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Company Directive

ENGINEERING SPECIFICATION EE SPEC: 122

WPD Assessed Switchgear and Associated Plant for Use on the Distribution Network

Author:

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Implementation Date:

January 2019

Approved by

Policy Manager

Date:



All references to Western Power Distribution or WPD must be read as National Grid Electricity Distribution or NGED

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IMPLEMENTATION PLAN

Introduction

This document provides a guide for the selection of switchgear and associated plant items for Western Power Distribution (WPD) Engineering Design and Network Services, Independent Connections Providers and other external provider contracted to WPD.

Main Changes

This is a new EESPEC.

Impact of Changes

This document replaces any and all previous listings of switchgear approved or assessed for use in Western Power Distribution including those that have been issued by Central Networks, East Midlands Electricity and Midlands Electricity (and any successor companies).

Implementation Actions

None

Implementation Timetable

This revised document shall be implemented immediately.

REVISION HISTORY

Document Revis	ion & Review Table	
Date	Comments	Author
January 2019	New document	Anthony Smith

1.0 PURPOSE

This document provides a guide for the selection of switchgear and associated plant items for Western Power Distribution (WPD) Engineering Design and Network Services, Independent Connections Providers and other external provider contracted to WPD.

2.0 SCOPE

The switchgear and associated plant list in Schedule 1 of this document has been prepared by WPD and covers the provision of indoor and outdoor, three phase switchgear, at 12 kV, 36kV, 72.5 kV and 145 kV for continuous service at 50 Hertz, for use on the WPD 6.6kV, 11kV, 33kV, 66kV and 132kV distribution networks.

It supersedes all previous approved/assessed switchgear lists that have been issued by Western Power Distribution including those issued by Central Networks, East Midlands Electricity and Midlands Electricity (and any successor company).

Switchgear and associated plant included in this list shall comply with the relevant International and British Standards (BS) and Energy Networks Association Technical Specifications (ENATS) listed.

The list only includes the switchgear currently in production, available in the market and assessed by WPD.

3.0 **REQUIREMENTS**

The switchgear shall generally, except where varied by any related WPD technical specifications (Engineering Equipment Specification – EE SPEC) comply with the appropriate requirements of all relevant sections of the Energy Networks Association Technical Specification 41-36 and 41-37 (ENATS 41-36 & 41-37); IEC 60694 and IEC 62271.

It is WPD Policy that all new switchgear shall not utilise oil as an insulating or arc interrupting medium.

Switchgear and associated plant shall have been assessed by the ENA Switchgear Assessment Panel and hold a current Notice of Conformity. It shall also have been assessed by the WPD Engineering Policy Team and determined as suitable for use on the WPD network.

4.0 CATEGORIES FOR WPD ASSESSED SWITCHGEAR AND ASSOCIATED PLANT

All items of WPD assessed switchgear and associated plant in this EE SPEC have been assigned particular assessment categories. The categories are defined below:

- **Category F** Category F equipment has been Assessed by the WPD Engineering Policy Team and is available for purchase within WPD on a Framework Contract.
- **Category A** Category A equipment has been Assessed by the WPD Engineering Policy Team and is available for purchase when Category F equipment is not suitable for use by virtue of ratings, need for equipment make/type diversity, for extension units to match existing units, or other significant factor.

Category S Category S equipment has been Assessed for use by the WPD Engineering Policy Team, but only for a specific contract or site.

Prior approval of the WPD Policy Team (Plant Engineer) will be required before equipment in this category can be considered for purchase, installation and use.

Prior to any Equipment being installed on the WPD network it shall have obtained an appropriate WPD Engineering Policy Team Assessment, which shall be either category "F", "A" or "S.

Switchgear and plant not on the WPD Assessed Switchgear and Associated Plant list may be considered for use on the WPD network subject to it having a valid ENA Notice of Conformity, and a robust WPD business justification for the WPD Policy Team completing the assessment work to allocate a "F", "A" or "S" Assessment Category. Any request for assessment should be made to the WPD Engineering Policy Manager.

