea	
3	AB6732	Pole bolt - M16 x 550	2	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	3	ea	
6	CB0114	anti-swan xarm – short riser	1	ea	

CU	CU Description
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HV43_3EM Intermediate_3 phase Maintenance – Short Riser - extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	Line post insulator	3	ea	
3	AB6732	Pole bolt - M16 x 550	2	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	3	ea	
6	CB0114	anti-swan xarm – short riser	1	ea	



Physical Design Dimensions

Phase	X dim	Y dim
left	1545	230
centre	0	0
right	1545	230

Origin - Top eye bolt (0-0)

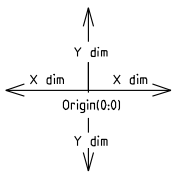
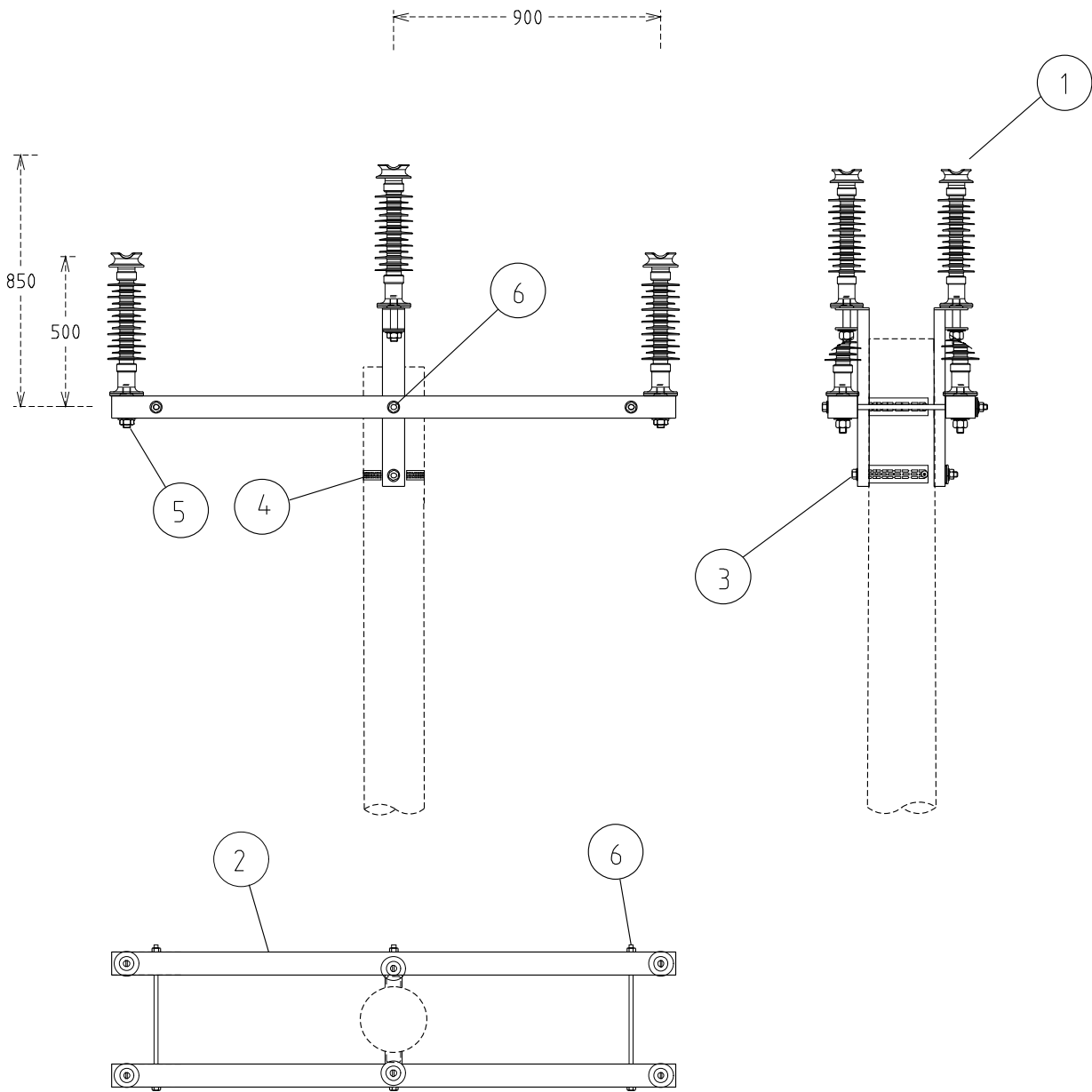
				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE		westernpower	
				TITLE			DRAWN: JRR		DATE: 02-07-2015	
				HORIZONTAL TERMINATION			ORIGINATED:		SCALE: NTS	
				ANTI SWAN CROSS-ARM			CHECKED: REE		ORG. No.	
							APPROVED: GRANT STACY		REV. B	
									SHT. 4	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD					
B	22.01.16	TITLE CHANGED	REE	ME	GS					
A	03.08.15	ORIGINAL ISSUE	REE	REE	GS					

CU	CU Description
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HV44_3NAS		Horizontal termination_3ph Anti-swan normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	2	ea	
4	CB0107	xarm metal rural	2	ea	
5	IC0041	strain insulator	3	ea	
6	AB6732	Pole bolt - M16 x 550	1	ea	
7	CE7541	dispersion plate	2	ea	
8	AB6744	M16 threaded stud 650mm	5	ea	
9	CB7549	Rod 20mm dia x 1350 lg (cut to fit between cross-arms)	1	ea	

HV44_3HAS		Horizontal termination_3ph Anti-swan high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	2	ea	
4	CB0107	xarm metal rural	2	ea	
5	IC0041	strain insulator	3	ea	
6	AB6732	Pole bolt - M16 x 550	1	ea	
7	CE7541	dispersion plate	2	ea	
8	AB6744	M16 threaded stud 650mm	5	ea	
9	CB7549	Rod 20mm dia x 1350 lg (cut to fit between cross-arms)	1	ea	

HV44_3EAS		Horizontal termination_3ph Anti-swan extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6023	16dia eyebolt 300 long	2	ea	
2	AB6025	16dia eyebolt 400 long	1	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	2	ea	
4	CB0107	xarm metal rural	2	ea	
5	IC0031	strain insulator	3	ea	
6	AB6732	Pole bolt - M16 x 550	1	ea	
7	CE7541	dispersion plate	2	ea	
8	AB6744	M16 threaded stud 650mm	5	ea	
9	CB7549	Rod 20mm dia x 1350 lg (cut to fit between cross-arms)	1	ea	



Physical Design Dimensions

Phase	X dim	Y dim
left	900	500
centre	0	850
right	900	500

Origin - King bolt (0:0)

				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR		DATE: 27-04-2016 DRG. No.	
				INTERMEDIATE DOUBLE CROSS-ARM			ORIGINATED: AT		SCALE: NTS	
							CHECKED: FK		HV45	
							APPROVED: GRANT STACY		REV. B	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					
B	22.12.17	PHYSICAL DESIGN DIMENSION REVISED	NMc	REE	GS					
A	05.05.16	ORIGINAL ISSUE	AT	FK	GS					

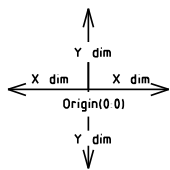
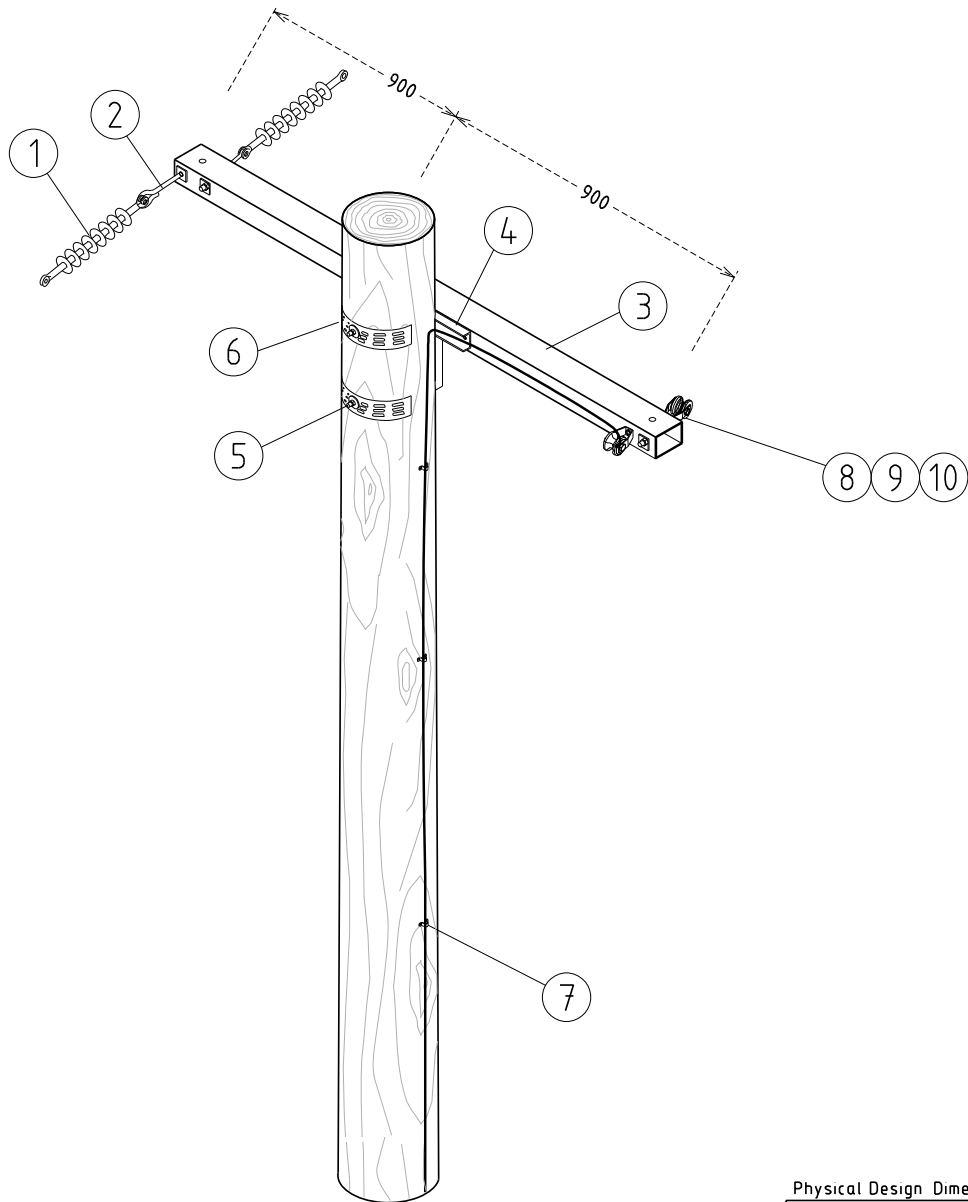
CU	CU Description
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HV45_2S Intermediate_2 phase double xarm normal & high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	Line post insulator	4	ea	
2	CB0109	unitised xarm	2	ea	
3	AB6732	Pole bolt - M16 x 550	1	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	4	ea	
6	AB6744	M16 Continuously threaded rod 650mm long with nuts	3	ea	

