



A message from Technical Standards



CitiPower/Powercor Technical Standards Update for May 2019

Please ensure that this information is passed on to all employees and contractors with in your organisation.

The following updates are relevant to all technical, field employees and contractors undertaking design, construction and maintenance activities on the CitiPower and Powercor networks.

Technical Standards are available on our [website](#).

All new design and construction proposals commenced after the 04 July 2019 are required to comply with these updates.

If you have further questions, please contact the relevant team member associated with the published documents.

Standard Category	Technical Standard	Description	Overview	Impacted Key Stakeholder/s
D - General	DE011	Distribution Construction Standard - Connectors - Application	Standards updated to include new connection arrangements for gas switch leads. Contact: Darren Martini (03) 9683 4738	DESIGN CONSTRUCTION MAINTENANCE
	DE036	Distribution Construction Standard - Connectors - Parallel Groove Clamps		
	DE046	Distribution Construction Standard - Connectors - Split Bolt Clamps		

Standard Category	Technical Standard	Description	Overview	Impacted Key Stakeholder/s
D - General	DE051	Distribution Construction Standard - Connectors - Terminal Lugs	Standards updated to include new connection arrangements for gas switch leads. Contact: Darren Martini (03) 9683 4738	DESIGN CONSTRUCTION MAINTENANCE
	DE101	Distribution Construction Standard - Connectors - Shell Fired		
	DE121	Distribution Construction Standard - Connectors - D Loops		
	DE201	Distribution Construction Standard - Connectors - Non Tension Sleeves		
	DE206	Distribution Construction Standard - Connectors - Links		
	DE251	Distribution Construction Standard - Connectors - Gas Switch Leads		
	DE306-361	Distribution Material Standard - DE306 - Parallel Groove Clamp		
	DE411-705	Distribution Material Standard - DE471 - Lug, Single-Hole Terminal, Bolted, Copper		
E - Overhead	EM016	Distribution Construction Standard - HV Manual Gas Switches - General Information		
	EM021	Distribution Construction Standard - HV Remote Control Gas Switches - General Information		
	EM151	Distribution Construction Standard - HV Remote Control Gas Switch, Strain Assembly - Wood Pole		
	EM155	Distribution Construction Standard - HV Remote Control Gas Switch, Buckarm Assembly - Wood Pole		
	EM161	Distribution Construction Standard - HV Remote Control Gas Switch, Strain Assembly - Concrete Pole		
	EM165	Distribution Construction Standard - HV Remote Control Gas Switch, Buckarm Assembly - Concrete Pole		
	EM171	Distribution Construction Standard - HV Manual Gas Switch, Strain Assembly - Wood Pole		
	EM175	Distribution Construction Standard - HV Manual Gas Switch, Buckarm Assembly - Wood Pole		

Standard Category	Technical Standard	Description	Overview	Impacted Key Stakeholder/s
E - Overhead	EM176	Distribution Construction Standard - HV Manual Gas Switch - Fuse Combination Assembly	Standards updated to include new connection arrangements for gas switch leads. Contact: Darren Martini (03) 9683 4738	DESIGN CONSTRUCTION MAINTENANCE
	EM177	Distribution Construction Standard - HV Manual Gas Switch - Cable Head Pole Assembly		
	EM181	Distribution Construction Standard - HV Manual Gas Switch, Strain Assembly - Concrete Pole		
	EM185	Distribution Construction Standard - HV manual Gas Switch, Buckarm Assembly - Concrete Pole		
	EF004	Distribution Construction Standard - Insulators & Attachments - HV Insulator Bracket	Standards updated to remove the welded M24 nut on the insulator bridging bracket Contact: Dean Bongetti (03) 9683 2133	CONSTRUCTION MAINTENANCE
	EF116	Distribution Construction Standard - HV Line Insulator Pole Bridging Assembly - Wood Pole		
	EF581-881	Distribution Material Standard - EF671 - HV Bracket, Bridging, Wood Pole		
	EF003	Distribution Construction Standard - Insulators & Attachments - Line Post Insulators	Standard updated to include the application of shims with insulators Contact: Dean Bongetti (03) 9683 2133	DESIGN CONSTRUCTION MAINTENANCE
	EF101	Distribution Construction Standard - HV Line Insulator Assembly - Wood Pole		
	EF111	Distribution Construction Standard - HV Line Insulator Pole Top Assembly - Wood Pole		
	EF116	Distribution Construction Standard - HV Line Insulator Pole Bridging Assembly - Wood Pole		
	EF121	Distribution Construction Standard - HV Line Insulator Assembly, Tie Top, Crossarm Mounted - Concrete Pole		
	EF126	Distribution Construction Standard - HV Line Insulator Assembly, Clamp Top, Crossarm Mounted - Concrete Pole		
	EF131	Distribution Construction Standard - HV Line Insulator Assembly, Tie Top, Pole Mounted - Concrete Pole		
	EF135	Distribution Construction Standard - HV Line Insulator Assembly, Clamp Top, Pole Mounted - Concrete Pole		