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SCHEDULE - LIST OF WPD ASSESSED SWITCHGEAR AND ASSOCIATED PLANT

1.0 145KV OUTDOOR (AIS)

1.1 Circuit Breaker

	Manufashuran	Manufacturer Designation		I (normal)	3second Short Time	PD sment gorv	ENA	Assessi	nent
	Manufacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	WPD Assessm Catego	Туре	No	Issue
1	UK Grid Solutions (GE Alstom)	DT1-145 F1 FK3-1	145kV dead tank outdoor SF6 circuit breaker	2500	40kA	F	NOC	1081	3
	[Charleroi, USA]		[SCBC - 45ms @ 40.0kA; 135ms @ 31.5kA]						
2	UK Grid Solutions (GE Alstom)	GL312	145kV Live tank outdoor SF6 circuit breaker	3150	31.5/40kA to EATS 41-10	A	NOC	1004	3.1
3	Siemens	3AP1-DT – 1S	145kV dead tank outdoor SF6 circuit breaker [* - 2500A with composite insulators] [SCBC - 45ms @ 40.0kA; 135ms @ 31.5kA]	3150*	31.5kA/40kA to EATS 41-37	F	NOC	1131	1
4	Siemens	3AP1-FG	145kV live tank outdoor SF6 circuit breaker	3150	40kA	F	NOC	1002	2.1

1.2 Disconnectors and Earthing Switches

	Manufacturer	rer Designation	n Equipment Description	l (normal) (A)	3second Short Time Withstand Current (kA)	PD sment gorv	ENA	Assess	ment
						WPD Assessm Catego	Туре	No	Issue
1	UK Grid Solutions	S3C	2000A single break 145kV 40kA Disconnector	1250	31.5kA	S	NOC		3
	(GE Alstom)		TypeS S3C; S3C/T & S3C/B/T	2000				1069	3
2	UK Grid Solutions (GE Alstom)	STA	145kV Type STA free standing earthing switch and Disconnector Mounted earthing switch type (/T)	-	40kA	S	NOC	1071	3

1.3 Instrument Transformers

				l (normal)	3second Short Time	D ment gorv	ENA	ENA Assessment		
	Manufacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	WPD Assessment Categorv	Туре	No	Issue	
1	ABB	IMB-145	Current Transformer (hairpin type)	1250 2000	63kA / 40kA 1s/3s	A	NOC	1039	2.1	
2	ABB	CPB145	Capacitor Voltage Transformer Rated voltage 132/V3;- secondary 110/V3	-	-	A	NOC	1079	1.2	
3	Arteche	CA-145	Current Transformer (bar primary type)	2000	80kA / 40kA 1s/3s	A	NOC	1060	1.2	
4	Arteche	KA-145	Combined metering transformer	2000	80kA / 40kA 1s/3s	A	NOC	1061	2.2	
5	Pfiffner	EOF 145	Inductive voltage transformer	-	-	S	NOC	1132	1	
6	Pfiffner	ECF 145	Capacitive voltage transformer	-	-	S	NOC	1128	1	
7	Pfiffner	JOF 145	Current transformer	2000		S	NOC	1127	1	
8	Pfiffner	EJOF 145	Combined metering transformer	-	-	S	NOC	1129	1	
9	Siemens (Trench)	IVOKT 145	HAM metering CTVT unit [Only units manufactured in France]	-	-	S	-	-	-	
10	Siemens (Trench)	VEOT 145	Wound voltage transformer [Only units manufactured in France]	-	-	S		-	-	

2.0 145KV INDOOR (GIS)

2.1 Circuit Breaker

	Manufacturer	Designation	Equipment Description	l (normal)	3second Short Time	WPD essment itegory	ENA	Assessi	ment
	Manufacturer	Designation		(A)	Withstand Current (kA)	W Asses Cate	Туре	No	Issue
-	-	-	-	-	-	-	-	-	-