HV45_2E Intermediate_2 phase double xarm extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	Line post insulator	4	ea	
2	CB0109	unitised xarm	2	ea	
3	AB6732	Pole bolt - M16 x 550	1	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	4	ea	
6	AB6744	M16 Continuously threaded rod 650mm long with nuts	3	ea	

HV45_3S Intermediate_3 phase double xarm normal & high					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0086	Line post insulator	6	ea	
2	CB0109	unitised xarm	2	ea	
3	AB6732	Pole bolt - M16 x 550	1	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	6	ea	
6	AB6744	M16 Continuously threaded rod 650mm long with nuts	3	ea	

HV45_3E Intermediate_3 phase double xarm extreme					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IF0001	Line post insulator	6	ea	
2	CB0109	unitised xarm	2	ea	
3	AB6732	Pole bolt - M16 x 550	1	ea	
4	CE7541	dispersion plate	2	ea	
5	AB4822	insulator stud	6	ea	
6	AB6744	M16 Continuously threaded rod 650mm long with nuts	3	ea	



Physical Design Dimensions

Phase	X dim	Y dim
Phase	900	0
Earth	900	0

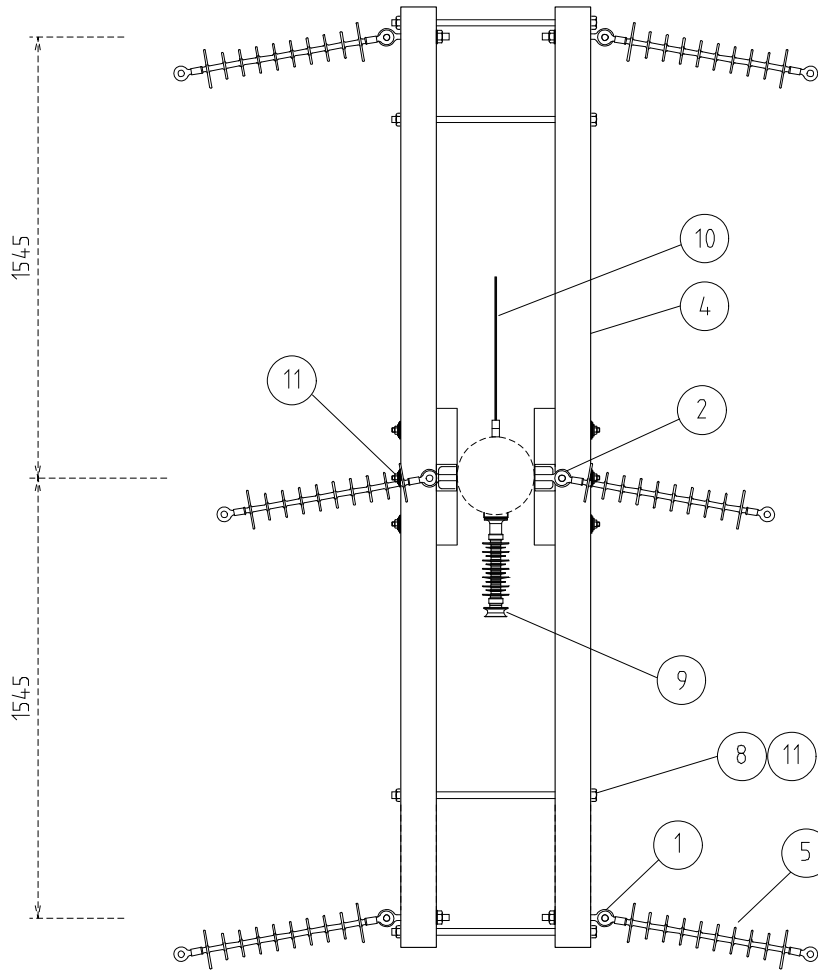
Origin - King bolt (0.0)

				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE		westernpower		
				TITLE			DRAWN: JRR		DATE: 05-09-2016 DRG. No.		
				SINGLE PHASE ANTI CLASH / ANTI GALAH STRAIN			ORIGINATED: AT		SCALE: NTS		
							CHECKED: REE		HV46		
							APPROVED: CHRIS OMODEI		REV: B		
									SHT.		
REV	DATE	DESCRIPTION	DRG.	CHKD.	APRD.						
B	26.10.20	PHYSICAL DESIGN DIMENSION ADDED		NMc	CO	GS					
A	07.08.16	ORIGINAL ISSUE		AT	REE	CO					

CU	CU Description
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HV46_IS		1 Phase_Strain normal & high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0041	Strain Insulator	2	ea	
2	AB6023	Eyebolt M16x300	2	ea	
3	CB0118	Cross-arm Standard	1	ea	
4	CB3025	Cross-arm Bracket	1	ea	
5	AB6732	Pole Bolt M16x550	2	ea	
6	CE7541	Dispersion Plate	2	ea	
7		See HV34	1	ea	
8	IA0256	Strain Insulator	2	ea	
9	CB0316	Shackle 'C' Style	2	ea	
10	AB6734	Pole bolt M16x300	2	ea	Cut to length

HV46_IE		1 Phase_Strain extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	IC0031	Strain Insulator	2	ea	
2	AB6023	Eyebolt M16x300	2	ea	
3	CB0118	Cross-arm Standard	1	ea	
4	CB3025	Cross-arm Bracket	1	ea	
5	AB6732	Pole Bolt M16x550	2	ea	
6	CE7541	Dispersion Plate	2	ea	
7		See HV34	1	ea	
8	IA0256	Strain Insulator	2	ea	
9	CB0316	Shackle 'C' Style	2	ea	
10	AB6734	Pole bolt M16x300	2	ea	Cut to length



Physical Design Dimensions LHS

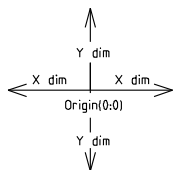
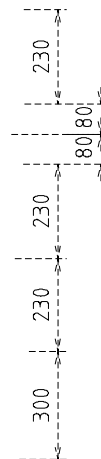
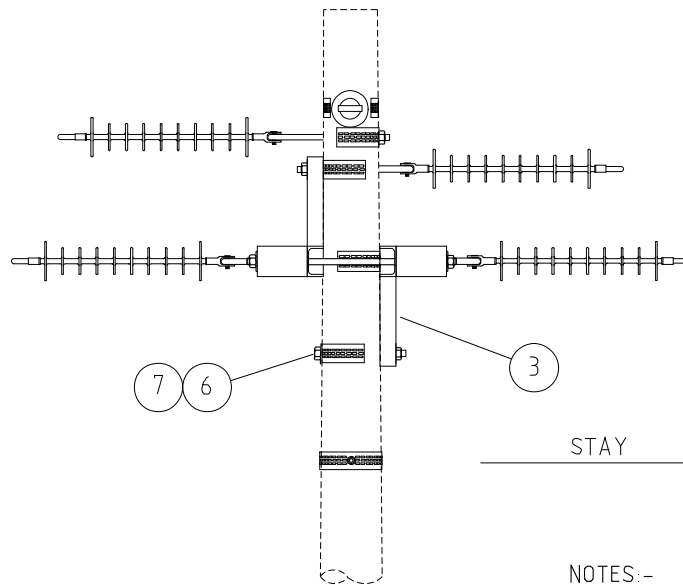
Phase	X dim	Y dim
left	1545	390
centre	0	80
right	1545	390

Origin - Top eye bolt (0:0)

Physical Design Dimensions RHS

Phase	X dim	Y dim
left	1545	390
centre	0	160
right	1545	390

Origin - Top eye bolt (0:0)



NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.

