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DISTRIBUTION CONSTRUCTION STANDARDS MANUAL

Part 4

Date Published: 8 February 2023

H - HV Overhead

For application to Horizon Power Electricity Distribution Networks

Uncontrolled document when printed. Refer Online for latest version.

Part 4 – HV Overhead – Drawing Register

Number	Description
<u>H1-1</u>	3 Ph Intermediate (Steel Pole)
<u>H1-2</u>	3 Ph Intermediate (Wood Pole) – For Reference Only
<u>H2</u>	3 Ph Intermediate with Single Slack Tee Off
<u>H3</u>	3 Ph Intermediate 4 Way
<u>H4</u>	Two Way Termination
<u>H4-1</u>	Horizontal Termination Anti Swan Crossarm
<u>H5</u>	3 Ph Inline Strain With or Without Dropout Fuses
<u>H5-1</u>	Termination with Anti Swan Crossarm
<u>H8-1</u>	Intermediate with Cable Tee Off via DOF
<u>H8-2</u>	3 Ph Intermediate with Cable Tee-Off with DOF (Alternate Crossarm)
<u>H9-1</u>	3 Ph Termination to Cable
<u>H9-2</u>	3 Ph Termination to Cable with DOF
<u>H10-1</u>	3 Ph Intermediate Transformer HV to LV Open Aerial
<u>H10-2</u>	3 Ph Intermediate with Transformer HV to LV ABC
<u>H11-2</u>	3 Ph with Side Mounted Termination Transformer with DOFs
<u>H12</u>	3 Ph Pole Top Switch including Earth
<u>H13</u>	3 Ph Intermediate with Tee off With or Without DOF
<u>H14-1</u>	3 Ph Intermediate with Cable Tee-Off, PTS with Raiser and DOF
<u>H14-2</u>	3 Ph PTS with Cable Tee-Off and DOF (11kV and 22kV)
<u>H15-1</u>	3 Ph Intermediate with Recloser and LV Aerial Supply Arrangement
<u>H15-2</u>	3 Ph Intermediate with Recloser and LV Underground Supply Arrangement
<u>H15-3</u>	3 Ph Intermediate with Recloser and Transformer Supply Arrangement
<u>H15-4</u>	3 Ph Intermediate with Recloser and Solar Supply Arrangement
<u>H15-6</u>	3 Ph Intermediate with Cable Tee-Off, Recloser, PTS and Raiser
<u>H15-7</u>	3 Ph Strain with PTS Recloser 2 x DOF and VHF Antenna (Rural Areas)
<u>H16-2/3</u>	LBS with Bypass Switch (3 Ph Strain) and Single Bushing Tx VHF Antenna (Rural Areas)
<u>H16-2/4</u>	LBS with Bypass Switch (3 Ph Strain) and 2 Bushing Tx VHF Antenna (Rural Areas)
<u>H16-3/1</u>	LBS without Bypass Switch (3 Ph Strain) and Single Bushing Tx
<u>H16-4/1</u>	LBS without Bypass Switch (3 Ph Strain) and 2 Bushing Tx via DOFs
<u>H16-5</u>	LBS without Bypass Switch (3 Ph Intermediate) with LV Aerial Supply
<u>H16-6</u>	LBS without Bypass Switch (3 Ph Intermediate) with Underground Supply
<u>H16-7</u>	LBS without Bypass Switch (3 Ph Intermediate) with Solar Supply
<u>H17-1/1</u>	3 Ph Termination to Cable via Pits and Recloser
<u>H17-1/2</u>	3 Ph with Cable Tee-Off, Recloser, PTS and Raiser
<u>H17-2</u>	3 Ph Recloser on Intermediate Pole with Cable Arrangement