<u>NOTE</u>: No gas-insulated metal-enclosed 145kV switchgear is assessed for new application within WPD. [ST:SD1C]

3.0 72.5KV OUTDOOR (AIS)

3.1 Circuit Breaker

	Manufacturer	r Designation	Equipment Description	l (normal)		D ment gory	ENA	Assessi	ment
	Manufacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	WPD Assessm Catego	Туре	No	Issue
1	UK Grid Solutions (GE Alstom) [Charleroi, USA]	DT1-72.5 F1 FK3-1	72.5kV outdoor dead tank SF6 circuit breaker	2500	40kA	F	NOC	1105	1.1
2	Siemens	3AP1-DT 72.5	72.5kV outdoor dead tank SF6 circuit breaker	3150	25/31.5kA	A	NOC	1030	2

3.2 Disconnectors and Earthing Switches

	Manufacturer	Designation	Equipment Description	l (normal) (A)	3second Short Time	WPD essment ategory	ENA	Assess	ment
					Withstand Current (kA)	WF Assess Catej	Туре	No	Issue
1	UK Grid Solutions (GE Alstom)	S3C	Disconnector – rotating post double break	2000	40kA	A	NOC	1117	1
2	UK Grid Solutions (GE Alstom)	STW	Free standing earthing switch and Disconnector mounted earthing switch (/T/H)	-	40kA	A	NOC	1115	1
3	UK Grid Solutions (GE Alstom)	STW	Disconnector mounted line earthing switch and Free standing line earthing switch (/T/H)	-	40kA	A	NOC	1116	1
4	MLE (Morris Line Engineering)	RDB	Disconnector – rotating post double break	up to 2000	25 or 31.5kA/3s	A	-	-	-
5	Power Isolators (Lucy)	Rapier	Disconnector – rotating post double break			A	-	-	-

3.3 Fault Throwing Switch

	Manufacturer Des	Designation	Equipment Description	I (normal)	normal) 3second Short Time (A) Withstand Current (kA)	WPD essment tegory	ENA	ment	
		Designation	Equipment Description	(A)		WI Assess Cate	Туре	No	Issue
1	Morris Line Equipment (MLE)		Fault Throwing Switch [Not permitted for new installation]	-	40kA/1s	S	-	-	-

3.4 Instrument Transformers

				l (normal)	3second Short Time	D ment zorv	ENA	Assess	ment
	Manufacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	WPD Assessment Categorv	Туре	No	Issue
1	ABB	IMB-72	Current Transformer (hairpin type)	1600 2000	63kA / 40kA 1s/3s	A	NOC	1038	2
2	ABB	CPB72	Capacitor Voltage Transformer Rated voltage 69/V3;- secondary 110/V3	-	-	A	NOC	1079	1
3	Arteche	DDB-72	Capacitor voltage transformer	-	-	S	-	-	-
4	Arteche	UTB-72	Wound voltage transformer	-	-	S	-	-	-
5	Pfiffner	EOF 72	Inductive voltage transformer	-	-	S	NOC	1135	1
6	Pfiffner	ECF 72	Capacitive voltage transformer	-	-	S	NOC	1136	1
7	Pfiffner	JOF 72	Current transformer	<4000	<63kA 1 sec	S	NOC	1133	1
8	Pfiffner	EJOF 72	Combined metering transformer	-	-	S	NOC	1134	1
9	Siemens (Trench)	IVOKT 72.5	HAM metering CTVT unit [Only units manufactured in France]	2000	-	S	-	-	-
10	Siemens (Trench)	VEOT 72.5	Wound voltage transformer [Only units manufactured in France]	-	-	S	-	-	-

4.0 72.5KV INDOOR (GIS)

4.1 Circuit Breaker

	Manufacturer	Designation	Equipment Description	l (normal)	3second Short Time	WPD essment itegory	ENA	Assessi	ment
	Manufacturer	Designation		(A)	Withstand Current (kA)	W Asses Cate	Туре	No	Issue
-	-	-	-	-	-	-	-	-	-

