



DISTRIBUTION DESIGN
CATALOGUE
Section 04

LV – Low Voltage Bare

HPC-1DC-07-0004-2014

For application to
Horizon Power
Electricity Distribution Networks

Document Control		
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Date Created/Last Updated	23 June 2020	
Review Frequency **	Annually	
Next Review Date **	23 June 2021	

*** Frequency period is dependent upon circumstances– maximum is 5 years from last issue, review, or revision whichever is the latest. If left blank, the default shall be 1 year unless otherwise specified.*

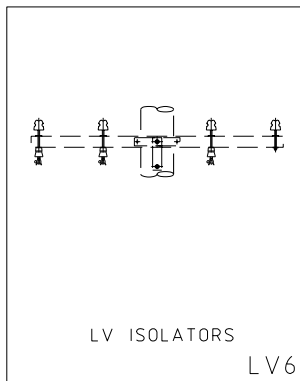
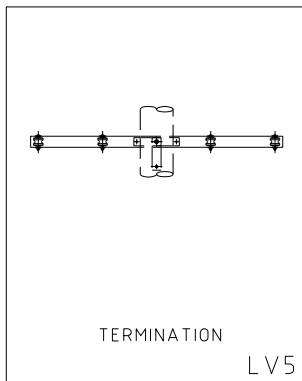
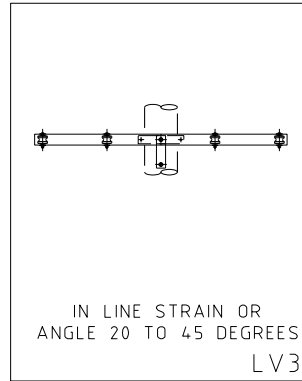
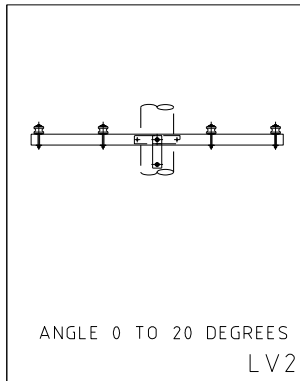
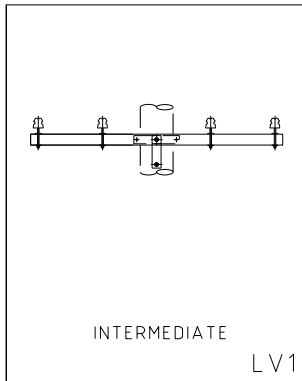
Revision Control		
Revision	Date	Description
5	23/06/2020	Reviewed – No Update Required. Ellipse Updated to reflect DDC

Refer to Appendix A for Full Revision History.

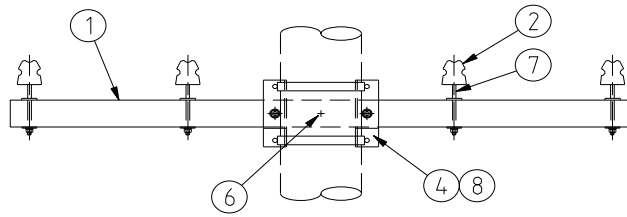
STAKEHOLDERS The following positions shall be consulted if an update or review is required:	NOTIFICATION LIST The following positions shall be notified of any authorised change:
Asset Managers	Field Practice Coordinators
Works Delivery Managers	Logistics Managers
Asset Service Delivery Managers	EPCM Contracts Manager

LOW VOLTAGE BARE LIST

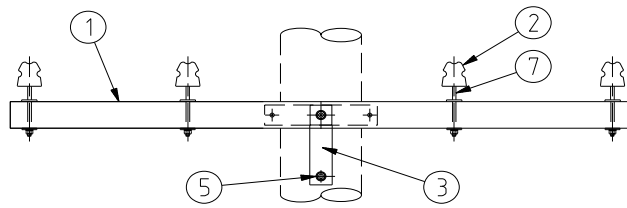
CU	CU DESCRIPTION
LV1 3C	Intermediate – Pole clamped – 3 phase
LV1 3	Intermediate – Pole bolted – 3 phase
LV2 3C	Angle 0 to 20 – Pole clamped – 3 phase
LV2 3	Angle 0 to 20 – Pole bolted – 3 phase
LV3 3C	Inline strain – Angle 21 to 45 – Pole clamped – 3 phase
LV3 3	Inline strain – Angle 21 to 45 – Pole bolted – 3 phase
LV5 3C	Termination – Pole clamped – 3 phase
LV5 3	Termination – Pole bolted – 3 phase
LV6	LV isolators underslung 400 V to 600 V – 3 phase



 DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 3	DATE FEB 2020
	LV COMPATIBLE UNITS	DRAWING No LV INDEX	



THREE PHASE (POLE CLAMPED)



THREE PHASE (POLE BOLTED)

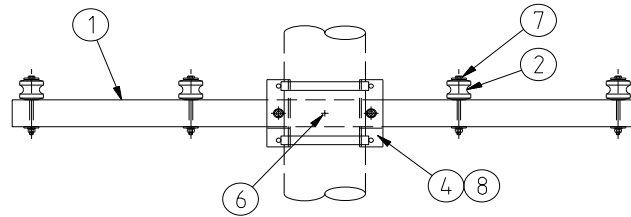
<p>HORIZON POWER</p> <p>DISTRIBUTION DESIGN CATALOGUE</p> <p>OPERATIONS DIVISION</p>	COMPATIBLE UNIT	REVISION 4	DATE FEB 2020
	INTERMEDIATE	DRAWING No LV1	

CU	CU DESCRIPTION
LV1_3C	Intermediate – Pole clamped – 3 phase

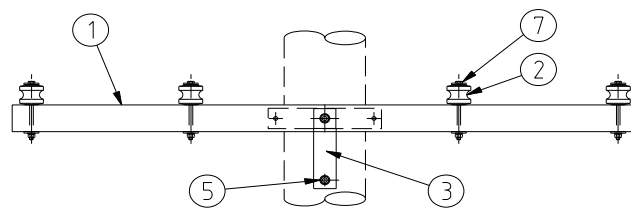
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CX0228	composite x-arm	1	ea	
2	IA0105	insulator porcelain	4	ea	
4	CB3051	mounting bracket	1	ea	
6	AB4614	M16 x 150 mm long bolt and nut	1	ea	
7	CP1041	pin assembly	4	ea	
8	CB7541	clamp strap with nuts and spring washer	2	ea	

CU	CU DESCRIPTION
LV1_3	Intermediate – Pole bolted – 3 phase

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CX0228	composite x-arm	1	ea	
2	IA0105	insulator porcelain	4	ea	
3	CB3025	T bracket with 2 x M12 bolts, nuts and washers	1	ea	
5	AB6733	Pole bolt M16 x 400 mm long with nut and washers	2	ea	
7	CP1041	pin assembly	4	ea	



THREE PHASE (POLE CLAMPED)



THREE PHASE (POLE BOLTED)

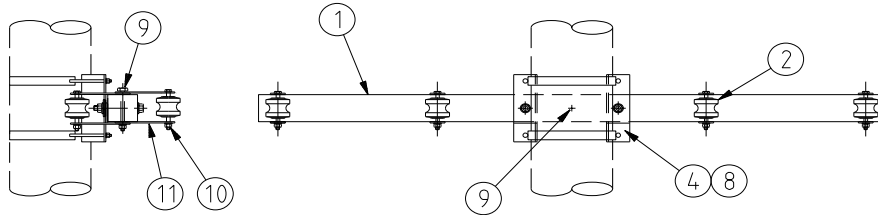
<p>HORIZON POWER</p> <p>DISTRIBUTION DESIGN CATALOGUE</p> <p>OPERATIONS DIVISION</p>	COMPATIBLE UNIT	REVISION 4	DATE FEB 2020
	ANGLE 0 - 20 DEGREES	DRAWING No LV2	

CU	CU DESCRIPTION
LV2_3C	Angle 0 to 20 – Pole clamped – 3 phase

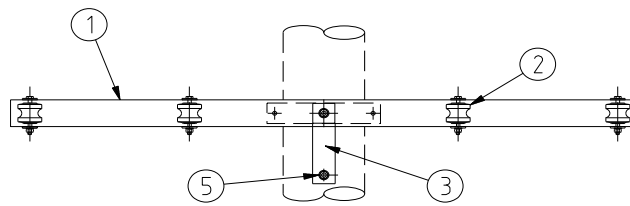
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CX0228	composite x-arm	1	ea	
2	IA0256	shackle insulator	4	ea	
4	CB3051	mounting bracket	1	ea	
6	AB4614	M16 x 150 mm long bolt and nut	1	ea	
7	AB6734	Pole bolt M16 x 300 mm long with nut and washers	4	ea	
8	CB7541	clamp strap with nuts and spring washers	2	ea	

CU	CU DESCRIPTION
LV2_3	Angle 0 to 20 – Pole bolted – 3 phase

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CX0228	composite x-arm	1	ea	
2	IA0256	shackle insulator	4	ea	
3	CB3025	T bracket with 2 x M12 bolts, nuts and washers	1	ea	
5	AB6733	Pole bolt M16 x 400 mm long with nut and washers	2	ea	
7	AB6734	Pole bolt M16 x 300 mm long with nut and washers	4	ea	



