

Distribution Design Catalogue – Section 11: LU – Low Voltage Underground

Standard Number: HPC-1DC-07-0011-2014



energy for life

Document Control				
Author	Name:	Kai Chong Jee		
	Position:	Senior Standards and Plant Engineer		
Reviewed By	Name:	Paul Savig		
	Position:	Senior Standards and Plant Engineer		
Endorsed By	Name:	Johnathan Choi		
	Position:	Standards and Plant Manager		
Approved By *	Name:	Victor Cheng		
	Position:	Senior Manager Engineering Projects & Services		
Date Created/Last Updated		October 202	24	
Review Frequency **	Annually			
Next Review Date **		October 202	25	

^{*} Shall be the Process Owner and is the person assigned authority and responsibility for managing the whole process, end-to-end, which may extend across more than one division and/or functions, in order to deliver agreed business results.

^{**} 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
10	15/10/2024	Compatible Unit LUs update

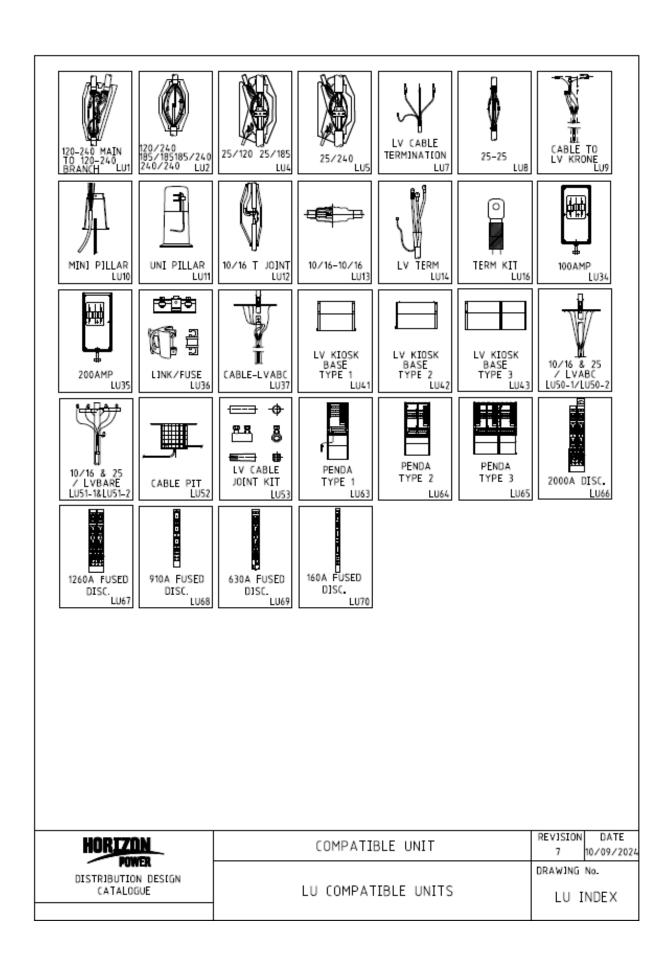
Please see Appendix A for full revision history

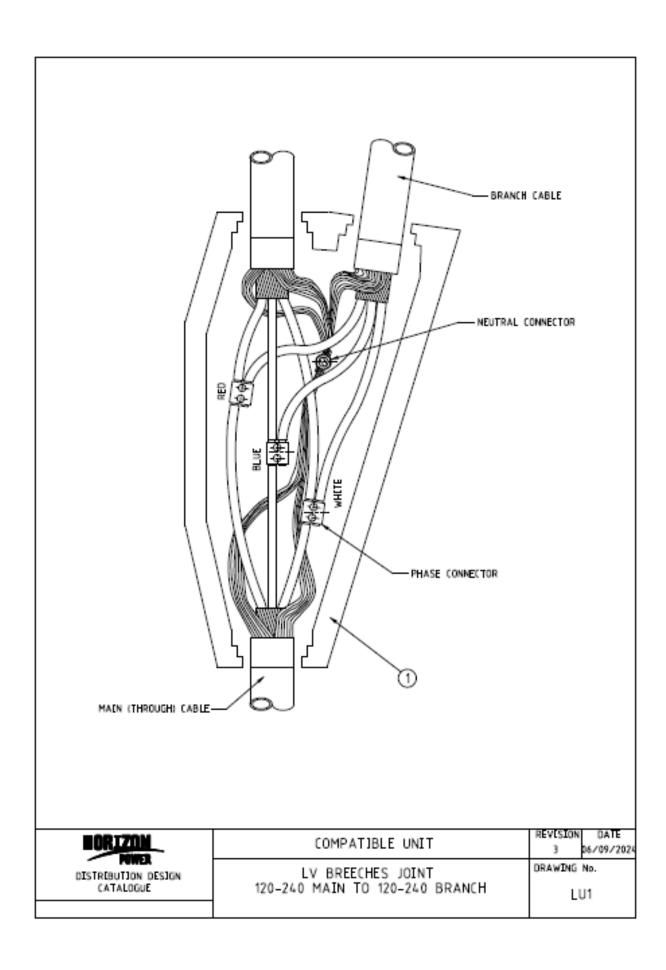
STAKEHOLDERS The following positions shall be consulted if an update or review is required:		
Asset Managers Field Practice Coordinators		
Works Delivery Managers	Logistic Manager	
Asset Service Delivery Managers	EPCM Contract Manager	

LOW VOLTAGE UNDERGROUND LIST

CU	CU DESCRIPTION
LU1	LV Breeches joint 120-240 Main to 120-240 Branch
LU2	LV Straight joint 120/240, 185/185, 185/240 & 240/240
LU4	LV Tee joint 25/120-25/185
LU5	LV Tee joint 25/240
<u>LU7_240</u>	Universal pillar termination – 120 to 240
LU8	Straight joint 25/25
LU9_240	240sqmm Cable to LV Krone
<u>LU10</u>	Mini pillar & 1 x 25sqmm cable termination
LU10_2TERM	Mini pillar & 2 x 25sqmm cable termination
LU10_CABTERM	25sqmm cable termination to existing pillar
LU10_W/END	Mini pillar used for working end
<u>LU11</u>	Universal pillar
<u>LU12</u>	Tee joint 10/10-10/16-16/16
<u>LU13</u>	Straight joint 10/10-10/16-16/16
LU14_16/160A	Cable to fuse switch- 16 (Single phase)/160A Base
LU14_25/160A	Cable to fuse switch- 25/160A Base
LU14_25/630A	Cable to fuse switch- 25/630A Base
LU14_120	Cable to fuse switch – 120
LU14_240	Cable to fuse switch – 185/240
LU16_400CU16	Transformer 400sqmm Cu M16 Termination Kit
LU16_400CU12	PENDA 400sqmm Cu M12 Termination Kit
<u>LU34</u>	Wall mounted box – 100 amp
<u>LU35</u>	Wall mounted box – 200 amp
LU36_63A	J-type fuse 63A and carrier for universal pillar
LU36 100A	J-type fuse 100A and carrier for universal pillar
LU36_160A	J-type fuse 160A and carrier for universal pillar
LU36_200A	J-type fuse 200A and carrier for universal pillar
<u>LU36_315A</u>	J-type fuse 315A and carrier for universal pillar
<u>LU36_Link</u>	Link 400 amp for universal pillar
<u>LU37_240</u>	Cable to LV ABC Switch for a 240sqmm sq cable
<u>LU41</u>	Base for LV kiosk Type 1
<u>LU42</u>	Base for LV kiosk Type 2
<u>LU43</u>	Base for LV kiosk Type 3
<u>LU50_25_95</u>	Cable to LVABC – 25 to 95
LU50_25_150	Cable to LVABC – 25 to 150
LU50_SL_95	Street light cable to 95 ABC
LU50_SL_150	Street light cable to 150 ABC
<u>LU51_25</u>	25sqmm CU cable to LV Bare Conductor

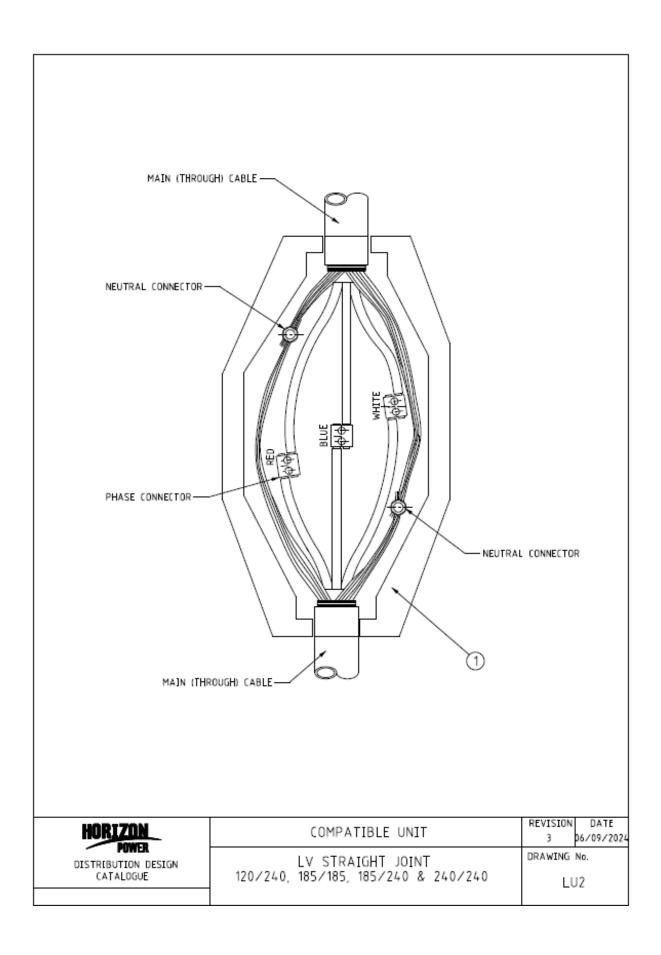
CU	CU DESCRIPTION
LU51 SL	Street light cable to LV Bare Conductor
<u>LU52</u>	Below Ground Service Pit
<u>LU53</u>	Low Voltage Cable Joint Kit
<u>LU63</u>	Type 1 PENDA Kiosk – Indoor
<u>LU63_O</u>	Type 1 PENDA Kiosk – Outdoor
<u>LU64</u>	Type 2 PENDA Kiosk – Indoor
<u>LU64_O</u>	Type 2 PENDA kiosk – Outdoor
<u>LU65</u>	Type 3 PENDA Kiosk – Indoor
<u>LU65 O</u>	Type 3 PENDA Kiosk – Outdoor
LU66_TX	2000A Tx Switch Disconnector (Incoming Supply to PENDA)
LU66_CUST	2000A Customer Switch Disconnector (Connection to PENDA)
<u>LU67</u>	1260A Fused Switch Disconnector (Connection to PENDA)
<u>LU68</u>	910A Fused Switch Disconnector (Connection to PENDA)
<u>LU69</u>	630A Fused Switch Disconnector (Connection to PENDA)
<u>LU70</u>	160A Fused Switch Disconnector (Connection to PENDA)





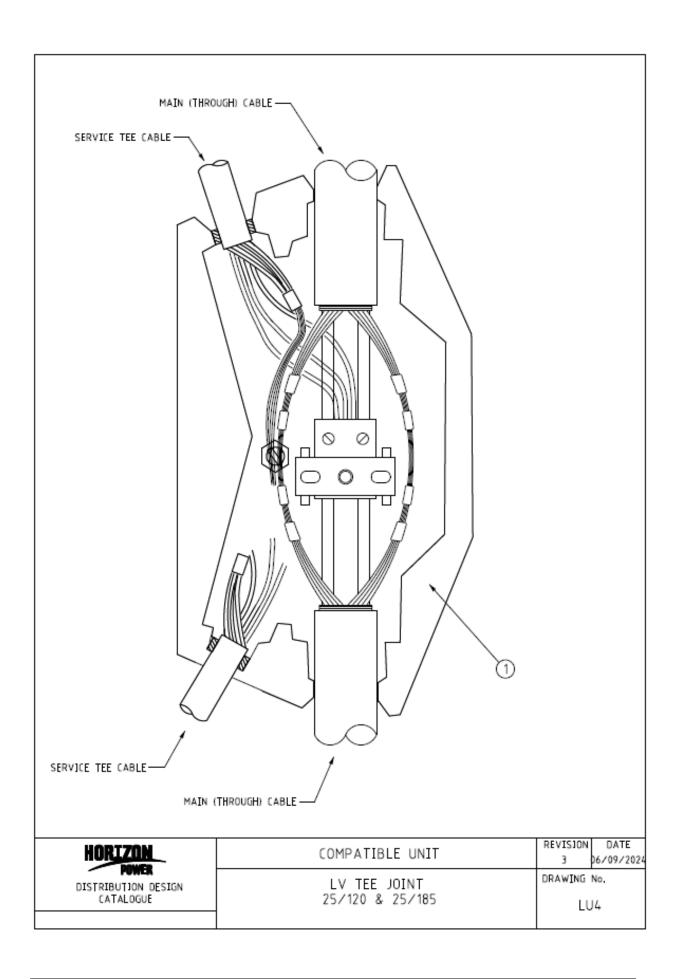
CU	CU DESCRIPTION
LU1	Breeches joint 120-240 Main to 120-240 Branch

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0063	LV Breech Joint kit –120-240sqmm to 120-240sqmm wavecon XLPE cable	1	ea	
	KC0014	LV Joint resin, Guroflex two-part 4 litre	5	ea	