<u>NOTE</u>: No gas-insulated metal-enclosed 72.5kV switchgear is assessed for new application within WPD. [ST:SD1C]

5.0 36KV OUTDOOR

5.1 Circuit Breaker

	Manufacturer	facturer Designation	Equipment Description	l (normal) (A)	l) 3second Short Time Withstand Current (kA)	WPD essment ategorv			ment
						W Asses Cate	Туре	No	Issue
1	Hawker Siddeley Switchgear Ltd.	Horizon	Outdoor dead tank - vacuum in SF ₆	1250 2000	25kA	F	NOC	1034	2.1
2	Schneider	VOX	Outdoor dead tank - vacuum in SF ₆	1250 2000	25kA / 31.5kA / 40kA	S	NOC	1029	3.1

5.2 **Disconnectors**

	Manufacturer	Desimation	Fauling and Description	l (normal)	3second Short Time	WPD essment ategorv		ENA Assessn		
	Manufacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	WP Assess Cates	Туре	No	Issue	
1	MLE (Morris Line Equipment)	MLS	36kV Outdoor pole mounted Air Break Switch Disconnector Manual independent spring assisted high level rod operated mechanism. Fitted with 400 amp interrupter heads	630	25kA	F	NOC	1012	2	
2	MLE (Morris Line Equipment)	ML	36kV overhead conductor connected three phase Air Break Switch Disconnector [* - 400A interrupter heads]	630*	25kA	F	NOC	1012	2	
3	MLE (Morris Line Equipment)	RDB	36kV Disconnector – rotating post double break	up to 2000	25 or 31.5kA/3s	A	-	-	-	
4	MLE (Morris Line Equipment)	Type R	36kV Outdoor Air Break Switch Disconnector Fitted with interrupter heads (CAT 0)	800 1250	25kA / 3s	A	-	-	-	
5	Power Isolators (Lucy)	Rapier DSB	36kV Double side break Disconnector Fitted with interrupter heads (CAT 0)	800	25kA / 3s	A	-	-	-	

5.3 Fault Throwing Switch

	Manufacturer	Designation	Equipment Description	l (normal) (A)	3second Short Time Withstand Current (kA)	WPD essment itegory	ENA	Assess	ment
		-		(A)	Withstand Current (kA)	Assec	Туре	No	Issue
1	Morris Line Equipment (MLE)	FTS	36kV Fault Throwing Switch [Not permitted for new installation] [Note: A covered FTS is required where all other plant on site is enclosed conductor.]	-	40kA/1s	A	-	-	-

5.4 **Instrument Transformers**

	Manufacturer	Designation	Equipment Description	l (normal)		VPD ssment egorv	ENA	Assessi	ment
			- 4 - 4	(A)	Withstand Current (kA)	Asses Cate	Туре	No	Issue
1	Transmag	"Trident"	Wound VT – oil insulated	-	-	F	-	-	-

5.5 **Circuit Breaker (Overhead Line - Pole Mounted)**

	Manufacturer	urer Designation	Equipment Description	l (normal)		WPD essment	ENA	ENA Assessi		
	Wanutacturer	Designation		(A)	Withstand Current (kA)	W Asses	Type	No	Issue	
1	Nulec (Schneider)	N38 N Series	36kV Outdoor pole mounted circuit breaker (vacuum interrupter)	800	12kA	F	-	-	-	

5.6 Switch Disconnector / Sectionaliser (Overhead Line - Pole Mounted)

	Manufacturer	urer Designation	Equipment Description	l (normal) (A)		WPD essment itegorv	ENA Assessmen		ment
		U U		(A)	Withstand Current (kA)	Asse: Cato	Туре	No	Issue
1	Nulec (Schneider)	RL38 R Series	36kV Outdoor pole mounted SF6 switch disconnector	630	16kA	F	NOC	1102	1.1