THREE PHASE (POLE CLAMPED)



THREE PHASE (POLE BOLTED)

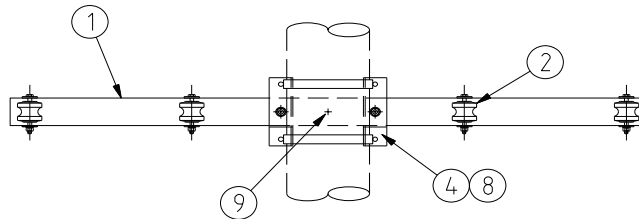
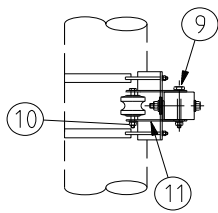
<p>HORIZON POWER</p> <p>DISTRIBUTION DESIGN CATALOGUE</p> <p>OPERATIONS DIVISION</p>	COMPATIBLE UNIT	REVISION 4	DATE FEB 2020
	IN LINE STRAIN OR ANGLE 20 - 45 DEGREES	DRAWING No LV3	

CU	CU DESCRIPTION
LV3_3C	Inline strain – Angle 21 to 45 – Pole clamped – 3 phase

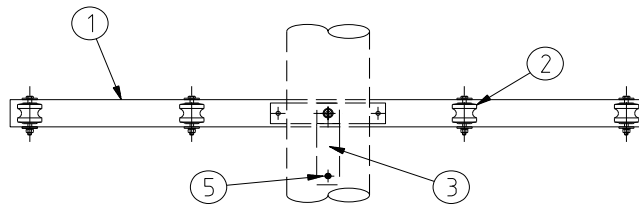
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CX0228	composite x-arm	1	ea	
2	IA0256	shackle insulator	8	ea	
4	CB3051	mounting bracket	1	ea	
8	CB7541	clamp strap with nuts and spring washers	2	ea	
9	AB4614	M16 x 150 mm long bolt and nut	5	ea	
10	AB4612	M16 x 130 mm long bolt and nut	8	ea	
11	CB0527	shackle strap	16	ea	

CU	CU DESCRIPTION
LV3_3	Inline strain – Angle 21 to 45 – Pole bolted – 3 phase

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CX0228	composite x-arm	1	ea	
2	IA0256	shackle insulator	8	ea	
3	CB3025	T bracket with 2 x M12 bolts, nuts and washers	1	ea	
5	AB6733	Pole bolt M16 x 400 mm long with nut and washers	2	ea	
9	AB4614	M16 x 150 mm long bolt and nut	4	ea	
10	AB4612	M16 x 130 mm long bolt and nut	8	ea	
11	CB0527	shackle strap	16	ea	



THREE PHASE (POLE CLAMPED)



THREE PHASE (POLE BOLTED)

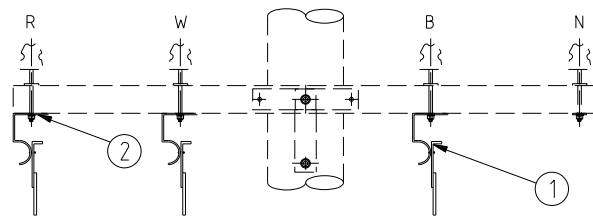
<p>HORIZON POWER</p> <p>DISTRIBUTION DESIGN CATALOGUE</p> <p>OPERATIONS DIVISION</p>	COMPATIBLE UNIT	REVISION 4	DATE FEB 2020
	TERMINATION	DRAWING No LV5	

CU	CU DESCRIPTION
LV5_3C	Termination – Pole clamped – 3 phase

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CX0228	composite x-arm	1	ea	
2	IA0256	shackle insulator	4	ea	
4	CB3051	mounting bracket	1	ea	
8	CB7541	clamp strap with nuts and spring washers	2	ea	
9	AB4614	M16 x 150 mm long bolt and nut	5	ea	
10	AB4612	M16 x 130 mm long bolt and nut	4	ea	
11	CB0527	shackle strap	8	ea	

CU	CU DESCRIPTION
LV5_3	Termination – Pole bolted – 3 phase

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CX0228	composite x-arm	1	ea	
2	IA0256	shackle insulator	4	ea	
3	CB3025	T bracket with 2 x M12 bolts, nuts and washers	1	ea	
5	AB6733	Pole bolt M16 x 400 mm long with nut and washers	2	ea	
9	AB4614	M16 x 150 mm long bolt and nut	4	ea	
10	AB4612	M16 x 130 mm long bolt and nut	4	ea	
11	CB0527	shackle strap	8	ea	



