ASSET DATA DICTIONARY DEFINITION DOCUMENT (AD4) L74321 - TRACTION POWER CIRCUIT BREAKER

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1.0	17-May-2013	Loukia Sivena	[redacted]	[redacted]	First issue
2.0	03-Jun-2014	[redacted]	[redacted]	[redacted]	Corrected Attribute Names Corrected Attribute Values Asset Tag Identification Section Updated
3.0	19-Sep-2014	[redacted]	[redacted]	[redacted]	Attribute Deleted Approvals Added Consultations Removed
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5.0	11-May-2016	[redacted]	[redacted]	[redacted]	Attribute added

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6.0	30-Aug-2016	[redacted]	[redacted]	[redacted]	Attribute Added
7.0	20-Apr-2017	[redacted]	[redacted]	[redacted]	Attribute Replaced
8.0	25-Apr-2017	[redacted]	[redacted]	[redacted]	LRS Codes Updated

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1 Introduction

1.1 Asset Details

Class Code:	L74321
Class Name:	Traction Power Circuit Breaker
Class Lineage:	Construction Products>Services>Electric power and lighting services products>Protection devices>Protection of electricity supply>Traction power circuit breaker

1.2 Description

A circuit breaker is an automatically operated electrical switch designed to protect an electrical circuit from damage caused by overload or short circuit. Circuit breakers are able to terminate current flow before any damage to the circuit occurs. The picture below shows a switch gear that contains a circuit breaker.

1.3 Related Functions

All information on the configuration of asset classes (L-Class) to functions is contained within the latest revision of the Asset Data Dictionary Master Configuration document (eB ref: CRL1-XRL-Z3-ADDSD-CR001-50186)

2 Asset Tag Identification Rules

Assets will be identified as required by the Asset Identification Standard (CRL1-XRL-O6-STD-CR001-00031) in the following format:

<LCS Code>-<Function Code>-<Incremental number to ensure uniqueness>

e.g. CR076-BAF-12345

Information and guidance on the standard naming convention for all asset classes is contained within the latest revision of the Asset Naming Convention Document (eB ref: CRL1-XR1-Z3-ADDSD-CR001-50413).

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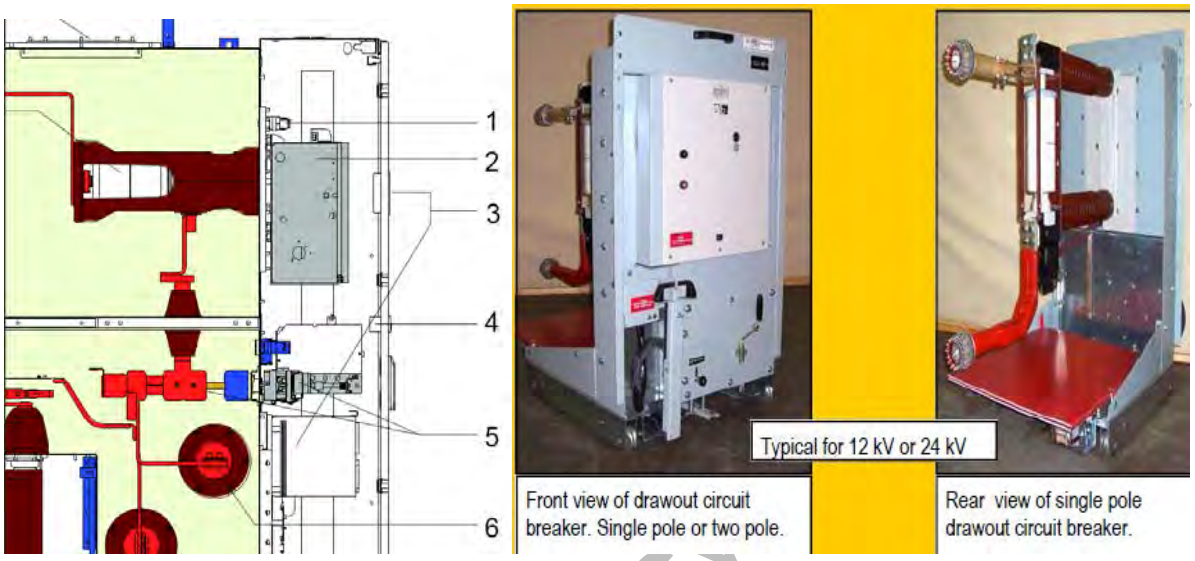
2.1 Example Images



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3 Attributes

3.1 Generic Attributes

All Classes of assets will have a set of Generic Attributes for which data is collected without exception. Full details relating to these assets can be found at:

AD4 – Generic Attributes CRL1-XRL-Z3-ADDSD-CR001-50069

3.2 Class Specific Attributes

Below is a table of the further specific attributes which are associated with this asset class.