6.0 36KV INDOOR

6.1 Circuit Breaker

				l (normal)	3second Short Time	WPD ssessment Categorv	ENA	NA Assessme	
	Manufacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	WPD Assessmen Categorv	Туре	No	Issue
1	Schneider	GHA 36-25-12	36kV indoor circuit breaker SF6 insulated	1250	25kA	F	NOC	1075	2.1
		GHA 36-25-20	vacuum interrupters [45ms & 120ms DC Time Constant]	2000					
2	Siemens	NX+ 36 V1.0	36kV indoor circuit breaker SF6 insulated vacuum interrupters (single busbar) [120 ms DC Time Constant]	1250 2000	31.5kA	F	NOC	1033	4
3	Schneider	WSA 36	36kV indoor circuit breaker SF6 insulated vacuum interrupters (single busbar)	2000 2500	31.5kA	A	NOC	1049	1
4	Ormazabal	CPG.0	[45ms & 120ms DC Time Constant] 36kV indoor circuit breaker SF6 insulated	1250	25kA	S	NOC	1074	3
			vacuum interrupters [45ms DC Time Constant]						
			Variants: feeder circuit breaker (CPG.0-V); non- auto feeder circuit-breaker (CPG.0-L); bus- section circuit breaker (CPG.0-C)						

[Note: Item 4 – ICP supplied only]

7.0 12KV

7.1 Circuit Breaker (Indoor)

	Manufasturar	Designation	Equipment Description	l (normal)	3second Short Time	WPD Assessment	o	Assess	ment
	Manufacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	WPD	Type	No	Issue
1	Hawker Siddeley	Quantum	Circuit Breaker (Fixed Pattern) Magnetic	630	25kA	F	NOC	1140	1
	Switchgear		actuator operated vacuum circuit breaker with	1250					
			integral three position disconnector / earthing	2000					
			switch. Air insulated busbars.						
2	Hawker Siddeley	Eclipse	Circuit Breaker (Fixed Pattern) Magnetic	630	25kA	A	NOC	1024	4
	Switchgear		actuator operated vacuum circuit breaker with	1250					
			integral three position disconnector / earthing	2000					
			switch. Air insulated busbars.						
			[Note: Only to extend existing installations]						
3	Schneider	Genie Evo	Circuit Breaker (Fixed Pattern)	630	25kA	F	NOC	1032	7
			630A feeder; 1250A incomer	1250					
			with fixed VT (removable primary fuses) & top	2000	45ms				
			and bottom entry cable compartment;		D.C. component –27%				
			630A & 1250A Bus-section & 'riser'						

7.2 Retrofit Circuit Breakers (Indoor)

	Manufacturer	Designation Equi	I (I	I (normal) (A)	3second Short Time	WPD Assessment Category	ENA A Type	ssessm	nent
	Wallulacturei	Designation		(-7	Withstand Current (kA)	W Asses	Туре	No	Issue
1	Hawker Siddeley Switchgear	SWR 12/25	12kV Indoor moving portion.	400/630 800	25kA; 45ms time constant	F	NOC	1112	1
			 For replacement of OCB in SWS type C4X/D4X legacy housing/ back part with busbars arranged vertically ('High' type) busbars arranged horizontally ('Low' type) 	1250	[Earthing adaptor equivalent to 13.1kA break /33kA make]				
			[Rated normal current and rated short-circuit breaking current in use will be restricted by the fixed portion]						
2	Hawker Siddeley Switchgear	BSR 12/25	12kV Indoor moving portion For replacement of OCB and VCB in Brush type VSI, VTD & VMV (D) legacy housing/ back part.	400/630 800 1250	25kA; 45ms time constant	F	NOC	1137	2
			[Rated normal current and rated short-circuit breaking current in use will be restricted by the fixed portion]						
3	Siemens	LMT-SION	12kV Indoor moving portion for use with Reyrolle LMT fixed portion. Refer to ENA NoC for specific application. [Rated normal current and rated short-circuit breaking current in use will be restricted by the fixed portion]	630 1250 2000	20kA; (630A) 25kA; (1250A & 2000A) 45ms time constant	S	NOC	1103	3