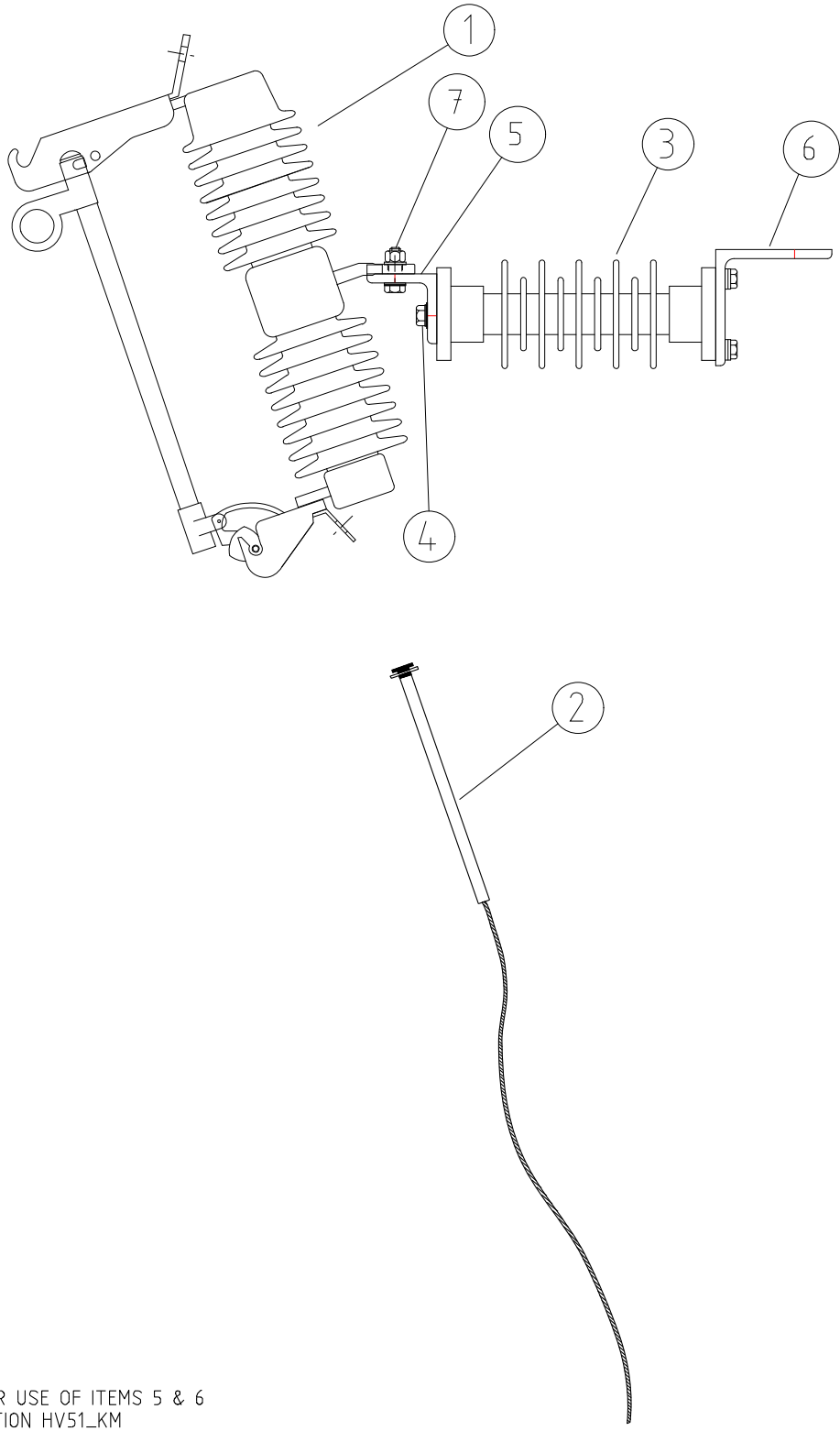
				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE		westernpower		
C	22.12.17	PHYSICAL DESIGN DIMENSION ADDED		NMc	REE	GS	DRAWN:	JRR	DATE:	11-10-2016	DRG. No.
B	02.05.17	STAND-OFF INSULATOR LOCATION CHANGED		JC	REE	GS	ORIGINATED:	DVT	SCALE:	NTS	HV47
A	13.10.16	ORIGINAL ISSUE		DVT		GS	CHECKED:				
REV	DATE	DESCRIPTION		DRGD.	CHKD.	APRD.	APPROVED:	GRANT STACY		REV. C	SHT.

CU	CU Description
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HV47_3NAS		Strain Angle Deviation_3ph Anti-swan normal			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6020	16dia eyebolt 200 long	4	ea	
2	AB6025	16dia eyebolt 400 long	2	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	2	ea	
4	CB0107	xarm metal rural	2	ea	
5	IC0041	strain insulator	6	ea	
6	AB6732	Pole bolt - M16 x 550	1	ea	
7	CE7541	dispersion plate	5	ea	
8	CB7549	Rod 20mm dia x 1350 lg (cut to fit between cross-arms)	1	ea	
9		See Drawing HV36	1	ea	
10		See Drawing ST1	1	ea	
11	AB6744	M16 threaded Stud 650mm	5	ea	

HV47_3HAS		Strain Angle Deviation_3ph Anti-swan high			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6020	16dia eyebolt 200 long	4	ea	
2	AB6025	16dia eyebolt 400 long	2	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	2	ea	
4	CB0107	xarm metal rural	2	ea	
5	IC0041	strain insulator	6	ea	
6	AB6732	Pole bolt - M16 x 550	1	ea	
7	CE7541	dispersion plate	5	ea	
8	CB7549	Rod 20mm dia x 1350 lg (cut to fit between cross-arms)	1	ea	
9		See Drawing HV36	1	ea	
10		See Drawing ST1	1	ea	
11	AB6744	M16 threaded Stud 650mm	5	ea	

HV47_3EAS		Strain Angle Deviation_3ph Anti-swan extreme			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6020	16dia eyebolt 200 long	4	ea	
2	AB6025	16dia eyebolt 400 long	2	ea	
3	CB3025	xarm bracket supplied with nuts & bolts	2	ea	
4	CB0107	xarm metal rural	2	ea	
5	IC0031	strain insulator	6	ea	
6	AB6732	Pole bolt - M16 x 550	3	ea	
7	CE7541	dispersion plate	6	ea	
8	CB7549	Rod 20mm dia x 1350 lg (cut to fit between cross-arms)	1	ea	
9		See Drawing HV36	1	ea	
10		See Drawing ST1	1	ea	
11	AB6744	M16 threaded Stud 650mm	5	ea	
12	CP1090	Raiser bracket	1	ea	



NOTE:-
 1. SEE DCSH R10 FOR USE OF ITEMS 5 & 6
 AND CU DESCRIPTION HV51_KM

				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR DATE: 11-04-2014 DRG. No.		HV51	
				EDO FUSE BASE AND LINK			ORIGINATED: SCALE: NTS			
H	22.06.22	ITEM 7 ADDED AND REVISED CU DESCRIPTION ACCORDINGLY	SH	NMC	GS	CHECKED: REE		REV. SHT.		
G	05.02.19	NORMAL POLLUTION EDO FUSE BASE DELETED	REE	NN	GS	APPROVED: GRANT STACY		H		
F	27.07.18	L' BRACKET ADDED	NMc	REE	GS					
E	10.07.18	STAND-OFF INSULATOR TITLE CHANGED	JC	REE	FK					
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					

CU	CU Description
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HV51_3.15EDO		Expulsion Drop-Out Fuse_ 3.15 Amp			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1562	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

HV51_5EDO		Expulsion Drop-Out Fuse_ 5 Amp			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1563	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

HV51_8EDO		Expulsion Drop-Out Fuse_ 8 Amp			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1564	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

CU	CU Description
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HV51_10 EDO		Expulsion Drop-Out Fuse_ 10 Amp			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1565	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

HV51_16 EDO		Expulsion Drop-Out Fuse._ 16 Amp			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1566	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

HV51_20EDO		Expulsion Drop-Out Fuse._ 20 Amp			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1538	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

CU	CU Description
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HV51_25EDO		Expulsion Drop-Out Fuse. _ 25 Amp			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1539	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

HV51_31.5EDO		Expulsion Drop-Out Fuse. _ 31.5 Amp			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1540	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

HV51_40EDO		Expulsion Drop-Out Fuse _ 40 Amp			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1541	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

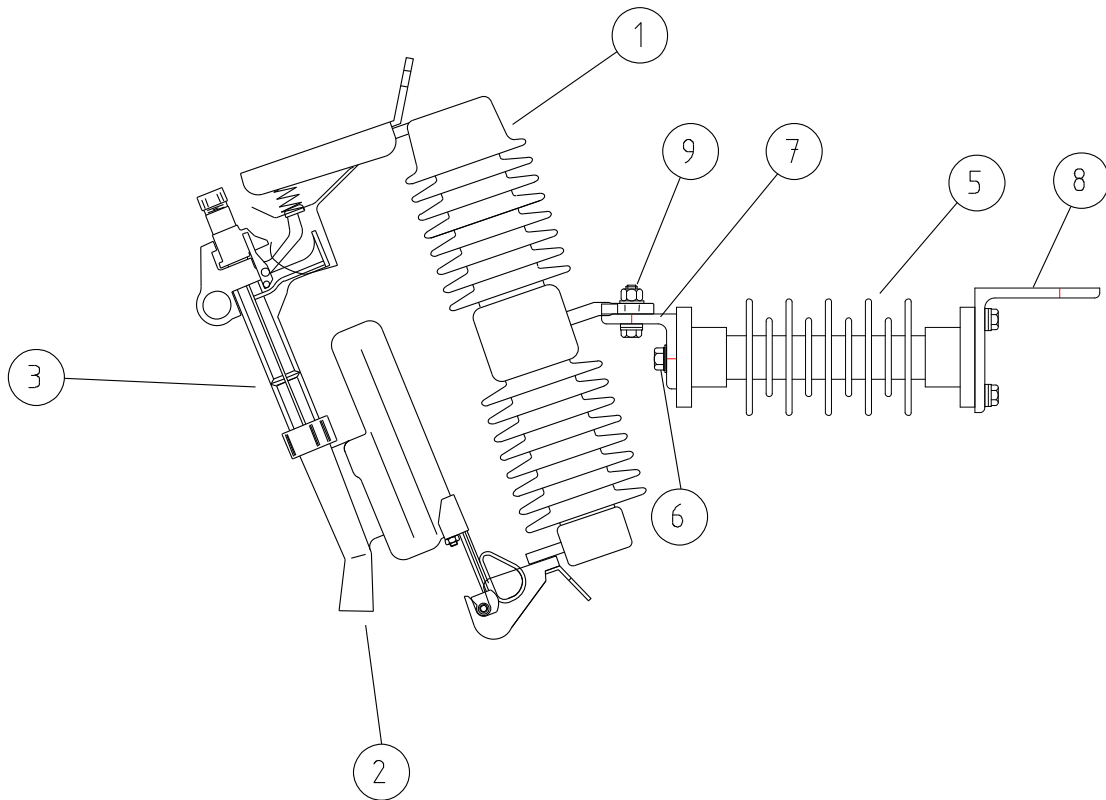
CU	CU Description
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HV51_63EDO	Expulsion Drop-Out Fuse _ 63 Amp
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ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1543	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

HV51_80 EDO	Expulsion Drop-Out Fuse _ 80 Amp
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ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1857	EDO Fuse base & stand-off insulator	1	ea	
2	GF1546	Link, fuse element	1	ea	
3	IC0083	Stand-off Insulator	1	ea	
4	AB2957	30mm M12 Screw	2	ea	
4	AW2291	12mm lock washer	2	ea	
5	CB0481	Mounting Bracket	1	ea	
6	CB0482	'L' Bracket & Bolt	1	ea	
7	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	



NOTE:-
 1. SEE DCSH R10 FOR USE OF ITEMS 7 & 8.

				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR		DATE: 11-04-2014	
				FAULT TAMER FUSE BASE AND LINK			ORIGINATED:		SCALE: NTS	
							CHECKED: REE		DRG. No. HV52	
							APPROVED: GRANT STACY		REV. J	
REV	DATE	DESCRIPTION	DRG.	CHKD.	APRD.			SHT.		

