

# PowerU - FSP03



Class II Functional Supply Points.

Suitable for Automatic Reconfigurable Systems with a dual end fed Radial Circuit with an open point



A solution for the safe distribution of power to railway signalling and control systems.

# PowerU-FSP Solutions

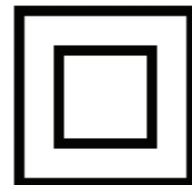
**Supplying power into the infrastructure is a complicated activity and it requires a strong understanding of the industry requirements to do it expertly.**

That's just what we do at Unipart Rail. Standardised to the needs of projects, flexible to your requirements, simplified to reduce installation times. FSP03s are fully assembled and tested in house by our skilled team in York and complies with relevant British standards including: BS EN 61439-2, BS EN 50121-5 and BS EN 50121-3 class T1.

## Full Class II Standards

Class II requires all the switch gear components to be earth-free.

The switchgear assembly of the **PowerU-FSP03** complies to the Class II and Network Rail standards NR/L2 SIGELP/27409 Issue 2. Safety:assured.



Class II Symbol

## Innovative solutions to your requirements

### Modular Flexibility

We've designed the 'base' model to allow for the ultimate flexibility for fabrication. We pre-test the modules to ensure full traceability and fast availability of the component parts to give you confidence when ordering for your project.

### Collaborative Approach

We've collaborated with our industry partners to develop the best possible solution to the industry's FSP requirements.

### Safety

Manufactured to be double-insulated and engineered to eliminate touch potential issues.

### Labelling

Full **PowerU-FSP** laser-engraved labelling ensures traceability of equipment and clear location information.

## Full support from our experts

To support your installation, we will provide an escalation drawing for each individual location (profile sheets/design unique to each FSP) which is why members of our Innovation team are ready to help you with your specifications. E-mail [TechnicalSupport@unipartrail.com](mailto:TechnicalSupport@unipartrail.com) with your requirements and we'll specify the materials you need.

### Termination & Installation

Consultation during the design process has resulted in the obstacle-free routing for 16mm<sup>2</sup> to 120mm<sup>2</sup> 2 core enhanced unarmoured copper or aluminium feeder cables and feeds up to four transformers and four other functional circuits.

### Customisation

All Unipart Rail **PowerU-FSP03s** are, where required, supplied complete with surge protection and transformers. Document door pockets and ventilation systems are standard. Cabinets are available as Mild Steel or Stainless Steel. Where required, PowerU-FSP will be pre-wired, ready to incorporate the auto reconfiguration system (ARS).

### Obstacle-Free Cable Management

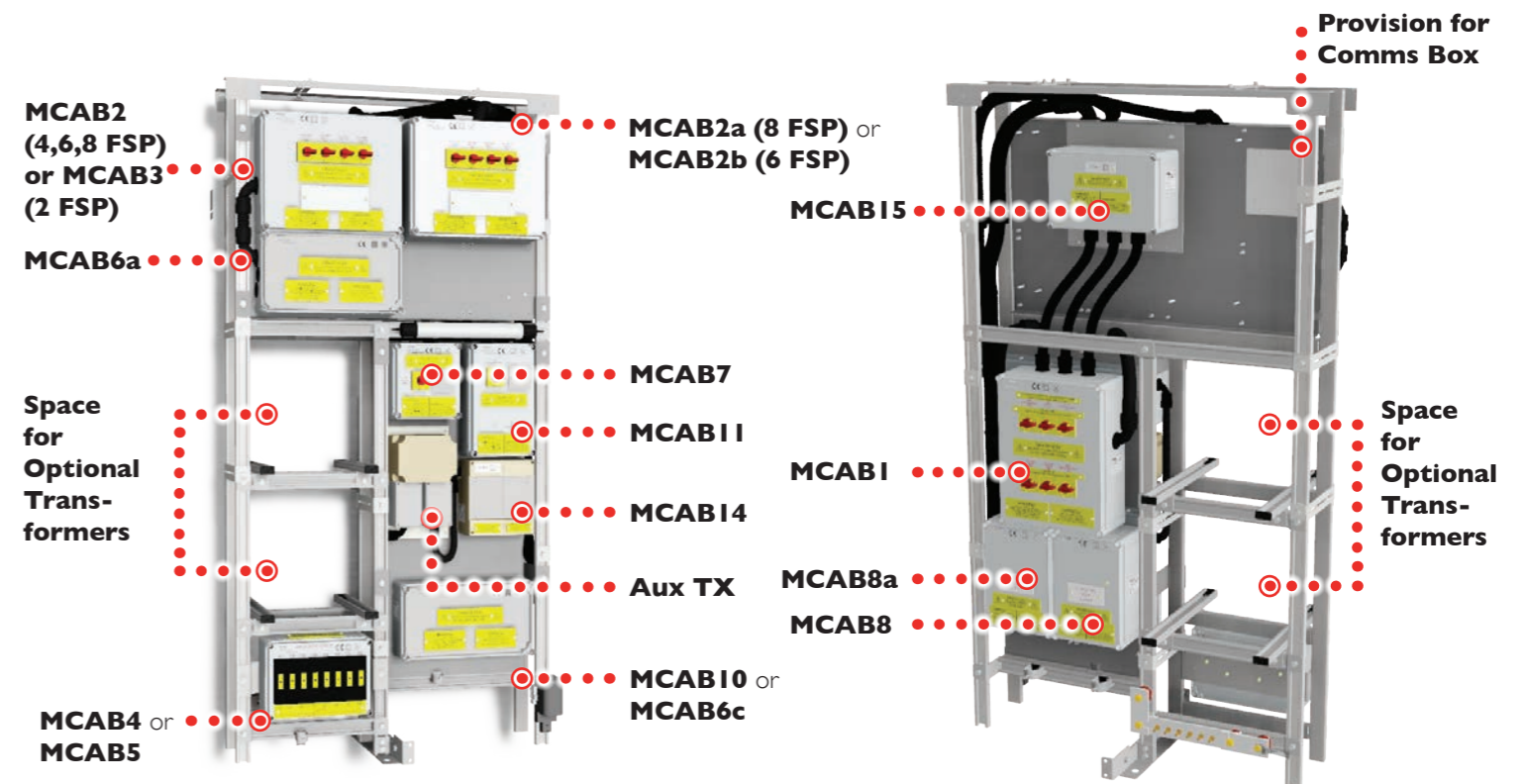
We've worked hard to create an FSP with rationalised and obstacle-free cable routes. The Cable Protection safety system ensures a tamper-free fit. This all leads to a cleaner 'engineered' finish and trackside installation times to be reduced.