7.3 **Circuit Breaker (Overhead Line - Pole Mounted)**

	Manufacturer	Designation	Equipment Description	l (normal)		WPD essment tegory	ENA Assessmen		nent
	Wanutacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	W Asses	Туре	No	Issue
1	Nulec (Schneider)	U27 U Series	12kV Outdoor pole mounted circuit breaker (vacuum interrupter)	630	12.5kA	F	NOC	1100	1

7.4 Switch Disconnector / Sectionaliser (Overhead Line - Pole Mounted)

	Manufacturer Designation	Equipment Description	l (normal)		VPD ssment tegory	ENA	Assessi	ment	
	Manufacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	WI Assess Cate	Туре	No	Issue
1	Nulec (Schneider)		12kV Outdoor pole mounted SF6 switch disconnector	630	16kA	F	NOC	1102	1

7.5 Secondary Ring Main Units and Extensible

				l (normal)	3second Short Time	D ment	ENA	Assess	ment
	Manufacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	WPD Assessment Categorv	Туре	No	Issue
1	Lucy	SABRE VRN2A	12kV Outdoor RMU	250	20kA 3 sec. 95kV	F	NOC	1041	2
			[630A ring switches / 250A circuit breaker	630					
2	Schneider	RN2d	12kV Outdoor RMU 200A SF6 CB (95 kV BIL)	630	21kA	F	NOC	1130	2
3	Schneider	RN6d	12kV Outdoor RMU 630A SF6 CB (95 kV BIL)	630	21kA	F	NOC	1130	2
4	Schneider	RN2c	12kV Outdoor RMU 200A SF6 CB (95 kV BIL) [To be replaced by RN2d during 2019]	630	21kA	A	NOC	1007	2.1
5	Schneider	RN6c	12kV Outdoor RMU 630A SF6 CB (95 kV BIL) [To be replaced by RN6d during 2019]	630	21kA	A	NOC	1007	2.1
6	Schneider	MU2	12kV Air Insulated Metering Unit (75kV BIL)	200 630	16kA	F	-	-	-
7	Schneider	CE2	12kV Outdoor extensible SF6 switch disconnector (95kV BIL)	200	20kA	F	NOC	1085	1
8	Schneider	CE6	12kV Outdoor extensible SF6 switch disconnector (95kV BIL)	630	20kA	F	NOC	1085	1
9	Schneider	CE6-B5	12kV Outdoor extensible SF6 bus-section circuit breaker	630	20kA	F	NOC	1085	1
10	Schneider	CN2	12kV Outdoor non-extensible SF6 circuit breaker (75kV BIL)	200	20kA	F	NOC	1085	1
11	Schneider	SE6	12kV Outdoor extensible SF6 switch disconnector (95kV BIL)	630	20kA	F	NOC	1086	1.1
12	Schneider	SE6-B1	12kV Outdoor extensible SF6 bus-section switch disconnector	630	20kA	F	NOC	1086	1.1
13	Schneider	SE6-E1	12kV Outdoor extensible SF6 busbar earth switch (95kV BIL)	630	20kA	F	NOC	1086	1.1

[Note: Units shall be WPD variants and ordered using relevant WPD E5 and Manufacturer codes.]

[Note: Items 3 and 4 – ICP supplied only]