CU	CU Description
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HV52_3FT		Standard Speed Fault Tamer Drop-Out Fuse_ 3 Amp (max 22kV)			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF2017	Fault Tamer Fuse base	1	ea	
2	GF1915	Current Limiter	1	ea	
3	GF2015	Fuse Link Carrier	1	ea	
4	GF1916	Link, fuse element	1	ea	
5	IC0083	Stand-off Insulator	1	ea	
6	AB2957	30mm M12 Screw	2	ea	
6	AW2291	12mm lock washer	2	ea	
7	CB0481	Mounting Bracket	1	ea	
8	CB0482	'L' Bracket & Bolt	1	ea	
9	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

HV52_5FT		Standard Speed Fault Tamer Drop-Out Fuse_ 5 Amp (max 22kV)			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF2017	Fault Tamer Fuse base	1	ea	
2	GF1915	Current Limiter	1	ea	
3	GF2015	Fuse Link Carrier	1	ea	
4	GF1917	Link, fuse element	1	ea	
5	IC0083	Stand-off Insulator	1	ea	
6	AB2957	30mm M12 Screw	2	ea	
6	AW2291	12mm lock washer	2	ea	
7	CB0481	Mounting Bracket	1	ea	
8	CB0482	'L' Bracket & Bolt	1	ea	
9	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

CU	CU Description
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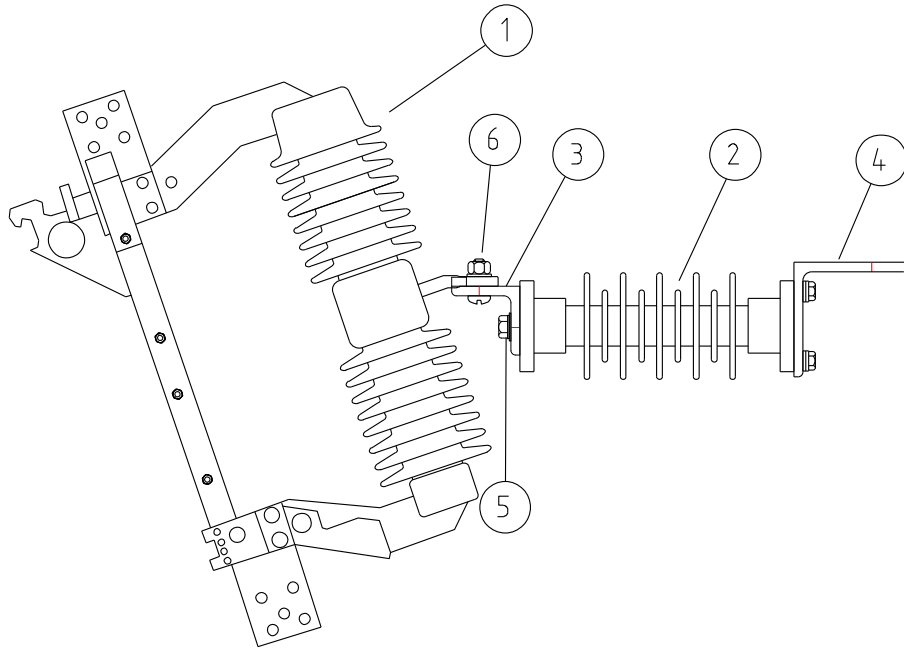
HV52_7FT Standard Speed Fault Tamer Drop-Out Fuse_ 7 Amp (max 22kV)					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF2017	Fault Tamer Fuse base	1	ea	
2	GF1915	Current Limiter	1	ea	
3	GF2015	Fuse Link Carrier	1	ea	
4	GF1918	Link, fuse element	1	ea	
5	IC0083	Stand-off Insulator	1	ea	
6	AB2957	30mm M12 Screw	2	ea	
6	AW2291	12mm lock washer	2	ea	
7	CB0481	Mounting Bracket	1	ea	
8	CB0482	'L' Bracket & Bolt	1	ea	
9	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

HV52_10FT Standard Speed Fault Tamer Drop-Out Fuse_ 10 Amp (max 22kV)					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF2017	Fault Tamer Fuse base	1	ea	
2	GF1915	Current Limiter	1	ea	
3	GF2015	Fuse Link Carrier	1	ea	
4	GF1919	Link, fuse element	1	ea	
5	IC0083	Stand-off Insulator	1	ea	
6	AB2957	30mm M12 Screw	2	ea	
6	AW2291	12mm lock washer	2	ea	
7	CB0481	Mounting Bracket	1	ea	
8	CB0482	'L' Bracket & Bolt	1	ea	
9	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

CU	CU Description
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HV52_15FT Standard Speed Fault Tamer Drop-Out Fuse_ 15 Amp (max 22kV)					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF2017	Fault Tamer Fuse base	1	ea	
2	GF1915	Current Limiter	1	ea	
3	GF2015	Fuse Link Carrier	1	ea	
4	GF1920	Link, fuse element	1	ea	
5	IC0083	Stand-off Insulator	1	ea	
6	AB2957	30mm M12 Screw	2	ea	
6	AW2291	12mm lock washer	2	ea	
7	CB0481	Mounting Bracket	1	ea	
8	CB0482	'L' Bracket & Bolt	1	ea	
9	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	

HV52_20FT Standard Speed Fault Tamer Drop-Out Fuse_ 20 Amp (max 22kV)					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF2017	Fault Tamer Fuse base	1	ea	
2	GF1915	Current Limiter	1	ea	
3	GF2015	Fuse Link Carrier	1	ea	
4	GF1921	Link, fuse element	1	ea	
5	IC0083	Stand-off Insulator	1	ea	
6	AB2957	30mm M12 Screw	2	ea	
6	AW2291	12mm lock washer	2	ea	
7	CB0481	Mounting Bracket	1	ea	
8	CB0482	'L' Bracket & Bolt	1	ea	
9	AB4551	40mm M12 Bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm flat washer	1	ea	



NOTE:-

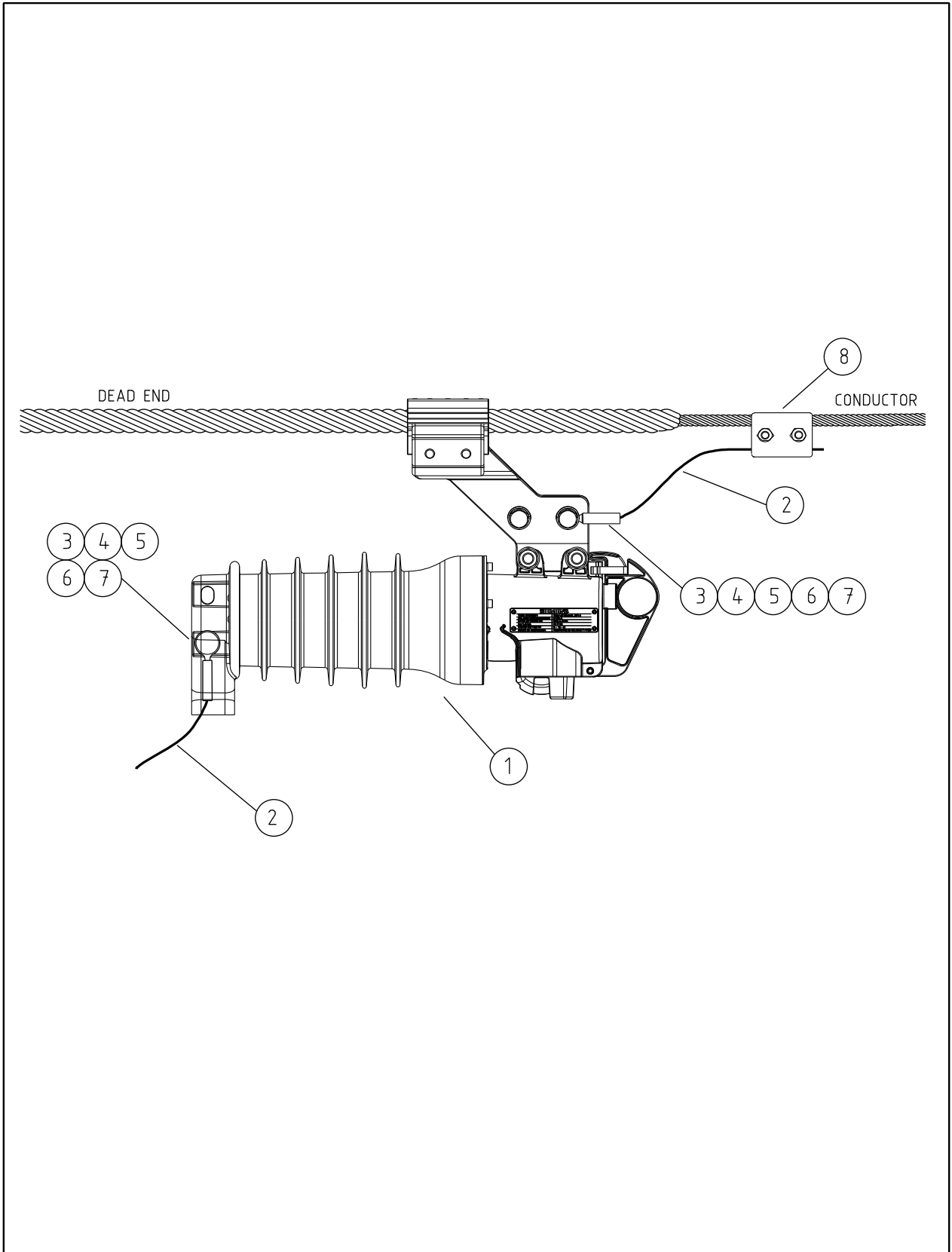
1. SEE DCSH R10 FOR USE OF ITEMS 3 & 4.