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Number	Description
<u>H17-3</u>	3 Ph Termination with Cable and Recloser
<u>H17-4</u>	Stand Alone Cable to Transformer Pole
<u>H17-5</u>	Intermediate 1Ph Transformer, 3 Ph Inline Cables / 2 x 1Ph Spurs with/without DOF
<u>H18</u>	Termination PTS with Cable and DOF
<u>H19-2</u>	Termination PTS with Feeder Cable for Feeder Switching
<u>H20-1</u>	Isolation Transformer
<u>H20-3</u>	Isolation Transformer, 3 Ph Termination, 1 Ph In-Line with 1 Ph DOF
<u>H20-4</u>	Isolation Transformer, 3 Ph Termination, 1 Ph Cable with 1 Ph DOF
<u>H20-5</u>	Isolation Transformer, 3 Ph Cable, 1 Ph Tee-Off with 1 Ph DOF
<u>H20-6</u>	Isolation Transformer, 3 Ph In-Line, 1 Ph Tee-Off with 1 Ph DOF
<u>H21</u>	Metering Transformer
<u>H22</u>	Intermediate Wishbone with Overhead Earthwire
<u>H23</u>	Intermediate Flat Construction with Overhead Earthwire
<u>H24</u>	Termination Transformer with Overhead Earth
<u>H25</u>	Intermediate Transformer Wishbone Construction
<u>H26</u>	Vertical In-Line Strain with Overhead Earthwire for Wishbone Construction
<u>H27</u>	Wishbone Construction with Tee Off
<u>H28</u>	Vertical Strain Angle with Overhead Earthwire for Wishbone Construction
<u>H29-1</u>	Fault Indicator LV Aerial Supply Arrangement
<u>H29-2</u>	Fault Indicator with Solar Cell Supply Arrangement
<u>H30</u>	Surge Arrestor – Standard Line Installation
<u>H31-2</u>	22kV Pole Mounted Capacitor Bank with 10kVA Transformer Connection Details
<u>H32-1</u>	33kV Type TSC Oil Switch and Capacitor Pole Mounted
<u>H32-2</u>	33kV 1 Ph Transformer Pole Mounted
<u>H32-3</u>	33kV Type TSC Oil Switch and Capacitor Arrangement
<u>H33-1</u>	Voltage Regulator – Pole Mounted Type GE VE-1 50A-100A In-Line Layout
<u>H33-2</u>	Voltage Regulator – Pole Mounted Type GE VR-1 50A-100A Construction Detail
<u>H33-3</u>	Voltage Regulator – Pole Mounted Type GE VR-1 50A-100A Off-Set Arrangement Detail
<u>H33-3A</u>	Voltage Regulator – Pole Mounted Type GE VR-1 50A-100A Off-Set Arrangement Detail
<u>H33-4</u>	Voltage Regulator – Pole Mounted Type GE VR-1 50A-100A Off-Set Arrangement Detail
<u>H40-1</u>	1 Ph Intermediate
<u>H40-2</u>	1 Ph Anti Clash / Galah Intermediate
<u>H41-1</u>	1 Ph Running Disc Angle or Termination

Number	Description
<u>H41-2</u>	1 Ph Two Way Termination (In-Line Strain)
<u>H42</u>	1 Ph Intermediate Fused Tee-Off
<u>H43</u>	1 Ph Tee Off without DOF
<u>H44</u>	1 Ph Two Way Termination
<u>H44-1</u>	1 Ph Two-way Termination with Transformer
<u>H46</u>	1 Ph Intermediate Transformer with / without DOF
<u>H47-1</u>	1 Ph Termination Transformer with / without DOF
<u>H47-2</u>	3 Ph Intermediate with 1 Ph Transformer with DOF
<u>H51-1</u>	1 Ph Recloser Strain with 1 Ph Transformer Supply
<u>H51-2</u>	1 Ph Recloser In-Line with 1 Ph Transformer Supply
<u>H51-3</u>	1 Ph Recloser In-Line DOF / Standoff Brackets with 1 Ph Transformer Supply
<u>H52</u>	Down Earth – Running Earth
<u>H53</u>	1 Ph In-Line Strain with Sectionaliser and Bypass Fuse
<u>H53-1</u>	1 Ph In-Line Strain with DOF
<u>H54</u>	1 Ph Termination Cable with DOF Upstream







X-ARM LENGTH (mm)	X (mm)
1900	800
2400	1050
3300	1500

NOTE:

- 1. REFER TO GENERAL NOTE OF HV OVERHEAD REGARDING X-ARM
- 2. 750mm STANDARD CONSTRUCTION 620mm ALLOWED TO MAINTAIN GROUND CLEARANCE.
- 3. RAISER BRACKET CR1039 MUST BE USED FOR ALL LINES CR1038 IS ONLY PERMITTED ON STRAIGHT LINES WITHOUT ANY DEVIATION ANGLES.
- 4. FOR SPAN LENGTH LIMITS AND DEVIATION ANGLES REFER TO SPAN LIMIT GUIDELINES (HPC-2DC-07-0001-2018).
- 5. TOP HOLE POSITION FOR LV ABC BRACKET.
- 6, FOR AAAC R/E HOLE MUST BE 800mm BELOW R/E

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS	STRUCTURE	REVISION E	DATE OCT.17
	3 PHASE INTERMEDIATE (WOOD POLE) FOR REFERENCE ONLY	drawing i H	No. 1-2









UNDT7NN		REVISION	DATE
		А	MAY.18
DISTRIBUTION CONSTRUCTION	HORIZONTAL TERMINATION	DRAWING	No.
STANDARDS	ANTISWAN CROSS-ARM	H4	- 1





ANTI SWAN CROSS-ARM

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UODT70N		REVISION	DATE
		F	MARCH.19
POWER DISTRIBUTION CONSTRUCTION STANDARDS	3 PHASE TERMINATION TO CABLE WITH DROPOUT FUSES		No. 9-2







































WITH 1 PHASE DROPOUT FUSE
















































