## FSP03 Configurations

The below table shows the standard configurations available for the Unipart Rail FSP03. These cover a wide range of applications, however if you need something different bespoke module configurations are available.

Module Options:		MCAB1	MCAB2	MCAB2a	MCAB2b	MCAB3	MCAB4	MCAB5	MCAB6a	MCAB6b	MCAB6c	MCAB7	MCAB8	MCAB8a	IMCAB10	MCAB11	MCAB14	MCAB15	
Switches		6	4	4	2	2						1				1			
Distribution (D)/Functionality (F)/Auxiliary (A)		D	F	F	F	F						A				A			
VERSIONS		Fuses	0	8	8	4	4	8	4	0	0	0	2	0	0	0	2	8	0
Mild Steel	Stainless Steel	IEC 60269 or BS88		IEC	IEC	IEC	IEC	BS88	BS88			IEC				IEC	IEC		
		Volts Out	690	690	690	690	690	110	110	690	690	690	690	690	690	690	110	690	
0086/000604	0086/000618	2 FSP	✓				✓		✓		✓	✓	✓	✓			✓	✓	
0086/000605	0086/000624	2 FSP & Surge	✓				✓		✓		✓	✓	✓	✓			✓	✓	
0086/000606	0086/000626	4 FSP	✓	✓				✓				✓	✓	✓			✓	✓	
0086/000607	0086/000628	4 FSP & Surge	✓	✓				✓				✓	✓	✓			✓	✓	
0086/000608	0086/000629	6 FSP	✓	✓		✓		✓			✓	✓	✓	✓			✓	✓	
0086/000609	0086/000632	6 FSP & Surge	✓	✓		✓		✓			✓	✓	✓	✓			✓	✓	
0086/000614	0086/000633	8 FSP	✓	✓	✓			✓				✓	✓	✓	✓		✓	✓	
0086/000616	0086/000634	8 FSP & Surge	✓	✓	✓			✓				✓	✓	✓	✓		✓	✓	

The below images represent the internal construction of an FSP03 with 8 functional circuits and surge protection.



## FSP03 Internal Modules

At the core of the Unipart Rail FSP03 is its modular design. This allows for the flexibility in the construction of an FSP03 that can be built to the exacting specification of a customer.

The modules are pre assembled and fully tested individually before becoming part of the complete FSP03 build where the full cabinet is tested to ensure overall conformity. This ensures that all modules are traceable and are of identical quality and conformity as other units to the same standard design.

This in turn reduces spare part requirements as modules are readily available and can be quickly and easily replaced line side should they be needed.

MCAB Module	UR Part Number	Description
MCAB1	URPC/000560	Main Incoming Supply Module
MCAB2	URPC/000561	4 Functional TX Circuit Isolators and Primary Fuses
MCAB2a	URPC/000807	4 Functional Circuit Isolators and Fuses
MCAB2b	URPC/000594	2 Functional Circuit Isolators & Fuses (for 6 Function Supply Point Only)
MCAB3	URPC/000562	2 Functional TX Circuit Isolators and Primary Fuses
MCAB4	URPC/000869	110V Secondary Transformer Fuse Holders (BS88 x 8)
MCAB5	URPC/000988	110V Secondary Transformer Fuse Holders (BS88 x 8)
MCAB6a	URPC/000788	4 Functional Circuit Primary Terminals
MCAB6b	URPC/001005	2 Functional Circuit Primary Terminals
MCAB6c	URPC/000566	2 Functional Circuit Outgoing Terminal Module (For 6 Function Supply Point Only)
MCAB7	URPC/000565	Auxiliary Supply Isolator and Fuse Module
MCAB8	URPC/000569	Main Incoming Supply Terminal
MCAB8a	URPC/000808	Main Outgoing Supply Terminal
MCAB10	URPC/000786	4 Functional Circuit Outgoing Terminals
MCAB11	URPC/000563	Surge Arrestor Module
MCAB14	URPC/000567	110V Auxiliary Distribution Board



**MCAB1**



**MCAB2**



**MCAB4**



**MCAB8**

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