				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE		westernpower	
				TITLE		DRAWN: JRR		DATE: 07-11-2017	
				HV ISOLATOR		ORIGINATED: REE		SCALE: NTS	
						CHECKED: JC		DRG. No. HV53	
						APPROVED: GRANT STACY		REV. F	
REV	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.			SHT.	
F	22.06.22	ITEM 6 ADDED	REE	NN	GS				
E	16.10.19	ISOLATING LINK MODIFIED	REE	NN	GS				
D	05.02.19	NORMAL POLLUTION ISOLATOR BASE DELETED	REE	NN	GS				
C	01.09.18	L BRACKET ADDED	NMc	REE	GS				

CU	CU Description
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HV53_HC		Disconnect switch 600 Amp Crossarm			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0083	Disconnect Switch	1	ea	
2	IC0083	Stand-off Insulator	1	ea	
3	CB0481	Mounting Bracket	1	ea	
4	CB0482	'L' Bracket & Bolt	1	ea	
5	AB2957	30mm M12 Screw	2	ea	
5	AW2429	12mm lock washer	2	ea	
6	AB4551	40mm M12 bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm Flat washer	1	ea	

HV53_HB		Disconnect switch 600 Amp Bracket			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0083	Disconnect Switch	1	ea	
2	IC0083	Stand-off Insulator	1	ea	
3	CB0481	Mounting Bracket	1	ea	
4	CB0482	'L' Bracket & Bolt	1	ea	
5	AB2957	30mm M12 Screw	2	ea	
5	AW2429	12mm lock washer	2	ea	
6	AB4551	40mm M12 bolt	1	ea	
	AW2291	12mm lock washer	1	ea	
	AW3523	12mm Flat washer	1	ea	



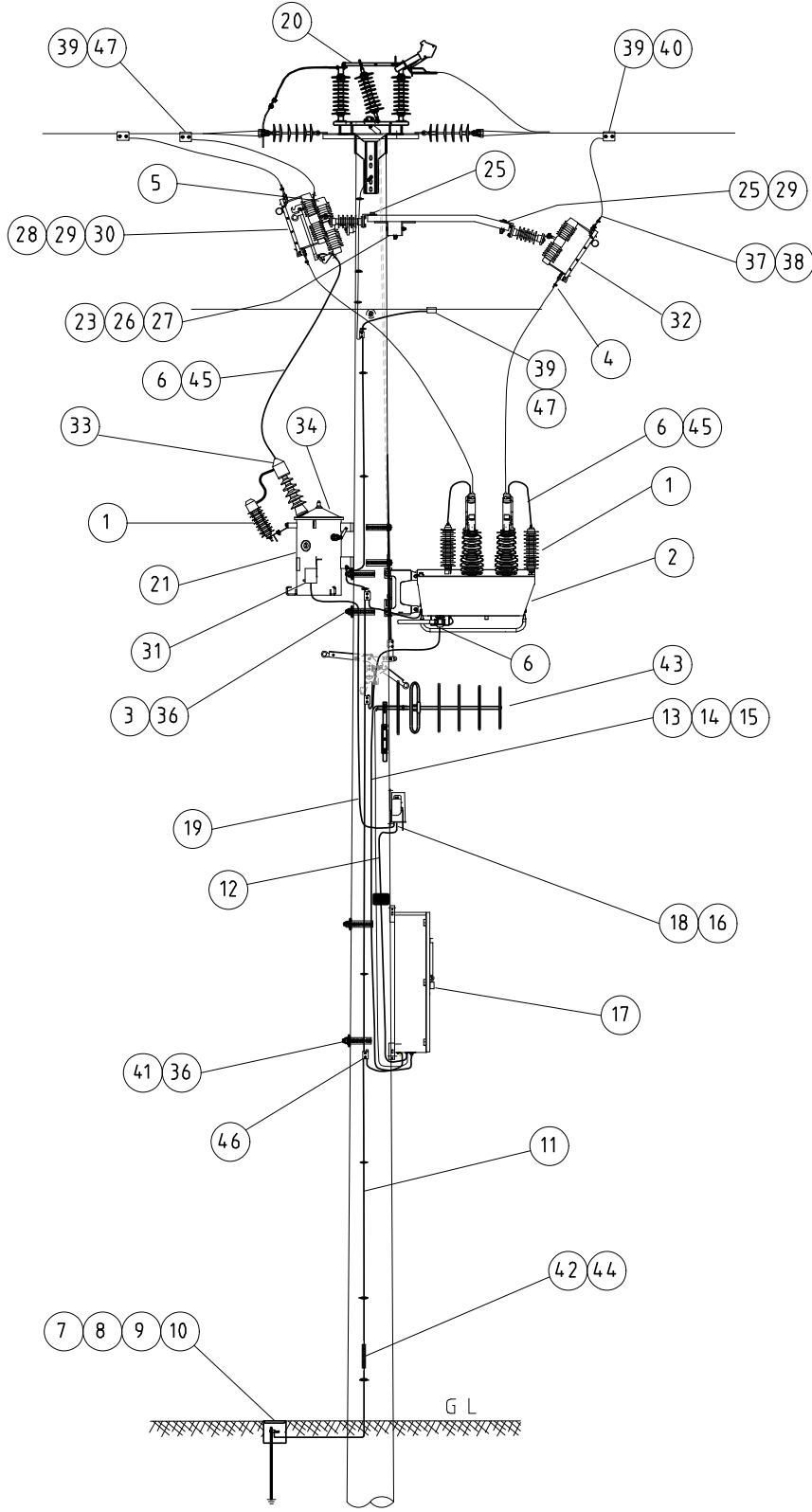
				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE		westernpower	
				TITLE		DRAWN: SL		DATE: 14-10-2024	
				FUSE SAVER SINGLE PHASE		ORIGINATED: NMc		SCALE: NTS	
						CHECKED: NMc		DRG. No. HV54-1	
						APPROVED: CHRIS OMODEI		REV. A	
								SHT.	
REV.	DATE	DESCRIPTION	SL	NMc	CO				
A	14.10.24	FIRST ISSUE.							
			DRGD.	CHKD.	APRD				



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CU	CU Description
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HV54_1PH		Fuse Saver – Single Phase			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS6000	Fuse Saver	1	ea	
2	EE1428	LV ABC 95	1	ea	
3	AB2959	40mm M12 Bolt S/S	2	ea	
4	AN1495	M12 Nut S/S	2	ea	
5	AW2429	12mm Lock Washer S/S	2	ea	
6	AW2607	12mm Flat Washer S/S	2	ea	
7	FL0401	Bi-Metal Lug M12 Hole – LV ABC	2	ea	
8		Select from CN9	1	ea	



NOTES:-
 1. FOR RECLOSER/LBS RE-INSTALLATION, ALL HV61-1 COMPATIBLE UNITS WITHOUT RECLOSER/LBS, SURGE ARRESTERS AND TRANSFORMER ARE SHOWN IN DQM WITH 'X' AT THE END OF THE COMPATIBLE UNIT NAME.

				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
G	31.10.19	ITEM PTS ANNOTATED		CO	NMc	GS	DRAWN: JRR	DATE: 08-01-2015	DRG. No.	
F	12.02.19	MORE ITEMS ADDED		NMc	NN	GS	ORIGINATED: REE	SCALE: NTS	HV61-1	
E	09.01.18	PTS TYPE CHANGED		JC	REE	GS	CHECKED: REE		REV. SHT.	
D	22.12.17	TRANSFORMER TYPE AND EARTH SYSTEM CHANGED		JC	REE	GS	APPROVED: GRANT STACY		G	
REV	DATE	DESCRIPTION		DRG	CHKD	APRD				