Standard Category	Technical Standard	Description	Overview	Impacted Key Stakeholder/s
G - Underground	GB301	Distribution Construction Standard - Underground HV Cables and Accessories - Terminations	Standards updated to include new 22kV 300mm2 cold applied termination. Contact: Darren Martini (03) 9683 4738	DESIGN CONSTRUCTION MAINTENANCE
	GB701-752	Distribution Material Standard - Underground HV Cables and Accessories - Terminations		
	GC101	Distribution Construction Standard - HV Conduit Assembly - Underground	Standards updated to include guidance for ordering conduit glue. Contact: Aza Masoudtehrans (03) 9683 4892	DESIGN CONSTRUCTION MAINTENANCE
	GC401-511	Distribution Material Standard - Conduits and Cables		
	GH001	Distribution Construction Standard - Hybrid Underground - General Information	Standard updated to include post implementation review comments from field construction. Contact: Aza Masoudtehrans (03) 9683 4892	DESIGN CONSTRUCTION MAINTENANCE
				LEGEND HIGH IMPACT MEDIUM IMPACT LOW IMPACT

DE and EM Series - New Gas Switch Lead Connections

Release date: 4th June 2019

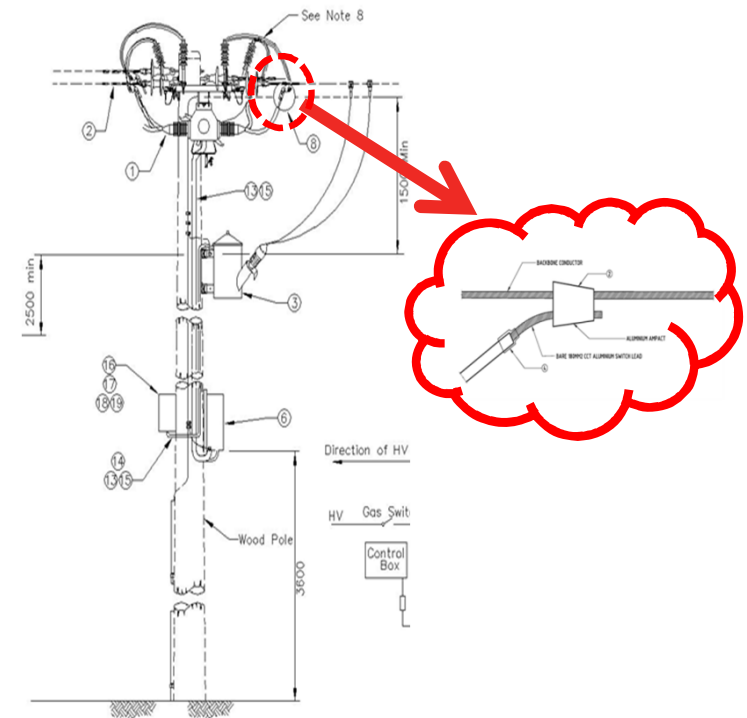
**Please refer to official standard for detail*