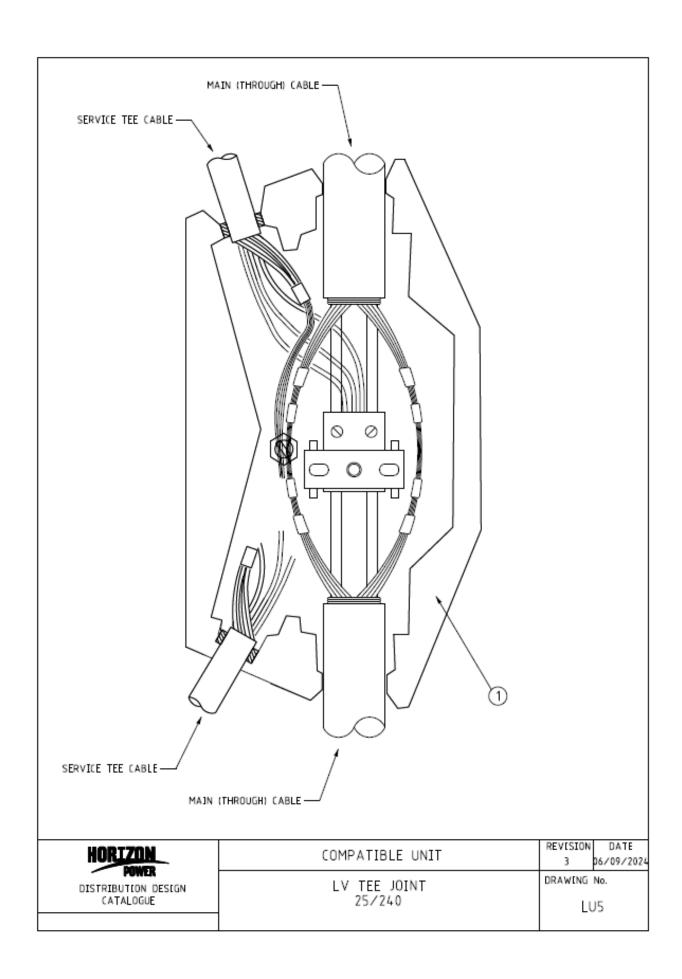
CU	CU DESCRIPTION
LU2	Straight joint 120/120-120/185-120/240-185/185-185/240-240/240

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0062	LV Straight Joint kit –120-240sqmm wavecon XLPE cable	1	ea	
	KC0014	LV Joint resin, Guroflex two-part 4 litre	2	ea	



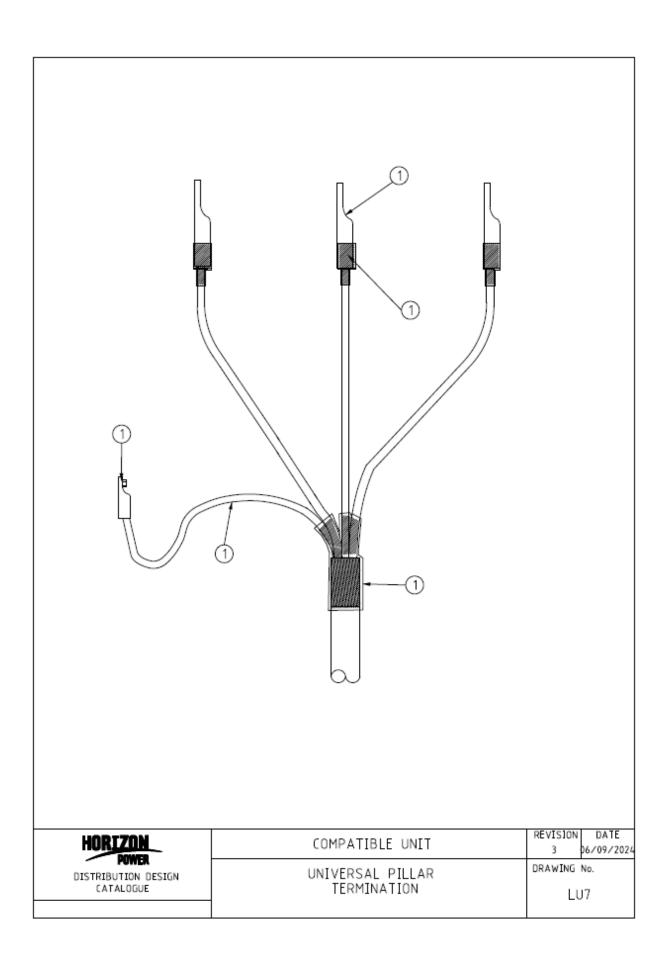
CU	CU DESCRIPTION
LU4	LV Tee joint 25/120-25/185

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0067	LV Tee Joint kit –120-185sqmm wavecon to 25sqmm service XLPE cable	1	ea	
	KC0014	LV Joint resin, Guroflex two-part 4 litre	2	ea	



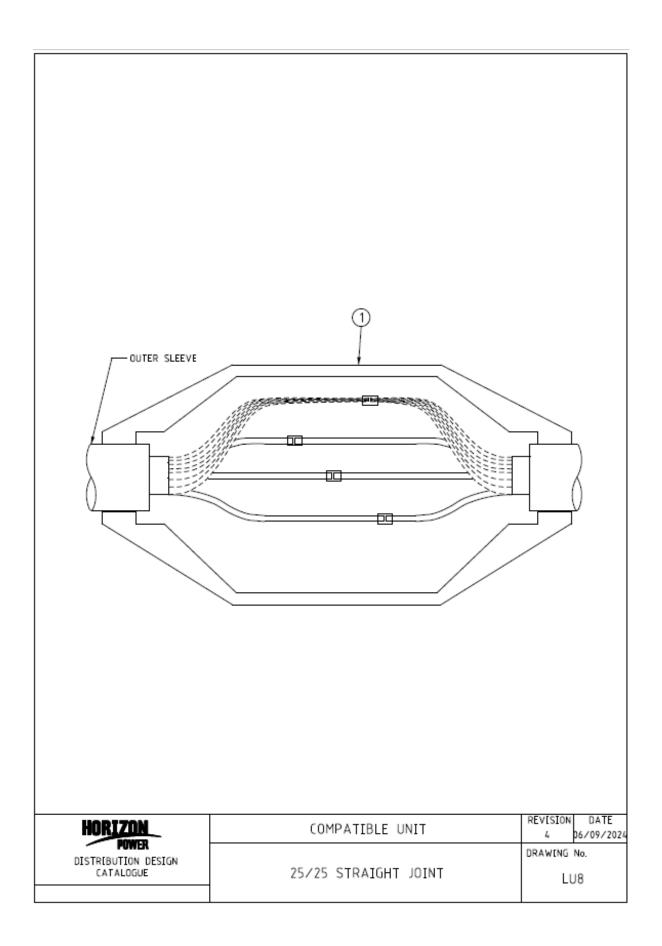
CU	CU DESCRIPTION
LU5	Tee joint 25/240

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0066	LV Tee Joint kit –240sqmm wavecon to 25sqmm service XLPE cable	1	ea	
	KC0014	LV Joint resin, Guroflex two-part 4 litre	2	ea	



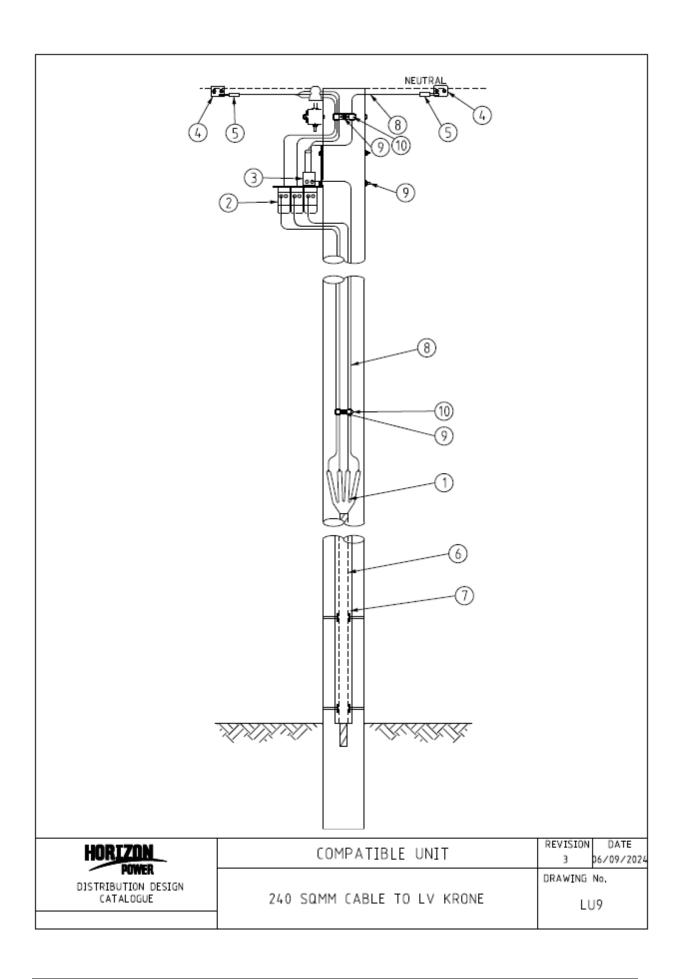
cu	CU DESCRIPTION
LU7_240	Universal pillar termination – 120 to 240

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0615	Termination Kit, for 120-240sqmm cable	1	ea	



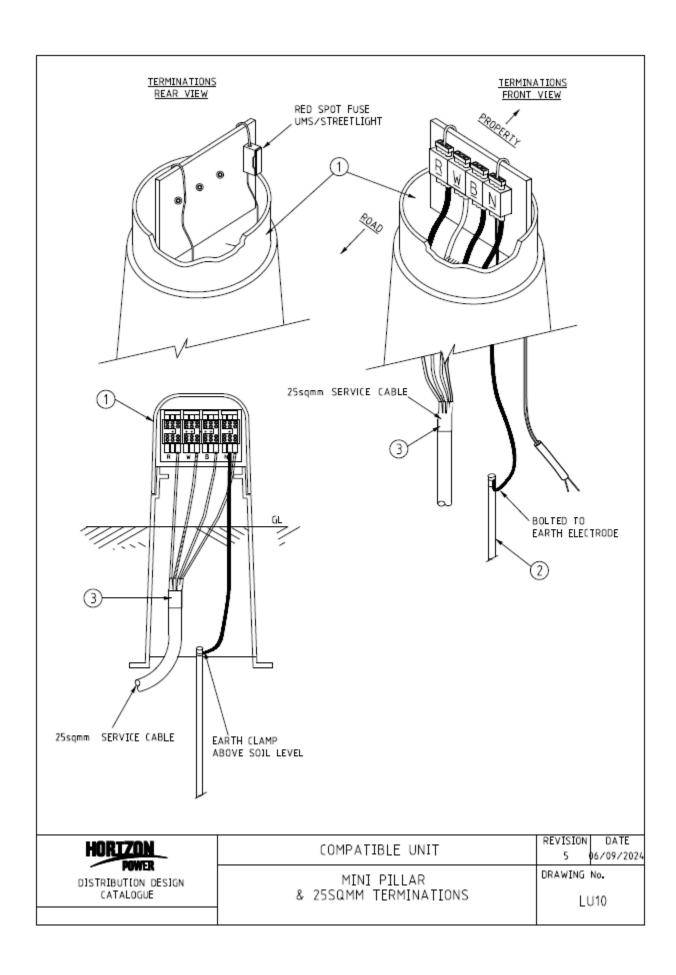
CU	CU DESCRIPTION
LU8	Straight joint 25/25

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0238	Joint Box – Straight for 25sqmm cable	1	ea	



CU	CU DESCRIPTION
LU9_240	240sqmm Cable to LV Krone

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
1	FC0499	Splice 95-150 ABC to 120-240sqmm	1	ea	
2	GS0111	Fuse Disconnector (Rated 400A)	1	ea	
	GF1101	Fuse 315A Type-NH2	3	ea	
3	GS0109	Neutral Block	1	ea	
4		PG Clamps – Select from CN9	4	ea	
5	CJ0496	Splice 150 ABC with alum. tail	4	ea	
6	CB3120	Cable Saddle to suit 240sqmm, galvanized steel	3	ea	
7	HT6320	Cable Protector, galvanized steel channel	1	ea	
8	FT0150	Lead 150 ABC 4m long	1	ea	
9	AB6733	Pole Bolt – M16 x 400mm long with nut and washers	4	ea	
10	CC0110	Suspension Clamp – 150 ABC	4	ea	
	AN2005	Nut – M16, galvanized steel	2	ea	



CU	CU DESCRIPTION
LU10	Mini pillar & 1 x 25sqmm cable termination

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FBH0059	Mini pillar	1	ea	
2	CE0135	Rod section 1.4m long 15mm diam. ALM CTE	1	ea	
2	CE0058	Clamp, double saddle type 13-15mm for earth rod	1	ea	
3	FE0109	Heat-shrink Glove, 4-finger and Sleeving	1	ea	