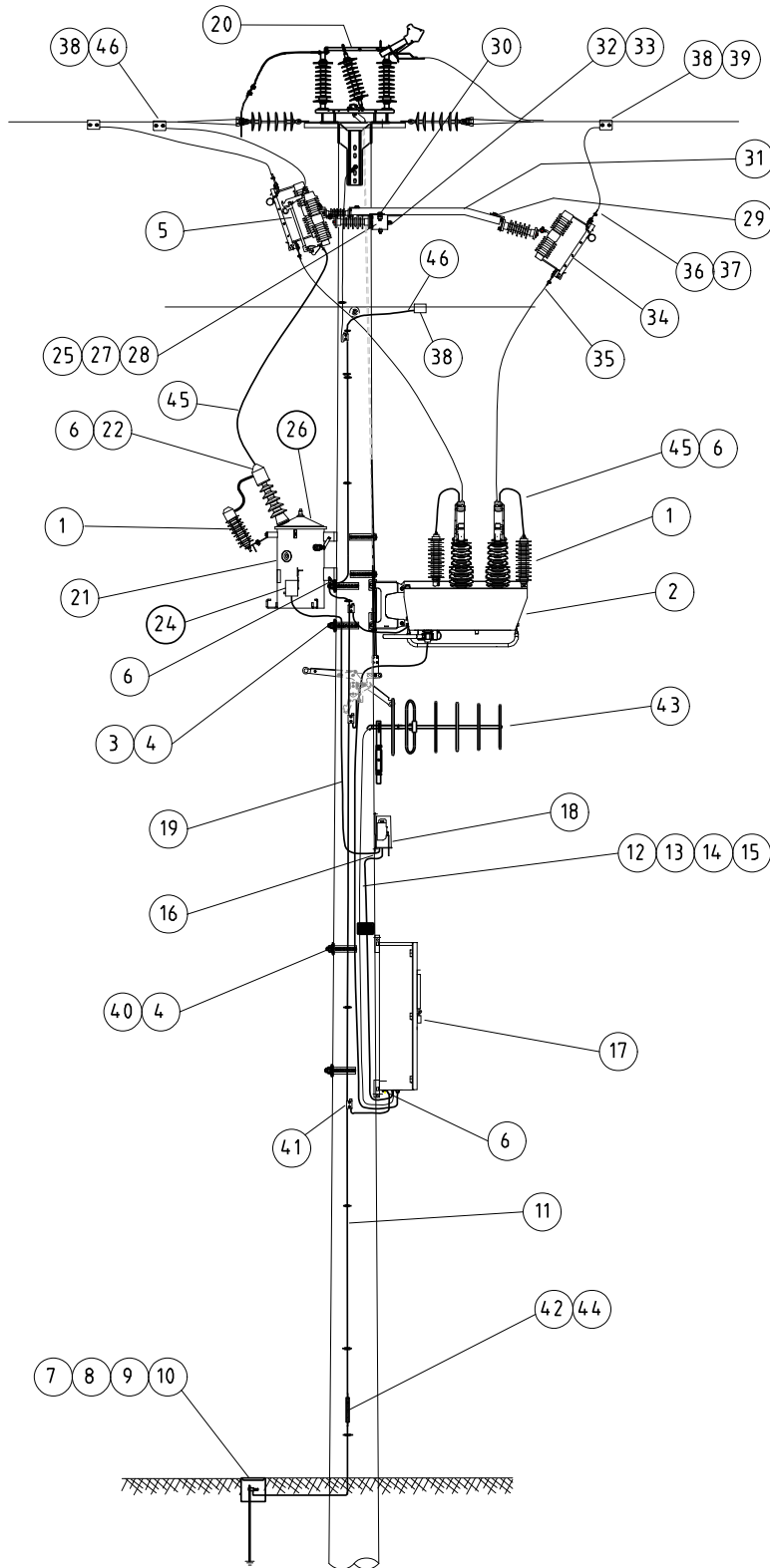


CU	CU Description
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HV61_22W (New) 3 phase recloser with PTS & isolators 22kV wood, one bushing transformer supply					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GA4012	surge arrester	6	ea	
	GA4002	surge arrester	1		
2	GS0320	recloser, control unit & umbilical	1	ea	
3	AB6742	Pole bolt - M20 x 550	2	ea	
4	FL7690	bi metal lug 12 dia hole (180 cct)	6	ea	
5		Select HV51 (EDO) or HV52 (Fault Tamer) as required	1	ea	See Note 2, Page 4
6	FL0401	bimetal lug 95 LV ABC	23	ea	
7	CE0058	earth rod clamp	1	ea	
8	CE0078	earth rod coupling	5	ea	
9	CE0135	earth rod	6	ea	
10	CE0201	earthing terminal box	1	ea	
11	FM0915	earthing kit	1	ea	
12	EE1319	3c PVC 2.5 mm ² (7.5m reel)	1	ea	
13	GC7872	20mm corrugated flexible conduit grey (10m)	1	roll	
	AS2513	Wood screw	20	ea	
14	GC7191	20mm conduit saddles	5	ea	
15	GC7192	25mm conduit saddle	5	ea	
16	GC7846	20mm corrugated conduit gland	3	ea	
17	OH0194	padlock	1	ea	
18	GZ0016	50A Heinemann circuit breaker 1ph	1	ea	
19	EE1120	2c 6 mm ² service cable	10	mtr	
20		Select HV19 (PTS) as required	1	ea	
21	XT0207	10kVA 12.7kV 1 bushing transformer	1	ea	
23	CB1121	x-arm metal	1	ea	
25	AB4608	Bolt M16 x 90 (DISO)	6	ea	
26	CB3025	x-arm mounting bracket	1	ea	
27	AB6732	Pole bolt - M16 x 550	2	ea	
28	AB4612	bolt M16x130 (DOF)	1	ea	
29	CB0550	isolator extension bracket	3	ea	
30	AB4567	Bolt M12x150 long (Extension Bracket)	6	ea	
31	GF1801	Fuse holder 100A	1	ea	
	GF0550	Fuse link, 10A	1	ea	
32		Select HV53 (Isolator) as required	6	ea	See Note 6, Page 4
33	GT0353	Wildlife cover	1	ea	
34	FL0142	Lug copper	2	ea	
36	CE7541	dispersion plate	8	ea	
37	FL0402	Bimetal lug 150 LV ABC	6	ea	
38	FT0150	150 LV ABC 4Cx4m length	3	ea	
39		Select CN09 (PG Clamp) as required	8	ea	
40	CJ0496	Stalk lug 150 LV ABC	7	ea	
41	AB6741	Pole bolt – M12 x 550	2	ea	
42	CJ0498	Stalk lug copper	1	ea	
43		Select DA01 (recloser comms) as required	1	ea	
44	FE0055	Heat shrink	1	mr	
45	FT0095	LV ABC 95 4m length	1	ea	
46	CC0081	IPC	4	ea	
47	CJ0494	Stalk lug 95 LV ABC Al	2	ea	

CU	CU Description
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HV61_33W (New) 3 phase recloser with PTS & isolators 33kV wood, one bushing transformer supply					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GA4013	surge arrester	6	ea	
	GA4003	surge arrester	1		
2	GS0320	recloser, control unit & umbilical	1	ea	
3	AB6742	Pole bolt M20 x 550	2	ea	
4	FL7690	bi metal lug 12 dia hole (180 cct)	6	ea	
5		Select HV51 (EDO) or HV52 (Fault Tamer) as required	1	ea	See Note 2, Page 4
6	FL0401	bimetal lug 95 LV ABC	23	ea	
7	CE0058	earth rod clamp	1	ea	
8	CE0078	earth rod coupling	5	ea	
9	CE0135	earth rod	6	ea	
10	CE0201	earthing terminal box	1	ea	
11	FM0915	earthing kit	1	ea	
12	EE1319	3c PVC 2.5 mm ² (7.5m reel)	1	ea	
13	GC7872	20mm corrugated flexible conduit grey (10m)	1	roll	
	AS2513	Wood screw	20	ea	
14	GC7191	20mm conduit saddles	5	ea	
15	GC7192	25mm conduit saddle	5	ea	
16	GC7846	20mm corrugated conduit gland	3	ea	
17	OH0194	padlock	1	ea	
18	GZ0016	50A Heinemann circuit breaker 1ph	1	ea	
19	EE1120	2c 6 mm ² service cable	10	mtr	
20		Select HV19 (PTS) as required	1	ea	
21	XT0208	10kVA 19.1kV 1 bushing transformer	1	ea	
23	CB1121	x-arm metal	1	ea	
25	AB4608	Bolt M16 x 90 (DISO)	6	ea	
26	CB3025	x-arm mounting bracket	1	ea	
27	AB6732	Pole bolt - M16 x 550	2	ea	
28	AB4612	bolt M16x 130 (DOF)	1	ea	
29	CB0550	isolator extension bracket	3	ea	
30	AB4567	Bolt M12x150 (Extension Bracket)	6	ea	
31	GF1801	Fuse holder 100A	1	ea	
	GF0550	Fuse link, 10A	1	ea	
32		Select from HV53 (Isolator) as required	6	ea	See Note 2, Page 6
33	GT0353	Wildlife cover	1	ea	
34	FL0142	Lug copper	2	ea	
36	CE7541	dispersion plate	8	ea	
37	FL0402	Bimetal lug 150 LV ABC	6	ea	
38	FT0150	150 LV ABC 4Cx4m length	3	ea	
39		Select CN09 (PG Clamp) as required	8	ea	
40	CJ0496	Stalk lug 150 LV ABC	6	ea	
41	AB6741	Pole bolt – M12 x 550	2	ea	
42	CJ0498	Stalk lug copper	1	ea	
43		Select DA01 (recloser comms) as required	1	ea	
44	FE0055	Heat shrink	1	mr	
45	FT0095	LV ABC 95 4m length	1	ea	
46	CC0081	IPC	4	ea	
47	CJ0494	Stalk lug 95 LV ABC AI	2	ea	



NOTES:-
 1. FOR RECLOSER/LBS RE-INSTALLATION, ALL HV61-2 COMPATIBLE UNITS WITHOUT RECLOSER/LBS, SURGE ARRESTERS AND TRANSFORMER ARE SHOWN IN DQM WITH 'X' AT THE END OF THE COMPATIBLE UNIT NAME.

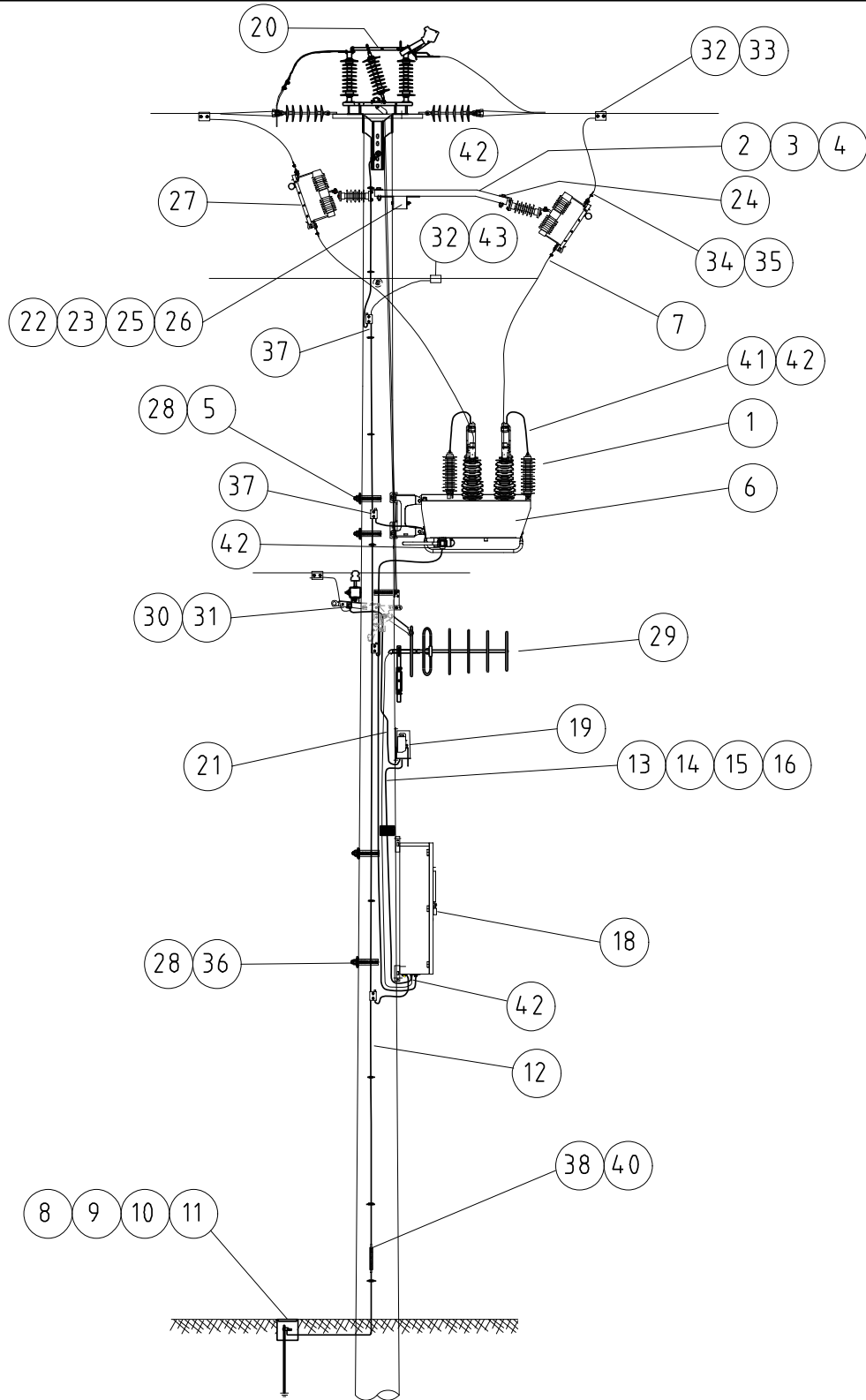
REV	DATE	DESCRIPTION	DRGD.	CHKD.	APPRD.	COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE		westernpower		
G	31.10.19	ITEM PTS ANNOTATED	CO	NMc	GS	(NEW) 3PH RECLOSER / LOAD BREAK SWITCH WITH PTS & ISOLATORS AND 2 BUSHING TRANSFORMER SUPPLY			DRAWN: JRR	DATE: 14-01-2015	DRG. No.		
F	12.02.19	EARTHING SYSTEM MODIFIED	NMc	NN	GS				ORIGINATED: REE	SCALE: NTS	HV61-2		
E	09.01.18	PTS TYPE CHANGED	JC	REE	GS				CHECKED: REE	APPROVED: GRANT STACY		REV. G	SHT.
D	22.12.17	TRANSFORMER TYPE AND EARTHING SYSTEM CHANGED	JC	REE	GS								
C	21.12.16	NOTE 1 ADDED	JC	REE	GS								