ROADSIDE

<p>HORIZON POWER</p> <p>DISTRIBUTION DESIGN CATALOGUE</p> <p>OPERATIONS DIVISION</p>	COMPATIBLE UNIT	REVISION 4	DATE 23/06/2020
	L.V. ISOLATORS - UNDERSLUNG	DRAWING No. LV6	

CU	CU DESCRIPTION
LV6	LV isolators underslung 400 V to 600 V – 3 phase

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0062	Disconnect switch 600 V 600 A underslung	3	ea	
2	AW3563	Flat Washer; 16mm X 75mm X 75mm X 5mm Galv	6	ea	

APPENDIX A – REVISION INFORMATION

(Informative) Horizon Power has endeavoured to provide standards of the highest quality and would appreciate notification if any errors are found or even queries raised.

Each Standard makes use of its own comment sheet which is maintained throughout the life of the standard, which lists all comments made by stakeholders regarding the standard.

The document **DM# 2152250** can be used to record any errors or queries found in or pertaining to this standard, which can then be addressed whenever the standard gets reviewed.

Date	Rev No.	Notes
	0	Western Power Supplied
01/07/2009	1	Original Horizon Power issue
11/01/2012	2	Changes to Document Control
21/01/2014	3	<p>Index List CU Description</p> <ul style="list-style-type: none"> Pole Bolted added to LV1_3, LV2_3, LV3_3 and LV5_3 Concrete pole changed to Pole Clamped on LV1_3C, LV2_3C, LV3_3C & LV5_3C <p>LV1 Drawing</p> <ul style="list-style-type: none"> Steel changed to Pole Bolted Concrete changed to Pole Clamped Dimensioning and phasing removed <p>LV1 List</p> <ul style="list-style-type: none"> Pole Bolted added to LV1_3 Concrete pole changed to Pole Clamped on LV1_3C AB4614 (M16 bolt and nut) added to LV1_3C <p>LV2 Drawing</p> <ul style="list-style-type: none"> Steel changed to Pole Bolted Concrete changed to Pole Clamped Dimensioning and phasing removed Item (5) change to Item (7) <p>LV2 List</p> <ul style="list-style-type: none"> Pole Bolted added to LV2_3 Concrete pole changed to Pole Clamped on LV2_3C AB4614 (M16 bolt and nut) added to LV2_3C Item (5) change to Item (7) <p>LV3 Drawing</p> <ul style="list-style-type: none"> Steel changed to Pole Bolted Concrete changed to Pole Clamped Dimensioning and phasing removed Item (9) and Item (10) swapped <p>LV3 Lists</p> <ul style="list-style-type: none"> Pole Bolted added to LV3_3 Concrete pole changed to Pole Clamped on LV3_3C

Date	Rev No.	Notes
		LV5 Drawing <ul style="list-style-type: none"> • Steel changed to Pole Bolted • Concrete changed to Pole Clamped • Dimensioning and phasing removed • Item (9) and Item (11) swapped LV5 Lists <ul style="list-style-type: none"> • Pole Bolted added to LV5_3 • Concrete pole changed to Pole Clamped on LV5_3C • Item (10) and Item (11) swapped LV6 Drawing Phasing removed
26/03/2018	4	LV1 Drawing <ul style="list-style-type: none"> • Anti-split bolt, nut, spring washer and washer removed LV1 List <ul style="list-style-type: none"> • Anti-split bolt, nut, spring washer and washer removed • Wood x-arm (CX0028) replaced with Composite x-arm (CX0228) LV2 Drawing <ul style="list-style-type: none"> • Anti-split bolt, nut, spring washer and washer removed LV2 List <ul style="list-style-type: none"> • Anti-split bolt, nut, spring washer and washer removed • Wood x-arm (CX0028) replaced with Composite x-arm (CX0228) LV3 Drawing <ul style="list-style-type: none"> • Anti-split bolt, nut, spring washer and washer removed LV3 Lists <ul style="list-style-type: none"> • Anti-split bolt, nut, spring washer and washer removed • Wood x-arm (CX0127) replaced with Composite x-arm (CX0228) LV5 Drawing <ul style="list-style-type: none"> • Anti-split bolt, nut, spring washer and washer removed LV5 Lists <ul style="list-style-type: none"> • Anti-split bolt, nut, spring washer and washer removed • Wood x-arm (CX0127) replaced with Composite x-arm (CX0228) LV6 List Stock number changed from GS0055 to GS0062
23/06/2020	5	LV2 in Ellipse <ul style="list-style-type: none"> • Wood x-arm (CX0028) replaced with Composite x-arm (CX0228) LV6 in Ellipse <ul style="list-style-type: none"> • Stock number changed from GS0055 to GS0062 LV6 List <ul style="list-style-type: none"> • Added AW3563