CU	CU DESCRIPTION
LU10_2TERM	Mini pillar & 2 x 25sqmm cable termination

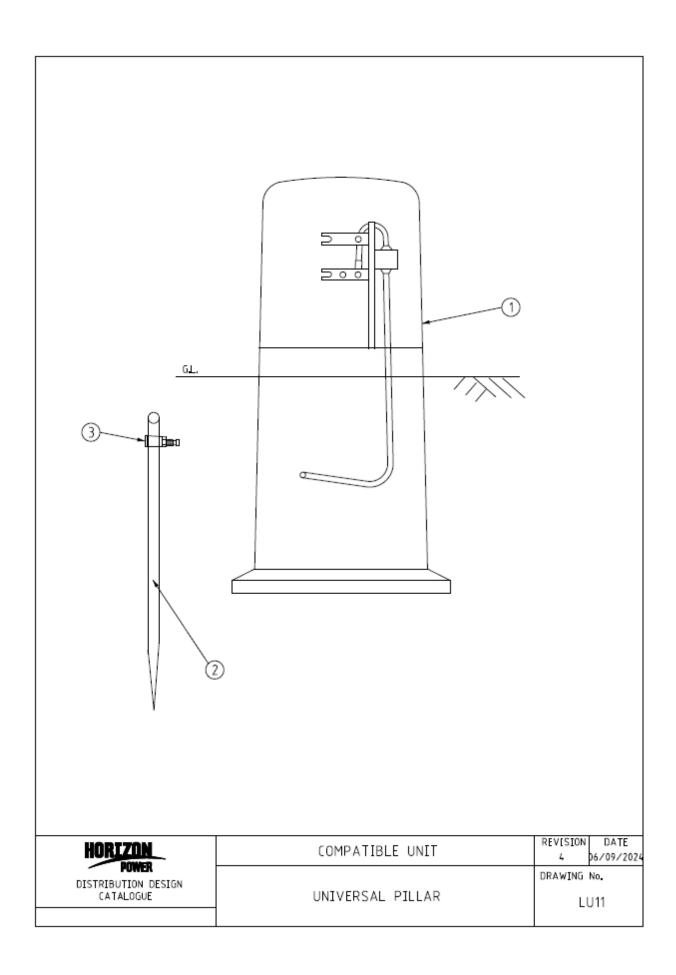
ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FBH0059	Mini pillar	1	ea	
2	CE0135	Rod section 1.4m long 15mm diam. ALM CTE	1	ea	
2	CE0058	Clamp, double saddle type 13-15mm for earth rod	1	ea	
3	FE0109	Heat-shrink Glove, 4-finger and Sleeving	2	ea	

cu	CU DESCRIPTION
LU10_CABTERM	25sqmm cable termination to existing pillar

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
3	FE0109	Heat-shrink Glove, 4-finger and Sleeving	1	ea	

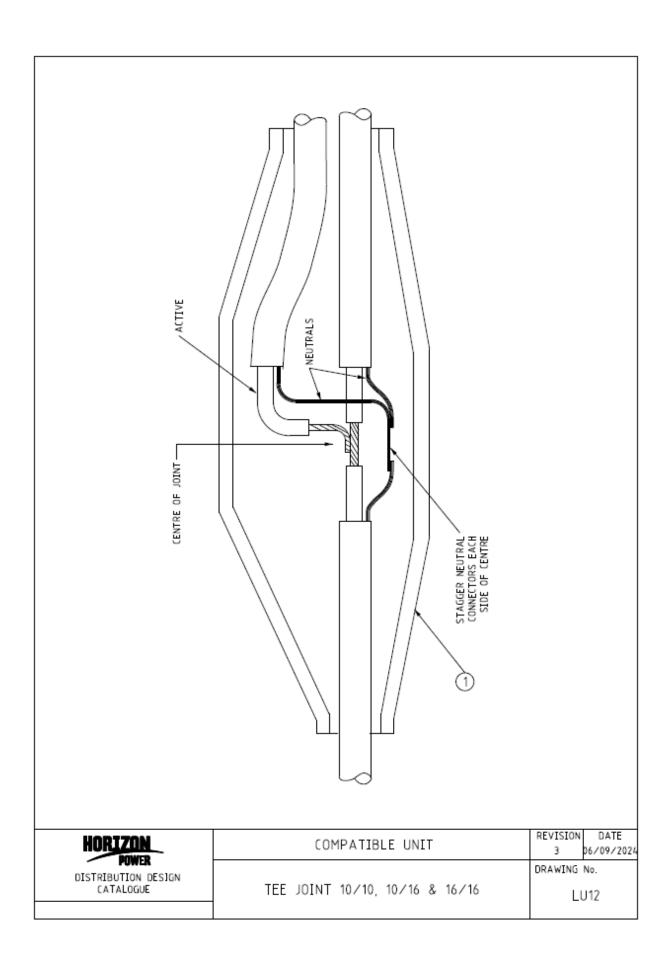
CU	CU DESCRIPTION
LU10_W/END	Mini pillar used for 120-240 Cable Working End

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FBH0059	Mini pillar	1	ea	
	FE0034	Heat-shrink Glove, 4-finger	1	ea	
3	FE0055	Heat-shrink Sleeving	2	m	
	UH0088	Instruction tag	1	ea	



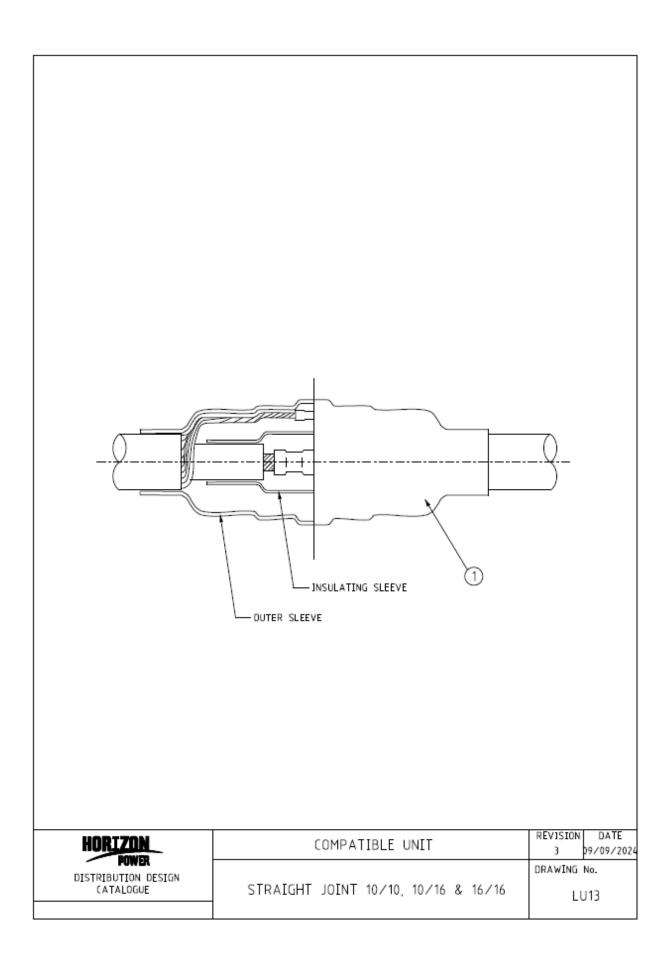
CU	CU DESCRIPTION
LU11	Universal pillar

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FBH0855	Universal pillar	1	ea	
2	CE0135	Rod section 1.4m long 15mm diam. ALM CTE	1	ea	
3	CE0058	Clamp, double saddle type 13-15mm for earth rod	1	ea	



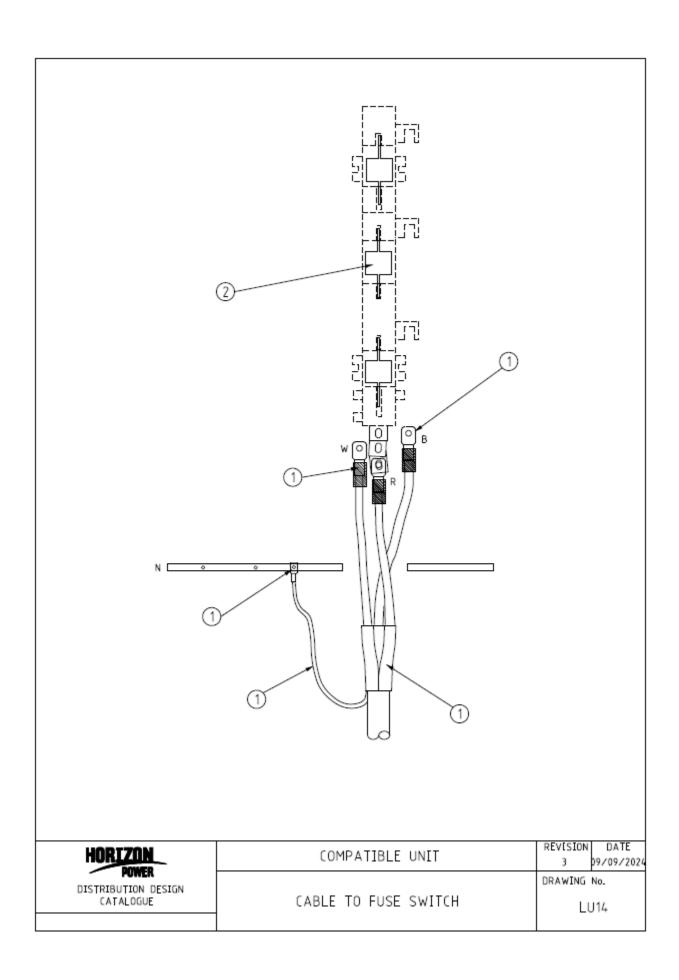
CU	CU DESCRIPTION
LU12	Tee joint 10/10-10/16-16/16

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0056	Joint Box – Tee for 10-16sqmm 1ph cable	1	ea	Guroflex Resin included in Kit



CU	CU DESCRIPTION
LU13	Straight joint 10/10-10/16-16/16

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0237	Joint Box – Straight for 10-16sqmm 1ph cable	1	ea	



cu	CU DESCRIPTION
LU14_16/160A	Cable to fuse switch – 16 (Single phase) /160A Base

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
	FB0256	Lug M12 x 16sqmm	2	ea	
1	FE0032	Heat-shrink Glove, 2-finger	1	ea	
	FE0071	Heat-shrink Sleeving	1	m	
2	GF0502	Fuse 20A Type-NH00	1	ea	

CU	CU DESCRIPTION
LU14_25/160A	Cable to fuse switch – 25/160A Base

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FL1442	Lug M8 x 25sqmm	4	ea	
1	FE0109	Cable Termination Kit for 25sqmm	1	ea	
2	GF0504	Fuse 63A Type-NH00	3	ea	

cu	CU DESCRIPTION
LU14_25/630A	Cable to fuse switch – 25/630A Base

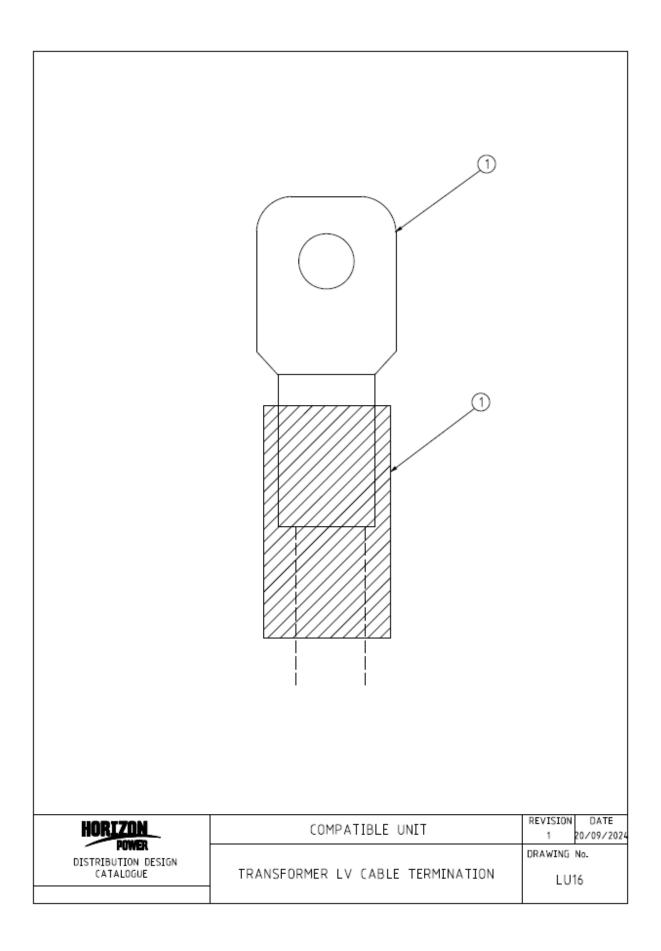
ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FL1449	Lug M12 x 25sqmm	4	ea	
'	FE0109	Cable Termination Kit for 25sqmm	1	ea	
2	GF2130	Fuse 100A Type-NH2	3	ea	

CU	CU DESCRIPTION
LU14_120	Cable to fuse switch - 120

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0615	Cable Termination Kit with M12 lugs for 120sqmm to 240sqmm	1	ea	
2	GF1096	Fuse 200A Type-NH2	3	ea	

CU	CU DESCRIPTION
LU14_240	Cable to fuse switch – 185/240

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0615	Cable Termination Kit with M12 lugs for 120-240sqmm	1	set	
2	GF1101	Fuse 315A Type-NH2	3	ea	

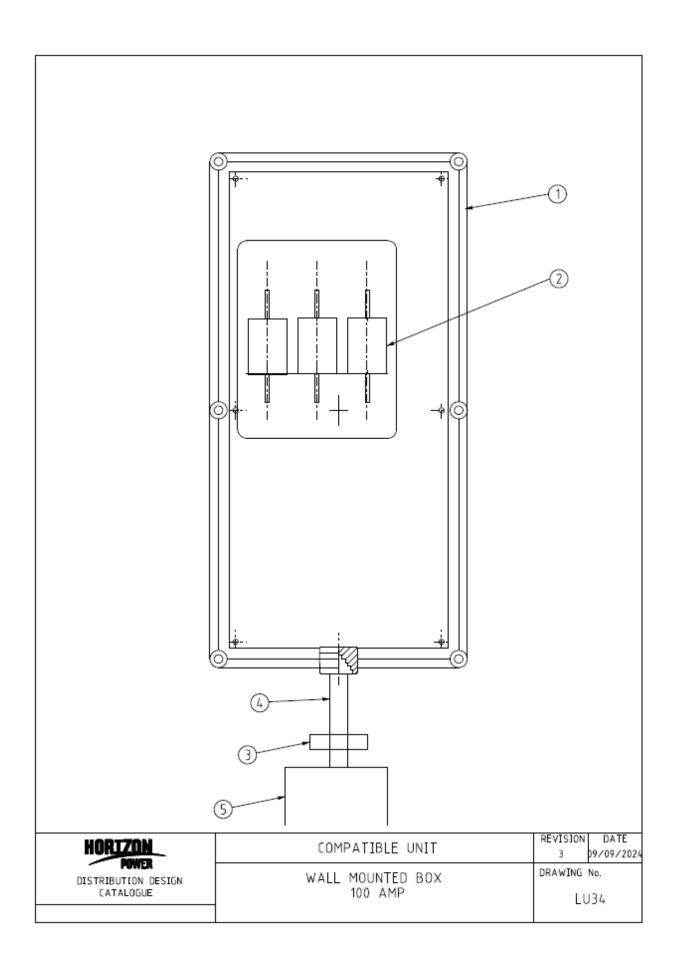


cu	CU DESCRIPTION
LU16_400CU16	Transformer 400sqmm CU M16 Termination Kit

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FL0161	Cable Termination Kit with M16 lugs for 400sqmm	1	kit	