		:		l (normal)	3second Short Time	D ment	ENA	Assess	ment
	Manufacturer	Designation	Equipment Description	(A)	Withstand Current (kA)	WPD Assessment	Туре	No	Issue
1	Morris Line Equipment (MLE)	-	12kV Outdoor pole mounted Air Break Switch Disconnector Rated short-circuit making current 25kA pk. Manual independent spring assisted high level rod operated mechanism. Fitted with 400 amp interrupter heads (CAT 0)	630A load 400A break	10kA	F	-	-	-
2	Allied Insulators	-	12kV Outdoor pole mounted Air Break Switch Disconnector Rated short-circuit making current 25kA pk. Manual independent spring assisted high level rod operated mechanism. Fitted with 400 amp interrupter heads (CAT 0)	630A load 400A break	10kA	F	-	-	-
3	Morris Line Equipment (MLE)	-	12kV Outdoor pole mounted Air Break Switch Disconnector Rated short-circuit making current 25kA pk. Dependent Manual high level rod operated mechanism with arcing horns. (CAT 2)	630A load 20A break	3kA	F	-	-	-
4	Allied Insulators	-	12kV Outdoor pole mounted Air Break Switch Disconnector Rated short-circuit making current 25kA pk. Dependent Manual high level rod operated mechanism with arcing horn. (CAT 2)	630A load 20A break	3kA	F	-	-	-
5	Cooper Power Systems	Type L Cut-out L9COP1A	27kV Pole mounted Dropout Expulsion Fuse to NEMA standard. Including: 100 amp fuse holder LDCA00A 300 amp link LDC300A.	Up to 300	10kA	A	-	-	-
6	Cooper Bussmann	27ASL50CR5-2	27kV Automatic Sectionalising Link for use in NEMA standard 27kV cut-out	Up to 50	10kA	А	-	-	-

7.6 **Disconnectors and Miscellaneous Fusegear (Overhead Line - Pole Mounted)**

8.0 400/230V LOW VOLTAGE FUSE CABINETS

	Manufacturer	Designation		l (normal) (A)	3second Short Time Withstand Current (kA)	D ment gory	ENA Assessment		
			Equipment Description			WPD Assessm Catego	Туре	No	Issue
1	Lucy	Acculock	Transformer mounted LV cabinet	1600		А	NOC	1083	1.1
2	Schneider	Shielded LV Cabinet	Transformer mounted LV cabinet	1600		F	NOC	1087 1054 1056 1058	3.1

9.0 TRANSFORMERS

WPD Assessed Manufacturers of power transformers are:

	Voltage										
Manufacturer	132/66	132/33	132/11	132/11/11	66/33	66/11	66/11/11	33/11	11/0.400/0.230 (GM)	11/0.400/0.230 (PM)	11/0.400/0.230 (Padmount)
ABB	Х	Х	Х	Х							
Brush								Х			
CG											
Cooper											Х
Pauwels											
Schneider											
Siemens	Х	Х	Х	Х							
SGB	Х	Х	Х	Х							
Tironi	Х	Х	Х	Х							

SUPERSEDED DOCUMENTATION

This document replaces any and all previous listings of switchgear assessed or approved for use in Western Power Distribution including those that have been issued by Central Networks, East Midlands Electricity and Midlands Electricity (and any successor companies).

APPENDIX B

ASSOCIATED DOCUMENTATION

Current versions of:-

- EE SPEC 2 "12kV Cable Connected Outdoor Switchgear Non Oil"
- EE SPEC 7 "Switchgear for use on 66kV and 132kV Distribution Systems"
- EE SPEC 10 "12kV and 36kV Outdoor Overhead Conductor Connected Switchgear and Voltage Transformers"
- EE SPEC 13 "12kV and 36kV Pole Mounted Enclosed Switchgear Non Oil Type"
- EE SPEC 16 "LV Distribution Fuseboards"
- EE SPEC 182 "36kV Indoor Primary Circuit Breakers"
- EE SPEC 185 "12kV Indoor Circuit Breakers"
- ST:SD1C "Selection and Application of WPD Assessed Switchgear for Use on the Distribution Network"

APPENDIX C

POLICY IMPLEMENTATION

This specification is implemented on issue. There is no retrospective action required as a result of the issue of this document.

APPENDIX D

POLICY IMPACT

This document is relevant to all staff involved with the specification, purchase, design, and installation of new switchgear and associated plant.

APPENDIX E

KEY WORDS

Assessed; Assessed Switchgear; Circuit Breaker; Disconnector; Instrument Transformer; VT; CT