
STANDARDS BULLETIN No : S01-061

SUBJECT: Introduction of 24kV RMU switchgear into the 11kV underground distribution network.

Reason :

The 11kV underground distribution network currently uses Ring Main Unit switchgear that is rated to 12kV. These RMU's have internal arc fault withstand capacities and controlled overpressure venting mechanisms. However the enclosure that sits around the RMU's do not have any form of arc fault venting control and could expose field staff and the general public to an arc fault venting event.

The options available to reduce this hazard included:

- Redesigning the RMU enclosure to include an arc fault vent.
- Increasing the level of insulation of the RMU.

A redesigned RMU enclosure would require a restricted access zone behind the structure as the arc fault product would be vented into this zone. As many RMU's back onto public areas such as walkways, parks and car parks, the possibility of having hot arc fault product venting into these regions is unacceptable.

Therefore it has been decided that the best way to protect the general public and PowerWater field staff is to increase the insulation level of all new RMU's so that an arc fault event can not occur in the first place.

Requirements:

- All new RMU's being installed into the 11kV underground distribution network shall be rated at 24kV and have a minimum short circuit withstand current rating of 20kA, 1 second.
- All new RMU's shall be having a current rating of 630A and must have bushings suitable for use with 630A load break elbows.
- If an RMU is required to be placed in a location where the fault level will exceed the switchgear's rated fault capacity, suitable alternative switchgear must be used.

Implementation :

This amendment is applicable immediately to all new underground distribution development projects that order the required Ring Main Units after the release date of this bulletin.