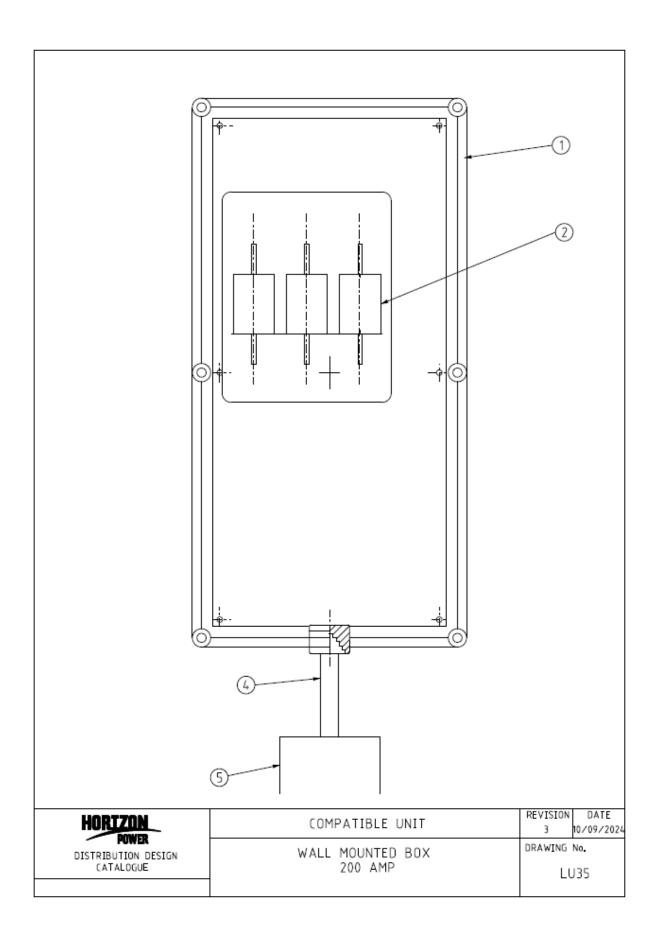
CU	CU DESCRIPTION
LU16_400CU12	PENDA 400sqmm CU M12 Termination Kit

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FL0160	Cable Termination Kit with M12 lugs for 400sqmm	1	kit	



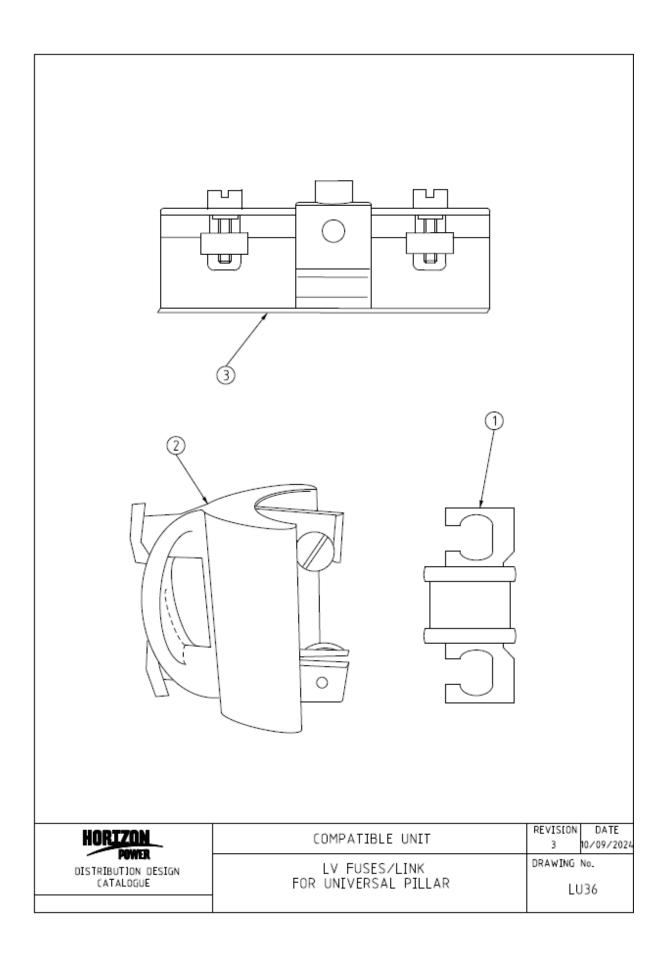
CU	CU DESCRIPTION
LU34	Wall mounted box – 100amp

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0096	Distribution Box (Rated 100A)	1	ea	
2	GF0505	Fuse 100A Type-NH00	3	ea	
3	GC7195	Conduit Saddle 50mm	3	ea	
4	GC0010	Conduit grey PVC, 50mm x 4m long	1	lg	
5	HT6320	Cable Protector, galvanized steel channel	1	ea	



CU	CU DESCRIPTION
LU35	Wall mounted box – 200amp

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0097	Distribution Box (Rated 200A)	1	ea	
2	GF0512	Fuse 200A Type-NH1	3	ea	
4	GC0028	Conduit orange PVC, 80mm x 4m long	1	lg	
5	HT6320	Cable Protector, galvanized steel channel	1	ea	



CU	CU DESCRIPTION
LU36_63A	J-type fuse 63A and carrier for universal pillar

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1183	Fuse 63A Type-JPU	3	ea	
2	GF0260	Fuse Carrier (Rated 400A)	3	ea	

CU	CU DESCRIPTION
LU36_100A	J-type fuse 100A and carrier for universal pillar

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1185	Fuse 100A Type-JPU	3	ea	
2	GF0260	Fuse Carrier (Rated 400A)	3	ea	

cu	CU DESCRIPTION
LU36_160A	J-type fuse 160A and carrier for universal pillar

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1187	Fuse 160A Type-JPU	3	ea	
2	GF0260	Fuse Carrier (Rated 400A)	3	ea	

CU	CU DESCRIPTION
LU36_200A	J-type fuse 200A and carrier for universal pillar

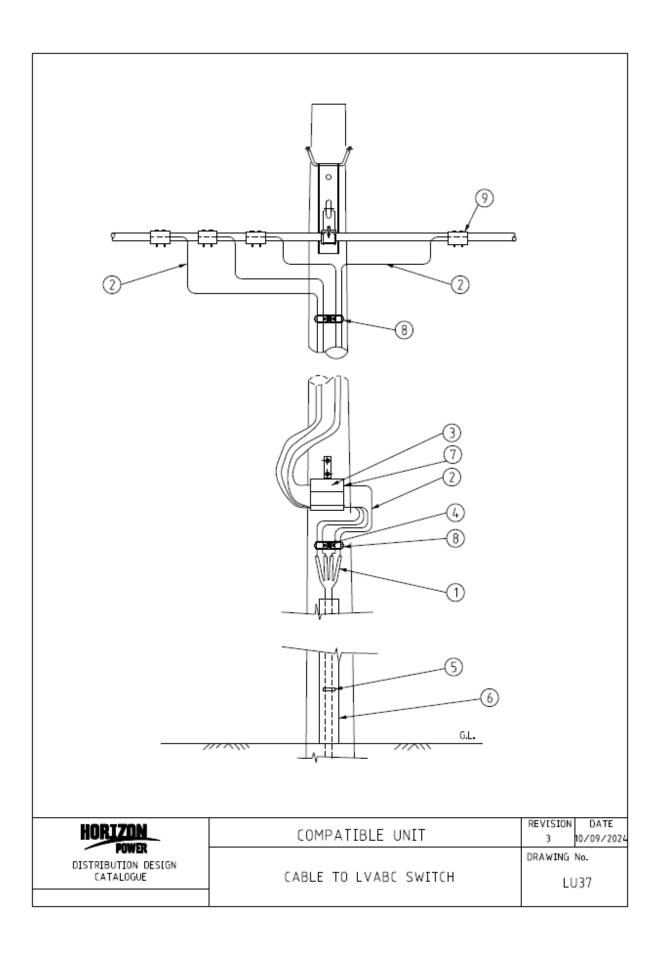
ITEM UMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1188	Fuse 200A Type-JPU	3	ea	
2	GF0260	Fuse Carrier (Rated 400A)	3	ea	

CU	CU DESCRIPTION
LU36_315A	J-type fuse 315A and carrier for universal pillar

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1190	Fuse 315A Type-JPU	3	ea	
2	GF0260	Fuse Carrier (Rated 400A)	3	ea	

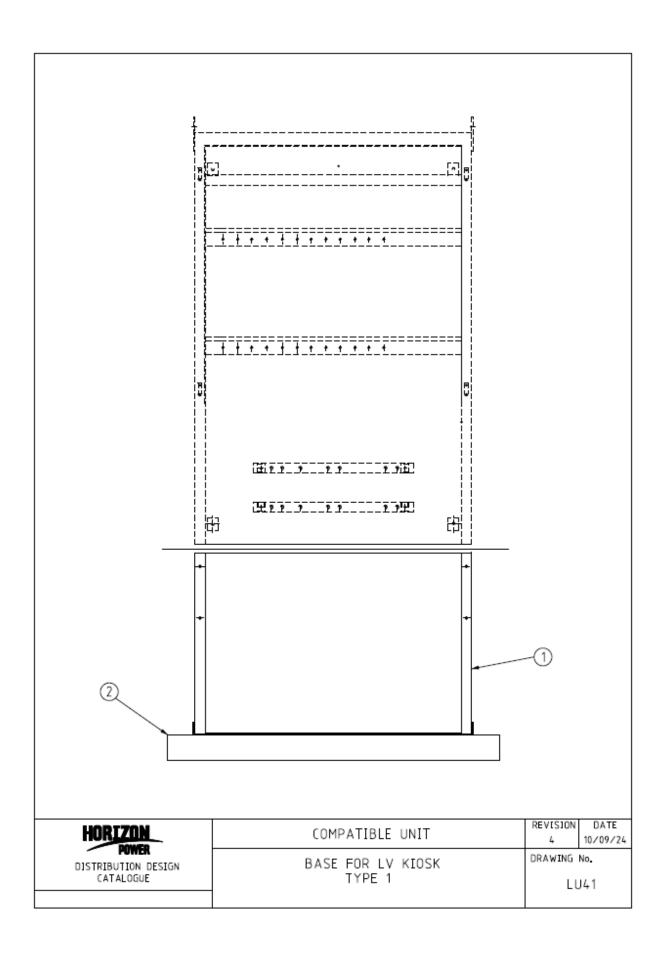
cu	CU DESCRIPTION
LU36_Link	Link 400 amp for universal pillar

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
3	GF1504	Bus Link (Rated 400A)	3	ea	



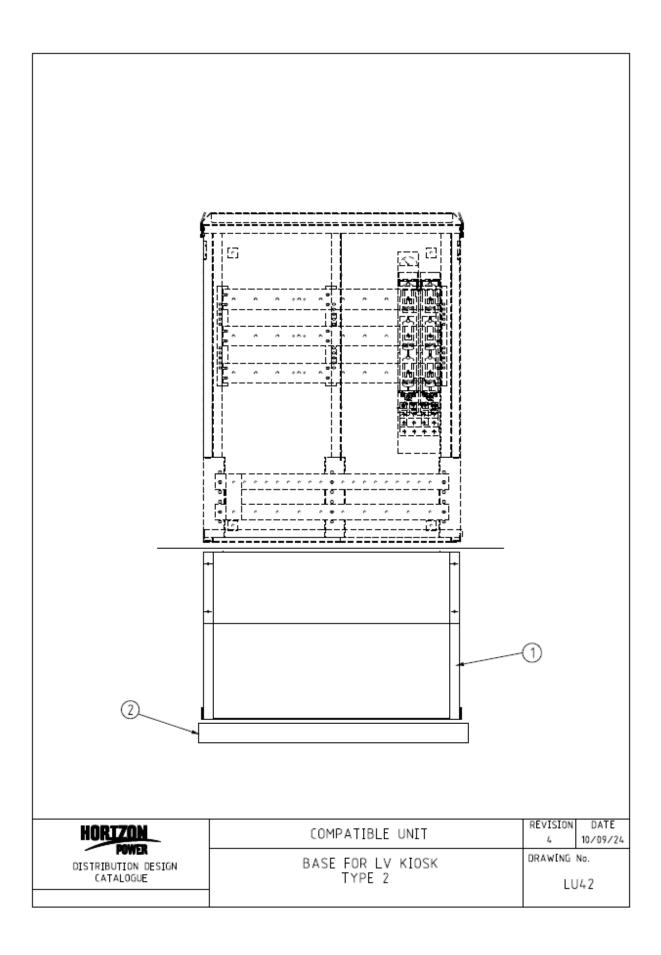
CU	CU DESCRIPTION
LU37_240	Cable to LV ABC Switch for 240sqmm cable