What has changed?:

- Technical Standard series DE (connectors) and EM (gas switches) have been updated to include new connection arrangements for gas switch lead connections
- 7 new connection arrangements have been included in the standard to allow connection of the gas switch leads to various overhead conductors
- The connection arrangements have been rationalised to have the minimal amount of connector/fittings as possible
- Some direct connection arrangements to the overhead conductors have now been included
- Heat shrink is to be applied to all connections. While the CCT AI leads are water blocked, the heat shrink provides additional protection from water ingress
- Lead length will be 3.5m (X6) and will be sealed, internal connection to HV bushing of switch.

Why?:

- The current gas switch lead connection arrangements are out of date and do not represent the various situations encountered in the field. Also a number of connection arrangements have shown over time to result in poor connections that lead to pre-mature failures



GB301 & GB711 – 22kV cold applied termination assembly

Key changes*

Release date: 4th June 2019

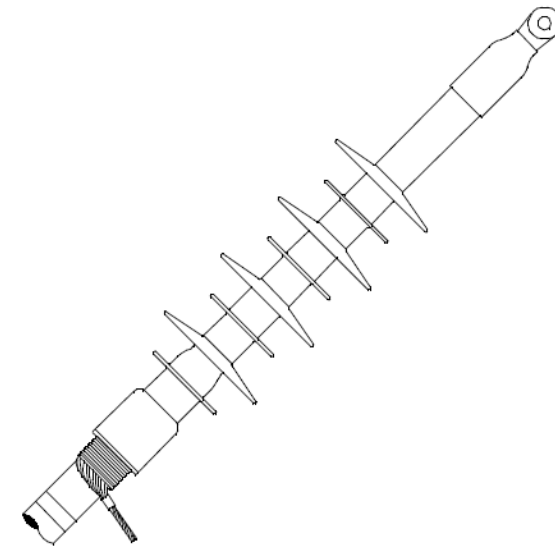
**Please refer to official standard for details*

What has changed?

- Technical Standards GB301 and 711 have been updated to include a new 22kV 300mm² cold applied termination kits

Why?:

- Feedback was obtained from the Geelong U/G team that the existing 22kV 185mm² to 300mm² cold applied termination kit was too tight to fit over a 300mm² cable
- The new termination kit arranges from 300mm² to 500mm² and is a better fit for the cable



GC101 & GC401-511- HD Conduit Assembly

Release date: 4th June 2019

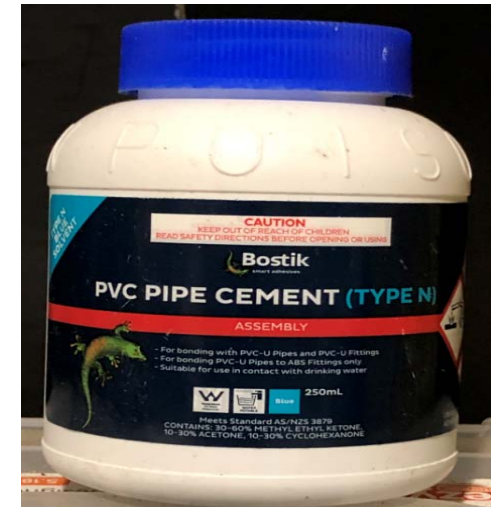
**Please refer to official standard for details*

What has changed?:

- Technical Standard GC101 has been updated to provide guidance for ordering conduit glue
- Technical Standard GC401-511 has been updated to add conduit glue (SAP ID number 360993).

