DISTRIBUTION COMMISSIONING FORM (DCF) 2.8 – Spuds single phase to three phase pillar


Purpose: This instruction covers the testing and commissioning of a SPUDS single-phase pillar that has been converted to a standard three-phase pillar.

For more information refer to the *Distribution Commissioning Forms Guideline (EDM 34137510)*

Note: The following tests must be carried out at the time of conversion. If the circuit contains more than 10 pillars, use another set of test sheets.

Work Package No:			**Test Site/Location:**	

1. Location of Pillars (Lot No. and Road Name

A		F	
B		G	
C		H	
D		I	
E		J	

2. Visual Inspection and Safety Check

Description		A	B	C	D	E	F	G	H	I	J
1.	Check that the construction complies with the distribution construction standards and applicable design drawings.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2.	Check/confirm the presence/accuracy of any S/L or UMS circuits that might be affected	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3.	Ensure ALL the customers associated with the changeover have been identified and their supplies isolated. (Check that the meter has stopped recording.)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4.	Separate the customers' load neutral from the meter and use the "Do Not Operate" danger tag on the meter box to indicate that work is being undertaken.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5.	At the single-phase supply source, confirm that the single-phase cable is disconnected and ensure all bridged conductors are removed.	Yes ☐					No ☐				
6.	Remove **ALL** the customers' connections from the pillars and ensure that they are positively identified. **See note 1 below**.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7.	Remove all the bridging links from the pillars: red to white and blue to neutral.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8.	At the circuit supply source confirm that the cable reconfiguration to three phases as per the work package requirements has been performed.	Yes ☐					No ☐				

Note 1: In accordance with section 3.4 of the WA Electrical Requirements (2023), underground consumer mains must be labelled at the point of supply (ref DELS - EDM 25433005).

3. Insulation and core separation test

Test the cable using a 1 kV insulation resistance tester for one minute between phase to phase and phase to neutral (expect > 10 MΩ for new cables, and >1 MΩ for existing cables).	R-W	MΩ
	W-B	MΩ
	B-R	MΩ
	R-N	MΩ
	W-N	MΩ
	B-N	MΩ

4. Energisation

				Yes	No
1	Ensure that all persons and equipment are clear of the circuit and all pillars are secured. Energise the circuit in accordance with the LV switching program			☐	☐
2	Check the phase rotation and measure the voltage at each pillar with a voltmeter.	Phase rotation correct (✓)		☐	☐
		R-W	**376 – 440 V**	☐	☐
		W-B		☐	☐
		B-R		☐	☐
		R-N	**216 – 253 V**	☐	☐
		W-N		☐	☐
		B-N			
		N - E	**< 6V**	☐	☐
3	Reconnect the customers' installations in accordance with the work package phasing requirements. Perform a Service Connection Test Form at each installation. Treat all as new connections.			☐	☐

5. Phase Out Tests

Phase out at the feeder pillars, mini-pillars and LV connection points, because cross-phasing is likely to occur at these points.		
Red – red	V	Acceptable results (0–10V)
White – white	V	
Blue – blue	V	

6. Handover of Responsibility

The person responsible for commissioning must ensure that checks are completed, and test results comply with the minimum standards

I hereby certify that all items have been completed with satisfactory results and transfer control to the network operating authority.			
Commissioned by		BNA	
Signature		Date & Time	

1. Ensure the work area is left tidy with no hazards to the public.
2. Hand over responsibility to the operating authority.
3. The completed form must be returned to the project file/work pack.