Attribute Name	**Base Unit or Formula**	**Value Type** (See Below)	**Decimal Places** (nu Only)	**Defined Values List** (pd only)	**Description**
Circuit Breaker Type		PD		Indoor Outdoor	Location type
Connection Phase		PD		Single Double Triple	Connection phase
Current (Amps)	Amps	NU	0		Maximum current allowed by design
Frequency (Hertz)	Hertz	NU	0		Maximum frequency allowed by design
Lightning Impulse Withstand Voltage (Volts)	Volts	NU	0		Lightning impulse withstand voltage
Number of Poles (#)	#	NU	0		Number of poles

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Attribute Name	**Base Unit or Formula**	**Value Type** (See Below)	**Decimal Places** (nu Only)	**Defined Values List** (pd only)	**Description**
Rated Power Frequency Withstand Voltage (Volts)	Volts	NU	0		Maximum power frequency to withstand voltage
Rated Short-Circuit Breaking Current (Amps)	Amps	NU	0		Maximum short-circuit breaking current
Rated Short-Circuit Making Current (Amps)	Amps	NU	0		Maximum short-circuit making current
Voltage (Volts)	Volts	NU	0		Maximum voltage allowed by design
Meterage (Metres)	Metres	NU	0		Meterage (Chainage) location of asset. To be populated only when the asset is located on track.

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Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
LRS Code		PD		C.EB C.EB.CRW5 C.EB.CR1 C.EB.CR7 C.EB.TBC C.WB C.WB.CRW9 C.WB.CRW6 C.WB.CR2 C.WB.CR5 C.WB.TBA C.WB.TBB CNE.EB CNE.WB CSE.EB CSE.EB.CR11 CSE.WB CSE.EB.CR13 CSE.WB.CR15 Non Track	The Crossrail Linear Referencing Standard code (CRL1-XRL-O6-STD-CR001-00026) where the asset is located. When the asset is not located on track then non track should be selected. The LRS codes are as follows: C.EB - Central Section Eastbound C.EB.CRW5 - Crossover between W5 and W4 Points C.EB.CR1 - Crossover between C1 and C4 Points C.EB.CR7 - Crossover between C7 and C8 Points C.EB.TBC - Turnback C C.WB - Central Section Westbound C.WB.CRW9 - Crossover between W9 and W8 Points C.WB.CRW6 - Crossover between W6 and W3 Points C.WB.CR2 - Crossover between C2 and C3 Points C.WB.CR5 - Crossover between C5 and C6 Points C.WB.TBA - Turnback A C.WB.TBB - Turnback B CNE.EB - Central Section North East Spur Eastbound CNE.WB - Central Section North East Spur Westbound CSE.EB - Central Section South East Spur Eastbound CSE.EB.CR11 - Crossover between C11 and C12 Points CSE.WB - Central Section South East Spur Westbound CSE.EB.CR13 - Crossover between C13 and C14 Points CSE.WB.CR15 - Crossover between C15 and C16 Points Non Track - Non Track Assets

pd = Predefined List (Listed Values Only)
nu = Numeric (dp and number format can be stipulated)
ch = Free text (Max 255 Characters)
da = Date (dd-mm-yyyy)
me = Memo (Free text 1GB Limit)

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4 Performance Data

This section is to be used to specify the performance data to be gathered from this Class of asset when in operation. To be populated once performance measures have been agreed with the Infrastructure Managers.

5 Labelling

Information and guidance on the standard labelling convention for all asset classes is contained within the latest revision of the Asset Naming and Labelling Convention Document (eB ref: CRL1-XR1-Z3-ADDSD-CR001-50413).

6 Other Information

Not Applicable

7 Reference Material

- Asset Data Dictionary Master Configuration - CRL1-XRL-Z3-ADDSD-CR001-50186
- Asset Identification Standard - CRL1-XRL-O6-STD-CR001-00031
- AD4 – Generic Attributes - CRL1-XRL-Z3-ADDSD-CR001-50069
- Asset Naming Convention Document - CRL1-XR1-Z3-ADDSD-CR001-50413

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8 Crossrail Technical Approvals

Name	Role	Date
[redacted]	Traction Power	19-Sep-2014

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