CU	CU Description
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HV61_22W_M	(New) 3 phase recloser with PTS & isolators 22kV, two bushing transformer supply
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ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GA4012	surge arrester	6	ea	
	GA4002	surge arrester	2		
2	GS0320	recloser, control unit & umbilical	1	ea	
3	AB6742	Pole bolt - M20 x 550	2	ea	
4	CE7541	dispersion plate	8	ea	
5		Select HV51 (EDO) or HV52 (Fault Tamer) as required	2	ea	See Note 2, Page 4
6	FL0401	bimetal lug 95 LV ABC	28	ea	
7	CE0058	earth rod clamp	1	ea	
8	CE0078	earth rod coupling	5	ea	
9	CE0135	earth rod	6	ea	
10	CE0201	earthing terminal box	1	ea	
11	FM0915	earthing kit	1	ea	
12	EE1319	3c PVC 2.5mm2 (7.5m reel)	1	ea	
13	GC7872	20mm corrugated flexible conduit grey (10m)	1	roll	
14	GC7191	20mm conduit saddles	5	ea	
15	GC7192	25mm conduit saddle	5	ea	
	AS2513	Wood screw	20	ea	
16	GC7846	20mm corrugated conduit gland	3	ea	
17	OH0194	padlock	1	ea	
18	GZ0016	50A Heinemann circuit breaker 1ph	1	ea	
19	EE1120	2c 6 sq mm service cable	10	mtr	
20		Select HV19 (PTS) as required	1	ea	
21	XT0203	10kVA 22 kV 2 bushing transformer	1	ea	
22	GT0353	Wildlife cover	2	ea	
24	GF1801	Fuse holder 100A	1	ea	
	GF0550	Fuse link, 10A	1	ea	
25	CB1121	x-arm metal	1	ea	
26	FL0142	Lug copper	2	ea	
27	CB3025	x-arm mounting bracket	1	ea	
28	AB6732	Pole bolt - M16 x 550	2	ea	
29	AB4608	Bolt M16 x 90 (DISO)	6	ea	
30	AB4612	bolt M16 x 130 (DOF)	2	ea	
31	CB0550	isolator extension bracket	3	ea	
32	AB4567	Bolt M12x150 long (Extension Bracket)	6	ea	
33	AB4608	Bolt M16 x 90 (Extension Bracket)	3	ea	
34		Select from HV53 (Isolator) as required	6	ea	See Note 2, Page 4
35	FL7690	bi metal lug 12 dia hole (180 cct)	6	ea	
36	FL0402	Bimetal lug 150 LV ABC	6	ea	
37	FT0150	150 LV ABC 4Cx4m length	2	ea	
38		Select CN09 (PG Clamp) as required	9	ea	
39	CJ0496	Stalk lug 150 LV ABC	6	ea	
40	AB6741	Pole bolt – M12 x 550	2	ea	
41	CC0081	IPC 95 LV ABC	4	ea	
42	CJ0498	Stalk lug copper	1	ea	
43		Select DA01 (recloser comms) as required	1	ea	
44	FE0055	Heat shrink	1	mr	
45	FT0095	LV ABC 95 4m length	1	ea	
46	CJ0494	Stalk lug 95 LV ABC AI	3	ea	



NOTES:-

1. FOR RECLOSER/LBS RE-INSTALLATION, ALL HV61-3 COMPATIBLE UNITS WITHOUT RECLOSER/LBS AND SURGE ARRESTERS ARE SHOWN IN DQM WITH 'X' AT THE END OF THE COMPATIBLE UNIT NAME.

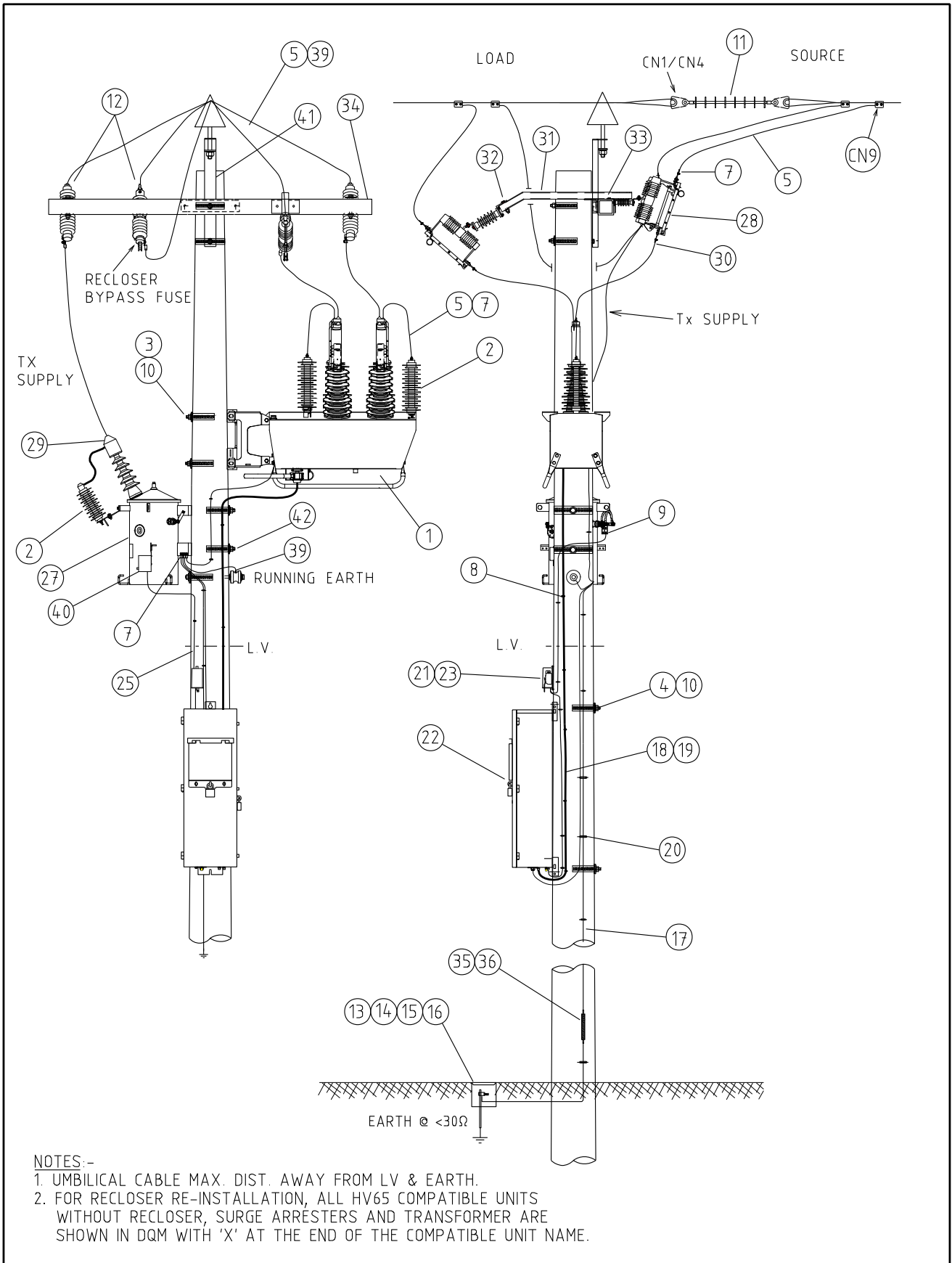
				COMPATIBLE UNIT				DISTRIBUTION DESIGN CATALOGUE		westernpower		
F	31.10.19	ITEM PTS ANNOTATED		CO	NMc	GS	TITLE	DRAWN: JRR	DATE: 15-01-2015	DRG. No.		
E	09.01.18	PTS TYPE CHANGED		REE	JC	GS	3PH RECLOSER / LOAD BREAK SWITCH WITH PTS & ISOLATORS AND LV SUPPLY	ORIGINATED: REE	SCALE: NTS	HV61-3		
D	22.12.17	EARTHING SYSTEM REVISED		JC	REE	GS		CHECKED: REE				
C	21.12.16	NOTE 1 ADDED		FK	JC	GS		APPROVED:				REV. F
REV	DATE	DESCRIPTION		DRGD	CHKD	APRO			GRANT STACY			

CU	CU Description
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HV61_22W_LV 3 phase recloser with PTS & isolators 22kV wood, LV aerial supply					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GA4012	surge arrester	6	ea	
2	CB0550	isolator extension bracket	3	ea	
3	AB4567	Bolt 12dia 150 long (Extension Bracket)	6	ea	
4	AB4608	Bolt M16 x 90 (Extension Bracket)	3	ea	
5	AB6742	Pole bolt - M20 x 550	2	ea	
6	GS0320	recloser, control unit & umbilical	1	ea	
7	FL7690	bi metal lug 12 dia hole (180 cct)	6	ea	
8	CE0058	earth rod clamp	1	ea	
9	CE0078	earth rod coupling	3	ea	
10	CE0135	earth rod	4	ea	
11	CE0201	earthing terminal box	1	ea	
12	FM0915	earthing kit	1	ea	
13	EE1319	3c PVC 2.5mm2 (7.5m reel)	1	ea	
14	GC7872	20mm corrugated flexible conduit grey (10m)	1	roll	
15	GC7191	20mm conduit saddles	10	ea	
16	GC7192	25mm conduit saddle	5	ea	
17	GC7846	20mm corrugated conduit gland	2	ea	
18	OH0194	padlock	1	ea	
19	GZ0016	50A Heinemann circuit breaker 1ph	1	ea	
20		Select HV19 (PTS) as required	1	ea	
21	EE1120	2c 6 sq mm service cable	10	mtr	
22	CB1121	x-arm metal	1	ea	
23	AB4569	bolt M12 x 170 (x-arm mounting)	2	ea	
24	AB4608	Bolt M16 x 90 (DISO)	6	ea	
25	CB3025	x-arm mounting bracket	1	ea	
26	AB6732	Pole bolt - M16 x 550	2	ea	
27		Select from HV53 (Isolator) as required	6	ea	See Note 6, page 4
28	CE7541	dispersion plate	6	ea	
29		Select DA01 (recloser comms) as required	1	ea	
30	GF0550	Fuse cartridge 10A	1	ea	
31	GF1801	Fuse holder 100A	1	ea	
32		Select CN09 (PG Clamp) as required	7	ea	
33	CJ0496	Stalk lug 150 LV ABC	6	ea	
34	FL0402	Bimetal lug 150 LV ABC	6	ea	
35	FT0150	150 LV ABC	2	ea	
36	AB6741	Pole bolt – M12 x 550	2	ea	
37	CC0081	IPC	3	ea	
38	CJ0498	Stalk lug copper	1	ea	
40	FE0055	Heat shrink	1	ea	
41	FT0095	LV ABC 95	1	ea	
42	FL0401	Bimetal lug 95 LV ABC	15	ea	
43	CJ0494	Stalk lug 95 LV ABC Al	1	ea	