Why?:

- The change has occurred due to feedback from material coordinators that conduit glue was not consistently being included in material job lots



GH001 - Hybrid Underground - General Information

Release date: 4th June 2019

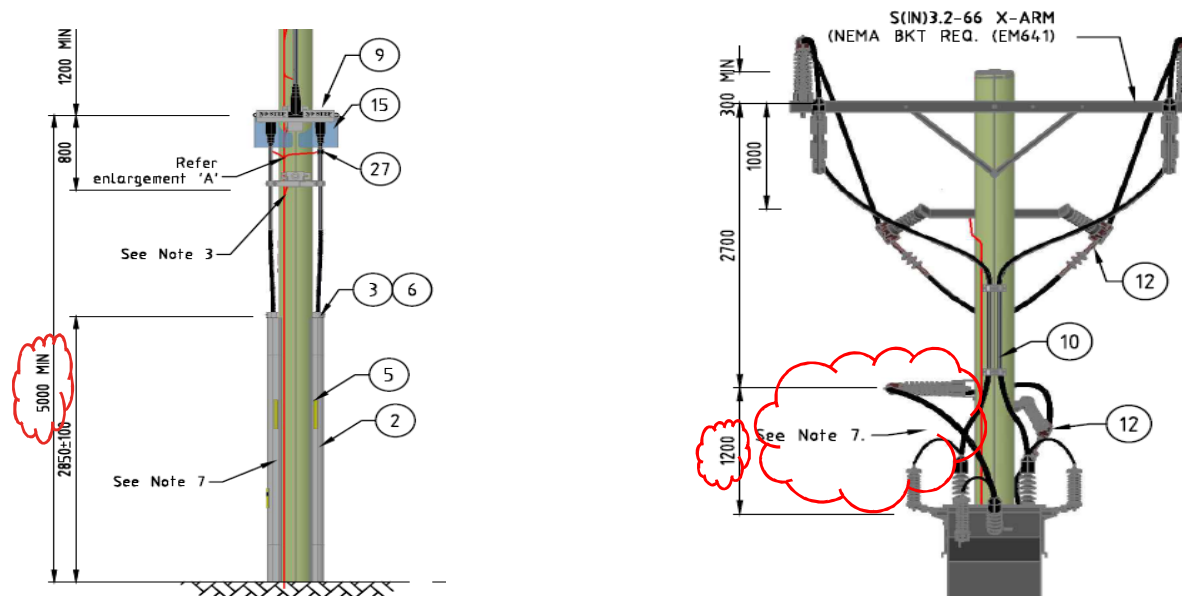
**Please refer to official standard for details*

What has changed?:

- Technical standards GH101, GH102, GH103 & GH104 have been updated to change the HV support bracket height from a minimum of 4600mm from ground to a minimum of 5000mm
- Technical Standards GH111 has been updated to:
 - increase the spacing between the transformer bracket and bridging post insulator from 1000mm to 1200mm
 - add note 7 which specifies a minimum 330mm clearance between the top of the surge arrester unit or surge arrester connection tail and bridging cable

Why?:

- The changes are based on post implementation review comments from field construction



EF003 – Insulators & Attachments, Line Post Insulators

Key changes*

Release date: 4th June 2019

**Please refer to official standard for details*

What has changed?:

- Technical Standard EF003 has been updated to amend the use of shims for situations where there is a gap between the base of the insulator and mounting surface only
- Shims can be ordered separately via EF861 (SAP material ID 350941)
- New smaller shims for 75mm HV cross arm is still a work in progress

Why?:

- Feedback from the Field Resources group advised that the use of shims in all situations regardless of there being a gap or not between the insulator base and mounting surface was over burdensome and unnecessary
- The installation of shims is to ensure a uniform load bearing contact between the insulator base and the mounting surface. Installing insulators with a gap between the insulator base and mounting surface and without a shim will likely lead to premature failure of the separable stud, as the stud will experience bending moment forces it is not designed to withstand due to insulator movement from conductor vibration.

Standard EF004, EF116 & EF671 – HV Bracket, Bridging, Wood Pole

Key changes*

Release date: 4th June 2019

**Please refer to official standard for details*

What has changed?:

- Technical Standards EF004, EF116 & EF671 have been updated to remove the welded M24 nut from the insulator bridging bracket, drawing PC9/172/5

Why?:

- The welded nut is often misaligned or filled with run off from the galvanization process making it difficult to install the post insulator
- Removing the welded nut and installing it manually by hand will eliminate this issue

