

Transformer Feeder

CORE 6
1600/1200/1000/800/400/1
CLASS PX CABLE DIFF PROTECTION

CORE 5
150/1
CLASS X HV REF

CORE 4
1600/1200/1000/800/400/1
CLASS PX
132 kV SPARE

CORE 3
1000/800/400/1
15 VA CLASS SPFS OC / EF

CORE 2
1600/1
CLASS X BUS ZONE (CHECK)

CORE 1
1000/1
CLASS X BUS ZONE (MAIN)

TO BE SHORTED IN THE TRANSFORMER RELAY PANEL

Test Block

QC & EF Relay A

TO 132 kV TRANSFORMER RELAY PANEL

TO 132 kV BUSBAR PROTECTION

NOTES:

- The purpose of this drawing is to clarify the requirements of the associated protection specification. The issue of this with the specification does not absolve the successful contractor from his normal responsibility to provide a satisfactory scheme. See to submit drawings of systems proposed for approval by the engineer.
- All relays have been shown de-energised with switches open.
- This drawing will enable the different contractors to co-ordinate their respective systems with associated equipment. For this reason fence numbers of interconnecting points must be strictly adhered to. Where absolutely necessary fence numbers of connectors not associated with equipment on other contract may be added or altered.
- Test blocks have been shown schematically. The actual wiring must be from the unit "RED" "WHITE" and "BLUE" as viewed from the front of the test block.
- Circuitry marked # is only required if differential relay make & model has been specified to match remote end and is not IEC 61850 compliant.
- Contacts and inputs marked # must all be contained in the same relay.

LEGEND

- CP Control Panel
- YMK Yard Marshalling Kiosk
- E/S Earth Switch
- ISOL Isolator
- CB Circuit Breaker
- BB1 Busbar 1
- BB2 Busbar 2
- ARC Auto Redose
- TCS Trip Circuit Supervision
- PB Push Button
- PTB PWT Board
- + | + Contact which is 'Closed' when Primary Equipment is 'Closed'
- | - Contact which is 'Closed' when Primary Equipment is 'Open'
- Fuse
- Link
- Control Switch
- Push Button
- Relay Digital Input
- Relay Analog Input
- Normally Open Contact
- Normally Closed Contact
- Current Transformer

ETHERWINI ELECTRICITY
PROPOSED 132/11 kV SUBSTATION WITH 132kV GIS
AC & DC SCHEMATIC FOR
132kV TRANSFORMER
WITHOUT THE JERICHO SCHEME

DRAWN	SIGNATURE	DATE	NO.	DATE
J.LAWRENZ		28-02-2016		

DESIGNED BY	CHECKED BY	APPROVED BY	SCALE	DRAWING NUMBER
			NTS	TD 80