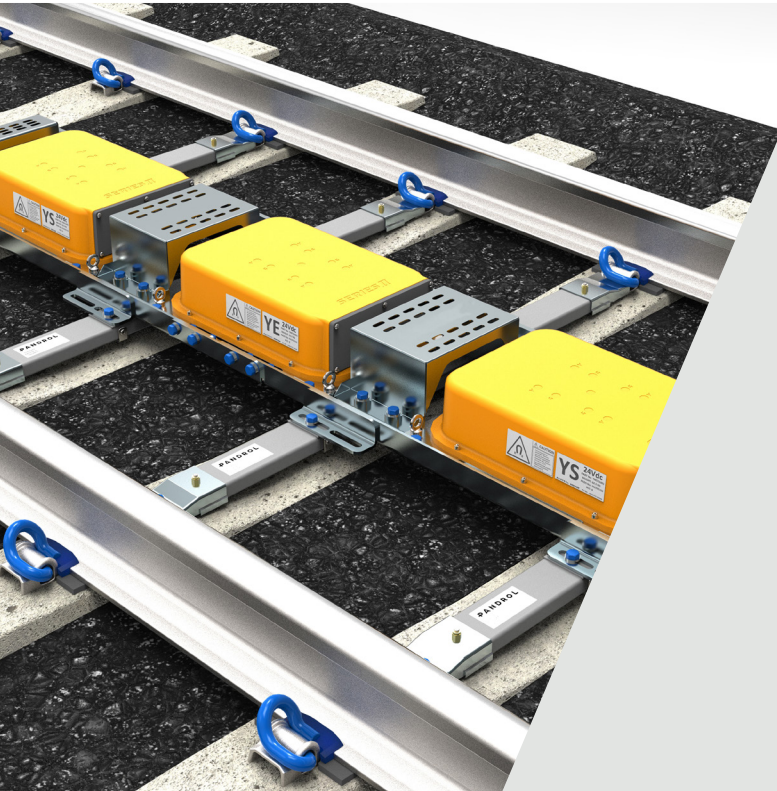


# Series 2 AWS Magnets

Signalling

## Adding Value

Total operational Network Rail compliance, together with ease of installation and modular technology.



The Pandrol Series 2 AWS Magnets have been completely redesigned to fully comply with the latest Network Rail group standards. Variants available include standard (yellow) and extra-strength (green) permanent magnets, electromagnets and suppressor magnets for 110Vac and 24Vdc infrastructures.

All of the magnets can be fitted using the Pandrol Rapid Fit Frame System, with a typical installation time of 20 minutes for a double magnet assembly. Alternatively, the magnets can be retrofitted to existing legacy frames using fully approved adaptor plates.

## → TECHNICAL FEATURES

### Reduced power consumption and current draw

Interlocking to GE Magnet AWS units enables direct drive, without the need for relays. In addition, YE and YS magnets can be driven without relays.

### Optimised magnetic field shape

The magnetic field shape has been designed to meet requirements and remove the risk of return field detection.

### Quick installation

The Series 2 AWS Magnets are installed using Pandrol Rapid Fit Frames (PA05/04606), including all single, double and triple bay frames. Modular plug coupling is used and the magnets' flat baseplate design means that no ballast needs to be removed.

### Ease of handling

Lifting frames (062/006895) are available to facilitate safe manual handling. The magnets are 20-30kg lighter than legacy magnets.

### Range of designs

Suppressor, Electro and Permanent are variants available in either standard or extra strength.

### Network Rail compliance

The Series 2 AWS Magnets are fully compliant to the latest Network Rail requirements (GE/RT8075). This includes flux density compliance: at input voltage from 88V (132Vac for 110Vac units); at input voltage from 18V (30Vdc for 24Vdc units); across the ambient temperature range, -20°C to 40°C.

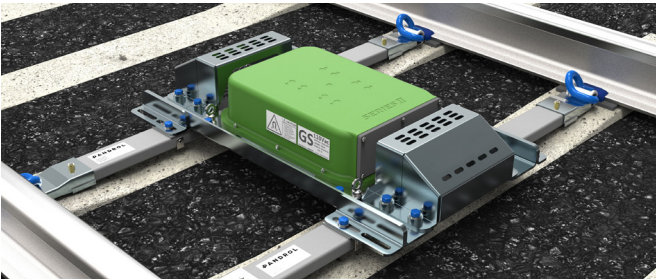
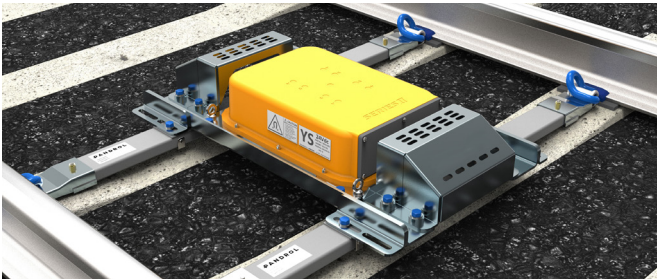
### Proven reliability