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
1	FC0499	Splice 95-150 ABC to 120-240sqmm	1	ea	
2	FT0150	Lead 150 ABC 4m long	1	ea	
3	GS0111	Fuse Disconnector (Rated 400A)	1	ea	
3	GF1101	Fuse 315A Type-NH2	3	ea	
4	AB6733	Pole Bolt – M16 x 400mm long with nut and washers	4	ea	
5	CB3120	Cable Saddle, galvanized to suit 240sqmm	3	ea	
6	HT6320	Cable Protector, galvanized steel channel	1	ea	
7	GS0109	Neutral Block	1	ea	
8	CC0110	Suspension Clamp – 150 ABC	4	ea	
8	AN2005	Nut – M16, galvanized steel	2	ea	
9		IPC – Select from CN65	4	ea	



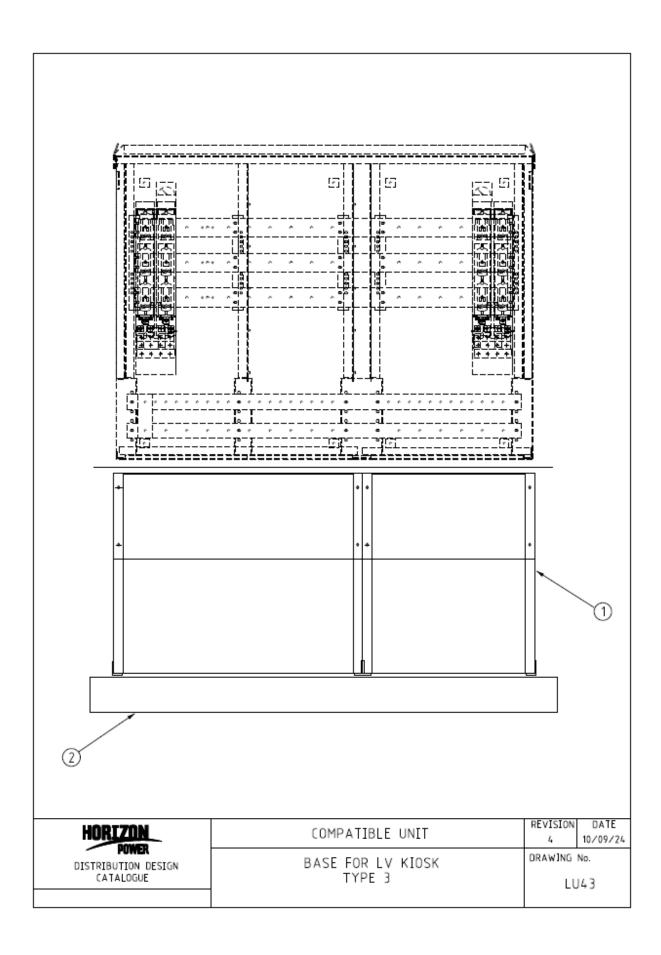
CU	CU DESCRIPTION
LU41	Base for LV kiosk Type 1

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CBH0492	PENDA Type 1 Kiosk Stand galvanized steel	1	ea	
2	CAH1018	Concrete Base suitable for PENDA Type 1 and 2 Kiosk Stand Base	1	ea	



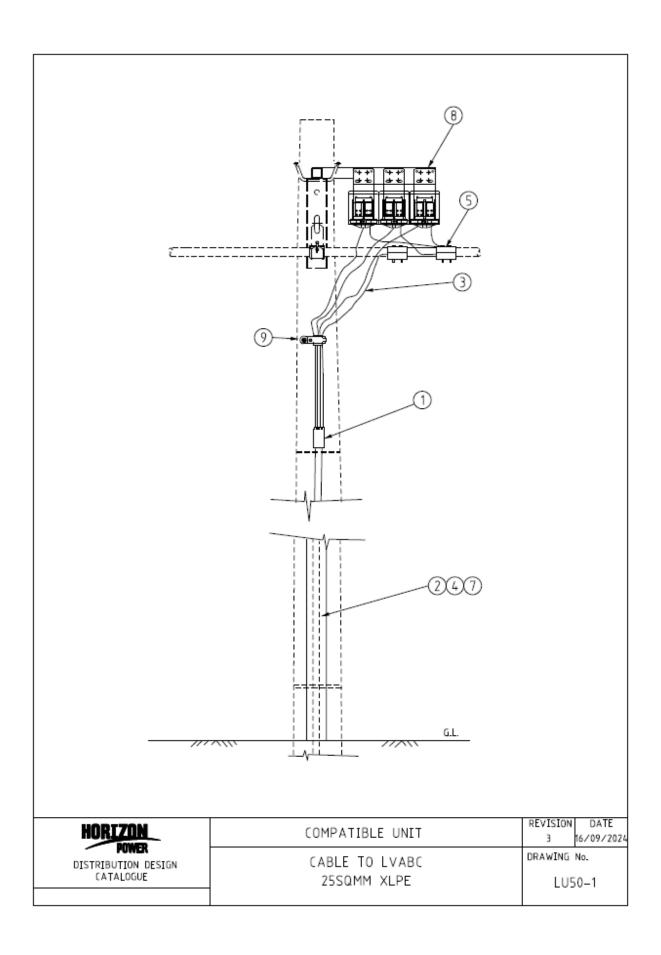
CU	CU DESCRIPTION
LU42	Base for LV Kiosk Type 2

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CBH0493	PENDA Type 2 Kiosk Stand galvanized steel	1	ea	
2	CAH1018	Concrete Base suitable for PENDA Type 1 and 2 Kiosk Stand Base	1	ea	



CU	CU DESCRIPTION
LU43	Base for LV Kiosk Type 3

ITEM NUMBER	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CBH0494	PENDA Type 3 Kiosk Stand galvanized steel	1	ea	
2	CAH1019	Concrete Base suitable for PENDA Type 3 Kiosk Stand Base	1	ea	

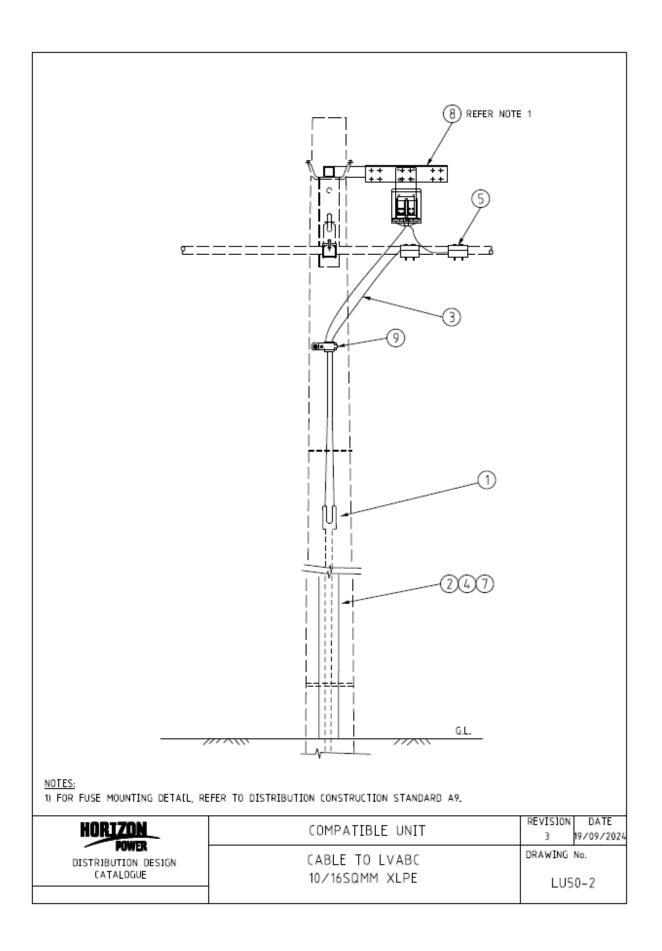


CU	CU DESCRIPTION
LU50_25_95	Cable to LVABC – 25 to 95

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
1	FE0031	Heat-shrink Glove, 4-finger	1	ea	
2	GC0010	Conduit grey PVC, 50mm x 4m long	2	ea	
	FE0071	Heat-shrink Sleeving 15mm	5	m	
3	EE1201	Cable – 25sqmm single core	6	m	Connect to IPC
3	FC0500	Splice – 6sqmm to 25sqmm	1	ea	Neutral cable to IPC
4	GC7195	Conduit Saddle 50mm	3	ea	
5	CC0088	IPC 95 ABC Main to 2 x 35 service	4	ea	Max 2 cables
7	HT6320	Cable Protector, galvanized steel channel	1	ea	
	GF1801	Fuse Holder (Rated 100A)	3	ea	
8	GF1947	Fuse 100A Type-2258F/ME	3	ea	
0	CB3019	Bracket – T-ABC Flowline, galvanized steel	1	ea	
	CB3054	Bracket – Flowline multiple mounting, galvanized steel	1	ea	
9	CC0101	Suspension Clamp, 95 ABC	1	ea	
	AB6733	Pole Bolt – M16 x 400mm long with nut and washers	1	ea	
	AN2005	Nut – M16, galvanized steel	1	ea	

cu	CU DESCRIPTION
LU50_25_150	Cable to LVABC – 25 to 150

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
1	FE0031	Heat-shrink Glove, 4-finger	1	ea	
2	GC0010	Conduit grey PVC, 50mm x 4m long	2	ea	
	FE0071	Heat-shrink Sleeving 15mm	5	m	
3	EE1201	Cable – 25sqmm single core	6	m	Connect to IPC
J	FC0500	Splice – 6sqmm to 25sqmm	1	ea	Neutral cable to IPC
4	GC7195	Conduit Saddle 50mm	3	ea	
5	CC0079	IPC 150 ABC Main to 2 x 35 service	4	ea	Max 2 cables
7	HT6320	Cable Protector, galvanized steel channel	1	ea	
	GF1801	Fuse Holder (Rated 100A)	3	ea	
8	GF1947	Fuse 100A Type-2258F/ME	3	ea	
0	CB3019	Bracket – T-ABC Flowline, galvanized steel	1	ea	
	CB3054	Bracket – Flowline multiple mounting, galvanized steel	1	ea	
9	CC0101	Suspension Clamp, 95 ABC	1	ea	
	AB6733	Pole Bolt – M16 x 400mm long with nut and washers	1	ea	
	AN2005	Nut – M16, galvanized steel	1	ea	

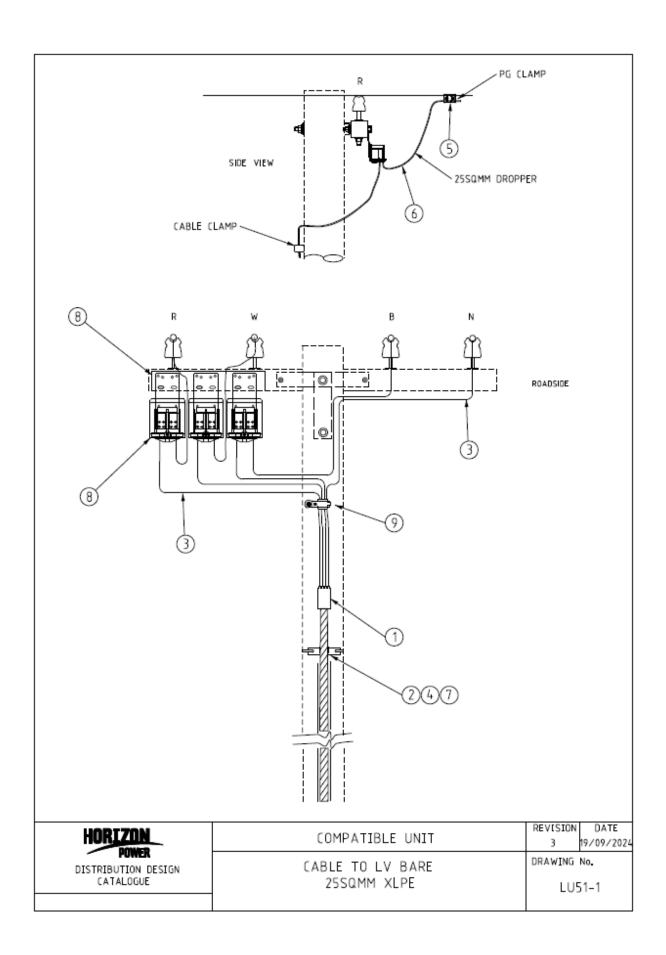


CU	CU DESCRIPTION
LU50_SL_95	Street light cable to 95 ABC

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
1	FE0032	Heat-shrink Glove, 2-finger	1	ea	
2	GC7842	Conduit grey PVC, 25mm x 4m long	2	ea	
	FE0071	Heat-shrink Sleeving 15mm	4	m	
3	EE1201	Cable – 25sqmm single core	6	m	Connect to IPC
	FC0500	Splice – 6sqmm to 25sqmm	1	ea	Neutral cable to IPC
4	GC7192	Conduit Saddle 25mm	3	ea	
5	CC0088	IPC 95 ABC Main to 2 x 35 service	2	ea	Max 2 cables
7	HT6320	Cable Protector, galvanized steel channel	1	ea	
	GF1801	Fuse Holder (Rated 100A)	1	ea	
	GF1940	Fuse 30A Type-ME	1	ea	
8	CB3019	Bracket – T-ABC Flowline, galvanized steel	1	ea	
	CB3054	Bracket – Flowline multiple mounting, galvanized steel	1	ea	
9	CC0101	Suspension clamp, 95 ABC	1	ea	
	AB6733	Pole Bolt – M16 x 400mm long with nut and washers	1	ea	
	AN2005	Nut – M16, galvanized steel	1	ea	