CU	CU Description
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HV61_33W_LV 3 phase recloser with PTS & isolators 33kV wood, LV aerial supply					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GA4013	surge arrester	6	ea	
2	CB0550	isolator extension bracket	3	ea	
3	AB4567	Bolt 12dia 150 long (Extension Bracket)	6	ea	
4	AB4608	Bolt M16 x 90 (Extension Bracket)	3	ea	
5	AB6742	Pole bolt - M20 x 550	2	ea	
6	GS0320	recloser, control unit & umbilical	1	ea	
7	FL7690	bi metal lug 12 dia hole (180 cct)	6	ea	
8	CE0058	earth rod clamp	1	ea	
9	CE0078	earth rod coupling	3	ea	
10	CE0135	earth rod	4	ea	
11	CE0201	earthing terminal box	1	ea	
12	FM0915	earthing kit	1	ea	
13	EE1319	3c PVC 2.5mm2 (7.5m reel)	1	ea	
14	GC7872	20mm corrugated flexible conduit grey (10m)	1	roll	
15	GC7191	20mm conduit saddles	10	ea	
16	GC7192	25mm conduit saddle	5	ea	
17	GC7846	20mm corrugated conduit gland	2	ea	
18	OH0194	padlock	1	ea	
19	GZ0016	50A Heinemann circuit breaker 1ph	1	ea	
20		Select HV19 (PTS) as required	1	ea	
21	EE1120	2c 6 sq mm service cable	10	mtr	
22	CB1121	x-arm metal	1	ea	
23	AB4569	bolt M12 x 170 (x-arm mounting)	2	ea	
24	AB4608	Bolt M16 x 90 (DISO)	6	ea	
25	CB3025	x-arm mounting bracket	1	ea	
26	AB6732	Pole bolt - M16 x 550	2	ea	
27		Select from HV53 (Isolator) as required	6	ea	See Note 6, page 4
28	CE7541	dispersion plate	6	ea	
29		Select DA01 (recloser comms) as required	1	ea	
30	GF0550	Fuse cartridge 10A	1	ea	
31	GF1801	Fuse holder 100A	1	ea	
32		Select CN09 (PG Clamp) as required	7	ea	
33	CJ0496	Stalk lug 150 LV ABC	6	ea	
34	FL0402	Bimetal lug 150 LV ABC	6	ea	
35	FT0150	150 LV ABC	2	ea	
36	AB6741	Pole bolt – M12 x 550	2	ea	
37	CC0081	IPC	3	ea	
38	CJ0498	Stalk lug copper	1	ea	
40	FE0055	Heat shrink	1	ea	
41	FT0095	LV ABC 95	1	ea	
42	FL0401	Bimetal lug 95 LV ABC	15	ea	
43	CJ0494	Stalk lug 95 LV ABC Al	1	ea	



NOTES:-

1. UMBILICAL CABLE MAX. DIST. AWAY FROM LV & EARTH.
2. FOR RECLOSER RE-INSTALLATION, ALL HV65 COMPATIBLE UNITS WITHOUT RECLOSER, SURGE ARRESTERS AND TRANSFORMER ARE SHOWN IN DQM WITH 'X' AT THE END OF THE COMPATIBLE UNIT NAME.

REV	DATE	DESCRIPTION	DRGD	CHKD	APRD	TITLE	DISTRIBUTION DESIGN CATALOGUE	westernpower		
E	12.02.19	EARTHING SYSTEM MODIFIED	NMc	NN	GS	COMPATIBLE UNIT (NEW) SINGLE PHASE RECLOSER WITH BYPASS	DRAWN: JRR	DATE: 19-01-2015	DRG. No.	
D	21.12.17	TRANSFORMER TYPE AND EARTH SYSTEM CHANGED	REE	JC	GS		ORIGINATED: REE	SCALE: NTS	HV65	
C	21.12.16	NOTE 2 ADDED	JC	REE	GS		CHECKED: REE	APPROVED: GRANT STACY		REV. E
B	14.10.16	ITEM 24&26 DELETED	JC	REE	GS					SHT.
A	17.04.15	ORIGINAL ISSUE	REE	REE	GS					

CU	CU Description
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HV65_12_TX (New) 12.7kV single phase recloser with bypass					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0319	recloser, contoller and control cable	1	ea	
2	GA4012	surge arrester	2	ea	
	GA4002	surge arrester	1		
3	AB6742	Pole bolt - M20 x 550	2	ea	
4	AB6741	Pole bolt – M12 x 550	2	ea	
5	FT0095	LV ABC 95mm2 4corex4m	2	ea	
7	FL0401	bimetal lugs 95 ABC	17	ea	
8	GC7192	25mm saddles for control cable	14	ea	
9	FL0142	Lugs copper	2	ea	
10	CE7541	dispersion plate	8	ea	
11	IC0041	strain insulator	1	ea	
12		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
13	CE0058	earth rod clamp	1	ea	
14	CE0078	earth rod coupling	5	ea	
15	CE0135	earth rod	6	ea	
16	CE0201	earthing terminal box	1	ea	
17	FM0915	earthing kit	1	ea	
18	EE1319	3c PVC 2.5mm2 (7.5m reel)	1	ea	
19	GC7872	20mm flexible conduit grey (10m)	1	roll	
20	GC7191	20mm conduit saddle	10	ea	
	AS2513	Wood screw	56	ea	
21	GC7846	20mm corrugated conduit gland	3	ea	
22	OH0194	padlock	1	ea	
23	GZ0016	50A Heinemann circuit breaker 1ph	1	ea	
25	EE1120	2c 6 sq mm service cable	10	mtr	
27	XT0206	10kVA 12.7kV 1 bushing transformer	1	ea	
28		select from HV53 (Isolator)	2	ea	See Note 6, page 4
29	GT0353	Wildlife cover	1	ea	
30	FL7688	bi-metal lug 95 CCT	2	ea	
31	CB0550	isolator extension bracket	1	ea	
	AB4567	Bolt M12 x 150	2	ea	
	AB4608	Bolt M16 x 90	1	ea	
32	AB4608	Bolt M16x90 (isolator)	1	ea	
33	AB4612	Bolt M16x130 (DOF & isolator)	3	ea	
34	CB1121	Crossarm metal	1	ea	
35	FE0055	Heat shrink	1	mr	
36	CJ0498	Stalk lug copper	1	ea	
38	CC0081	IPC	2	ea	
39	CJ0494	Stalk lug Al	5	ea	
40	GF1801	Fuse holder 100A	1	ea	
	GF0550	Fuse cartridge 10A	1	ea	
41	CR1038	Tee bracket raiser	1	ea	
42	AB6732	Pole bolt - M16 x 550	4	ea	

CU	CU Description
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HV65_19_TX (New) 19.1kV single phase recloser with bypass					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0319	recloser, contoller and control cable	1	ea	
2	GA4013	surge arrester	2	ea	
	GA4003	surge arrester	1		
3	AB6742	Pole bolt - M20 x 550	2	ea	
4	AB6741	Pole bolt – M12 x 550	2	ea	
5	FT0095	LV ABC 95mm2 4corex4m	2	ea	
7	FL0401	Bimetal lugs 95 LV ABC	18	ea	
8	GC7192	25mm saddles	14	ea	
9	FL0142	Lugs copper	2	ea	
10	CE7541	dispersion plate	8	ea	
11	IC0041	strain insulator	1	ea	
12		select from HV51 (EDO) or HV52 (Fault Tamer)	2	ea	See Note 2, Page 4
13	CE0058	earth rod clamp	1	ea	
14	CE0078	earth rod coupling	5	ea	
15	CE0135	earth rod	6	ea	
16	CE0201	earthing terminal box	1	ea	
17	FM0915	earthing kit	1	ea	
18	EE1319	3c PVC 2.5mm2 (7.5m reel)	1	ea	
19	GC7872	20mm flexible conduit grey (10m)	1	roll	
20	GC7191	20mm conduit saddle	10	ea	
	AS2513	Wood screw	56	ea	
21	GC7846	20mm corrugated conduit gland	3	ea	
22	OH0194	padlock	1	ea	
23	GZ0016	50A Heinemann circuit breaker 1ph	1	ea	
25	EE1120	2c 6 sq mm service cable	10	mtr	
27	XT0208	10kVA 19.1kV 1 bushing transformer	1	ea	
28		select from HV53 (Isolator)	2	ea	See Note 6, page 4
29	GT0353	Wild life cover	1	ea	
30	FL7688	bi-metal lug 95 CCT	2	ea	
31	CB0550	isolator extension bracket	1	ea	
	AB4567	Bolt M12 x 150	2	ea	
	AB4608	Bolt M16 x 90	1	ea	
32	AB4608	Bolt M16x90 (isolator)	1	ea	
33	AB4612	Bolt M16x130 (DOF & isolator)	3	ea	
34	CB1121	Crossarm metal	1	ea	
35	FE0055	Heat shrink	1	mr	
36	CJ0498	Stalk lug copper	1	ea	
38	CC0081	IPC	2	ea	
39	CJ0494	Stalk lug Al	1	ea	
40	GF1801	Fuse holder 100A	1	ea	
	GF0550	Fuse cartridge 10A	1	ea	
41	CR1038	Tee bracket raiser	1	ea	
42	AB6732	Pole bolt - M16 x 550	4	ea	