The Series 2 AWS Magnets' reliability has been comprehensively tested, including: shock and vibration EN50125-3; IP68 rated (water and dust ingress protection); climatic (DEF-STAN 00-35 Part 4). Mean time between failure (MTBF) values are in excess of 114 years for the 24Vdc units and in excess of 76 years for the 110Vac units.

→ ADVANTAGES

- Quick and simplified installation thanks to the Series 2 AWS Magnets' modular plug coupling, flat baseplate design and compatibility with Rapid Fit Frames. This saves operator time and significantly reduces possession time.
- The range of variants available makes the magnets flexible and appropriate for use in diverse applications.
- The magnets' flat baseplate design enables their use within slab-track environments.
- As the units are fully sealed, minimal maintenance is required.
- The Series 2 AWS Magnets' light weight and compatibility with lifting frames make them easier to handle and move than legacy magnets.
- An optimised magnetic field shape increases the magnets' efficiency and removes the risk of return field detection.

→ SPECIFICATIONS

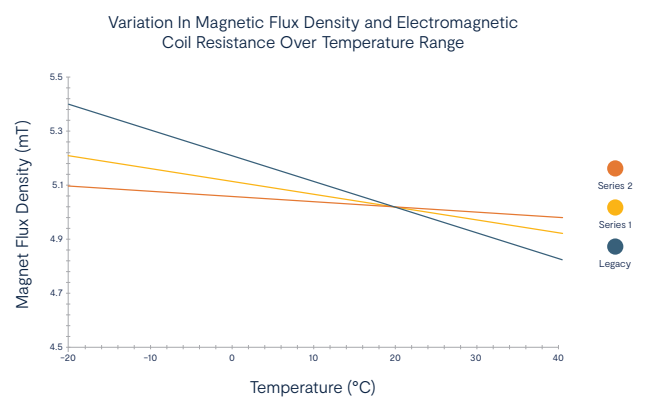


STANDARD STRENGTH MAGNETS

Model	Steady state RMS supply (current @ nominal voltage)	Recommended power supply capacity
YE 110Vac	0.21A	0.5A
YS 110Vac	0.45A	0.75A
YE 24Vdc	0.31A	0.5A
YS 24Vdc	0.83A	1.4A

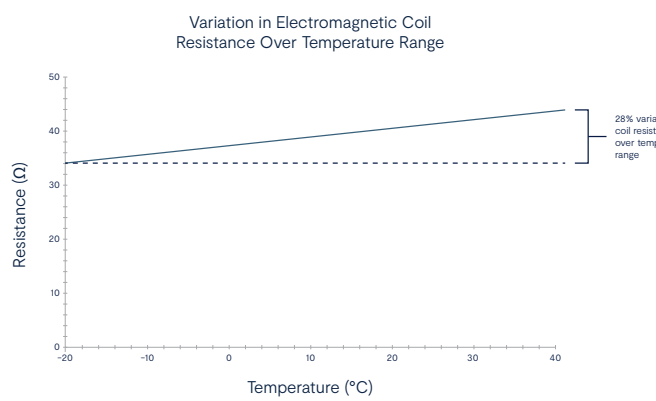
EXTRA-STRENGTH MAGNETS

Model	Steady state RMS supply (current @ nominal voltage)	Recommended power supply capacity
GE 110Vac	0.85A	1.25A
GS 110Vac	1.69A	2A



The change in magnet material reduces variation in magnetic flux density with temperature:

- Legacy – 12.5%
- Pandrol Series 1 – 6.1%
- Pandrol Series 2 – 2.4%



We control coil current to ensure a consistent magnetic field across the full range of supply voltages and operating temperatures. On legacy products, the magnetic field can vary by as much as 38%.

→ NOTES

Data in this document indicates typical performance. Actual performance depends on a range of external factors. Please contact us to see how Pandrol can tailor products to suit local operating conditions and specific requirements. Technical information in this document was correct at the time of publishing. Improvements may since have been introduced as a result of our continuous research and development programmes. Patent pending.