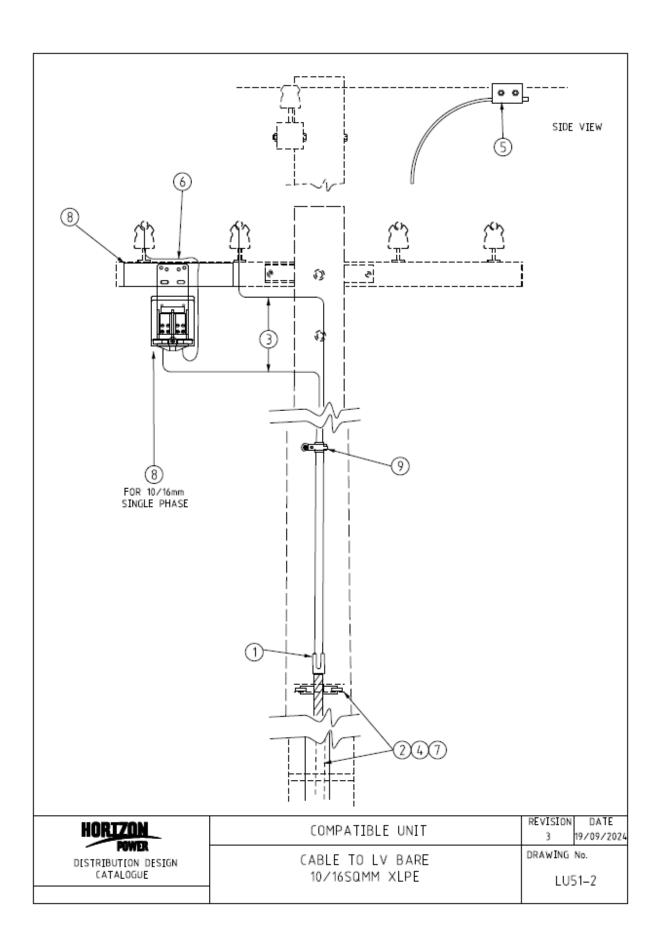
CU	CU DESCRIPTION
LU50_SL_150	Street light cable to 150 ABC

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
1	FE0032	Heat-shrink Glove, 2-finger	1	ea	
2	GC7842	Conduit grey, PVC 25mm x 4m long	2	ea	
	FE0071	Heat-shrink Sleeving 15mm	4	m	
3	EE1201	Cable – 25sqmm single core	6	m	Connect to IPC
J	FC0500	Splice – 6sqmm to 25sqmm	1	ea	Neutral cable to IPC
4	GC7192	Conduit Saddle 25mm	3	ea	
5	CC0079	IPC 150 ABC Main to 2 x 35 service	2	ea	Max 2 cables
7	HT6320	Cable Protector, galvanized steel channel	1	ea	
	GF1801	Fuse Holder (Rated 100A)	1	ea	
0	GF1940	Fuse 30A Type-ME	1	ea	
8	CB3019	Bracket – T-ABC Flowline, galvanized steel	1	ea	
	CB3054	Bracket – Flowline multiple mounting, galvanized steel	1	ea	
	CC0101	Suspension Clamp, 95 ABC	1	ea	
9	AB6733	Pole Bolt – M16 x 400mm long with nut and washers	1	ea	
	AN2005	Nut – M16, galvanized steel	1	ea	



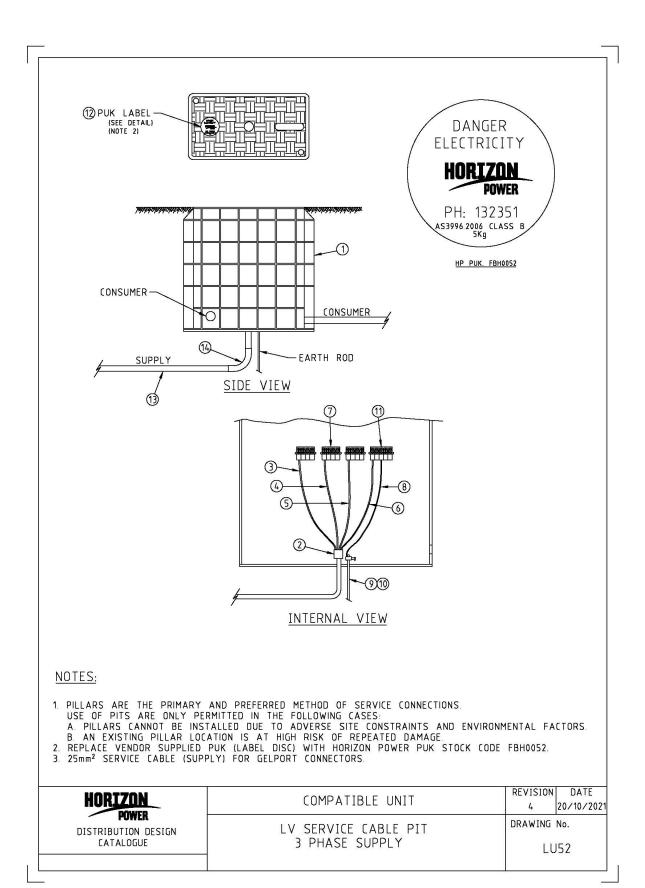
CU	CU DESCRIPTION
LU51_25	25sqmm CU cable to LV Bare Conductor

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
1	FE0031	Heat-shrink Glove, 4-finger	1	ea	
2	GC0010	Conduit grey PVC, 50mm x 4m long	2	ea	
3	FE0071	Heat-shrink Sleeving 15mm	8	m	
4	GC7195	Conduit Saddle 50mm	3	ea	
5		PG Clamps – Select from CN9	4	ea	
6	EE1128	Dropper Cable – 4 Core 16sqmm	4	mt	
7	HT6320	Cable Protector, galvanized steel channel	1	ea	
	GF1801	Fuse Holder (Rated 100A)	3	ea	
	GF1947	Fuse 100A Type-2258F/ME	3	ea	
8	CB3054	Bracket – Flowline multiple mounting, galvanized steel	1	ea	
	AB4567	Bolt – M12 x 150mm long with nut	1	ea	
	AW3523	Washer – M12 galvanized steel	1	ea	
	CC0101	Suspension Clamp – 95sqmm	1	ea	
9	AB6733	Pole Bolt – M16 x 400mm long with nut and washers	1	ea	
	AN2005	Nut – M16, galvanized steel	1	ea	



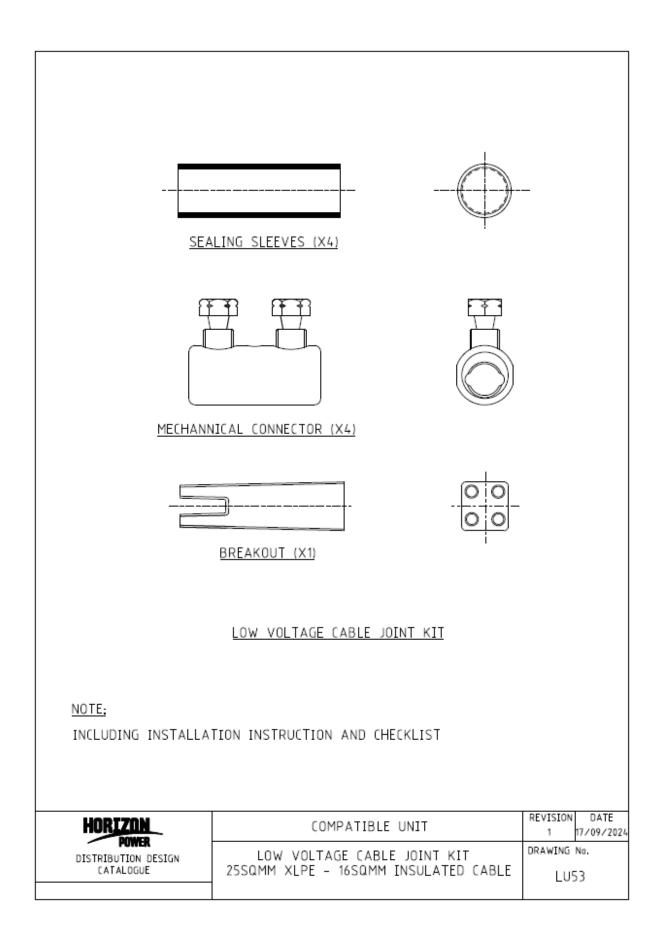
cu	CU DESCRIPTION
LU51_SL	Street light cable to LV bare conductor

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
1	FE0032	Heat-shrink Glove 2-finger	1	ea	
2	GC7842	Conduit grey, PVC 25mm x 4m long	2	ea	
3	FE0071	Heat-shrink Sleeving 15mm	4	m	
4	GC7192	Conduit Saddle 25mm	3	ea	
5		PG Clamps – Select from CN9	2	ea	
6	EE1126	Dropper Cable – 2 Core 16sqmm	2	m	
7	HT6320	Cable Protector, galvanized steel channel	1	ea	
	GF1801	Fuse Holder (Rated 100A)	1	ea	
	GF1926	Fuse 63A Type-XK63	1	ea	
8	CB3054	Bracket – Flowline multiple mounting, galvanized steel	1	ea	
	AB4567	Bolt – M12 x 150mm long with nut	1	ea	
	AW3523	Washer – M12 galvanized steel	1	ea	
	CC0101	Suspension Clamp, 95sqmm	1	ea	
9	AB6733	Pole Bolt – M16 x 400mm long with nut and washers	1	ea	
	AN2005	Nut – M16, galvanized steel	1	ea	



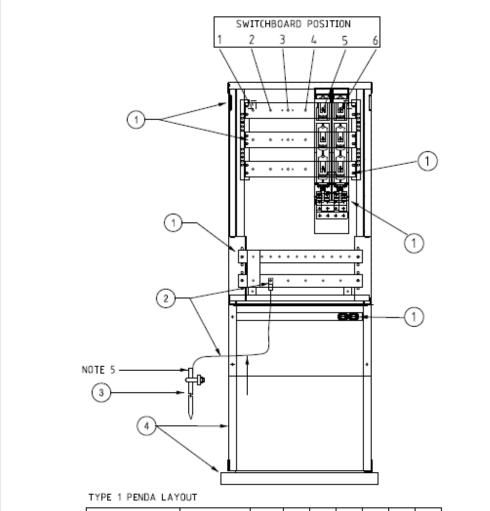
CU	CU DESCRIPTION
LU52	Below Ground Service Pit

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
1	FB0051	Service Pit	1	ea	2 x 3ph 3 services + 1ph UMS
2	FE0109	Heat-shrink Glove, 4-finger and Sleeving	1	ea	
3	FE0102	Heat-shrink Sleeving – Red	1	ea	
4	FE0103	Heat-shrink Sleeving – White	1	ea	
5	FE0104	Heat-shrink Sleeving – Blue	1	ea	
6	FE0071	Heat-shrink Sleeving – Black	1	ea	
7	CC0846	Gel Port, 4-port	3	ea	
8	EE1205	Earth Cable, 25sqmm	2	m	
9	CE0058	Earth Clamp, double saddle	1	ea	
10	CE0135	Earth Rod	1	ea	
11	CC0851	Gel Port, 5-port	1	ea	
12	FBH0052	PUK	1	ea	
13	GC0024	Conduit HD orange, 40mm x 4m long	1	ea	
14	GC0479	Conduit Bend orange, 40mm x 90 deg.	1	ea	



cu	CU DESCRIPTION
LU53	Low Voltage Cable Joint Kit

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
		Low Voltage Cable Joint Kit	1	Kit	
		Breakout (Black)	1		502K046/S
		Sealing Sleeves 250mm long (Black)	4		MWTM- 25/8-250
1	FJH1625	Mechanical Connector	4		BSLM- 10/50
		Installation Instruction	1		ESD-8261- AU-5/20
		Check List	1		ESD-1573- AU



SWG	MAX FUSE	CU	1	2	3	4	5	6
TYPE 1 PENDA		LU63						
STAND & BASE		LU41						
160A FSD	63A NH00	LU70			L			
630A FSD	1 X 400A NH2	LU69	C/S	C\Z		C/S		
910A FSD	1 X 630A NH3	LU68						
1260A FSD	2 X 400A NH2	LU67					SUP	PLY
1000A SWDC	LINKS SUPPLIED	LU71						

- NOTES:
 1. STANDARD PENDA TYPE 1 LV ASSEMBLY LAYOUT SHOWN.
 PLEASE SEE G4-05 FOR ALTERNATIVE ARRANGEMENTS

 2. LU41 STAND AND BASE REQUIRED FOR OUTDOOR INSTALL

 3. LU44 CABLE TERMINATION FOR OUTGOING CABLES

 4. REFER TO G6 FOR EARTHING OF PENDA TYPE 1

 5. ITEM 3 TO BE ORDERED WHEN PENDA IS INSTALLED OUTSIDE OF HV EQUIPMENT

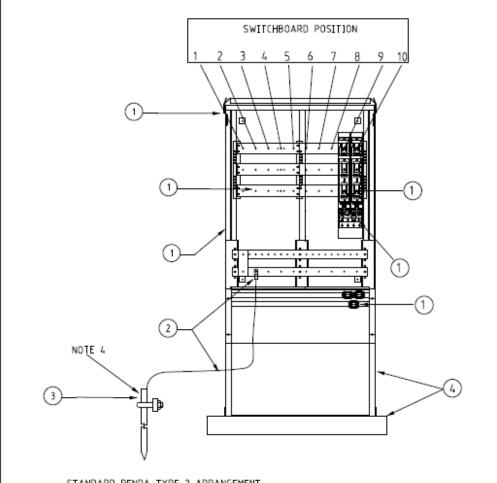
HURIZUN COMPATIBLE UNIT	08/08/2024
DISTRIBUTION DESIGN CATALOGUE DISTRIBUTION ASSEMBLY (PENDA) DISTRIBUTION ASSEMBLY (PENDA)	G No. U63

CU	CU DESCRIPTION
LU63	Type 1 PENDA Kiosk - Indoor

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
	XAH0292	Type 1 PENDA Kiosk + LV Switchgear Assembly: PENDA Kiosk (630A Busbar, standoff insulators, earthing studs, 1 x 1260A incomer FSW, 3 x 630A FSW + 2 x 160A SL SFW)	1	ea	
1	FM0200	Cable Clamps – 26-38sqmm single	2	ea	Supply neutral
	FM0203	Cable Clamps – 26-38sqmm triple	3	kit	Supply phase
	FM0204	Cable Clamps – 38-50sqmm single	4	ea	Feeders - 240 wave
	OH0194	Padlock	1	ea	
	FL0143	Earthing Lug – M12 x 70sqmm	4	ea	
2	EE1264	Earthing Cable 70sqmm PVC	10	m	
	FM0208	Unistrut for cable clamps	1	ea	

CU	CU DESCRIPTION
LU63_O	Type 1 PENDA Kiosk - Outdoor

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
	XAH0292	Type 1 PENDA Kiosk + LV Switchgear Assembly: PENDA Kiosk (630A Busbar, standoff insulators, earthing studs, 1 x 1260A incomer FSW, 3 x 630A FSW + 2 x 160A SL SFW)	1	ea	
1	FM0200	Cable Clamps – 26-38sqmm single	2	ea	Supply neutral
	FM0203	Cable Clamps – 26-38sqmm triple	3	kit	Supply phase
	FM0204	Cable Clamps – 38-50sqmm single	4	ea	Feeders - 240 wave
	OH0194	Padlock	1	ea	
2	FL0143	Earthing Lug – M12 x 70sqmm	4	ea	
	EE1264	Earthing Cable 70sqmm PVC	5	m	
	CE0135	Earth Rod	4	ea	
	CE0058	Earth Clamp	2	ea	NOT required if
3	CE0078	Earth Coupling	2	ea	PENDA is
3	CE0116	Driving Point for earth rods	2	ea	included with HV
	CE0201	Earth Box	2	ea	equipment
	EM0012	Conductor, 70sqmm bare copper	12	m	
4	CBH0492	PENDA Type 1 Kiosk Stand, galvanized steel	1	ea	
4	CAH1018	Concrete Base	1	ea	



STANDARD PENDA TYPE 2 ARRANGEMENT

SWG	MAX FUSE	CU	1	2	3	4	5	6	7	8	9	10
TYPE 2 PENDA		LU64										
PENDA BASE		LU42										
160A FSD	1 X 63A D[N00	LU70				LL						
630 FSD	1 X 400A NH2	LU69			C/S		C/S	C/S	C/S	C/S		
910A FSD	1 X 630A NH3	LU68										
1260A FSD	2 X 400A NH2	LU67	(
2000A SWD	LINKS SUPPLIED	LU66									ī	1

NOTES:-

- 1. STANDARD PENDA TYPE 2 LV ASSEMBLY LAYOUT SHOWN.
 PLEASE SEE G4-05 FOR ALTERNATIVE ARRANGEMENTS.
 2. LU42 STAND AND BASE REQUIRED FOR OUTDOOR INSTALLATION.
 3. LU14 TERMINATIONS FOR OUTGOING CABLES
 4. ITEM 3 TO BE ORDERED WHEN PENDA IS INSTALLED OUTSIDE OF HV EQUIPMENT

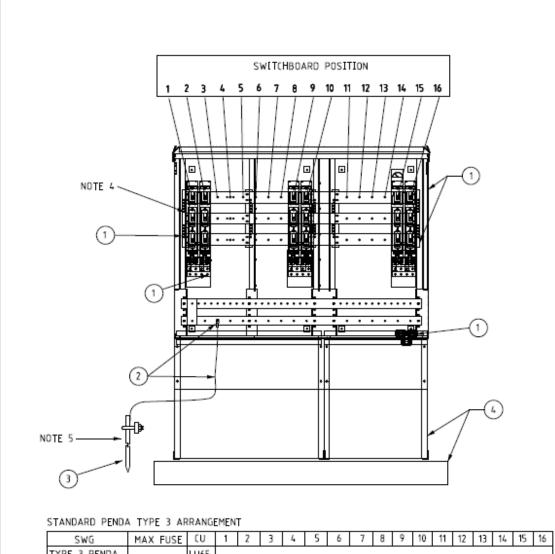
HORIZON	COMPATIBLE UNIT	REVISION 2	DATE 08/08/2024
DISTRIBUTION DESIGN CATALOGUE	TYPE 2 - 1400A PUBLIC ELECTRICITY NETWORK DISTRIBUTION ASSEMBLY (PENDA)	DRAWING LU	

CU	CU DESCRIPTION
LU64	Type 2 PENDA Kiosk – Indoor

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
	ХАН0293	Type 2 PENDA Kiosk + LV Switchgear Assembly: PENDA Kiosk (1400A Busbar, standoff insulators, earthing studs, 1 x 2000A TX incomer SWDC, 1 x 1260A Customer FSW, 5 x 630A FSW + 2 x 160A SL SFW)	1	ea	
1	FM0200	Cable Clamps – 26-38sqmm single	2	ea	Supply neutral
	FM0203	Cable Clamps – 26-38sqmm triple	4	kit	Supply phase
	FM0204	Cable Clamps – 38-50sqmm single	5	ea	Feeders
	OH0194	Padlock	1	ea	
	FL0143	Earthing Lug – M12 x 70sqmm	4	ea	
2	EE1264	Earthing Cable 70sqmm PVC	10	m	
	FM0208	Unistrut for cable clamps	1	ea	

cu	CU DESCRIPTION
LU64_O	Type 2 PENDA Kiosk – Outdoor

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
	XAH0293	Type 2 PENDA Kiosk + LV Switchgear Assembly: PENDA Kiosk (1400A Busbar, standoff insulators, earthing studs, 1 x 2000A TX incomer SWDC, 1 x 1260A Customer FSW, 5 x 630A FSW + 2 x 160A SL SFW)	1	ea	
1	FM0200	Cable Clamps – 26-38sqmm single	2	ea	Supply neutral
	FM0203	Cable Clamps – 26-38sqmm triple	4	kit	Supply phase
	FM0204	Cable Clamps – 38-50sqmm single	8	ea	Feeders
	OH0194	Padlock	1	ea	
2	FL0143	Earthing Lug – M12 x 70sqmm	4	ea	
2	EE1264	Earthing Cable 70sqmm PVC	5	m	
	CE0135	Earth Rod	4	ea	NOT
	CE0058	Earth Clamp	2	ea	required if PENDA is
	CE0078	Earth Coupling	2	ea	included
3	CE0116	Driving Point for earth rods	2	ea	with HV equipment
	CE0201	Earth Box	2	ea	
	EM0012	Conductor, 70sqmm bare copper	12	m	
4	CBH0493	PENDA Type 2 Kiosk Stand, galvanized steel	1	ea	
4	CAH1018	Concrete Base	1	ea	



STANDARD FERDA TIFE S ARRANGERENT																		
SWG	MAX FUSE	CU	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TYPE 3 PENDA		LU65																
PENDA BASE		LU43																
160A FSD	1 X 63A DENGO	LU70				LL												
630 FSD	1 X 400A NH2	LU69			C/S		C/S	C/S	C/S	C/S			C/S	C/S	C/S	C/S		
910A FSD	1 X 630A NH3	LU68																
1260A FSD	2 X 400A NH2	LU67																
2000A SWD	LINKS SUPPLIED	LU66	Т	2													1	Γ1

NOTES:-

- 1. STANDARD PENDA TYPE 3 LV ASSEMBLY LAYOUT SHOWN.
 PLEASE SEE G4-05 FOR ALTERNATIVE ARRANGEMENTS.
 2. LU43 STAND AND BASE REQUIRED FOR OUTDOOR INSTALLATION.
- 3. LU14 TERMINATIONS FOR OUTGOING CABLES.
 4. A LU68 ERG FSW IS IN POSITION 3. PLEASE USE 500A FUSE STOCK CODE GF1103
 5. ITEM 3 TO BE ORDERED WHEN PENDA IS INSTALLED OUTSIDE OF HV EQUIPMENT

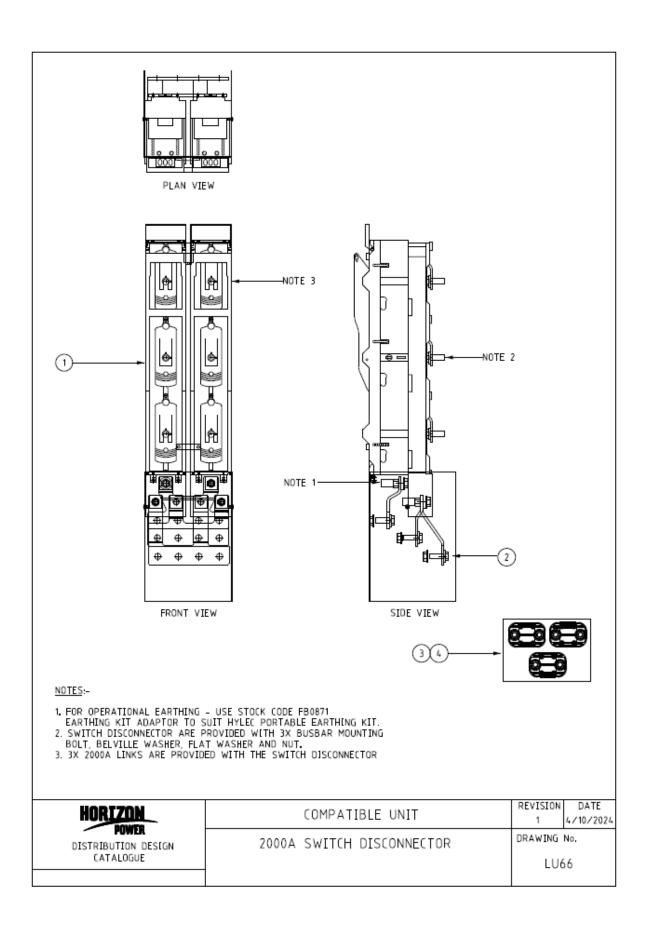
HORIZON	COMPATIBLE UNIT	2 08/08/202	4
DISTRIBUTION DESIGN CATALOGUE	TYPE 3 - 2800A PUBLIC ELECTRICITY NETWORK DISTRIBUTION ASSEMBLY (PENDA)	DRAWING No.	

CU	CU DESCRIPTION
LU65	Type 3 PENDA Kiosk – Indoor

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	Unit of Measure	REMARKS
	XAH0294	Type 3 PENDA Kiosk + LV Switchgear Assembly: PENDA Kiosk (2800A Busbar, standoff insulators, earthing studs, 2 x 2000A TX incomer SWDC, 1 x 1260A Customer SWDC, 11 x 630A FSW + 160A SL SFW	1	ea	
1	FM0200	Cable Clamps – 26-38sqmm single	2	ea	Supply neutral
	FM0203	Cable Clamps – 26-38sqmm triple	4	kit	Supply phase
	FM0204	Cable Clamps – 38-50sqmm single	10	ea	Feeders
	OH0194	Padlock	1	ea	
2	FL0143	Earthing Lug – M12 x 70sqmm	2	ea	
	EE1264	Earthing Cable 70sqmm PVC	10	m	
	FM0209	Unistrut for cable clamps	1	ea	

CU	CU DESCRIPTION
LU65_O	Type 3 PENDA Kiosk – Outdoor

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
	XAH0294	Type 3 PENDA Kiosk + LV Switchgear Assembly: PENDA Kiosk (2800A Busbar, standoff insulators, earthing studs, 2 x 2000A TX incomer SWDC, 1 x 1260A Customer SWDC, 11 x 630A FSW, + 1 x 160A SL SFW	1	ea	
1	FM0200	Cable Clamps – 26-38sqmm single	2	ea	Supply neutral
	FM0203	Cable Clamps – 26-38sqmm triple	4	kit	Supply phase
	FM0204	Cable Clamps – 38-50sqmm single	10	ea	Feeders
	OH0194	Padlock	1	ea	
2	FL0143	Earthing Lug – M12 x 70sqmm	4	ea	
2	EE1264	Earthing Cable 70sqmm PVC	5	m	
	CE0135	Earth rod	4	ea	NOT
	CE0058	Earth Clamp	2	ea	required if PENDA is
2	CE0078	Earth Coupling	2	ea	included
3	CE0116	Driving Point for earth rods	2	ea	with HV equipment
	CE0201	Earth Box	2	ea	
	EM0012	Conductor, 70sqmm bare copper	12	m	
1	CBH0494	PENDA Type 3 Kiosk Stand, galvanized steel	1	ea	
4	CAH1019	Concrete Base	1	ea	

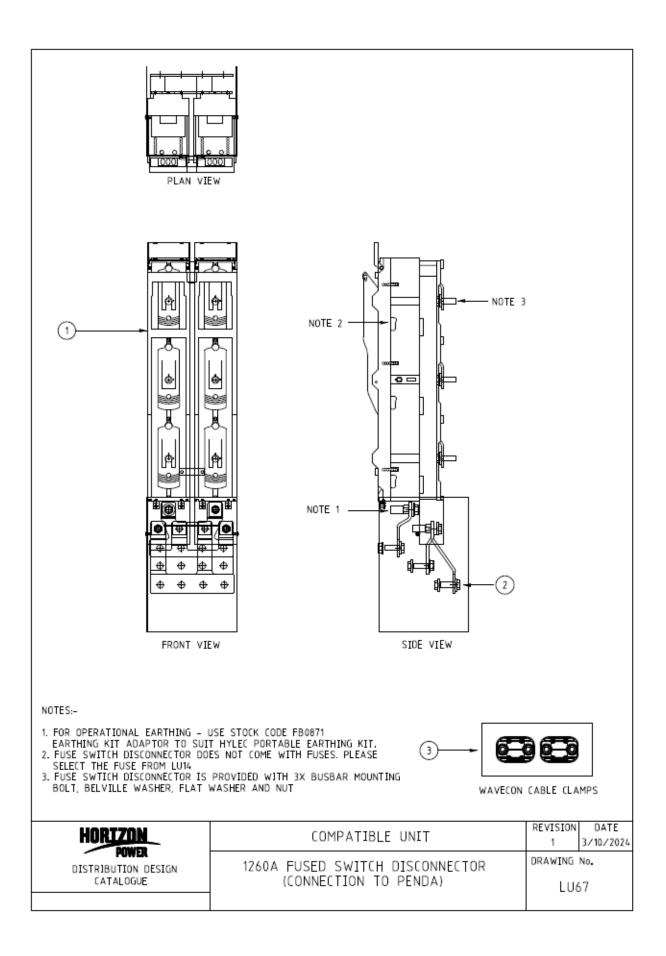


CU	CU DESCRIPTION
LU66_TX	2000A Tx switch disconnector (incoming supply to PENDA)

ITEM Number	STOCK Number	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0862	Switch Disconnector (Rated 2000A)	1	ea	Links, mounting kit included
2	FB0873	Cable connection kit – M12 x 35mm long bolt, Belvillle and Flat washer and nut	4	kit	3 of each per kit
3	FM0203	Cable Clamps – 26-38sqmm triple	4	kit	
4	FM0200	Cable Clamps – 26-38sqmm single	2	kit	

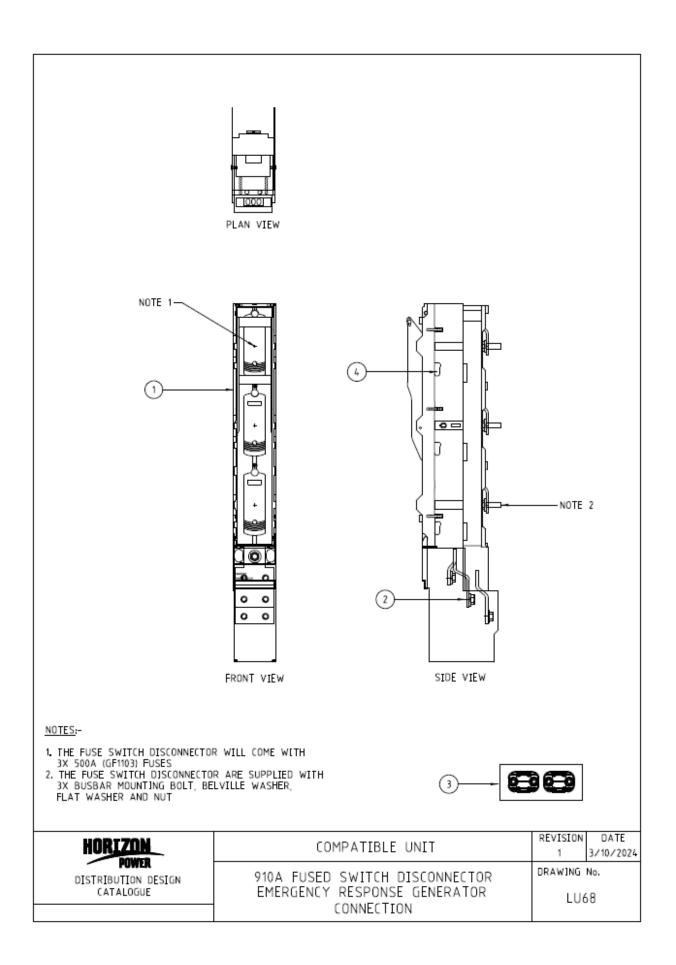
CU	CU DESCRIPTION
LU66_CUST	2000A Consumer switch disconnector (connection to PENDA)

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0862	Switch Disconnector (Rated 2000A)	1	ea	Links, mounting kit included
2	FB0873	Cable connection kit – M12 x 35mm long bolt, Belvillle and Flat washer and nut	4	kit	3 of each per kit
3	FM0203	Cable Clamps – 26-38sqmm triple	4	kit	
4	FM0200	Cable Clamps – 26-38sqmm single	2	ea	



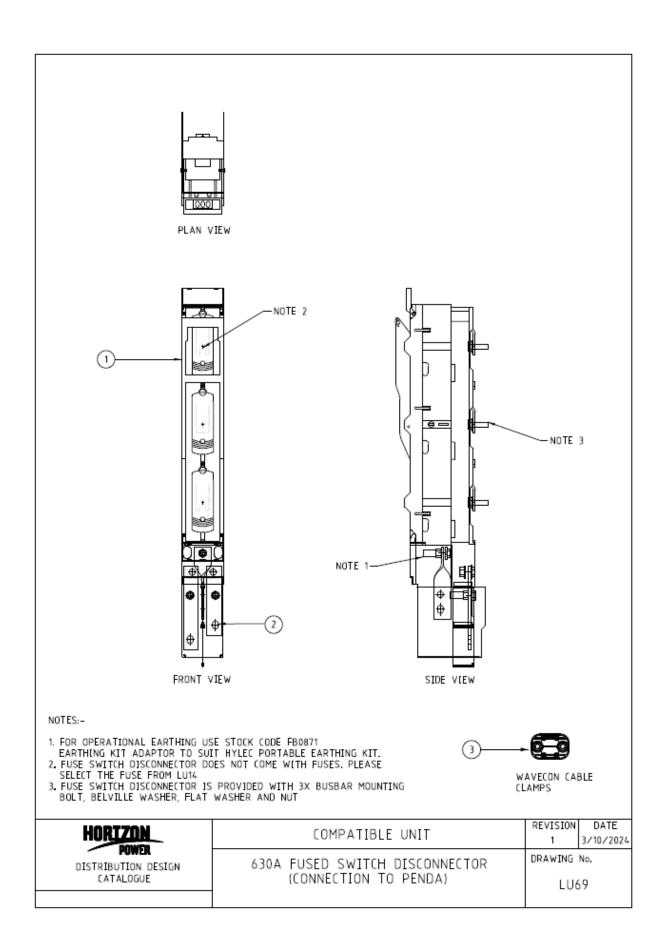
CU	CU DESCRIPTION
LU67	1260A Fused switch disconnector (connection to PENDA)

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0863	Switch Disconnector (Rated 1260A)	1	ea	
2	FB0873	Cable connection kit – M12 x 35mm long bolt, Belvillle and Flat washer and nut	2	kit	
3	FM0204	Cable Clamps – 38-50sqmm single	2	ea	



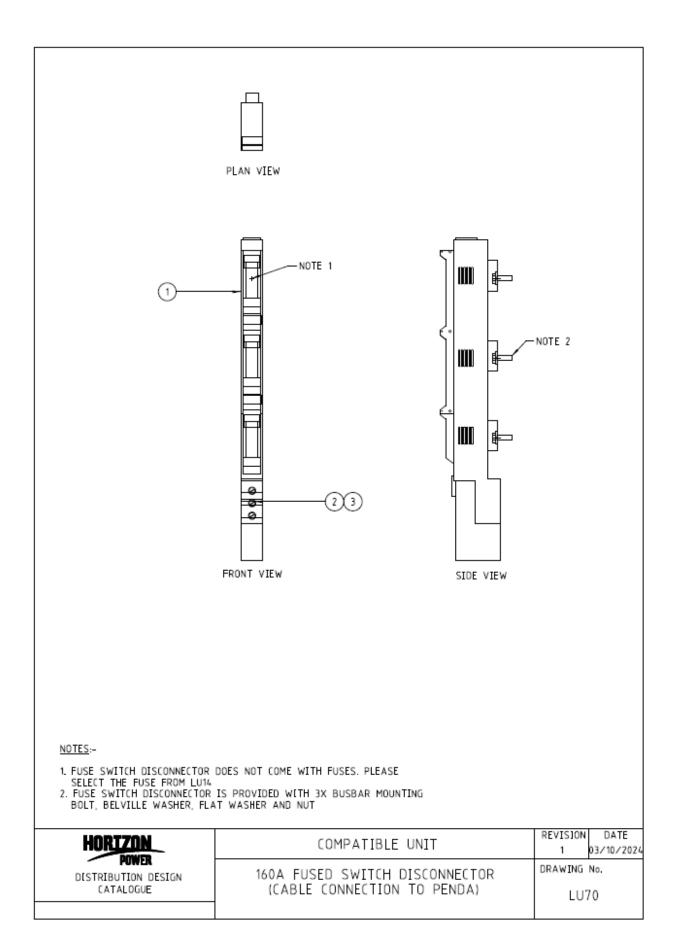
CU	CU DESCRIPTION
LU68	910A Fused switch disconnector (connection to PENDA)

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0864	Switch Disconnector (Rated 910A)	1	ea	
2	FB0873	Cable connection kit – M12 x 35mm long bolt, Belvillle and Flat washer and nut	2	kit	
3	FM0204	Cable Clamps – 38-50sqmm single	1	ea	
4	GF1103	Fuse 500A Type-NH2	3	ea	



CU	CU DESCRIPTION
LU69	630A Fused switch disconnector (connection to PENDA)

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0865	Switch Disconnector (Rated 630A)	1	ea	
2	FB0873	Cable connection kit – M12 x 35mm long bolt, Belvillle and Flat washer and nut	1	kit	
3	FM0204	Cable Clamps – 38-50sqmm single	1	ea	



CU	CU DESCRIPTION
LU70	160A Fused switch disconnector (connection to PENDA)

ITEM Number	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0866	Switch Disconnector (Rated 160A)	1	ea	
2	FB0874	Cable Termination Kit – M8 x 25mm and Belville washers	1	kit	
3	AN1491	Nut – M8, galvanized steel	3	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# 2152546** 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
21/01/2014	2	Index List CU Description
		 LU50_SL_95 & 150 changed to LU50_10_16_95 & 150 LU51_SL_AL & CU changed to LU51_10_16_AL & CU
		LU6 Drawing
		Item (2) & (6) split to indicate parts
		LU9 Drawing & List
		Items shown better
		LU34 Drawing & List
		Item (5) added – cable protector
		LU35 Drawing & List
		 Item (5) added – cable protector Item (3) changed from lug to saddle
		LU38 Drawing
		W.P.C. removedEarth Depth changed from 150 mm to 500 mm
		LU50 & LU51 Drawing & List
		Items (4) and (6) removed
23/02/2018		LU9 Drawing & List
		Item (10) added
		LU37 Drawing & List
	3	• Items (7) & (8) added
		LU50 Drawing & List
		• Items (9) & (10) added
		LU51 Drawing & List
		• Items (8), (9) & (10) added
14/12/2020	4	Resin separated from joint kits, drawing to be updated and also item (1) modified and item (2) created for the following lists:

Date	Rev No.	Notes
		• LU1
		• LU2 • LU3
		• LU4 • LU5
		LU6 lists modified
		Item (2) changed from CC0138 to "select from CN9".
		Updating LU14 with new cable termination
		• LU14_16/160A
		LU14_25/160ALU14_25/630A
		New CUs are added:
		LU16LU63LU64
		LU65LU66
		• LU67
		LU68LU69
		• LU70
		LU2 and LU3 are duplicates (LU3 removed)
		LU8 list modified:
		FJ0247 replaced with FJ0238.
		LU9 lists modified:
		Item (4) changed from CC0138 to "PG Clamps – Select from CN9".
		Item (4) CZ0307 removed from:
		LU10LU10_2TERM
		• LU10_2TERM • LU10_CABTERM
		Removed LU10_SLTERM – Use UM3_R instead.
		LU10_W/END
		Replace CZ0307 by UH0088
		Removed LU19- repeat of LU1
		Removed LU33- Single Phase S/L cable
		LU34 GF1177 replaces with GF0505
		LU35 GF1188 replaces with GF0512
		LU37 added item (9) – Select IPC clamp from CN65
		Removed:
		LU38LU39
		• LU40
		LU44LU45
		• LU46
		LU46ALU47

Date	Rev No.	Notes
		• LU49
		GF0550 is replaced with GF1940 for:
		LU50_SL_95LU50_SL_150LU50_SL
		LU51_25_AL renamed to LU51_25
		Item (5) changed to "PG Clamps – Select from CN9"
		LU51_SL_AL renamed to LU51_SL
		Item (5) changed to "PG Clamps – Select from CN9"
		LU51_25_CU removed
		LU51_SL_CU removed
		Modified LU52 – Changed to 3Ph Service Pit
		Stock item descriptions updated for consistency.
		Removed LU14_185.
28/04/2021	5	FC0498 is replaced with FC0499 for: • LU6_240 • LU9_240 • LU37_240 Removed: • LU6_120
		LU9_120LU37_120
30/10/2021		LU1 list modified • FJ0043 replaced with FJ0063
		KC0002 replaced with KC0014 LU2 list modified
		 FJ0042 replaced with FJ0062 KC0002 replaced with KC0014
		LU4 list modified
		FJ0047 replaced with FJ0067KC0002 replaced with KC0014
		LU5 list modified
	6	FJ0046 replaced with FJ0066KC0002 replaced with KC0014
		LU12 list modified
		FJ0241 replaced with FJ0056
		Remove LU6_185
		Remove LU6_240
		LU63, LU64, LU65, LU66, LU67, LU68, LU69 and LU70
		Update Order form with new versionUpdate notes of LU63
		Remove LU9_185

Date	Rev No.	Notes
		Remove LU37_185
30/08/2022	7	Add LU53 Update LU63 drawing to rev 2
13/02/2024	8	Added CAH1018 and CAH1019 LU41, LU42 and LU43
21/5/2024	9	Stock code added to LU66, LU67, LU68, LU69, LU70
15/10/2024	LU63, LU64 and LU65 PENDA CUs added. Revised LU 50-1, 50-2, 51-1 and 51-2, 60 70 Removed 'Operations Division" from all drawings. Wording is consistent throughout document.	